

VMware Deliverable Release Notes



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

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

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

[VMware OS Support Tool for HPE Synergy](#)

Information on HPE Synergy Software Releases is available at:

[HPE Synergy Software Releases - Overview](#)

Gen11 SPP 2024.04.00.00 Release Notes for VMware ESXi 7.0

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ROM Flash Firmware Package - HPE ProLiant DL110 Gen11 (U62) Servers
Version: 2.16_03-01-2024 (**Recommended**)
Filename: U62_2.16_03_01_2024.fwpkg

Important Note!

Important Notes:

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.005.0 (2.10_11_09_2023).

Deliverable Name:

HPE DL110 Gen11 System ROM - U62

Release Version:

2.16_03-01-2024

Last Recommended or Critical Revision:

2.16_03-01-2024

Previous Revision:

1.10_10-27-2023

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the revision of the TPM2 Measure boot library update which provides mitigation for security vulnerabilities documented as CVE-2022-36763 and CVE-2022-36764.

This revision of the System ROM includes the revision of the MiniZip Library update which provides mitigation for security vulnerabilities documented as CVE-2023-45853.

This revision of the System ROM includes the revision of the EDK2 NetworkPkg IP stack implementation update which provides mitigation for security vulnerabilities documented as CVE-2023-45229, CVE-2023-45230, CVE-2023-45231, CVE-2023-45232, CVE-2023-45233, CVE-2023-45234, CVE-2023-45235, CVE-2023-45236, CVE-2023-45237.

Addressed an issue where PCI slot information, Slot Physical width and Slot Pitch are not correct in the SMBIOS Type 9.

Addressed an issue where the NUMA nodes are not assigned properly when Sub-NUMA Clustering is set 2 or 4.

Addressed an issue where the operating system cannot detect the iSCSI hard drive through IPv6 installation.

Addressed an issue where the version information of the System Programmable Logic Device may be displayed incorrectly in RBSU

and iLO GUI.

Addressed an issue where a Red Screen of Death (RSOD) may be seen during a system boot.

Addressed an issue where the embedded NIC(Network Interface Card) connected to the Intel PCH could become missing when Intel(R) PCH VMD Support is set to enabled.

Addressed an issue where the "Enabled Cores per Processor" in RBSU cannot be set greater than 56.

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.005.0 (2.10_11_09_2023).

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the revision of the TPM2 Measure boot library update which provides mitigation for security vulnerabilities documented as CVE-2022-36763 and CVE-2022-36764.

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This revision of the System ROM includes the revision of the EDK2 NetworkPkg IP stack implementation update which provides mitigation for security vulnerabilities documented as CVE-2023-45229, CVE-2023-45230, CVE-2023-45231, CVE-2023-45232, CVE-2023-45233, CVE-2023-45234, CVE-2023-45235, CVE-2023-45236, CVE-2023-45237.

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Addressed an issue where the "Enabled Cores per Processor" in RBSU cannot be set greater than 56.

Known Issues:

None

Enhancements

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

Version: 2.16_03-01-2024 (**Recommended**)

Filename: U63_2.16_03_01_2024.fwpkg

Important Note!

Important Notes:

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.005.0 (2.10_11_09_2023).

Deliverable Name:

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

Release Version:

2.16_03-01-2024

Last Recommended or Critical Revision:

2.16_03-01-2024

Previous Revision:

1.10_10-27-2023

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the revision of the TPM2 Measure boot library update which provides mitigation for security vulnerabilities documented as CVE-2022-36763 and CVE-2022-36764.

This revision of the System ROM includes the revision of the MiniZip Library update which provides mitigation for security vulnerabilities documented as CVE-2023-45853.

This revision of the System ROM includes the revision of the EDK2 NetworkPkg IP stack implementation update which provides mitigation for security vulnerabilities documented as CVE-2023-45229, CVE-2023-45230, CVE-2023-45231, CVE-2023-45232, CVE-2023-45233, CVE-2023-45234, CVE-2023-45235, CVE-2023-45236, CVE-2023-45237.

Addressed an issue where PCI slot information, Slot Physical width and Slot Pitch are not correct in the SMBIOS Type 9.

Addressed an issue where the NUMA nodes are not assigned properly when Sub-NUMA Clustering is set 2 or 4.

Addressed an issue where the operating system cannot detect the iSCSI hard drive through IPv6 installation.

Addressed an issue where the version information of the System Programmable Logic Device may be displayed incorrectly in RBSU and iLO GUI.

Addressed an issue where a Red Screen of Death (RSOD) may be seen during a system boot.

Addressed an issue where the embedded NIC(Network Interface Card) connected to the Intel PCH could become missing when Intel(R) PCH VMD Support is set to enabled.

Addressed an issue where the "Enabled Cores per Processor" in RBSU cannot be set greater than 56.

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.005.0 (2.10_11_09_2023).

Firmware Dependencies:

None

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This revision of the System ROM includes the revision of the EDK2 NetworkPkg IP stack implementation update which provides mitigation for security vulnerabilities documented as CVE-2023-45229, CVE-2023-45230, CVE-2023-45231, CVE-2023-45232, CVE-2023-45233, CVE-2023-45234, CVE-2023-45235, CVE-2023-45236, CVE-2023-45237.

Addressed an issue where PCI slot information, Slot Physical width and Slot Pitch are not correct in the SMBIOS Type 9.

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Addressed an issue where a Red Screen of Death (RSOD) may be seen during a system boot.

Addressed an issue where the embedded NIC(Network Interface Card) connected to the Intel PCH could become missing when

Intel(R) PCH VMD Support is set to enabled.

Addressed an issue where the "Enabled Cores per Processor" in RBSU cannot be set greater than 56.

Known Issues:

None

Enhancements

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

Version: 2.16_03-01-2024 (**Recommended**)

Filename: U58_2.16_03_01_2024.fwpkg

Important Note!

Important Notes:

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.005.0 (2.10_11_09_2023).

Deliverable Name:

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

Release Version:

2.16_03-01-2024

Last Recommended or Critical Revision:

2.16_03-01-2024

Previous Revision:

1.10_10-27-2023

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the revision of the TPM2 Measure boot library update which provides mitigation for security vulnerabilities documented as CVE-2022-36763 and CVE-2022-36764.

This revision of the System ROM includes the revision of the MiniZip Library update which provides mitigation for security vulnerabilities documented as CVE-2023-45853.

This revision of the System ROM includes the revision of the EDK2 NetworkPkg IP stack implementation update which provides mitigation for security vulnerabilities documented as CVE-2023-45229, CVE-2023-45230, CVE-2023-45231, CVE-2023-45232, CVE-2023-45233, CVE-2023-45234, CVE-2023-45235, CVE-2023-45236, CVE-2023-45237.

Addressed an issue where PCI slot information, Slot Physical width and Slot Pitch are not correct in the SMBIOS Type 9.

Addressed an issue where the NUMA nodes are not assigned properly when Sub-NUMA Clustering is set 2 or 4.

Addressed an issue where the operating system cannot detect the iSCSI hard drive through IPv6 installation.

Addressed an issue where the version information of the System Programmable Logic Device may be displayed incorrectly in RBSU and iLO GUI.

Addressed an issue where a Red Screen of Death (RSOD) may be seen during a system boot.

Addressed an issue where the embedded NIC(Network Interface Card) connected to the Intel PCH could become missing when Intel(R) PCH VMD Support is set to enabled.

Addressed an issue where the "Enabled Cores per Processor" in RBSU cannot be set greater than 56.

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.005.0 (2.10_11_09_2023).

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the revision of the TPM2 Measure boot library update which provides mitigation for security vulnerabilities documented as CVE-2022-36763 and CVE-2022-36764.

This revision of the System ROM includes the revision of the MiniZip Library update which provides mitigation for security vulnerabilities documented as CVE-2023-45853.

This revision of the System ROM includes the revision of the EDK2 NetworkPkg IP stack implementation update which provides mitigation for security vulnerabilities documented as CVE-2023-45229, CVE-2023-45230, CVE-2023-45231, CVE-2023-45232, CVE-2023-45233, CVE-2023-45234, CVE-2023-45235, CVE-2023-45236, CVE-2023-45237.

Addressed an issue where PCI slot information, Slot Physical width and Slot Pitch are not correct in the SMBIOS Type 9.

Addressed an issue where the NUMA nodes are not assigned properly when Sub-NUMA Clustering is set 2 or 4.

Addressed an issue where the operating system cannot detect the iSCSI hard drive through IPv6 installation.

Addressed an issue where the version information of the System Programmable Logic Device may be displayed incorrectly in RBSU and iLO GUI.

Addressed an issue where a Red Screen of Death (RSOD) may be seen during a system boot.

Addressed an issue where the embedded NIC(Network Interface Card) connected to the Intel PCH could become missing when Intel(R) PCH VMD Support is set to enabled.

Addressed an issue where the "Enabled Cores per Processor" in RBSU cannot be set greater than 56.

Known Issues:

None

Enhancements

ROM Flash Firmware Package - HPE Alletra 4140 (U57) Servers

Version: 2.18_03-27-2024 (**Recommended**)

Filename: U57_2.18_03_27_2024.fwpkg

Important Note!**Important Notes:**

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.005.0 (2.10_11_09_2023).

Deliverable Name:

HPE Alletra 4140 Storage Server System ROM - U57

Release Version:

2.18_03-27-2024

Last Recommended or Critical Revision:

2.18_03-27-2024

Previous Revision:

2.16_03-01-2024

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the power supply unit redundancy function may operate abnormally.

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.005.0 (2.10_11_09_2023)

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the power supply unit redundancy function may operate abnormally.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant DL560 Gen11 (U59) Servers
Version: 2.16_03-01-2024 (**Recommended**)
Filename: U59_2.16_03_01_2024.fwpkg

Important Note!

Important Notes:

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.005.0 (2.10_11_09_2023).

Deliverable Name:

HPE DL560 Gen11 System ROM - U59

Release Version:

2.16_03-01-2024

Last Recommended or Critical Revision:

2.16_03-01-2024

Previous Revision:

1.10_10-27-2023

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the revision of the TPM2 Measure boot library update which provides mitigation for security vulnerabilities documented as CVE-2022-36763 and CVE-2022-36764.

This revision of the System ROM includes the revision of the MiniZip Library update which provides mitigation for security vulnerabilities documented as CVE-2023-45853.

This revision of the System ROM includes the revision of the EDK2 NetworkPkg IP stack implementation update which provides mitigation for security vulnerabilities documented as CVE-2023-45229, CVE-2023-45230, CVE-2023-45231, CVE-2023-45232, CVE-2023-45233, CVE-2023-45234, CVE-2023-45235, CVE-2023-45236, CVE-2023-45237.

Addressed an issue where PCI slot information, Slot Physical width and Slot Pitch are not correct in the SMBIOS Type 9.

Addressed an issue where the NUMA nodes are not assigned properly when Sub-NUMA Clustering is set 2 or 4.

Addressed an issue where the operating system cannot detect the iSCSI hard drive through IPv6 installation.

Addressed an issue where the version information of the System Programmable Logic Device may be displayed incorrectly in RBSU and iLO GUI.

Addressed an issue where a Red Screen of Death (RSOD) may be seen during a system boot.

Addressed an issue where the embedded NIC(Network Interface Card) connected to the Intel PCH could become missing when Intel(R) PCH VMD Support is set to enabled.

Addressed an issue where the "Enabled Cores per Processor" in RBSU cannot be set greater than 56.

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.005.0 (2.10_11_09_2023).

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the revision of the TPM2 Measure boot library update which provides mitigation for security vulnerabilities documented as CVE-2022-36763 and CVE-2022-36764.

This revision of the System ROM includes the revision of the MiniZip Library update which provides mitigation for security vulnerabilities documented as CVE-2023-45853.

This revision of the System ROM includes the revision of the EDK2 NetworkPkg IP stack implementation update which provides mitigation for security vulnerabilities documented as CVE-2023-45229, CVE-2023-45230, CVE-2023-45231, CVE-2023-45232, CVE-2023-45233, CVE-2023-45234, CVE-2023-45235, CVE-2023-45236, CVE-2023-45237.

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Addressed an issue where the NUMA nodes are not assigned properly when Sub-NUMA Clustering is set 2 or 4.

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Addressed an issue where the version information of the System Programmable Logic Device may be displayed incorrectly in RBSU and iLO GUI.

Addressed an issue where a Red Screen of Death (RSOD) may be seen during a system boot.

Addressed an issue where the embedded NIC(Network Interface Card) connected to the Intel PCH could become missing when Intel(R) PCH VMD Support is set to enabled.

Addressed an issue where the "Enabled Cores per Processor" in RBSU cannot be set greater than 56.

Known Issues:

None

Enhancements

ROM Flash Firmware Package - HPE ProLiant ML350/DL360/DL380 Gen11 (U54) Servers
Version: 2.16_03-01-2024 (**Recommended**)
Filename: U54_2.16_03_01_2024.fwpkg

Important Note!

Important Notes:

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.005.0 (2.10_11_09_2023).

Deliverable Name:

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

Release Version:

2.16_03-01-2024

Last Recommended or Critical Revision:

2.16_03-01-2024

Previous Revision:

1.10_10-27-2023

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the revision of the TPM2 Measure boot library update which provides mitigation for security vulnerabilities documented as CVE-2022-36763 and CVE-2022-36764.

This revision of the System ROM includes the revision of the MiniZip Library update which provides mitigation for security vulnerabilities documented as CVE-2023-45853.

This revision of the System ROM includes the revision of the EDK2 NetworkPkg IP stack implementation update which provides mitigation for security vulnerabilities documented as CVE-2023-45229, CVE-2023-45230, CVE-2023-45231, CVE-2023-45232, CVE-2023-45233, CVE-2023-45234, CVE-2023-45235, CVE-2023-45236, CVE-2023-45237.

Addressed an issue where PCI slot information, Slot Physical width and Slot Pitch are not correct in the SMBIOS Type 9.

Addressed an issue where the NUMA nodes are not assigned properly when Sub-NUMA Clustering is set 2 or 4.

Addressed an issue where the operating system cannot detect the iSCSI hard drive through IPv6 installation.

Addressed an issue where the version information of the System Programmable Logic Device may be displayed incorrectly in RBSU and iLO GUI.

Addressed an issue where a Red Screen of Death (RSOD) may be seen during a system boot.

Addressed an issue where the embedded NIC(Network Interface Card) connected to the Intel PCH could become missing when Intel(R) PCH VMD Support is set to enabled.

Addressed an issue where the "Enabled Cores per Processor" in RBSU cannot be set greater than 56.

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.005.0 (2.10_11_09_2023).

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the revision of the TPM2 Measure boot library update which provides mitigation for security vulnerabilities documented as CVE-2022-36763 and CVE-2022-36764.

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This revision of the System ROM includes the revision of the EDK2 NetworkPkg IP stack implementation update which provides mitigation for security vulnerabilities documented as CVE-2023-45229, CVE-2023-45230, CVE-2023-45231, CVE-2023-45232, CVE-2023-45233, CVE-2023-45234, CVE-2023-45235, CVE-2023-45236, CVE-2023-45237.

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Addressed an issue where a Red Screen of Death (RSOD) may be seen during a system boot.

Addressed an issue where the embedded NIC(Network Interface Card) connected to the Intel PCH could become missing when

Intel(R) PCH VMD Support is set to enabled.

Addressed an issue where the "Enabled Cores per Processor" in RBSU cannot be set greater than 56.

Known Issues:

None

Enhancements

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

Version: 1.58_01-04-2024 (**Recommended**)

Filename: A56_1.58_01_04_2024.fwpkg

Important Note!

Important Notes:

This revision of the System ROM includes AMD reference code GenoaPI 1.0.0.B for AMD 4th Generation EPYC processors. This revision provides AMD's mitigation for security vulnerabilities for CVE-2023-31346 and CVE-2023-31347 for AMD 4th Generation EPYC processors. This security vulnerability is documented in the CVE report site. This issue is not unique to HPE servers.

Deliverable Name:

HPE ProLiant DL325 Gen11/DL345 Gen11 System ROM - A56

Release Version:

1.58_01_04_2024

Last Recommended or Critical Revision:

1.58_01_04_2024

Previous Revision:

1.56_12-08-2023

Firmware Dependencies:

None

Enhancements/New Features:

Added the System Configuration (RBSU) option "Boot Options/UEFI Boot Settings/Filter Non-bootable Drives" and set to "Auto" by default. This setting has the following Redfish property:

/redfish/v1/systems/1/bios/settings/FilterNonbootableDrive

Problems Fixed:

Greyed out the System Configuration (RBSU) options "PCIe Device Configuration/Advanced PCIe Configuration/PCIe Bifurcation Options/PCIe Slot 21/22 Bifurcation" since it is not supported on HPE DL325/345/365/385 Gen11 servers.

Known Issues:

None

Fixes

Important Notes:

This revision of the System ROM includes AMD reference code GenoaPI 1.0.0.B for AMD 4th Generation EPYC processors. This revision provides AMD's mitigation for security vulnerabilities for CVE-2023-31346 and CVE-2023-31347 for AMD 4th Generation EPYC processors. This security vulnerability is documented in the CVE report site. This issue is not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

Greyed out the System Configuration (RBSU) options "PCIe Device Configuration/Advanced PCIe Configuration/PCIe Bifurcation Options/PCIe Slot 21/22 Bifurcation" since it is not supported on HPE DL325/345/365/385 Gen11 servers.

Known Issues:

None

Enhancements

Added the System Configuration (RBSU) option "Boot Options/UEFI Boot Settings/Filter Non-bootable Drives" and set to "Auto" by default. This setting has the following Redfish property:

/redfish/v1/systems/1/bios/settings/FilterNonbootableDrive

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

Version: 1.58_01-04-2024 (**Recommended**)

Filename: A55_1.58_01_04_2024.fwpkg

Important Note!

Important Notes:

This revision of the System ROM includes AMD reference code GenoaPI 1.0.0.B for AMD 4th Generation EPYC processors. This revision provides AMD's mitigation for security vulnerabilities for CVE-2023-31346 and CVE-2023-31347 for AMD 4th Generation EPYC processors. This security vulnerability is documented in the CVE report site. This issue is not unique to HPE servers.

Deliverable Name:

HPE DL385 Gen11/DL365 Gen11 System ROM - A55

Release Version:

1.58_01_04_2024

Last Recommended or Critical Revision:

1.58_01_04_2024

Previous Revision:

1.56_12-08-2023

Firmware Dependencies:

None

Enhancements/New Features:

Added the System Configuration (RBSU) option "Boot Options/UEFI Boot Settings/Filter Non-bootable Drives" and set to "Auto" by default. This setting has the following Redfish property:

/redfish/v1/systems/1/bios/settings/FilterNonbootableDrive

Problems Fixed:

Greyed out the System Configuration (RBSU) options "PCIe Device Configuration/Advanced PCIe Configuration/PCIe Bifurcation Options/PCIe Slot 21/22 Bifurcation" since it is not supported on HPE DL325/345/365/385 Gen11 servers.

Known Issues:

None

Fixes

Important Notes:

This revision of the System ROM includes AMD reference code GenoaPI 1.0.0.B for AMD 4th Generation EPYC processors. This revision provides AMD's mitigation for security vulnerabilities for CVE-2023-31346 and CVE-2023-31347 for AMD 4th Generation EPYC processors. This security vulnerability is documented in the CVE report site. This issue is not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

Greyed out the System Configuration (RBSU) options "PCIe Device Configuration/Advanced PCIe Configuration/PCIe Bifurcation Options/PCIe Slot 21/22 Bifurcation" since it is not supported on HPE DL325/345/365/385 Gen11 servers.

Known Issues:

None

Enhancements

Added the System Configuration (RBSU) option "Boot Options/UEFI Boot Settings/Filter Non-bootable Drives" and set to "Auto" by default. This setting has the following Redfish property:

/redfish/v1/systems/1/bios/settings/FilterNonbootableDrive

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

HPE iLO Native Driver for ESXi 7.0

Version: 10.8.2 (**Recommended**)

Filename: ilo-driver_700.10.8.2.2-1OEM.700.1.0.15843807_22942561.zip

Fixes

This product addressed a memory leak in vmkernel.

Driver - Network [Top](#)

HPE Intel igbn Driver for VMware vSphere 7.0

Version: 2023.09.00 (**Recommended**)

Filename: cp056780.compsig; cp056780.zip

Important Note!

This component is intended to be used by HPE applications. It is a zip file that contains the same driver deliverable available from the vmware.com and the HPE vibstdepot.hpe.com webpages, plus an HPE specific CP0xxxxx.xml file.

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

Fixes

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

Supported Devices and Features

These drivers support the following network adapters:

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

Intel icen Driver for VMware vSphere 7.0

Version: 2023.10.00 (**Recommended**)

Filename: cp058386.compsig; cp058386.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 vibstdepot.hpe.com webpages, plus an HPE specific CP0xxxxx.xml file.
- HPE recommends the firmware provided in *Intel Firmware Package For E810 Ethernet Adapter*, version 4.30 or later, for use with these drivers.

Fixes

- This product correct an issue which fixes PSOD that the Netdump fail to sent to target vCenter Server.
- This product correct an issue which fixes high pNIC error that triggered by driver reporting EIPE error is a false alarm.

Supported Devices and Features

This product supports the following network adapters:

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

Mellanox ConnectX-4, ConnectX-5 and ConnectX-6 "nmlx5_en" Driver Component for VMware ESXi 7.0 Update 3

Version: 2022.11.09 (A) (**Recommended**)

Filename: cp056896.compsig; cp056896.zip

Important Note!

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

Known Issues with driver version 4.22.73.1004:

- A mismatch between the uplink and the VF MTU values may result in CQE with error.
Workaround:: Align the uplink and the VF MTU values.
- Enabling sriov_mc_isolation module parameter may result in vmknic and emulated NICs multicast and IPv6 traffic loss.
Workaround: Unset or set the module parameter to 0.
- RDMA is not supported in the Hypervisor with ENS (Enhanced Network Stack) model 2.
- Setting the "Allow Guest MTU Change" option in vSphere Client is currently not functional. Although guest MTU changes in SR-IOV are allowed, they do not affect the port's MTU and the guest's MTU remains the same as the PF MTU.
- ECN (Explicit congestion notification) statistic counters accumulatorsPeriod and ecnMarkedRocePackets display wrong values and cannot be cleared.
- ECN tunable parameter initialAlphaValue for the Reaction Point protocol cannot be modified.
- Card's speed remains zero after port goes down and reboot is performed.
- RoCE traffic may fail after vMotion when using namespace.
- Legacy SR-IOV is not supported with Model 1.
- When in ENS mode, changing the scheduler to HCLK, may cause traffic loss.
- The 'esxcli mellanox uplink link info -u <vmnic_name>' command reports the 'Auto negotiation' capability always as 'true'.
- SMP MADs (ibnetdiscover, sminfo, iblinkinfo, smpdump, ibqueryerr, ibdiagnet and smpquery) are not supported on the VFs.
- Although the max_vfs module parameter range is "0-128", due to firmware limitations, the following are the supported VFs per single port devices:
 - ConnectX-4 / ConnectX-5: up to 127

Fixes

Fixes included in driver version 4.22.73.1004:

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

Enhancements

New features and changes in driver version 4.22.73.1004:

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

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

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

Supported Devices and Features

HPE Part Number	Device Name	PSID
P24837-B21	HPE Ethernet 10/25Gb 2-port 642SFP28 Adapter	HPE0000000054
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HP_1200111023
825110-B21	HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	HP_2180110032
825111-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	HP_2190110032

872726-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	HPE000000009
879482-B21	HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	HPE000000022
817749-B21	HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter	HP_2690110034
817753-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter	HP_2420110034
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417
P10112-B21	Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000241
P13188-B21	Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000416
P11341-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414
874253-B21	HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter	HPE000000014
P25960-B21	Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	MT_0000000437
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	HPE000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	HPE000000035
P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter	HPE000000036
P23664-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter	MT_0000000451
P23665-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter	MT_0000000452
P23666-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter	MT_0000000453
P10180-B21	Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	MT_0000000435
P31246-B21	HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter	MT_0000000591
P31323-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter	MT_0000000592
P31348-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter	MT_0000000593
P31324-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter	MT_0000000594
P42041-B21	Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000551
P42044-B21	Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000575

Driver - Storage Controller

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HPE MR416i-p, MR416i-o, MR216i-o, MR408i-o, MR216i-p Gen10P and Gen11 controller (64-bit) Driver for vSphere 7.0

Version: 2023.12.01 (**Recommended**)

Filename: cp057482.compsig; cp057482.zip

Important Note!

- **This new 7.26 release have not completed vSAN certification, please don't update for vSAN environment for now. Target to complete vSAN certification by end of February 2024.**
- This component is intended to be used by HPE applications. It is a zip that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Enhancements

New release for version 7.726.02.00.

HPE ProLiant Gen10 Smart Array and Gen10 Plus and Gen11 Smart RAID Controller Driver for VMware vSphere 7.0 (Driver Component).

Version: 2024.04.01 (**Recommended**)

Filename: cp058433.compsig; cp058433.zip

Important Note!

This component is intended to be used by HPE applications. It is a zip that contains the same driver deliverable available from the vmware.com, plus an HPE specific CPXXXX.xml file.

Enhancements

- Made changes to enhance the testability of the driver. Changes do not impact end customers.

Firmware - Network

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Intel Firmware Package For E810-2CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter

Version: 4.30 (**Recommended**)

Filename: HPE_E810_2CQDA2_O_SEC_4p30_PLDMoMCTP_8001AF25.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 1.13.242.0 or later
- Intel ice Drivers for Linux, version 1.12.6-1 or later
- Intel icen Driver for VMware, version 2023.10.00 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

Enhancements

This product enhanced the compatibility with icea driver.

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: 4.30 (**Recommended**)

Filename: HPE_E810_CQDA2_4p30_PLDMoMCTP_8001AF29.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 1.13.242.0 or later
- Intel ice Drivers for Linux, version 1.12.6-1 or later
- Intel icen Driver for VMware, version 2023.10.00 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

Enhancements

This product enhanced the compatibility with icea driver.

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: 4.30 (**Recommended**)

Filename: HPE_E810_CQDA2_OCP_4p30_NCSIwPLDMoMCTP_8001AF24.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 1.13.242.0 or later

- Intel ice Drivers for Linux, version 1.12.6-1 or later
- Intel icen Driver for VMware, version 2023.10.00 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

Enhancements

This product enhanced the compatibility with icea driver.

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: 4.30 (**Recommended**)

Filename: HPE_E810_XXVDA2_SD_4p30_PLDMoMCTP_8001AF27.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 1.13.242.0 or later
- Intel ice Drivers for Linux, version 1.12.6-1 or later
- Intel icen Driver for VMware, version 2023.10.00 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

Enhancements

This product enhanced the compatibility with icea driver.

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: 4.30 (**Recommended**)

Filename: HPE_E810_XXVDA2_SD_OCP_4p30_NCSIwPLDMoMCTP_8001AF23.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 1.13.242.0 or later
- Intel ice Drivers for Linux, version 1.12.6-1 or later
- Intel icen Driver for VMware, version 2023.10.00 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

Enhancements

This product enhanced the compatibility with icea driver.

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: 4.30 **(Recommended)**
Filename: HPE_E810_XXVDA4_FH_4p30_PLDMoMCTP_8001AF35.fwpkg

Important Note!

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

- Intel ica Driver for Microsoft Windows Server, version 1.13.242.0 or later
- Intel ice Drivers for Linux, version 1.12.6-1 or later
- Intel icen Driver for VMware, version 2023.10.00 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

Enhancements

This product enhanced the compatibility with ica driver.

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: 4.30 **(Recommended)**
Filename: HPE_E810_XXV4_OCP_4p30_NCSIwPLDMoMCTP_8001AF22.fwpkg

Important Note!

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

- Intel ica Driver for Microsoft Windows Server, version 1.13.242.0 or later
- Intel ice Drivers for Linux, version 1.12.6-1 or later
- Intel icen Driver for VMware, version 2023.10.00 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

Enhancements

This product enhanced the compatibility with ica driver.

Supported Devices and Features

This product supports the following network adapters:

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

Intel Online Firmware Upgrade Utility for VMware
Version: 3.22.0 **(Recommended)**
Filename: CP058408.compsig; CP058408.zip

Important Note!

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

NIC	EEPROM/NVM Version	OROM Version	NVM Version
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HPE Ethernet 10Gb 2-port SFP+ OCP3 X710-DA2 Adapter	8000E5DB	1.3429.0	9.3
HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter	8000E5EC	1.3429.0	9.3
Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter	800011F8	1.3429.0	N/A
Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter	800011EF	1.3429.0	N/A
Intel(R) I350 Gigabit Network Connection (2-port)	8000119C	1.3429.0	N/A
Intel(R) I350 Gigabit Network Connection (4-port)	8000119D	1.3429.0	N/A

The combo image v1.3429.0 includes: Boot Agent: 1GbE - v1.5.90, 10GbE - v2.4.51, 40GbE - v1.1.44 & UEFI Drivers: 1GbE - v9.8.33, 10GbE - v8.2.13, 40GbE - v4.9.70

Prerequisites

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

Fixes

This product addresses an issue where running the firmware update command (./Execute_Component -s) only updates the OROM.

Enhancements

This product enhanced the compatibility with the latest drivers.

Supported Devices and Features

This package supports the following network adapters:

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

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter : HPE part numbers P23664-B21 and P23664-H21

Version: 20.40.1000 (**Recommended**)

Filename: 20_40_1000-MCX653105A-HDA_HPE_Ax.pldm.fwpkg

Important Note!

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

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

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

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

A list of known issues with this release is available

at: <https://docs.nvidia.com/networking/display/connectx6firmwarev20401000/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 20.40.1000:

- RDE LLDPTxmit ChassisID was occasionally not represented correctly.

Enhancements

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

No New features or changes have been included in version 20.40.1000.

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter (P23664-B21 and P23664-H21)	20.40.1000	MT_0000000451

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter : HPE part numbers P31323-B21 and P31323-H21
Version: 20.40.1000 (**Recommended**)
Filename: 20_40_1000-MCX653435A-HDA_HPE_Ax.pldm.fwpkg

Important Note!

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

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

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

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

A list of known issues with this release is available

at: <https://docs.nvidia.com/networking/display/connectx6firmwarev20401000/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 20.40.1000:

- RDE LLDPTxmit ChassisID was occasionally not represented correctly.

Enhancements

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

No New features or changes have been included in version 20.40.1000.

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter (P31323-B21 and P31323-H21)	20.40.1000	MT_0000000592

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter : HPE part numbers P31324-B21 and P31324-H21
 Version: 20.40.1000 (**Recommended**)
 Filename: 20_40_1000-MCX653106A-HDA_HPE_Ax.pldm.fwpkg

Important Note!

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

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

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

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

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

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

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

A list of known issues with this release is available at: <https://docs.nvidia.com/networking/display/connectx6firmwarev20401000/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 20.40.1000:

- o RDE LLDPTxmit ChassisID was occasionally not represented correctly.

Enhancements

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

No New features or changes have been included in version 20.40.1000.

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter(P31324-B21 and P31324-H21)	20.40.1000	MT_0000000594

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter : HPE part numbers P31348-B21 and P31348-H21

Version: 20.40.1000 **(Recommended)**

Filename: 20_40_1000-MCX653436A-HDA_HPE_Ax.pldm.fwpkg

Important Note!

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

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

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

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

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

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

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A list of known issues with this release is available at: <https://docs.nvidia.com/networking/display/connectx6firmwarev20401000/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 20.40.1000:

- o RDE LLDPTxmit ChassisID was occasionally not represented correctly.

Enhancements

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

No New features or changes have been included in version 20.40.1000.

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter (P31348-B21 and P31348-H21)	20.40.1000	MT_0000000593

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter :
HPE part numbers P23665-B21 and P23665-H21
Version: 20.40.1000 **(Recommended)**
Filename: 20_40_1000-MCX653105A-ECA_HPE_Ax.pldm.fwpgk

Important Note!

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

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

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

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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/connectx6firmwarev20401000/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 20.40.1000:

- o RDE LLDPTxmit ChassisID was occasionally not represented correctly.

Enhancements

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

No New features or changes have been included in version 20.40.1000.

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter (P23665-B21 and P23665-H21)	20.40.1000	MT_0000000452

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter :
HPE part numbers P23666-B21 and P23666-H21
Version: 20.40.1000 **(Recommended)**
Filename: 20_40_1000-MCX653106A-ECA_HPE_Ax.pldm.fwpgk

Important Note!

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

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

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

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

Port #2 - InfiniBand				
Port #1 - Ethernet	HDR/HDR100	EDR	FDR	QDR
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/connectx6firmwarev20401000/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 20.40.1000:

- RDE LLDPTxmit ChassisID was occasionally not represented correctly.

Enhancements

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

No New features or changes have been included in version 20.40.1000.

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter (P23666-B21 and P23666-H21)	20.40.1000	MT_0000000453

Mellanox Firmware Package(FWPKG) for HPE NV60025M Ethernet 10/25Gb 2-port Secure Network Adapter
Version: 26.38.1002 (**Recommended**)
Filename: 26_38_1002-S2A69-63001_Ax_header.pldm.fwpkg

Important Note!

Known Issues with firmware version 26.38.1002:

- Multi-APP QoS is not supported when LAG is configured.
- When Emulated PCIe Switch is enabled, and more than 8 PFs are enabled, the OS boot process might halt.
- When Emulated PCIe Switch is enabled, and the OS does resource reallocation, the OS boot process might halt.
- Unable to complete migration when virtio device is in high traffic load (20/20 MPPS) as although vDPA hardware offload solution can support higher speed than the software solution, it needs to enable QEMU auto-converge to complete migration.
- Using the Eye-Opening tool might cause degradation in the link speed or link down events.

- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced. .

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

New features and changes included in version 26.38.1002:

- Enabled 200Gb/s out-of-the-box throughput on crypto capable devices.
Note: If any crypto offloads is in use, 200Gb/s throughput can be achieved only after the next firmware reset
- Added support for VF migration. The hypervisor can now suspend its VF, meaning from that point the VF cannot perform action such as send/receive traffic or run any command. In this firmware version only the suspend resume mode is supported (on the same VM).
- Added a new MAD of class SMP that has the attributes hierarchy_Info as defined in the IB Specification and is used to query the hierarchy information stored on the node and the physical port.
- Added pci_rescan_needed field to the MFRL access register to indicate whether a PCI rescan is needed based on the NV configurations issued by the software.
Note: If the Keep Link Up NV configuration is changed, phyless reset will be blocked.
- Added Precision Time Protocol (PTP) support.
In this version, the support includes:
16 PTP SQs only
only 2 ports
only RT clock mode
In this version, the following are not supported:
PTP packet drop
PTP SQ on VF
Note: All PTP SQs must be closed before operating LFWP (life fw patch).
- Added support for HW Steering objects dump via resource dump interface.
This support includes: STC, RTC, STE, modify argument, and modify pattern.
- Added support for VF migration.
- Added a new register (vhca_icm_ctrl_access_reg) to enable querying and limiting the ICM pages in use.
- Added support for creating a steering definer with a dword selector using create_match_definer_object and the "SELECT" format.
- Enhanced the XRQ QP error information provided to the user in case QP goes into an error state. In such case, QUERY_QP will provide information on the syndrome type and which side caused the error.
- [Beta] Added HW Steering support for the following:
set, add and copy inline STC action
set and copy actions for several fields using modify_pattern object and inline stc modify action
FDB mode in HW steering using FDB_RX and FDB_TX flow table types
ASO flow meter action via STC
flow counter query using ASO WQE
allocation of large bulks for the objects: STE, ASO flow meter and modify argument
jumbo match RTC
count action in STC
- Added support for holdover mode to comply to SyncE specifications (EEC compliance) to limit the maximum phase transient response upon link loss.
- Added support for noise filtering to comply to the SyncE specifications requirements.
- Optimized the performance of vDPA virtio including: throughput, QoS, and accuracy of min/max bandwidth when virtio works with the QoS settings.
- The new vDPA virtio-net Full Emulation capability reduces the switchover time of creating a virtq from scratch during live migration, by creating the virtq beforehand on the target server.
When switchover happens, the pre-created virtq will be used and modified with necessary parameters.
- Updated the ibstat status reported when the phy link is down. Now QUERY_VPORT_STATE.max_tx_speed of UPLINK will not be reported as 0 anymore.
- Replaced the deprecated NetworkPort schema with Port schema in NIC RDE implementation.
- Enabled the option to modify the ip_ecn field in the packet header in firmware steering.
- Added support for advanced ZTR_RTTCC algorithm based on the Programmable CC platform to achieve better congestion control without dependency on the switch ECN marking.
- DIM is used to tune moderation parameter dynamically for vDPA using an mlxreg command.
To disable this capability, run:
mlxreg -d /dev/mst/mt41686_pciconf0 --reg_id 0xc00d --reg_len 0x8 -s "0x4.1:1=0x0"
- Modified the TX or RX cache invalidation behavior. TX or RX cache invalidation now does not occur automatically but only when the software performs the sync operation using the using sync_steering command.
- Modified the maximum bulk size per single allocation from "log_table_size - log_num_unisizes", to allocate any range size, to remove limitations that HWS objects such as counters and modify arguments might encounter.
- Added support for creating a dynamic flex parser on untrusted function, and changed the flex parser cap for untrusted function to the following:
maximum flex parser node = 2
maximum dw sample = 4

- Added support for SNAPI (comm-channel) connection while running on raw ETH link.
- Crypto features can be in either wrapped or unwrapped mode. Meaning, the key can be wrapped or in plaintext when running the CREATE_DEK PRM command.
To comply with the requirements specified in FIPS publication, all the created DEKs must be wrapped.
This feature adds new NV_CONFIG per device to control this mode, and enables the user to change all the crypto features to wrapped or cleartext.
- [Beta] A new capability that enables the software to directly access ICM and write/modify the DEK objects. Such change improves the DEK object update rate by re-using DEK object instead of creating a new one.
In addition, added the following:
New for DEK object: bulk allocation, modify_dek cmd, and new mode - sw_wrapped.
New general object INT_KEK

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P46603-B21	HPE NV60025M Ethernet 10/25Gb 2-port Secure Network Adapter	HPE0000000062

Mellanox Firmware Package(FWPKG) for HPE NV60100M 100Gb 2-port Storage Offload Adapter
Version: 22.38.1002 (**Recommended**)
Filename: 22_38_1002-R8M41-63001_Ax_header.pldm.fwpkg

Important Note!

Known Issues with firmware version 22.38.1002:

- Multi-APP QoS is not supported when LAG is configured.
- When Emulated PCIe Switch is enabled, and more than 8 PFs are enabled, the OS boot process might halt.
- When Emulated PCIe Switch is enabled, and the OS does resource reallocation, the OS boot process might halt.
- Unable to complete migration when virtio device is in high traffic load (20/20 MPPS) as although vDPA hardware offload solution can support higher speed than the software solution, it needs to enable QEMU auto-converge to complete migration.
- Using the Eye-Opening tool might cause degradation in the link speed or link down events.
- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced. .

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

New features and changes included in version 22.38.1002:

- Enabled 200Gb/s out-of-the-box throughput on crypto capable devices.
Note: If any crypto offloads is in use, 200Gb/s throughput can be achieved only after the next firmware reset
- Added support for VF migration. The hypervisor can now suspend its VF, meaning from that point the VF cannot perform action such as send/receive traffic or run any command. In this firmware version only the suspend resume mode is supported (on the same VM).
- Added a new MAD of class SMP that has the attributes hierarchy_Info as defined in the IB Specification and is used to query the hierarchy information stored on the node and the physical port.
- Added pci_rescan_needed field to the MFRL access register to indicate whether a PCI rescan is needed based on the NV configurations issued by the software.
Note: If the Keep Link Up NV configuration is changed, phyless reset will be blocked.
- Added Precision Time Protocol (PTP) support.
In this version, the support includes:
16 PTP SQs only
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In this version, the following are not supported:
PTP packet drop
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- Added support for HW Steering objects dump via resource dump interface.
This support includes: STC, RTC, STE, modify argument, and modify pattern.

Added support for VF migration.

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- Added support for creating a steering definer with a dword selector using create_match_definer_object and the "SELECT" format.
- Enhanced the XRQ QP error information provided to the user in case QP goes into an error state. In such case, QUERY_QP will provide information on the syndrome type and which side caused the error.
- [Beta] Added HW Steering support for the following:
 - set, add and copy inline STC action
 - set and copy actions for several fields using modify_pattern object and inline stc modify action
 - FDB mode in HW steering using FDB_RX and FDB_TX flow table types
 - ASO flow meter action via STC
 - flow counter query using ASO WQE
 - allocation of large bulks for the objects: STE, ASO flow meter and modify argument
 - jumbo match RTC
 - count action in STC
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- Added support for noise filtering to comply to the SyncE specifications requirements.
- Optimized the performance of vDPA virtio including: throughput, QoS, and accuracy of min/max bandwidth when virtio works with the QoS settings.
- The new vDPA virtio-net Full Emulation capability reduces the switchover time of creating a virtq from scratch during live migration, by creating the virtq beforehand on the target server. When switchover happens, the pre-created virtq will be used and modified with necessary parameters.
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- Enabled the option to modify the ip_ecn field in the packet header in firmware steering.
- Added support for advanced ZTR_RTTCC algorithm based on the Programmable CC platform to achieve better congestion control without dependency on the switch ECN marking.
- DIM is used to tune moderation parameter dynamically for vDPA using an mlxreg command.
To disable this capability, run:
mlxreg -d /dev/mst/mt41686_pciconf0 --reg_id 0xc00d --reg_len 0x8 -s "0x4.1:1=0x0"
- Modified the TX or RX cache invalidation behavior. TX or RX cache invalidation now does not occur automatically but only when the software performs the sync operation using the using sync_steering command.
- Modified the maximum bulk size per single allocation from "log_table_size - log_num_unisizes", to allocate any range size, to remove limitations that HWS objects such as counters and modify arguments might encounter.
- Added support for creating a dynamic flex parser on untrusted function, and changed the flex parser cap for untrusted function to the following:
 - maximum flex parser node = 2
 - maximum dw sample = 4
- Added support for SNAPI (comm-channel) connection while running on raw ETH link.
- Crypto features can be in either wrapped or unwrapped mode. Meaning, the key can be wrapped or in plaintext when running the CREATE_DEK PRM command.
To comply with the requirements specified in FIPS publication, all the created DEKs must be wrapped. This feature adds new NV_CONFIG per device to control this mode, and enables the user to change all the crypto features to wrapped or cleartext.
- [Beta] A new capability that enables the software to directly access ICM and write/modify the DEK objects. Such change improves the DEK object update rate by re-using DEK object instead of creating a new one.
In addition, added the following:
New for DEK object: bulk allocation, modify_dek cmd, and new mode - sw_wrapped.
New general object INT_KEK

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P46603-B21	HPE NV60100M 100Gb 2-port Storage Offload Adapter	HPE0000000062

Firmware - Storage Controller

Firmware Package - HPE Expander Backplane Firmware for HPE Alletra 4140 servers

Version: 1.24 (**Recommended**)

Filename: HPE_Alletra4140_BP_EXP_Gen11_1.24_A.fwpkg

Important Note!

1.24 is a initial version.

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Enhancements

Initial release version.

Firmware Package - HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408e-m, P204i-c, P416ie-m and P816i-a SR Gen10 and Gen11 controllers

Version: 6.52 (**Recommended**)

Filename: HPE_SR_Gen10_6.52_A.fwpkg

Fixes

- Fixed issues with the SED drive.
- Fixed issues with the spare drive.
- Fixed an issue with the SmartCache logical drive.
- Fixed issues with expander firmware upgrade.
- Fixed issues with RBOD devices.
- Fixed a potential controller lockup issue while deleting a logical drive configuration on a controller.
- Resolved an issue by allowing MCTP re-discovery exclusively during the first Bus Master Enable set.
- Fixed UEFI HII unreadable characters in Chinese language.
- Fixed an issue where WriteCacheProtected alert is sometimes not generated.

Enhancements

- Added support to save controller logs in host memory in the event of a system crash.
- Added support for remote-managed SED rekey.
- Added support for Configurable Spindown Spares policy.
- Added support for the permanent disablement of unused IOBAR support in PCIe configuration space.
- Enhance Redfish interfaces:
 - support DELETE for a Volume resource which is not the last created on a given array.
 - support DELETE for the last remaining Volume on an array which has SED encryption enabled.
 - support #Storage.ResetToDefaults with ResetType = ResetAll when encrypted volumes are present.
 - support AutoVolumeCreate property in Redfish Storage resource
 - support Links.Batteries property in Redfish StorageController resource

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

Version: 1.2.14.1013 (**Recommended**)

Filename: HPE_NS204i_Gen10P_Gen11_1.2.14.1013_A.fwpkg

Important Note!

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

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

Prerequisites

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

Fixes

- Fixed an issue that iLO reports NS204i PLDM firmware update failure, but the firmware update is actually successful and will be activated in next reboot
- Fixed an issue that the M.2 attached are listed in iLO Device Inventory
- Corrected the drive state of performing Storage.ResetToDefaults with ResetAll type
- Allowed empty JSON payload for SecureErase and corrected the returned status when the previous one is either in process or completed.

Enhancements

- Add @Redfish.AllowableValues, @Redfish.AllowablePattern, @Redfish.AllowableNumbers and @Redfish.WriteableProperties for Redfish Annotations
- Add StorageController.Links, Drive.SlotCapableProtocols and Storage.AutoVolumeCreate for Redfish GET
- Add StorageController.ControllerRates and Volume.DisplayName for Redfish PATCH

Fixes

- Fixed issues related to spare drive functionality.
- Fixed issues pertaining to Self-Encrypting Drive (SED) functionality.
- Fixed an issue where rebuild was being reiterated continuously and not progressing.
- Fixed controller detection issues during system boot, including rare cases that could lead to PSOD or RSOD errors.
- Fixed an issue where the SR932i-p Gen11 controller was not assigned an EID.
- Fixed an issue where rebuild was being reiterated continuously and not progressing.
- Fixed an issue where Redfish events of battery and WriteCache do not meet requirements.
- Fixed an issue where firmware incorrectly reported unrecoverable media errors.
- Fixed an issue where the surface scan progress status is displayed as "In progress" even after disabling the surface scan on the controller.
- Fixed an issue where rebuild was being reiterated continuously and not progressing.
- Fixed an issue related to the failure of the clear controller configuration command.
- Fixed an issue where an Uncorrectable error PSOD observed after power on.
- Fixed an issue where the Unique ID of different SATA disks is the same in Windows.
- Fixed an issue of power surge when too many SATA drives are spinning up simultaneously.
- Fixed issues where logical drives were lost after a controller reset to factory defaults, especially when the 'preserve logical drive' option was enabled, and after an abrupt reboot where the controller reset to factory defaults, causing RAID loss.
- Fixed migrating a SmartCache when destination controller has existing logical drive.
- Fixed inaccuracies in SES enclosure behavior during hot-adding and hot-removing procedures.
- Fixed an issue where the controller was providing incorrect mode page information regarding the Write Cache attribute of NVMe drives.
- Fixed an issue causing system freezes during boot after enabling Secured-Core (DMAR) in RBSU.
- Fixed an issue where the BatteryMissing event was not being sent when the battery was removed prior to boot.
- Fixed an issue where a DriveOffline Redfish alert is not sent when a Drive resource initiated a sanitize operation.
- Fixed an issue where the controller's attempt to update an unflashable UBM resulted in an error report.
- Fixed an issue where an unflashable SMP PSOC (System Management Processor Programmable System-on-Chip) device was incorrectly appearing in the Type 5 downstream devices.
- Fixed an issue where driver health error messages were not displayed when the system language was changed to a non-English language.
- Fixed an issue of incorrectly reporting the WriteCachePolicy for a Volume resource as "ProtectedWriteBack" when the cache was temporarily disabled.
- Correct Redfish properties when backup power source is removed.
- Fixed an issue where the controller failed to report storage information in the absence of physical drives.
- Fixed an issue where an unexpected 'BatteryCharging' event was reported when no battery was present.

Enhancements

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

Enhancements

Support Gen10, Gen10 Plus and Gen11 servers

Important Note!

This component is supported only on Gen11 ProLiant servers.

Release notes:

[Broadcom Release notes](#)

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.2.589.19	14.2.589.19	14.2.589.16	14.2.566.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.2.589.19	14.2.589.19	14.2.589.16	14.2.566.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.2.589.19	14.2.589.19	14.2.589.16	14.2.566.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.2.589.19	14.2.589.19	14.2.589.16	14.2.566.0

Prerequisites

The minimum version for adapter to support PLDM is 14.0.499.25

Enhancements

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.2.589.19	14.2.589.19	14.2.589.16	14.2.566.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.2.589.19	14.2.589.19	14.2.589.16	14.2.566.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.2.589.19	14.2.589.19	14.2.589.16	14.2.566.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.2.589.19	14.2.589.19	14.2.589.16	14.2.566.0

Supported Devices and Features

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

32Gb Fibre Channel Host Bus Adapter:

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

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

HPE Firmware Flash for QLogic Fibre Channel Host Bus Adapters for VMware vSphere 7.0

Version: 2023.10.01 (**Recommended**)

Filename: CP058100.compsig; CP058100.zip

Important Note!

This component is supported only on Gen11 ProLiant servers.

Release Notes:

[HPE QLogic Adapters Release Notes](#)

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Firmware	UEFI	Boot Bios
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.09.07	09.14.01	7.36	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.09.07	09.14.01	7.36	0.0
HPE SN1700Q 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	02.09.07	09.14.01	7.36	0.0
HPE SN1700Q 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	02.09.07	09.14.01	7.36	0.0

Prerequisites

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

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

The HPE supplied Qlogic driver must be installed prior to this firmware component being identified by SUM for deployment. The OOB driver is available on the Service Pack for ProLiant (SPP) which is available at <http://www.hpe.com/servers/spp/download/>

Enhancements

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Firmware	UEFI	Boot Bios
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.09.07	09.14.01	7.36	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.09.07	09.14.01	7.36	0.0
HPE SN1700Q 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	02.09.07	09.14.01	7.36	0.0
HPE SN1700Q 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	02.09.07	09.14.01	7.36	0.0

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

Software - Management

HPE Fiber Channel and Storage Enablement Bundle Smart Component for ESXi 7.0

Version: 2022.09.01 **(Recommended)**

Filename: cp050934.compsig; cp050934.zip

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Enhancements

- Supports VMware ESXi 7.0 U2 and ESXi 7.0 U3

Smart Storage Administrator (SSA) CLI Smart Component for ESXi 7.0 for Gen10/Gen10 Plus/Gen11 Controllers

Version: 2024.04.01 **(Recommended)**

Filename: cp058581.compsig; cp058581.zip

Fixes

- Fixed issue of ADU report generation when using SSADUESXI within the VMWare ESXi system.
- Fixed the display issue with physical drives in the enclosure under the multipath configuration.
- Fixed issue where the tool allowed the Heal array operation on RMSED secured arrays when KMS is not active.
- Fixed issue where the tools would allow users to attempt Change Drive Type operations with 512/512e drives for 4Kn logical volumes.
- Fixed issue where users specified an incorrect encryption mode for a logical volume that did not match the existing mode on the array.
- Fixed issue where the operation to revert the SEDs to Original Factory State (OFS) was not being blocked when KMS is not available in remote SED mode.
- Fixed the volume creation issue when users specify the 'volatileencryptionkey' option while the Controller setting does not support it.
- Fixed issue of error message occurring when using the 'create type=arrayR0' command with 'drives=' and 'drivetype=' options.
- Fixed installation issue encountered when attempting to downgrade SSA CLI from versions 6.30.X.X to 6.15.X.X or 6.20.X.X.

Enhancements

- Added command to support the erasure of logs and events stored in the controller.
- Added command to support spare spin down policy setting if the feature is supported.

Software - Storage Controller

HPE MegaRAID Storage Administrator StorCLI for VMware7.0 (For Gen10P and Gen11 Controllers)

Version: 2023.12.01 **(Recommended)**

Filename: cp057488.compsig; cp057488.zip

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Enhancements

- Support autoconfig command.

`storcli /cx set autoconfig = < none | JBOD >`

- Added a new option [ReuseTargetId] to add vd command. If "ReuseTargetId" is mentioned in the add vd command, the FW will allow reusing of TargetIDs without 120 seconds delay.
- Added support for UBM7 backplanes.

Software - Storage Fibre Channel

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HPE QLogic Fibre Channel driver component for VMware vSphere 7.0

Version: 2023.10.01 (**Recommended**)

Filename: cp058099.compsig; cp058099.zip

Important Note!

This component is supported only on Gen11 ProLiant servers.

Release Notes:

[HPE QLogic Adapters Release Notes](#)

This component is intended to be used by HPE applications. It is a zip that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

This Driver is supported on VMware 7.0U3 only

Prerequisites

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

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

Enhancements

Driver version 5.3.82.0

This Driver is supported on VMware 7.0U3 only

Supported Devices and Features

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

32Gb Fibre Channel Host Bus Adapter:

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

64Gb Fibre Channel Host Bus Adapter:

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

HPE Storage Emulex Fibre Channel driver component for VMware vSphere 7.0

Version: 2023.06.01 (**Recommended**)

Filename: cp054944.compsig; cp054944.zip

Important Note!

This component is supported only on Gen11 ProLiant servers.

Release notes:

[Broadcom Release notes](#)

This component is intended to be used by HPE applications. It is a zip that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Updated to Driver version 14.2.567.0

Prerequisites

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

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

Enhancements

Updated to Driver version 14.2.567.0

Supported Devices and Features

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

32Gb FC Adapter:

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

64Gb FC Adapter:

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

Software - System Management

HPE Fiber Channel and Storage Enablement Component for ESXi 7.0

Version: 3.9.0 (**Recommended**)

Filename: fc-enablement-component_700.3.9.0.4-1_20266032.zip

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Enhancements

- Supports VMware ESXi 7.0 U2 and ESXi 7.0 U3
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