VMware Deliverable Release Notes



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

HPE Integrity Superdome X HPE Superdome Flex

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

VMware OS Support Tool for HPE Synergy

Information on HPE Synergy Software Releases is available at:

HPE Synergy Software Releases - Overview

Gen10 Patch Bundle 1 Supplement version 2022.09.01.01 Release Notes for VMware ESXi 8.0

<u>Firmware - Network</u> <u>Firmware - Storage Controller</u> <u>Software - Management</u> <u>Software - System Management</u>

Firmware - Network

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

Important Note!

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A list of known issues with this release is available at: <u>https://docs.nvidia.com/networking/display/ConnectX6LxFirmwarev26331048/Known+Issues</u>

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.

<u>Fixes</u>

The following issues have been fixed in version 26.34.1002:

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

Enhancements

New Features and Changes in Version 26.34.1002:

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

Supported Devices and Features

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

Mellanox Firmware Package (FWPKG) - Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE Version: 26.34.1002 **(Recommended)** Filename: 26_34_1002-MCX631432AS-ADA_Ax.pldm.fwpkg

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A list of known issues with this release is available

at: https://docs.nvidia.com/networking/display/ConnectX6LxFirmwarev26331048/Known+Issues

Prerequisites

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

<u>Fixes</u>

The following issues have been fixed in version 26.34.1002:

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

Enhancements

New Features and Changes in Version 26.34.1002:

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

Supported Devices and Features

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

Mellanox Firmware Package (FWPKG) for HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter : HPE part numbers P31246-B21 and P31246-H21

Version: 16.34.1002 (Recommended)

Filename: 16_34_1002-MCX515A-CCA_HPE_Ax.pldm.fwpkg

Important Note!

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

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

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

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A list of known issues with this release is available

at: https://docs.nvidia.com/networking/display/ConnectX5Firmwarev16341002/Known+Issues

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 16.27.1016 or later and iLO5 firmware version must be 2.30 or higher.

<u>Fixes</u>

The following issues have been fixed in version 16.34.1002:

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

Enhancements

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

New features and changes included in version 16.34.1002:

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

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox Ethernet Only Adapters	Firmware Version	PSID
HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter(P31246-B21 and P31246-H21)	16.34.1002	MT_0000000591

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

Version: 20.34.1002 (Recommended)

Filename: 20_34_1002-MCX653105A-HDA_HPE_Ax.pldm.fwpkg

Important Note!

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

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

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A list of known issues with this release is available

at: https://docs.nvidia.com/networking/display/ConnectX6Firmwarev20341002/Known+Issues

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.

<u>Fixes</u>

The following issues have been fixed in version 20.34.1002:

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

Enhancements

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

New features and changes included in version 20.34.1002:

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

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter (P23664-B21 and P23664-H21)	20.34.1002	MT_0000000451

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter : HPE part numbers P31323-B21 and P31323-H21

Version: 20.34.1002 (Recommended)

Filename: 20_34_1002-MCX653435A-HDA_HPE_Ax.pldm.fwpkg

Important Note!

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

- 1. HPE signed PLDM Firmware Package (.FWPKG filename extension) updatable via iLO.
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A list of known issues with this release is available at: <u>https://docs.nvidia.com/networking/display/ConnectX6Firmwarev20341002/Known+Issues</u>

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.

<u>Fixes</u>

The following issues have been fixed in version 20.34.1002:

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

Enhancements

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

New features and changes included in version 20.34.1002:

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

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter (P31323-B21 and P31323-H21)	20.34.1002	MT_0000000592

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter : HPE part numbers P31324-B21 and P31324-H21

Version: 20.34.1002 (Recommended)

Filename: 20_34_1002-MCX653106A-HDA_HPE_Ax.pldm.fwpkg

Important Note!

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

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

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

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

Port #2 - InfiniBand						
Port #1 – Ethernet HDR/HDR1		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/ConnectX6Firmwarev20341002/Known+Issues

Prerequisites

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

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The following issues have been fixed in version 20.34.1002:

- "set_flow_table_entry" failed when aso_flow_meter action was used.
- A race condition occured between the duplicate read and QP commands (2RST, 2ERR and Destroy) in the signature that caused the command to get into an unresponsive state.
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Enhancements

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

New features and changes included in version 20.34.1002:

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

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter(P31324-B21 and P31324-H21)	20.34.1002	MT_0000000594

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

Version: 20.34.1002 (Recommended)

Filename: 20_34_1002-MCX653436A-HDA_HPE_Ax.pldm.fwpkg

Important Note!

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

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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		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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Prerequisites

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

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

Supported Devices and Features

This software package contains the following firmware versions:

	niBand Adapter	Firmware Version	PSID
HPE InfiniBand (P31348-B21 ar	HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter nd P31348-H21)	20.34.1002	MT_0000000593

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

Version: 20.34.1002 (Recommended)

Filename: 20_34_1002-MCX653105A-ECA_HPE_Ax.pldm.fwpkg

Important Note!

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

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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.

<u>Fixes</u>

The following issues have been fixed in version 20.34.1002:

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

Enhancements

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New features and changes included in version 20.34.1002:

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

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InifiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter (P23665-B21 and P23665-H21)	20.34.1002	MT_0000000452

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter : HPE part numbers P23666-B21 and P23666-H21

Version: 20.34.1002 (Recommended)

Filename: 20_34_1002-MCX653106A-ECA_HPE_Ax.pldm.fwpkg

Important Note!

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

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- 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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software or documents that you download from <u>http://www.nvidia.com/</u>, except that HPE may provide a limited warranty for NVIDIA software in accordance with the terms and conditions of your purchase of the HPE product or solution.

A list of known issues with this release is available

at: https://docs.nvidia.com/networking/display/ConnectX6Firmwarev20341002/Known+Issues

Prerequisites

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

Fixes

The following issues have been fixed in version 20.34.1002:

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

Enhancements

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

New features and changes included in version 20.34.1002:

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

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter (P23666-B21 and P23666-H21)	20.34.1002	MT_0000000453

Mellanox Firmware Package (FWPKG) for Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE Version: 22.34.1002 (Recommended)

Filename: 22_34_1002-MCX623105AS-VDA_Ax.pldm.fwpkg

Important Note!

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A list of known issues with this release is available at: <u>https://docs.nvidia.com/networking/display/ConnectX6DxFirmwarev22341002/Known+Issues</u>

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.

<u>Fixes</u>

The following issues have been fixed in version 22.34.1002:

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

Enhancements

New features and changes included in version 22.34.1002:

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

Supported Devices and Features

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

Mellanox Firmware Package (FWPKG) for Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE Version: 22.34.1002 (Recommended)

Filename: 22_34_1002-MCX623106AS-CDA_Ax.pldm.fwpkg

Important Note!

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A list of known issues with this release is available at: <u>https://docs.nvidia.com/networking/display/ConnectX6DxFirmwarev22341002/Known+Issues</u>

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.

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 was fixed by adding "Command Unsupported" response code in cases when running the MCTP control command "Get Vendor
 Defined Messages Supported", and there were no supported VDMs.

Enhancements

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

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

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P25960-B21	Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	MT_000000437

Firmware - Storage Controller

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

Important Note!

This firmware version is to be used on NS204i controllers.

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

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

a. Windows https://support.hpe.com/hpesc/public/swd/detail?swltemId=MTX-1b2c98e9d2594b9db679e89bbe#tab-history

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

Enhancements

- 1. Thermal warning threshold modification;
- 2. IML optimization;
- 3. Error handling improvement when receive unsupported commands.

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

Important Note!

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

Enhancements

New version with 52.22.3-4650

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

Important Note!

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

Enhancements

New version with 52.22.3-4650

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

Important Note!

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

Enhancements

New version with 52.22.3-4650

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

Important Note!

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

Enhancements

New version with 52.22.3-4650

Online ROM Flash Component for VMware ESXi - HPE 12Gb/s SAS Expander Firmware for HPE Smart Array Controllers and HPE HBA Controllers Version: 5.14 (C) (Recommended)

Filename: CP054243.compsig; CP054243.zip

Important Note!

 Do NOT downgrade FW to previous version if your current expander is 5.10; please upgrade to 5.14 immediately.

Enhancements

Support ESXi8.0

Online ROM Flash Component for VMware ESXi - HPE Apollo 4200 Backplane Expander Firmware Version: 1.79 (E) (Recommended) Filename: CP054456.zip; CP054456_part1.compsig; CP054456_part2.compsig

Important Note!

Power cycle / cold reboot is required if firmware is upgraded from version 1.03 or earlier.

Enhancements

Support ESXi8.0

Agentless Management Service

• Fixed incorrect cpqSePCIeDiskHwLocation and multiple missing NVMe drive info in cpqSePCIeDisk MIB.

Smart Storage Administrator (SSA) CLI Smart Component for ESXi 8.0 for Gen10/Gen10 Plus Controllers Version: 2022.10.01 **(Recommended)** Filename: cp052001.compsig; cp052001.zip

Enhancements

Initial version 6.10.21.0 with Gen10/Gen10P servers.

Software - System Management HPE Agentless Management Bundle for ESXi for HPE Gen10 and Gen10 Plus Servers Version: 701.11.8.6 (Recommended) Filename: amsdComponent_701.11.8.6.10-1_20582302.zip

<u>Fixes</u>

Agentless Management Service

• Fixed incorrect cpqSePCIeDiskHwLocation and multiple missing NVMe drive info in cpqSePCIeDisk MIB.

Smart Storage Administrator (SSA) CLI for VMware 8.0 Version: 6.10.21.0 (**Recommended**) Filename: ssacli2-component_6.10.21.0-8.0.0_20531647.zip

Enhancements

Initial build and for VMware custom image usage.

Get connected

hpe.com/info/getconnected

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

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