# 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

# Gen9 SPP version Gen9.0 Release Notes for VMware ESXi 7.0

Driver - Lights-Out Management Driver - Network Firmware - Network Firmware - Storage Controller Software - Management Software - System Management

# Driver - Lights-Out Management

HPE ILO Native Driver for ESXi 7.0 Version: 10.7.5 (Recommended) Filename: ilo-driver\_700.10.7.5.2-10EM.700.1.0.15843807\_17856914.zip

#### <u>Fixes</u>

• Fixed driver unload function to allow controller to function properly on reload and when Quickboot is enabled.

#### Driver - Network

HPE Blade Intel ixgben Driver for VMware vSphere 7.0 Version: 2020.06.01 **(Optional)** Filename: cp041435.compsig; cp041435.zip

#### Important Note!

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

HPE recommends the firmware provided in *HPE Blade Intel Online Firmware Upgrade Utility for VMware*, version 1.1.2 or later, for use with this driver.

# Enhancements

Initial release.

#### Supported Devices and Features

These drivers support the following network adapters:

- HPE Ethernet 10Gb 2-port 560FLB Adapter
- HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 7.0 Version: 2021.09.01 **(Optional)** Filename: cp047630.compsig; cp047630.zip

#### Important Note!

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

HPE recommends the firmware provided in HPE Blade QLogic NX2 Online Firmware Upgrade Utility for VMware, version 1.5.2 or later, for use with this driver.

# <u>Fixes</u>

This product addresses a PSOD seen while collecting data dump.

- This product addessses a PSOD seen during uplink reset with failure conditions.
- This product addresses a PSOD seen during device state changes without IDLE state.

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This product addresses a PSOD seen during scheduling fabic login. This product addresses a PSOD issue to enhance immediately flush in work queue and unload/quiesce mechanisms.

# Enhancements

This product now supports VMware ESXi 7.0 U3. This product enhances PLOGI for the HPE XP7 Storage Array.

#### Supported Devices and Features

These drivers support the following network adapters:

- HPE FlexFabric 10Gb 2-port 534M Adapter
- HPE FlexFabric 10Gb 2-port 536FLB Adapter
- HPE FlexFabric 20Gb 2-port 630FLB Adapter
- HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Broadcom NetXtreme-E Drivers for VMware vSphere 7.0 Version: 2021.09.04 **(Recommended)** Filename: cp047900.compsig; cp047900.zip

#### Important Note!

- This component is intended to be used by HPE applications. It is a zip file that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CP0xxxxx.xml file.
- HPE recommends the HPE Broadcom NetXtreme-E Firmware Version, 218.0.259000 or later, for use with this driver.

# **Enhancements**

This product enhances that new query for Firmware health data.

#### Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 535FLR-T Adapter
- HPE Ethernet 10Gb 2-port 535T Adapter
- HPE Ethernet 10Gb 2-port 537SFP+ Adapter
- HPE Ethernet 10Gb 2-port 537SFP+ FLR Adapter
- HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter
- HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter

HPE Intel i40en Driver for VMware vSphere 7.0 Version: 2021.12.00 (**Recommended**) Filename: cp045338.compsig; cp045338.zip

# Important Note!

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

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for VMware*, version 3.15.50 or later, for use with this driver.

# <u>Fixes</u>

This product corrects an issue where PSOD when drivers loading.

#### Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter
- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 4-port 369i Adapter
- HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 562SFP+ Adapter
- HPE Ethernet 10Gb 2-port 568i Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter

• HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter

HPE Intel igbn Driver for VMware vSphere 7.0 Version: 2021.09.04 (**Recommended**) Filename: cp047111.compsig; cp047111.zip

# Important Note!

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

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for VMware*, version 3.15.0 or later, for use with this driver.

# **Enhancements**

This product supports the following new server:

- HPE ProLiant DL20 Gen10 Plus Server
- HPE ProLiant ML30 Gen10 Plus Server

# Supported Devices and Features

These drivers support the following network adapters:

- HPE Ethernet 1Gb 2-port 361i Adapter
- HPE Ethernet 1Gb 2-port 361T Adapter
- HPE Ethernet 1Gb 2-port 363i Adapter
- HPE Ethernet 1Gb 4-port 366FLR Adapter
- HPE Ethernet 1Gb 4-port 366i Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HPE Ethernet 1Gb 4-port 366T Adapter

HPE Intel ixgben Driver for VMware vSphere 7.0 Version: 2021.12.00 (**Recommended**) Filename: cp047115.compsig; cp047115.zip

# Important Note!

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

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for VMware*, version 3.15.50 or later, for use with this driver.

#### **Fixes**

- This product corrects an issue where non-working MAC anti-spoofing
- This product corrects an issue where incorrect values in virtual function counters

#### Supported Devices and Features

These drivers support the following network adapters:

- HPE Ethernet 10Gb 2-port 560SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 561T Adapter
- HPE Ethernet 10Gb 2-port 561FLR-T Adapter
- HPE Ethernet 10Gb 2-port 562T Adapter
- HPE Ethernet 10Gb 2-port 562FLR-T Adapter

HPE QLogic FastLinQ 10/25/50 GbE Multifunction Driver for VMware vSphere 7.0 Version: 2022.03.23 (**Recommended**) Filename: cp049986.compsig; cp049986.zip

# Important Note!

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

HPE recommends the firmware provided as below for use with these drivers,

- HPE QLogic FastLinQ Firmware Package for Arrowhead adapters, version 8.55.27(B) or later.
- HPE QLogic FastLinQ Online Firmware Upgrade Utility for VMware, version 1.20.1 or later.

# <u>Fixes</u>

This product addresses an issue which Virtual Network Adapters is not present on Linux and VMware OS after SR-IOV configuration.

#### Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T Adapter
- HPE Ethernet 10Gb 2-port 524SFP+ Adapter
- HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter
- HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter
- HPE StoreFabric CN1200R-T Converged Network Adapter
- HPE StoreFabric CN1300R Converged Network Adapter

HPE QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 7.0 Version: 2022.03.23 **(Recommended)** Filename: cp049987.compsig; cp049987.zip

# Important Note!

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

HPE recommends the firmware provided in HPE QLogic NX2 Online Firmware Upgrade Utility for VMware, version 1.30.0 or later, for use with this driver.

#### <u>Fixes</u>

This product addresses an issue which PSOD when setting XVLAN environment.

# Supported Devices and Features

These drivers support the following network adapters:

- HPE Ethernet 10Gb 2-port 530T Adapter
- HPE Ethernet 10Gb 2-port 530SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 533FLR-T Adapter
- HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
- HPE StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R 10GBASE-T Dual Port Converged Network Adapter

nmlx4\_en Driver Component for VMware 7.0 Version: 2020.11.11 (A) **(Recommended)** Filename: cp047457.compsig; cp047457.zip

# Important Note!

#### Known Issues:

- ConnectX-3 Pro 10G adapter cards incorrectly report support for 40G speed when running the "esxcli network nic get" command.
- When the port is DOWN, the management interface "port type" field indicates one of the port types supported by the device, in the following order: TP, FIBER, DA, NONE. If the port supports several cable types, the first type in the list mentioned above will be printed.
- When the port is UP, the management interface port type field (nmlx\_en\_MgmtIFPortType) indicates which one of all possible supported types is currently connected.
- Managment interface port type field reports SFP-to-RJ45 cable as FIBER.
- Management interface auto negotiation field is equivalent to "esxcli network nic get -n vmnicX" field "Pause Autonegotiate".

For further information on the release notes for ESXi 6.5 Driver Version 3.19.70.1 follow the below link: <u>https://www.mellanox.com/page/products\_dyn?product\_family=29&mtag=vmware\_driver</u>

# **Enhancements**

# Changes and New Features in version 3.19.70.1:

- Resolved an issue that caused the network adapter traffic to stop.
- Fixed an internal multicast loopback issue that broke LACP(Link Aggregation Control Protocol) bonding protocol.

# Supported Devices and Features

HPE Part Number	Device Name	PSID
764282-B21	HPE InfiniBand QDR/Ethernet 10Gb 2-port 544+M Adapter	HP_1350110023
764283-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+M Adapter	HP_1360110017
764284-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	HP_1370110017
764285-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter	HP_1380110017
764286-B21	HPE InfiniBand QDR/Ethernet 10Gb 2-port 544+FLR-QSFP Adapter	HP_1390110023
779793-B21	HPE Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HPE Ethernet 10Gb 2-port 546FLR-SFP+ Adapter	HP_2240110004

VMware ESXi 7.0 MST Drivers Offline Bundle for Mellanox Adapters Version: 4.14.3.3 (**Recommended**) Filename: Mellanox-NATIVE-NMST\_4.14.3.3-10EM.700.1.0.15525992\_16211416.zip

#### Prerequisites

NA

# **Enhancements**

VM70 nmst 4.14.3.3

# Firmware - Network

HPE Blade Intel Online Firmware Upgrade Utility for VMware Version: 1.2.3 (**Optional**) Filename: CP045076.compsig; CP045076.zip

# Important Note!

HPE recommends the HPE Blade Intel ixgben Driver for VMware, version 2020.12.09 or later, for use with this firmware.

# Prerequisites

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

# Enhancements

This product now supports VMware vSphere 7.0 U1. This product now supports VMware vSphere 6.7 U3. This product now supports VMware vSphere 6.5 U3.

# Supported Devices and Features

This package supports the following network adapters:

- HPE Ethernet 10Gb 2-port 560FLB Adapter
- HPE Ethernet 10Gb 2-port 560M Adapter

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# Important Note!

HPE recommends HPE Blade QLogic NX2 10/20 GbE Multifunction Driver for VMware, version 2021.09.01 or later, for use with this firmware.

# Prerequisites

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

# <u>Fixes</u>

This product addresses an issue where the Maximum Transmission Unit (MTU) value of iSCSI function port is displayed as 0 bytes in AHS log.

# Enhancements

This product now supports VMware ESXi 7.0 U3.

# Supported Devices and Features

This product supports the following network adapters:

- HPE FlexFabric 10Gb 2-port 534M Adapter
- HPE FlexFabric 10Gb 2-port 536FLB Adapter
- HPE FlexFabric 20Gb 2-port 630FLB Adapter
- HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Broadcom NetXtreme-E Online Firmware Upgrade Utility for VMware Version: 5.14.1 **(Recommended)** Filename: CP050625.compsig; CP050625.zip

# Important Note!

HPE recommends HPE Broadcom NetXtreme-E Drivers for VMware, versions 2022.03.04 or later, for use with this firmware.

This software package contains NVM Image version 218.0.303000 with the following firmware versions:

NIC	Bootcode Version	NCSI Version	MBA Version	UEFI Version	CCM Version	RoCE Version
HPE Ethernet 10Gb 2-port 535FLR- T Adapter						
HPE Ethernet 10Gb 2-port 535T Adapter						
HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter	218.0.229.0	218.0.173.0	218.0.38.0	218.0.93.0	218.0.28.0	218.0.5.0
HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter						
HPE Ethernet 10Gb 2-port 537SFP+ Adapter						
HPE Ethernet 10Gb 2-port 537SFP+ FLR Adapter						

# Prerequisites

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

# <u>Fixes</u>

- This product addresses an issue a packet missing problem after some amounts of multicast UDP streams transmitted.
- This product addresses an issue the port identifier LED problem on HPE Ethernet 10Gb 2-port 535T Adapter .

# Supported Devices and Features

This product supports the following network adapters:

• HPE Ethernet 10Gb 2-port 537SFP+ Adapter

- HPE Ethernet 10Gb 2-port 537SFP+ FLR Adapter
- HPE Ethernet 10Gb 2-port 535T Adapter
- HPE Ethernet 10Gb 2-port 535FLR-T Adapter
- HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter
- HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter

HPE Broadcom NX1 Online Firmware Upgrade Utility for VMware Version: 1.30.0 **(Recommended)** Filename: CP050425.compsig; CP050425.zip

# Important Note!

This software package contains combo image v20.19.51 with the following firmware versions:

NIC	Boot Code Version	PXE Version	NCSI Version	UEFI Version	CCM Version
HPE Ethernet 1Gb 2-port 330i Adapter (22BD)	2.10	21.6.0	1.5.33	21.6.28	218.0.10.0
HPE Ethernet 1Gb 4-port 331i Adapter (22BE) HPE Ethernet 1Gb 4-port 331FLR Adapter HPE Ethernet 1Gb 4-port 331T Adapter	1.46	21.6.0	1.5.33	21.6.28	218.0.10.0
HPE Ethernet 1Gb 2-port 332i Adapter (22E8) HPE Ethernet 1Gb 2-port 332T Adapter	1.42	21.6.0	1.5.33	21.6.28	218.0.10.0

# Prerequisites

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

# <u>Fixes</u>

This product addresses an abnormal reporting on link status of HPE 331i Adapter under IML log.

# Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 1Gb 2-port 330i Adapter (22BD)
- HPE Ethernet 1Gb 4-port 331i Adapter (22BE)
- HPE Ethernet 1Gb 4-port 331FLR Adapter
- HPE Ethernet 1Gb 4-port 331T Adapter
- HPE Ethernet 1Gb 2-port 332i Adapter (22E8)
- HPE Ethernet 1Gb 2-port 332T Adapter

HPE Intel Online Firmware Upgrade Utility for VMware Version: 3.15.50 **(Recommended)** Filename: CP049895.compsig; CP049895.zip

# Important Note!

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

NIC	EEPROM/NVM Version	OROM Version	Single NVM Version
HPE Ethernet 1Gb 2-port 361i Adapter	8000106F	1.3089.0	N/A
HPE Ethernet 1Gb 2-port 361T Adapter	80001147	1.3089.0	N/A
HPE Ethernet 1Gb 2-port 363i Adapter	80000D00	1.3089.0	N/A
HPE Ethernet 1Gb 4-port 366i Communication Board	80000EBF	1.3089.0	N/A
HPE Ethernet 1Gb 4-port 366i Adapter	8000105E	1.3089.0	N/A
HPE Ethernet 1Gb 4-port 366FLR Adapter	80001148	1.3089.0	N/A
HPE Ethernet 1Gb 4-port 366T Adapter	80001146	1.3089.0	N/A
HPE Ethernet 1Gb 2-port 368i Adapter	80003373	1.3089.0	N/A
HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter	80003370	1.3089.0	N/A

HPE Ethernet 1Gb 4-port 369i Adapter	80003371	1.3089.0	N/A
HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter	800009E0	1.3089.0	N/A
HPE Ethernet 10Gb 2-port 560SFP+ Adapter	800009E1	1.3089.0	N/A
HPE Ethernet 10Gb 2-port 561T Adapter	80000636	1.3089.0	N/A
HPE Ethernet 10Gb 2-port 561FLR-T Adapter	800005B6	1.3089.0	N/A
HPE Ethernet 10Gb 2-port 568i Adapter	80003372	1.3089.0	N/A
HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter	80003370	1.3089.0	N/A
HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter	80003370	1.3089.0	N/A
HPE Ethernet 10Gb 2-port 563i Adapter	800035C0	1.1375.0	N/A
HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	8000B749	1.3089.0	10.57.2
HPE Ethernet 10Gb 2-port 562FLR-T Adapter	800016F1	1.3089.0	10.55.3
HPE Ethernet 10Gb 2-port 562SFP+ Adapter	8000B748	1.3089.0	10.57.2
HPE Ethernet 10Gb 2-port 562T Adapter	800016EF	1.3089.0	10.55.3

The combo image v1.3089.0 includes: Boot Agent: 1GbE - v1.5.89, 10GbE - v2.4.45, 40GbE - v1.1.31 & UEFI Drivers: 1GbE - v9.7.06, 10GbE - v8.1.00, 40GbE - v4.8.08

The combo image v1.1375.0 includes: Boot Agent: 1GbE - v1.5.72, 10GbE - v2.3.46, 40GbE - v1.0.21 & UEFI Drivers: 1GbE - v6.9.13, 10GbE - v5.0.20, 40GbE - v1.5.14

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

# Prerequisites

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

# <u>Fixes</u>

- This product addresses an issue where link flipping is seen with HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter.
- This product addresses an issue where the link speed isn't consistent with HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter when system shutdown.

# Supported Devices and Features

This package supports the following network adapters:

- HPE Ethernet 1Gb 2-port 361i Adapter
- HPE Ethernet 1Gb 2-port 361T Adapter
- HPE Ethernet 1Gb 2-port 363i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter
- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 4-port 366FLR Adapter
- HPE Ethernet 1Gb 4-port 366i Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HPE Ethernet 1Gb 4-port 366T Adapter
- HPE Ethernet 1Gb 4-port 369i Adapter
- HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560SFP+ Adapter
- HPE Ethernet 10Gb 2-port 561FLR-T Adapter
- HPE Ethernet 10Gb 2-port 561T Adapter
- HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 562FLR-T Adapter
- HPE Ethernet 10Gb 2-port 562SFP+ Adapter
- HPE Ethernet 10Gb 2-port 562T Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter
- HPE Ethernet 10Gb 2-port 568i Adapter

HPE QLogic FastLinQ Online Firmware Upgrade Utility for VMware Version: 4.15.1 **(Recommended)** Filename: CP050213.compsig; CP050213.zip

# Important Note!

HPE recommends HPE QLogic FastLinQ 10/25/50GbE Multifunction Drivers for VMware, versions 2022.03.23 or later, for use with this firmware.

This software package contains combo image version v8.55.27 includes:

- Boot Code (MFW): 8.55.43.0
- UEFI: 4.1.13.1
- PXE: 2.0.19

The users will only see the combo image versions in the interactive mode firmware update or while using HPSUM/SPP to update the firmware on the supported adapters.

#### Prerequisites

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

# <u>Fixes</u>

This product addresses the problem that the MAC being modified after Firmware update

# Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T Adapter
- HPE Ethernet 10Gb 2-port 524SFP+ Adapter
- HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter
- HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter
- HPE StoreFabric CN1200R-T Converged Network Adapter
- HPE StoreFabric CN1300R Converged Network Adapter

HPE QLogic NX2 Online Firmware Upgrade Utility for VMware Version: 1.30.2 (**Recommended**) Filename: CP050210.compsig; CP050210.zip

# Important Note!

HPE recommends HPE QLogic NX2 10/20GbE Multifunction Drivers for VMware, versions 2022.03.23 or later, for use with this firmware.

This software package contains combo image v7.19.02 with the following firmware versions:

NIC	Boot Code Version	PXE Version	UEFI Version	iSCSI Version	FCoE Version	CCM Version	L2 Version
HPE Ethernet 10Gb 2-port 530SFP+ Adapter HPE Ethernet 10Gb 2-port 530T Adapter	7.16.05	7.14.13	8.9.2	n/a	n/a	7.14.4	7.12.25
HPE Ethernet 10Gb 2-port 533FLR-T Adapter HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter HPE FlexFabric 10Gb 4-port 536FLR-T Adapter HPE StoreFabric CN1100R Dual Port Converged Network Adapter HPE StoreFabric CN1100R-T Converged Network Adapter	7.16.05	7.14.13	8.9.2	7.14.0	7.14.3	7.14.4	7.12.25

# **Prerequisites**

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

# <u>Fixes</u>

• This product addresses a cosmetic change in the adapter configuration page to reflect that DCBx is enabled and as long as LLDP is enabled.

#### Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 530SFP+ Adapter
- HPE Ethernet 10Gb 2-port 530T Adapter
- HPE Ethernet 10Gb 2-port 533FLR-T Adapter
- HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
- HPE StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter

Online Firmware Upgrade Utility (ESXi 7.0) for HPE Mellanox Ethernet only adapters Version: 1.0.2 (**Recommended**) Filename: CP046592.compsig; CP046592.zip

# Important Note!

The Firmware Upgrade Utility has been split into 2 packages for Mellanox Ethernet Only NIC adpaters, one supporting Synergy platforms and the other supporting ProLiant and Apollo platforms. This package supports Mellanox Ethernet Only NIC adapters on ProLiant and Apollo servers.

# Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4/ConnectX5 firmware version 14.28.1002/16.28.1002 respectively. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

# <u>Fixes</u>

# Fixes included in firmware version 2.42.5044 :

• An issue that prevented the firmware from detecting a link\_down event thus preventing the IB bond interface from going to a failover mode.

# The following issues have been fixed in version 14.31.1200:

- TX PRBS was not changed even after reconfiguring it, all PRBS mode were enabled in test mode.
- A fatal error occurred and eventually resulted in the HCA to get into an unresponsive state when a packet was larger than a strided receive WQE that was being scattered.
- The resource number size (a 64 bit number) was overwritten with a 32 bit number and erased the high bits when deallocating the resource number.

# Additional Fixes included in version 14.31.1200:

- Fixed the rate select mechanism in QSFP modules.
- Fixed classification issues for "Passive" cables to be more robust.
- Initialized the rate table in the static configuration so it will be configured at the link-not-up scenarios.

# The following issues have been fixed in version 16.31.1014:

- TX PRBS was not changed even after reconfiguring it, all PRBS mode were enabled in test mode.
- An assert that was caused when trying to open 1024 functions on the device and the maximum number of functions was 1023.
- Occasional performance issues related to RC QPs using E2E-credits (not connected to SRQ and doing send/receive traffic) when the ROCE\_ACCL tx\_window was enabled.
- A fatal error occurred and eventually resulted in the HCA to get into an unresponsive state when a packet was larger than a strided receive WQE that was being scattered.
- A rare issue that caused RX pipe to hang.
- The resource number size (a 64 bit number) was overwritten with a 32 bit number and erased the high bits when deallocating the resource number.
- CRT\_DCR with index larger than 1 << 21 occasionally collided with the CRT\_SW\_RESERVED address.
- An issue that caused the TX queue to get into an unresponsive state when the VF rate limiter was set.

# Additional Fixes included in version 16.31.1014:

- Disabled the CNP counter "rp\_cnp\_ignored " (triggered by OOS (out-of-sequence)) when all ports are IB.
- Fixed the TMP421 sensor temperature reporting.
- Fixed the rate select mechanism in QSFP modules.
- Fixed classification issues for "Passive" cables to be more robust.
- Initialized the rate table in the static configuration so it will be configured at the link-not-up scenarios.

# Enhancements

# Firmware for the following devices are updated to 2.42.5044 :

779799-B21 (HPE Ethernet 10G 2-port 546FLR-SFP+ Adapter)

779793-B21 (HPE Ethernet 10G 2-port 546SFP+ Adapter)

# Firmware for the following devices are updated to 14.31.1200:

817749-B21 (HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter)

#### Firmware for the following devices are updated to 14.31.1200: 817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

# Firmware for the following device is updated to 16.31.1014:

874253-B21 (HPE Ethernet 100Gb 1-port 842QSFP28 Adapter)

# New features and changes in version 14.31.1200:

• NVconfig per Port for a Specific Finisar Module: Added a new NVconfig per Port for a specific Finisar module. This new NVconfig sets the port to work in AN mode and sets the module to No DME. This change does not affect the speed logic, only the FEC logic (FEC override).

Note: If the port does not go up, switch to Force mode.

# New features and changes in version 16.31.1014:

- NIC scheduling feature support has been disabled for non-privileged functions.
- Implemented a new NC-SI command get\_debug\_info to get mstdump via the NC-SI protocol to debug a device if the PCI link fails for any given reason.
- Added support for Enabling/Disabling NIC and RDMA (port/partition) via the UEFI HII system settings. Note: Values set in this option only take effect when is Ethernet mode.
- Increased the maximum number of MSIX per VF to 127.
- Asymmetrical MSIX Configuration: This feature allows the device to be configured with a different number of MSIX vectors per physical PCI functions.
  - To use this feature, please follow these steps:
    - Clear NUM\_PF\_MSIX\_VALID to disable global symmetrical MSIX configuration.
    - Set PF\_NUM\_PF\_MSIX\_VALID to enable asymmetrical per Physical Function MSIX configuration.
    - Configure PF\_NUM\_PF\_MSIX per physical PCI function.
- Support for RDMA partitioning and RDMA counters in IB mode.
- A new bit ("data\_in\_order") was added to query the QP and allow a process/library to detect when the AR is enabled.
- A new flex parser to support GENEVE hardware offload and ICMP.
- When the non-page-supplier-FLR function is initiated, the firmware triggers a page event to the page supplier to indicate that all pages should be returned for the FLR function.
  - Pages are returned by the driver to the kernel without issuing the MANAGE\_PAGES commands to the firmare.
- Enabled UID 0 to create resources with UMEM (User Memory).
- Receiving and sending native IB packets from/to the software (including all headers) via raw IBL2 QPs.
- RX RDMA NIC flow table on an IB port. Now the software can steer native IB packets to raw IB receive queues according to the DLID and the DQPN.

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
779793-B21	HPE Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HPE Ethernet 10Gb 2-port 546FLR-SFP+ Adapter	HP_2240110004
817749-B21	HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter	HP_2690110034
817753-B21	HPE Ethernet 25Gb 2-port 640SFP28 Adapter	HP_2420110034
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE000000014

#### Supported Devices and Features

Online Firmware Upgrade Utility (ESXi 7.0) for HPE Mellanox VPI (Ethernet and Infiniband mode) devices on VMware ESXi 7.0 Version: 1.0.1 (Recommended) Filename: CP045904.compsig; CP045904.zip

# Important Note!

# Known Issues in firmware 2.42.5000, 2.42.5056, 2.42.5700:

- When using the Quad Small Form-factor Pluggable (QSFP) module RTXM320-581, and performing a driver restart for the firmware upgrade/downgrade to take effect, the link does not come up. Workaround: Reboot the server.
- Enabling/disabling cq\_timestamp using mlxconfig is not supported.
- In a card with 2 separate LEDs scheme (a Phy LED and a logic LED) only the Phy LED will lit. Meaning, the orange LED will not be active while the ETH link is in an idle mode.
- In SR-IOV setup, using mIxconfig when the Packet Filter (PF) is passed through to a VM requires a reboot of the Hypervisor.
- Downgrading from v2.30.8000 or later to an earlier version than 2.30.8000 requires server reboot.

Workaround: Reboot the server.

- On ConnectX-3 Ethernet adapter cards, there is a mismatch between the GUID value returned by firmware management tools and that returned by fabric/ driver utilities that read the GUID via device firmware (e.g., using ibstat). Mlxburn/flint return 0xffff as GUID while the utilities return a value derived from the MAC address. For all driver/firmware/software purposes, the latter value should be used.
- Workaround: Please use the GUID value returned by the fabric/driver utilities (not 0xffff).
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX-3 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
- RHEL6.3 Inbox driver causes kernel panic when SRIOV is enabled on VPI cards due to driver compatibility issue.
- Workaround: Set the "do\_- sense=false" parameter in the [IB\_TAB] i.
- In advanced steering mode, side band management connectivity may be lost when having more than 8 QP per mcg.
- When SR-IOV is disabled in the system BIOS, a PCI issue is noticed in Ubuntu v12.04.3 with Linux kernel v3.8 which affects NICs of several manufacturers including Mellanox's, preventing them from operating.
   Workaround: Enable SR-IOV in the BIOS.
- Mellanox Firmware Tools (MFT) might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
   Workaround: Clear the semaphore using MFT command: 'flint -clear\_semaphore'
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Gable find MAD reports a wong cable find when using the MC2210411-SR4 module
   Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only)...
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Bloom filter is currently not supported.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW. If you continue, old FW configurations will be cleared, do you want to continue ? (y/n) [n] : y You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y.
- DMFS should not be enabled when working with InfiniBand on MLNX\_OFED-2.0.3
- ConnectX®-3 Pro VF device ID is presented the same as ConnectX®-3 VF device ID due to driver limitations. Workaround: Use the physical function device ID to identify the device.
- Virtual Product Data (VPD) read-only fields are writable.
- Workaround: Do not write to read-only fields if you wish to preserve them.
- When working in Virtual Path Identifier (VPI) mode with port1 FDR and port2 40G, error counters misbehave and increase rapidly.
- Setting the device to 128Byte CQ/EQ stride will cause misbehavior of sideband management resulting in communication loss.
- CQ and EQ cannot be configured to different stride sizes.
- Changing port protocol from ETH to IB on port with NCSI/IPMI enabled while the port is connected to ETH switch is not supported.
- Workaround: 1. Unplug the cable from the switch 2. Restart driver 3. Change the protocol via the appropriate tools.
- Adapter card MCX349A-XCCN may experience longer linkup times of a few seconds with specific switches.
- Adapter card MCX349A-XCCN does not respond to ethtool "identify" command (ethtool -p/--identify).
- Remote Desktop Protocol (RDP) over IPv6 is currently not functional.
- Workaround: Set the default RoCE mode in the software to RoCE v2 (also when not using RoCE)
- Sniffer QP cannot be removed from the regular rule after adding the QP with insertion scheme equals to "push to that rule".
- Since only a single Boot Entry Vector (BEV) per PCI Physical Function is supported, disabling the first port causes the second port to disappear as well.
- The NIC does not notify the driver of a link-down incident when a cable is unplugged from a NIC port with 56GbE port link.
- 56GbE link is not raised when using 100GbE optic cables.
- When working with MLNX\_OFED v3.3-1.0.0.0, server reboot could get stuck due to a kernel panic in mlx4\_en\_get\_drvinfo() that is called from asynchronous event handler.
- When running ibdump, loopback traffic is mirroring into the kernel driver.
- MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer.
- The adapter card cannot raise a 10G link vs. a 40GE capable switch port in C7000 enclosure. It can raise a 1G Link and only if the switch port allows it.
- MTUSB communication via I2C header on primary I2C bus is supported only in live-fish mode.

# <u>Fixes</u>

# Fixes in version 2.42.5000:

- PortRcvPkts counter was prevented from being cleared after resetting it.
- The system Timed Out on the configuration cycle of the Virtual Functions (VFs) when more than 10 Virtual Functions performed ELP and the completion Time Out value was configured to a range of less than 16 msec
- Functions performed FLR and the completion Time Out value was configured to a range of less than 16 msec.
- The server hangs and results in NMI when running "mlxfwtop –d mt4103\_pci\_cr0" while restarting the driver in parallel (from a different thread). In this case, the downstream bridge over the device reported completion timeout error.
- In flow\_steering, BMC could not receive a ping over IPV6 after running bmc\_reboot.
- While closing the HCA, the RX packet caused bad access to resources that did not exist, and consequently caused the QPCGW
  or the irisc to get stuck.
- The master SMLID and the LID was either 0 or 0xFFFF when the port was neither active nor armed.
- ibdump could not capture all MADs packets.
- link did not go up after reboot.
- Fixed a rare issue that cause the PCIe configuration cycle that arrived during the time of sw\_reset to generate 2 completions.
- Network Controller Sideband Interface (NC-SI) did not work when adding the disable\_static\_steering\_ini field in the ini file, due to memory allocation issue for this field in the scratchpad.

# Fixes in version 2.42.5056:

• Fixed an issue that resulted in reading from invalid I/O address on handover from UEFI boot to OS boot, when a port was configured as InfiniBand on a VPI adapter device.

# Enhancements

Firmware for the following devices are updated to 2.42.5000:

764282-B21 764286-B21

Firmware for the following devices are updated to 2.42.5056:

764283-B21 764284-B21

Firmware for the following device is updated to 2.42.5700: 764285-B21

# New features in firmware version 2.42.5000:

- Added support for the following features.
  - new TLV: CX3\_GLOBAL\_CONF to enable/disable timestamp on incoming packets through mlxconfig configuration.
  - User MAC configuration.
  - Automatically collecting mstdump before driver reset.
  - A mechanism to detect DEAD\_IRISC (plastic) from TPT (iron) and raise an assert.
  - A new field is added to "set port" command which notifies the firmware what is the user\_mtu size.
- Improved the debug ability for command timeout cases.

#### New features and changes in firmware version 2.42.5700.

• Modified the mlx\_cmd\_get\_mlx\_link\_status command return value to return "Link Type = Ethernet" in Ethernet adapter cards.

# Supported Devices and Features

#### Supported Devices:

HPE Part Number	Device Name	PSID
764282-B21	HPE InfiniBand QDR/Ethernet 10Gb 2-port 544+M Adapter	HPE_1350110023
764283-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+M Adapter	HPE_1360110017
764284-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	HPE_1370110017
764285-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter	HPE_1380110017
764286-B21	HPE InfiniBand QDR/Ethernet 10Gb 2-port 544+FLR-QSFP Adapter	HPE_1390110023

#### Firmware - Storage Controller

Online ROM Flash Component for VMware ESXi - HPE 12Gb/s SAS Expander Firmware for HPE Smart Array Controllers and HPE HBA Controllers

Version: 5.10 (Recommended)

Filename: CP049281.compsig; CP049281.zip

# Important Note!

• Do NOT downgrade FW to previous version if current firmware version on expander card is 5.10.

# <u>Fixes</u>

• Valid flag is always set to true initially so that CRC check can be performed on initstring partition and test if it is really valid.

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 Move Smart Carrier Authentication to later in the boot process and move the Exception Dumper task to earlier in the process in order to support Winbond alternative Flash

Online ROM Flash Component for VMware ESXi - HPE Apollo 2000 System - SAS Expander Version: 1.52 (B) **(Recommended)** Filename: CP045347.compsig; CP045347.zip

# Enhancements

Added support for ESXi 7.0

Online ROM Flash Component for VMware ESXi - HPE Express Bay Enablement Switch Card Version: 1.78 (C) (Recommended) Filename: CP044313.compsig; CP044313.zip

# Important Note!

• Power cycle / cold reboot is required after installation for updates to take effect.

# **Prerequisites**

• The HP ProLiant iLO firmware version must be v2.20 or later. If the HP ProLiant iLO firmware is older than v2.20 you will receive the following error message:

Check dependency failed.

Current version: iLOx x.xx

Minimum version required: iLO4 2.20

The software will not be installed on this system because the required hardware is not present in the system or the software/firmware doesn't apply to this system

# **Enhancements**

Added support for the ESXi OS 7.0 changes

Online ROM Flash Component for VMware ESXi - Smart Array and Smart HBA H240ar, H240nr, H240, H241, H244br, P240nr, P244br, P246br, P246br, P440ar, P440, P441, P542D, P741m, P840, P840ar, and P841 Version: 7.00 (D) (Recommended) Filename: CP047335.compsig; CP047335.zip

# <u>Fixes</u>

• Improved flash engine efficiency

Online ROM Flash Component for VMware ESXi - Smart Array P220i, P222, P420i, P420, P421, P721m, and P822 Version: 8.32 (E) (Recommended) Filename: CP045344.compsig; CP045344.zip

# Enhancements

Added support for ESXi 7.0

Online ROM Flash Component for VMware ESXi - Smart Array P230i, P430, P431, P731m, P830i, and P830 Version: 5.02 (B) **(Recommended)** Filename: CP045345.compsig; CP045345.zip

# Enhancements

Added support for the ESXI OS7.0

# Software - Management

HPE Agentless Management Bundle Smart Component for Gen9 on ESXi 7.0 Version: 2021.10.01 (**Recommended**) Filename: cp047519.compsig; cp047519.zip

# <u>Fixes</u>

# Agentless Management Service

Applied fixes to net-snmp open source code for CVE-2018-18065, CVE-2018-18066, CVE-2015-5621

HPE CRU Driver Bundle Smart Component for ESXi 7.0 Version: 2020.04.01 (A) **(Recommended)** Filename: cp044598.compsig; cp044598.zip

# **Enhancements**

Add new supported servers

HPE Fiber Channel and Storage Enablement Bundle Smart Component for ESXi 7.0 Version: 2021.10.01 **(Recommended)** Filename: cp047521.compsig; cp047521.zip

#### **Enhancements**

Supports VMware ESXi 7.0 U2 and ESXi 7.0 U3

HPE iLO Driver Bundle Smart Component for ESXi 7.0 Version: 2021.09.01 **(Recommended)** Filename: cp047518.compsig; cp047518.zip

#### <u>Fixes</u>

• Fixed driver unload function to allow controller to function properly on reload and when Quickboot is enabled.

HPE SMX Provider Bundle Smart Component for ESXi 7.0 Version: 2020.04.01 (B) **(Recommended)** Filename: cp044960.compsig; cp044960.zip

#### Enhancements

Updated supported server list.

Smart Storage Administrator (SSA) CLI Smart Component for ESXi 7.0 Version: 2022.03.01 **(Recommended)** Filename: cp049697.compsig; cp049697.zip

# <u>Fixes</u>

- Fixed an issue where in Windows SSACLI was not showing the Slot # on non-zero segment (expansion chassis) on SDFlex.
- Fixed an issue in SSACLI where an error message was displaying when executing "expresslocalencryptioneula=?" command.

#### Software - System Management HPE Agentless Management Bundle for ESXi 7.0 on Gen9 Version: 701.11.8.0 (Recommended) Filename: amshelprComponent\_701.11.8.0.12-1\_18567695.zip

#### **Fixes**

# Agentless Management Service

• Applied fixes to net-snmp open source code for CVE-2018-18065, CVE-2018-18066, CVE-2015-5621

HPE Fiber Channel and Storage Enablement Component for ESXi 7.0 Version: 3.8.0 (**Recommended**) Filename: fc-enablement-component\_700.3.8.0.6-1\_18506758.zip

### **Enhancements**

Supports VMware ESXi 7.0 U2 and ESXi 7.0 U3

Smart Storage Administrator (SSA) CLI for VMware 7.0 Version: 5.30.6.0 (**Recommended**) Filename: ssacli-component\_5.30.6.0-7.0.0\_19263463.zip

# **Enhancements**

Initial build

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Get connected

hpe.com/info/getconnected

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

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