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 SPP 2022.03.0 Release Notes for VMware vSphere 6.7

BIOS (Login Required) - System ROM	

REMOVED ROM Flash Firmware Package - HPE Apollo 4200 Gen10/HPE ProLiant XL420 Gen10 (U39) Servers
Version: 2.60_01-13-2022 **(Recommended)**
Filename: U39_2.60_01_13_2022.fwpkg

Important Note!

Important Notes:

REMOVED - This version of the ROM flash component is NO LONGER AVAILABLE for download. It has been removed from the web for an issue where systems upgraded to v2.60 would have Advanced Memory Production (AMP) mode unexpectedly switched from ADDDC to Advanced ECC. ROM v2.62 with the issue fix will be made available at a future time.

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE Apollo 4200 Gen10/ProLiant XL420 Gen10 System ROM - U39

Release Version:

2.60_01-13-2022

Last Recommended or Critical Revision:

2.60_01-13-2022

Previous Revision:

2.58_11-24-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

Addressed an issue (SIK6906) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

REMOVED - This version of the ROM flash component is NO LONGER AVAILABLE for download. It has been removed from the web for an issue where systems upgraded to v2.60 would have Advanced Memory Production (AMP) mode unexpectedly switched from ADDDC to Advanced ECC. ROM v2.62 with the issue fix will be made available at a future time.

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Firmware Dependencies:

None

Problems Fixed:

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Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

REMOVED ROM Flash Firmware Package - HPE Apollo 4510 Gen10/HPE ProLiant XL450 Gen10 (U40) Servers
Version: 2.60_01-13-2022 **(Recommended)**
Filename: U40_2.60_01_13_2022.fwpkg

Important Note!

Important Notes:

REMOVED - This version of the ROM flash component is NO LONGER AVAILABLE for download. It has been removed from the web for an issue where systems upgraded to v2.60 would have Advanced Memory Production (AMP) mode unexpectedly switched from ADDDC to Advanced ECC. ROM v2.62 with the issue fix will be made available at a future time.

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE Apollo 4510 Gen10/ProLiant XL450 Gen10 System ROM - U40

Release Version:

2.60_01-13-2022

Last Recommended or Critical Revision:

2.60_01-13-2022

Previous Revision:

2.58_11-24-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

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Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

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Problems Fixed:

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Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

REMOVED ROM Flash Firmware Package - HPE ProLiant BL460c Gen10 (I41) Servers
Version: 2.60_01-13-2022 **(Recommended)**
Filename: I41_2.60_01_13_2022.fwpkg

<u>Important Note!</u>

Important Notes:

REMOVED - This version of the ROM flash component is NO LONGER AVAILABLE for download. It has been removed from the web for an issue where systems upgraded to v2.60 would have Advanced Memory Production (AMP) mode unexpectedly switched from ADDDC to Advanced ECC. ROM v2.62 with the issue fix will be made available at a future time.

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE ProLiant BL460c Gen10 System ROM - I41

Release Version:

2.60_01-13-2022

Last Recommended or Critical Revision:

2.60_01-13-2022

Previous Revision:

2.58_11-24-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

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Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

<u>Fixes</u>

Important Notes:

REMOVED - This version of the ROM flash component is NO LONGER AVAILABLE for download. It has been removed from the web for an issue where systems upgraded to v2.60 would have Advanced Memory Production (AMP) mode unexpectedly switched from ADDDC to Advanced ECC. ROM v2.62 with the issue fix will be made available at a future time.

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

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Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

REMOVED ROM Flash Firmware Package - HPE ProLiant DL160 Gen10/DL180 Gen10 (U31) Servers
Version: 2.60_01-13-2022 **(Recommended)**
Filename: U31_2.60_01_13_2022.fwpkg

Important Note!

Important Notes:

REMOVED - This version of the ROM flash component is NO LONGER AVAILABLE for download. It has been removed from the web for an issue where systems upgraded to v2.60 would have Advanced Memory Production (AMP) mode unexpectedly switched from ADDDC to Advanced ECC. ROM v2.62 with the issue fix will be made available at a future time.

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE ProLiant DL160 Gen10/DL180 Gen10 System ROM - U31

Release Version:

2.60_01-13-2022

Last Recommended or Critical Revision:

2.60_01-13-2022

Previous Revision:

2.58_11-24-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

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Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

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This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

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Known Issues:

None

REMOVED ROM Flash Firmware Package - HPE ProLiant DL360 Gen10 (U32) Servers
Version: 2.60_01-13-2022 **(Recommended)**
Filename: U32_2.60_01_13_2022.fwpkg

Important Note!

Important Notes:

REMOVED - This version of the ROM flash component is NO LONGER AVAILABLE for download. It has been removed from the web for an issue where systems upgraded to v2.60 would have Advanced Memory Production (AMP) mode unexpectedly switched from ADDDC to Advanced ECC. ROM v2.62 with the issue fix will be made available at a future time.

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE ProLiant DL360 Gen10 System ROM - U32

Release Version:

2.60_01-13-2022

Last Recommended or Critical Revision:

2.60_01-13-2022

Previous Revision:

2.58_11-24-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

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Known Issues:

None

Fixes

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Firmware Dependencies:

None

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Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

REMOVED ROM Flash Firmware Package - HPE ProLiant DL380 Gen10 (U30) Servers
Version: 2.60_01-13-2022 **(Recommended)**
Filename: U30_2.60_01_13_2022.fwpkg

Important Note!

Important Notes:

REMOVED - This version of the ROM flash component is NO LONGER AVAILABLE for download. It has been removed from the web for an issue where systems upgraded to v2.60 would have Advanced Memory Production (AMP) mode unexpectedly switched from ADDDC to Advanced ECC. ROM v2.62 with the issue fix will be made available at a future time.

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE ProLiant DL380 Gen10 System ROM - U30

Release Version:

2.60_01-13-2022

Last Recommended or Critical Revision:

2.60_01-13-2022

Previous Revision:

2.58_11-24-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

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Known Issues:

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Fixes

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Firmware Dependencies:

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This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

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Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

REMOVED ROM Flash Firmware Package - HPE ProLiant DL560 Gen10/DL580 Gen10 (U34) Servers
Version: 2.60_01-13-2022 **(Recommended)**
Filename: U34_2.60_01_13_2022.fwpkg

Important Note!

Important Notes:

REMOVED - This version of the ROM flash component is NO LONGER AVAILABLE for download. It has been removed from the web for an issue where systems upgraded to v2.60 would have Advanced Memory Production (AMP) mode unexpectedly switched from ADDDC to Advanced ECC. ROM v2.62 with the issue fix will be made available at a future time.

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE ProLiant DL560 Gen10/DL580 Gen10 System ROM - U34

Release Version:

2.60_01-13-2022

Last Recommended or Critical Revision:

2.60_01-13-2022

Previous Revision:

2.58_11-24-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

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Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

Addressed an issue (SIK6906) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

REMOVED ROM Flash Firmware Package - HPE ProLiant ML110 Gen10 (U33) Servers
Version: 2.60_01-13-2022 **(Recommended)**
Filename: U33_2.60_01_13_2022.fwpkg

Important Note!

Important Notes:

REMOVED - This version of the ROM flash component is NO LONGER AVAILABLE for download. It has been removed from the web for an issue where systems upgraded to v2.60 would have Advanced Memory Production (AMP) mode unexpectedly switched from ADDDC to Advanced ECC. ROM v2.62 with the issue fix will be made available at a future time.

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE ProLiant ML110 Gen10 System ROM - U33

Release Version:

2.60_01-13-2022

Last Recommended or Critical Revision:

2.60_01-13-2022

Previous Revision:

2.58_11-24-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

Addressed an issue (SIK6906) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

REMOVED - This version of the ROM flash component is NO LONGER AVAILABLE for download. It has been removed from the web for an issue where systems upgraded to v2.60 would have Advanced Memory Production (AMP) mode unexpectedly switched from ADDDC to Advanced ECC. ROM v2.62 with the issue fix will be made available at a future time.

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

Addressed an issue (SIK6906) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

REMOVED ROM Flash Firmware Package - HPE ProLiant ML350 Gen10 (U41) Servers
Version: 2.60_01-13-2022 **(Recommended)**
Filename: U41_2.60_01_13_2022.fwpkg

Important Note!

Important Notes:

REMOVED - This version of the ROM flash component is NO LONGER AVAILABLE for download. It has been removed from the web for an issue where systems upgraded to v2.60 would have Advanced Memory Production (AMP) mode unexpectedly switched from ADDDC to Advanced ECC. ROM v2.62 with the issue fix will be made available at a future time.

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE ProLiant ML350 Gen10 System ROM - U41

Release Version:

2.60_01-13-2022

Last Recommended or Critical Revision:

2.60_01-13-2022

Previous Revision:

2.58_11-24-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

Addressed an issue (SIK6906) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

REMOVED - This version of the ROM flash component is NO LONGER AVAILABLE for download. It has been removed from the web for an issue where systems upgraded to v2.60 would have Advanced Memory Production (AMP) mode unexpectedly switched from ADDDC to Advanced ECC. ROM v2.62 with the issue fix will be made available at a future time.

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092, CVE-2021-0093, CVE-2021-0144. These issues are not unique to HPE servers.

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

Addressed an issue (SIK6906) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

ROM Flash Firmware Package - HPE Apollo 2000 Gen10/HPE ProLiant XL170r/XL190r Gen10 (U38) Servers
Version: 2.60_01-13-2022 **(Recommended)**
Filename: U38_2.60_01_13_2022.fwpkg

Important Note!

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE Apollo 2000 Gen10/ProLiant XL170r/XL190r Gen10 System ROM - U38

Release Version:

2.60_01-13-2022

Last Recommended or Critical Revision:

2.60_01-13-2022

Previous Revision:

2.58_11-24-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092. These issues are not unique to HPE servers. CVE-2021-0093, CVE-2021-0144

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

Addressed an issue (SIK6906) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the IPMI Watchdog Timer stops after a cold boot with IPMI watch dog timer enabled in RBSU

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092. These issues are not unique to HPE servers. CVE-2021-0093, CVE-2021-0144

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

Addressed an issue (SIK6906) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the IPMI Watchdog Timer stops after a cold boot with IPMI watch dog timer enabled in RBSU

Known Issues:

None

ROM Flash Firmware Package - HPE Apollo 4200 Gen10 Plus/HPE ProLiant XL420 Gen10 Plus (U50) Servers
Version: 1.58_01-13-2022 **(Recommended)**
Filename: U50_1.58_01_13_2022.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE Apollo 4200 Gen10 Plus/ProLiant XL420 Gen10 Plus System ROM - U50

Release Version:

1.58_01-13-2022

Last Recommended or Critical Revision:

1.58_01-13-2022

Previous Revision:

1.56_11-29-2021

Firmware Dependencies:

None

Enhancements/New Features:

Changed the behavior of Restore Manufacturing Defaults from restoring the settings for UEFI, NICs and RAID cards to UEFI only.

Problems Fixed:

Addressed an issue where if the administrator password and power-on password are set, after clearing power-on password, administrator password is also cleared.

Addressed an issue (https://support.hpe.com/hpesc/public/docDisplay?docId=a00119362en_us&docLocale=en_US) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where if the administrator password and power-on password are set, after clearing power-on password, administrator password is also cleared.

Addressed an issue (https://support.hpe.com/hpesc/public/docDisplay?docId=a00119362en_us&docLocale=en_US) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

See the release document U50_1.58_01_13_2022 in Download Product Binaries page from Product Summary of the firmware product.

ROM Flash Firmware Package - HPE Apollo 6500 Gen10/HPE ProLiant XL270d Gen10 (U45) Servers
Version: 2.60_01-13-2022 **(Recommended)**
Filename: U45_2.60_01_13_2022.fwpkg

Important Note!

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE ProLiant XL270d Gen10 System ROM - U45

Release Version:

2.60_01-13-2022

Last Recommended or Critical Revision:

2.60_01-13-2022

Previous Revision:

2.58_11-24-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092. These issues are not unique to HPE servers. CVE-2021-0093, CVE-2021-0144

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

Addressed an issue (SIK6906) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the IPMI Watchdog Timer stops after a cold boot with IPMI watch dog timer enabled in RBSU

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092. These issues are not unique to HPE servers. CVE-2021-0093, CVE-2021-0144

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities

documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

Addressed an issue (SIK6906) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the IPMI Watchdog Timer stops after a cold boot with IPMI watch dog timer enabled in RBSU

Known Issues:

None

ROM Flash Firmware Package - HPE DL110 Gen10 Plus Telco (U56) Servers
Version: 1.58_01-13-2022 **(Recommended)**
Filename: U56_1.58_01_13_2022.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL110 Gen10 Plus System ROM - U56

Release Version:

1.58_01-13-2022

Last Recommended or Critical Revision:

1.58_01-13-2022

Previous Revision:

1.56_11-29-2021

Firmware Dependencies:

None

Enhancements/New Features:

Changed the behavior of Restore Manufacturing Defaults from restoring the settings for UEFI, NICs and RAID cards to UEFI only.

Problems Fixed:

Addressed an issue where if the administrator password and power-on password are set, after clearing power-on password, administrator password is also cleared.

Addressed an issue (https://support.hpe.com/hpesc/public/docDisplay?docId=a00119362en_us&docLocale=en_US) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where if the administrator password and power-on password are set, after clearing power-on password, administrator password is also cleared.

Addressed an issue (https://support.hpe.com/hpesc/public/docDisplay?docId=a00119362en_us&docLocale=en_US) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Changed the behavior of Restore Manufacturing Defaults from restoring the settings for UEFI, NICs and RAID cards to UEFI only.

ROM Flash Firmware Package - HPE ProLiant DL20 Gen10 (U43) Servers
Version: 2.56_01-20-2022 **(Recommended)**
Filename: U43_2.56_01_20_2022.fwpkg

Important Note!

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE ProLiant DL20 Gen10 System ROM - U43

Release Version:

2.56_01-20-2022

Last Recommended or Critical Revision:

2.56_01-20-2022

Previous Revision:

2.54_10-21-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2 which provides mitigations for security vulnerabilities CVE-2021-0092, CVE-2021-0127, CVE-2021-0156 and CVE-2021-0157. These issues are not unique to HPE servers.

Fixed an issue where system boot mode changed to Legacy mode from UEFI mode after IP flash complete and system may hang when entering IP after setting to UEFI mode.

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2 which provides mitigations for security vulnerabilities CVE-2021-0092, CVE-2021-0127, CVE-2021-0156 and CVE-2021-0157. These issues are not unique to HPE servers.

Fixed an issue where system boot mode changed to Legacy mode from UEFI mode after IP flash complete and system may hang when entering IP after setting to UEFI mode.

Known Issues:

None

ROM Flash Firmware Package - HPE Proliant DL20 Gen10 Plus Servers
Version: 1.54_01-13-2022 **(Recommended)**
Filename: U60_1.54_01_13_2022.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL20 Gen10 Plus System ROM - U60

Release Version:

1.54_01-13-2022

Last Recommended or Critical Revision:

1.54_01-13-2022

Previous Revision:

1.52_10-29-2021

Firmware Dependencies:

None

Enhancements/New Features:

Added support for Microsoft Windows Server 2022. Windows Server 2022 adds a new security feature called Secured-core. Secured-core is only supported on Intel® Xeon® Processors. Secured-core servers use a combination of hardware features, firmware enablement and Windows Server operating system capabilities to provide protection against malware and rootkit security exploits.

Added a new BIOS/Platform Configuration (RBSU) option for Microsoft Secured-core Support. Enabling this setting makes the following policy changes and configures

the corresponding options: Intel® Virtualization Technology enabled, Intel® VT-d enabled, Intel® TXT Support enabled, Secure Boot enabled, TPM enabled in 2.0 mode. Disabling any of these features while Secured-core is enabled can prevent Secured-core from working properly.

Added in support for legacy UEFI boot.

Added support for Intel Pentium CPUs.

Problems Fixed:

Addressed an issue where the power-on password and the administrator passwords were both cleared when clearing one or the other. With this fix the two passwords will be treated independently as intended.

Removed Dynamic Power Capping Functionality option from the RBSU menu as this option is not supported on this platform.

Removed TPM1.2 option from the RBSU menu as this option is not supported on this platform.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the power-on password and the administrator passwords were both cleared when clearing one or the other. With this fix the two passwords will be treated independently as intended.

Removed Dynamic Power Capping Functionality option from the RBSU menu as this option is not supported on this platform.

Removed TPM1.2 option from the RBSU menu as this option is not supported on this platform.

Known Issues:

None

Enhancements

Added support for Microsoft Windows Server 2022. Windows Server 2022 adds a new security feature called Secured-core. Secured-core is only supported on Intel® Xeon® Processors. Secured-core servers use a combination of hardware features, firmware enablement and Windows Server operating system capabilities to provide protection against malware and rootkit security exploits.

Added a new BIOS/Platform Configuration (RBSU) option for Microsoft Secured-core Support. Enabling this setting makes the following policy changes and configures the corresponding options: Intel® Virtualization Technology enabled, Intel® VT-d enabled, Intel® TXT Support enabled, Secure Boot enabled, TPM enabled in 2.0 mode. Disabling any of these features while Secured-core is enabled can prevent Secured-core from working properly.

Added in support for legacy UEFI boot.

Added support for Intel Pentium CPUs.

ROM Flash Firmware Package - HPE ProLiant DL325 Gen10 (A41) Servers
Version: 2.56_02-10-2022 **(Recommended)**
Filename: A41_2.56_02_10_2022.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL325 Gen10 System ROM - A41

Release Version:

2.56_02-10-2022

Last Recommended or Critical Revision:

2.56_02-10-2022

Previous Revision:

2.54_12-03-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where RAID volumes will be lost when using the "Restore Default Manufacturing Settings" feature.

Addressed an issue where if the Administrator Password and Power-On Password are set, after clearing the Power-On Password, Administrator Password is also cleared.

Addressed an issue where a system with Microsoft BitLocker enabled may incorrectly and intermittently prompt the user to unlock drives after a graceful OS reboot.

Known Issues:

None

<u>**Fixes**</u>

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where RAID volumes will be lost when using the "Restore Default Manufacturing Settings" feature.

Addressed an issue where if the Administrator Password and Power-On Password are set, after clearing the Power-On Password, Administrator Password is also cleared.

Addressed an issue where a system with Microsoft BitLocker enabled may incorrectly and intermittently prompt the user to unlock drives after a graceful OS reboot.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant DL385 Gen10 (A40) Servers
Version: 2.56_02-10-2022 **(Recommended)**
Filename: A40_2.56_02_10_2022.fwpkg

<u>**Important Note!**</u>

Important Notes:

None

Deliverable Name:

HPE ProLiant DL385 Gen10 System ROM - A40

Release Version:

2.56_02-10-2022

Last Recommended or Critical Revision:

2.56_02-10-2022

Previous Revision:

2.54_12-03-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where RAID volumes will be lost when using the "Restore Default Manufacturing Settings" feature.

Addressed an issue where if the Administrator Password and Power-On Password are set, after clearing the Power-On Password, Administrator Password is also cleared.

Addressed an issue where a system with Microsoft BitLocker enabled may incorrectly and intermittently prompt the user to unlock drives after a graceful OS reboot.

Known Issues:

None

<u>**Fixes**</u>

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where RAID volumes will be lost when using the "Restore Default Manufacturing Settings" feature.

Addressed an issue where if the Administrator Password and Power-On Password are set, after clearing the Power-On Password, Administrator Password is also cleared.

Addressed an issue where a system with Microsoft BitLocker enabled may incorrectly and intermittently prompt the user to unlock drives after a graceful OS reboot.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant MicroServer Gen10 Plus (U48) Servers
Version: 2.56_01-20-2022 **(Recommended)**
Filename: U48_2.56_01_20_2022.fwpkg

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE MicroServer Gen10 Plus System ROM - U48

Release Version:

2.56_01-20-2022

Last Recommended or Critical Revision:

2.56_01-20-2022

Previous Revision:

2.54_10-21-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2 which provides mitigations for security vulnerabilities CVE-2021-0092, CVE-2021-0127, CVE-2021-0156 and CVE-2021-0157. These issues are not unique to HPE servers.

Fixed an issue where system boot mode changed to Legacy mode from UEFI mode after IP flash complete and system may hang when entering IP after setting to UEFI mode.

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2 which provides mitigations for security vulnerabilities CVE-2021-0092, CVE-2021-0127, CVE-2021-0156 and CVE-2021-0157. These issues are not unique to HPE servers.

Fixed an issue where system boot mode changed to Legacy mode from UEFI mode after IP flash complete and system may hang when entering IP after setting to UEFI mode.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant ML30 Gen10 (U44) Servers
Version: 2.56_01-20-2022 **(Recommended)**
Filename: U44_2.56_01_20_2022.fwpkg

Important Note!

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE ProLiant ML30 Gen10 System ROM - U44

Release Version:

2.56_01-20-2022

Last Recommended or Critical Revision:

2.56_01-20-2022

Previous Revision:

2.54_10-21-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2 which provides mitigations for security vulnerabilities CVE-2021-0092, CVE-2021-0127, CVE-2021-0156 and CVE-2021-0157. These issues are not unique to HPE servers.

Fixed an issue where system boot mode changed to Legacy mode from UEFI mode after IP flash complete and system may hang when entering IP after setting to UEFI mode.

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2 which provides mitigations for security vulnerabilities CVE-2021-0092, CVE-2021-0127, CVE-2021-0156 and CVE-2021-0157. These issues are not unique to HPE servers.

Fixed an issue where system boot mode changed to Legacy mode from UEFI mode after IP flash complete and system may hang when entering IP after setting to UEFI mode.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant ML30 Gen10 Plus Servers
Version: 1.54_01-13-2022 **(Recommended)**
Filename: U61_1.54_01_13_2022.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML30 Gen10 Plus System ROM - U61

Release Version:

1.54_01-13-2022

Last Recommended or Critical Revision:

1.54_01-13-2022

Previous Revision:

1.52_10-29-2021

Firmware Dependencies:

None

Enhancements/New Features:

Added support for Microsoft Windows Server 2022. Windows Server 2022 adds a new security feature called Secured-core. Secured-core is only supported on Intel® Xeon® Processors. Secured-core servers use a combination of hardware features, firmware enablement and Windows Server operating system capabilities to provide protection against malware and rootkit security exploits.

Added a new BIOS/Platform Configuration (RBSU) option for Microsoft Secured-core Support. Enabling this setting makes the following policy changes and configures the corresponding options: Intel® Virtualization Technology enabled, Intel® VT-d enabled, Intel® TXT Support enabled, Secure Boot enabled, TPM enabled in 2.0 mode. Disabling any of these features while Secured-core is enabled can prevent Secured-core from working properly.

Added in support for legacy UEFI boot.

Added support for Intel Pentium CPUs.

Problems Fixed:

Addressed an issue where the power-on password and the administrator passwords were both cleared when clearing one or the other. With this fix the two passwords will be treated independently as intended.

Removed Dynamic Power Capping Functionality option from the RBSU menu as this option is not supported on this platform.

Removed TPM1.2 option from the RBSU menu as this option is not supported on this platform.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the power-on password and the administrator passwords were both cleared when clearing one or the other. With this fix the two passwords will be treated independently as intended.

Removed Dynamic Power Capping Functionality option from the RBSU menu as this option is not supported on this platform.

Removed TPM1.2 option from the RBSU menu as this option is not supported on this platform.

Known Issues:

None

Enhancements

Added support for Microsoft Windows Server 2022. Windows Server 2022 adds a new security feature called Secured-core. Secured-core is only supported on Intel® Xeon® Processors. Secured-core servers use a combination of hardware features, firmware enablement and Windows Server operating system capabilities to provide protection against malware and rootkit security exploits.

Added a new BIOS/Platform Configuration (RBSU) option for Microsoft Secured-core Support. Enabling this setting makes the following policy changes and configures the corresponding options: Intel® Virtualization Technology enabled, Intel® VT-d enabled, Intel® TXT Support enabled, Secure Boot enabled, TPM enabled in 2.0 mode. Disabling any of these features while Secured-core is enabled can prevent Secured-core from working properly.

Added in support for legacy UEFI boot.

Added support for Intel Pentium CPUs.

ROM Flash Firmware Package - HPE ProLiant XL220n/XL290n Gen10 Plus 1U Node and 2U Node Configure-to-order Server (U47)
Version: 1.58_01-13-2022 **(Recommended)**
Filename: U47_1.58_01_13_2022.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL220n Gen10 Plus 1U/XL290n Gen10 Plus 2U Node CTO System ROM - U47

Release Version:

1.58_01-13-2022

Last Recommended or Critical Revision:

1.58_01-13-2022

Previous Revision:

1.56_11-29-2021

Firmware Dependencies:

None

Enhancements/New Features:

Changed the behavior of Restore Manufacturing Defaults from restoring the settings for UEFI, NICs and RAID cards to UEFI only.

Problems Fixed:

Addressed an issue where if the administrator password and power-on password are set, after clearing power-on password, administrator password is also cleared.

Addressed an issue (https://support.hpe.com/hpesc/public/docDisplay?docId=a00119362en_us) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where if the administrator password and power-on password are set, after clearing power-on password, administrator password is also cleared.

Addressed an issue (https://support.hpe.com/hpesc/public/docDisplay?docId=a00119362en_us) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Changed the behavior of Restore Manufacturing Defaults from restoring the settings for UEFI, NICs and RAID cards to UEFI only.

ROM Flash Firmware Package - HPE ProLiant XL225n Gen10 Plus (A46) Servers
Version: 2.56_02-10-2022 **(Recommended)**
Filename: A46_2.56_02_10_2022.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL225n Gen10 Plus System ROM - A46

Release Version:

2.56_02-10-2022

Last Recommended or Critical Revision:

2.56_02-10-2022

Previous Revision:

2.54_12-03-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue that can result in Correctable Memory Error Threshold Events on DIMM slots 9/10/13/14/15/16 with AMD EPYC 7773/7573/7473/7373 CPU SKUs not being reported in the IML (Integrated Management Log).

Addressed an issue where RAID volumes will be lost when using the "Restore Default Manufacturing Settings" feature.

Addressed an issue where if the Administrator Password and Power-On Password are set, after clearing the Power-On Password, Administrator Password is also cleared.

Addressed an issue where a system with Microsoft BitLocker enabled may incorrectly and intermittently prompt the user to unlock drives after a graceful OS reboot.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue that can result in Correctable Memory Error Threshold Events on DIMM slots 9/10/13/14/15/16 with AMD EPYC 7773/7573/7473/7373 CPU SKUs not being reported in the IML (Integrated Management Log).

Addressed an issue where RAID volumes will be lost when using the "Restore Default Manufacturing Settings" feature.

Addressed an issue where if the Administrator Password and Power-On Password are set, after clearing the Power-On Password, Administrator Password is also cleared.

Addressed an issue where a system with Microsoft BitLocker enabled may incorrectly and intermittently prompt the user to unlock drives after a graceful OS reboot.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant XL230k Gen10 (U37) Server
Version: 2.60_01-13-2022 **(Recommended)**
Filename: U37_2.60_01_13_2022.fwpkg

Important Note!

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE ProLiant XL230k Gen10 System ROM - U37

Release Version:

2.60_01-13-2022

Last Recommended or Critical Revision:

2.60_01-13-2022

Previous Revision:

2.58_11-24-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092. These issues are not unique to HPE servers. CVE-2021-0093, CVE-2021-0144

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

Addressed an issue (SIK6906) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the IPMI Watchdog Timer stops after a cold boot with IPMI watch dog timer enabled in RBSU

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes Intel Platform Update 2021.2. It provides BIOS mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0092. These issues are not unique to HPE servers. CVE-2021-0093, CVE-2021-0144

This revision of the System ROM includes Intel Platform Update 2021.2. It provides Authenticated Code Module (ACM) mitigations for security vulnerabilities documented as INTEL-SA-00527 (2/8) for CVE-2021-0099, CVE-2021-0103, CVE-2021-0107, CVE-2021-0111, CVE-2021-0114, CVE-2021-0115, CVE-2021-0116, CVE-2021-0117, CVE-2021-0118, CVE-2021-0125, CVE-2021-0124. These issues are not unique to HPE servers.

Addressed an issue (SIK6906) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the IPMI Watchdog Timer stops after a cold boot with IPMI watch dog timer enabled in RBSU

Known Issues:

None

ROM Flash Universal Firmware Package - HPE ProLiant DL325/DL325 v2/DL345 Gen10 Plus (A43) Servers
Version: 2.56_02-10-2022 **(Recommended)**
Filename: A43_2.56_02_10_2022.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL325/DL325 v2/DL345 Gen10 Plus System ROM - A43

Release Version:

2.56_02-10-2022

Last Recommended or Critical Revision:

2.56_02-10-2022

Previous Revision:

2.54_12-03-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where RAID volumes will be lost when using the "Restore Default Manufacturing Settings" feature.

Addressed an issue where if the Administrator Password and Power-On Password are set, after clearing the Power-On Password, Administrator Password is also cleared.

Addressed an issue where a system with Microsoft BitLocker enabled may incorrectly and intermittently prompt the user to unlock drives after a graceful OS reboot.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where RAID volumes will be lost when using the "Restore Default Manufacturing Settings" feature.

Addressed an issue where if the Administrator Password and Power-On Password are set, after clearing the Power-On Password, Administrator Password is also cleared.

Addressed an issue where a system with Microsoft BitLocker enabled may incorrectly and intermittently prompt the user to unlock drives after a graceful OS reboot.

Known Issues:

None

ROM Flash Universal Firmware Package - HPE ProLiant DL360/DL380 Gen10 Plus (U46) Servers
Version: 1.58_01-13-2022 **(Recommended)**
Filename: U46_1.58_01_13_2022.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL360/DL380 Gen10 Plus System ROM - U46

Release Version:

1.58_01-13-2022

Last Recommended or Critical Revision:

1.58_01-13-2022

Previous Revision:

1.56_11-29-2021

Firmware Dependencies:

None

Enhancements/New Features:

Changed the behavior of Restore Manufacturing Defaults from restoring the settings for UEFI, NICs and RAID cards to UEFI only.

Problems Fixed:

Addressed an issue where if the administrator password and power-on password are set, after clearing power-on password, administrator password is also cleared.

Addressed an issue (https://support.hpe.com/hpesc/public/docDisplay?docId=a00119362en_us&docLocale=en_US) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating (Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where if the administrator password and power-on password are set, after clearing power-on password, administrator password is also cleared.

Addressed an issue (https://support.hpe.com/hpesc/public/docDisplay?docId=a00119362en_us&docLocale=en_US) where the systems with HPE NS204i-p NVMe OS Boot Device may shut down intermittently and may log the following System Overheating message in the Integrated Management Log (IML): "System Overheating

(Temperature Sensor 47, Location I/O Board, Temperature61) ACTION:Check fans, processor heat sink and air baffles installation."

Addressed an issue where the system may not automatically restart due to a hang condition during the boot process after a cold boot when the IPMI Watchdog Timer feature is enabled in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Changed the behavior of Restore Manufacturing Defaults from restoring the settings for UEFI, NICs and RAID cards to UEFI only.

ROM Flash Universal Firmware Package - HPE ProLiant DL365/DL385/DL385 v2 Gen10 Plus (A42) Servers
Version: 2.56_02-10-2022 **(Recommended)**
Filename: A42_2.56_02_10_2022.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL365/DL385/DL385 v2 Gen10 Plus System ROM - A42

Release Version:

2.56_02-10-2022

Last Recommended or Critical Revision:

2.56_02-10-2022

Previous Revision:

2.54_12-03-2021

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where RAID volumes will be lost when using the "Restore Default Manufacturing Settings" feature.

Addressed an issue where if the Administrator Password and Power-On Password are set, after clearing the Power-On Password, Administrator Password is also cleared.

Addressed an issue where a system with Microsoft BitLocker enabled may incorrectly and intermittently prompt the user to unlock drives after a graceful OS reboot.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where RAID volumes will be lost when using the "Restore Default Manufacturing Settings" feature.

Addressed an issue where if the Administrator Password and Power-On Password are set, after clearing the Power-On Password, Administrator Password is also cleared.

Addressed an issue where a system with Microsoft BitLocker enabled may incorrectly and intermittently prompt the user to unlock drives after a graceful OS reboot.

Known Issues:

None

Driver - Network
HPE Blade Emulex 10/20GbE Driver for VMware vSphere 6.7
Version: 2020.03.09 **(Optional)**
Filename: cp042920.compsig; cp042920.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 Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.7*, version 2019.12.01 or later, for use with this driver.

Fixes

This product corrects a vmnic flapping issue which impacts network connectivity.

Supported Devices and Features

This driver supports the following network adapters:

- HPE FlexFabric 20Gb 2-port 650FLB Adapter
- HPE FlexFabric 20Gb 2-port 650M Adapter

HPE Blade Emulex 10/20GbE iSCSI Driver for VMware vSphere 6.7
Version: 2019.12.20 **(Optional)**
Filename: cp039935.compsig; cp039935.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 Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.7*, version 2019.03.01 or later, for use with this driver.

Enhancements

Initial release.

Supported Devices and Features

This driver supports the following network adapters:

- HPE FlexFabric 20Gb 2-port 650FLB Adapter
- HPE FlexFabric 20Gb 2-port 650M Adapter

HPE Blade Intel ixgben Driver for VMware vSphere 6.7
Version: 2021.09.01 **(Optional)**
Filename: cp045170.compsig; cp045170.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 Blade Intel Online Firmware Upgrade Utility for VMware*, version 1.2.3 or later, for use with this driver.

Fixes

This product corrects the maximum supported number of virtual functions.
This product addresses issues with hardware VLAN offloading.
This product addresses a TX hang during bi-directional traffic.
This product addesses issues with NetQ RSS and VMDQ scenarios.
This product addesses issues with MTU settings when SRIOV is enabled in DPDK environment
This product addessses issues with several VF scenarios without PF interface.

Enhancements

This product now supports VMware vSphere 6.7 U3.

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 6.7
Version: 2021.09.01 **(Optional)**
Filename: cp047629.compsig; cp047629.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 CP0xxxxx.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.

Fixes

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.
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 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 6.7
Version: 2021.09.04 **(Recommended)**
Filename: cp047899.compsig; cp047899.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 Emulex 10/20 GbE Driver for VMware vSphere 6.7
Version: 2020.09.14 **(Optional)**
Filename: cp044546.compsig; cp044546.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 Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.7*, version 2019.03.01 or later, for use with this driver.

Enhancements

This product now supports the following network adapters:

- HP FlexFabric 10Gb 2-port 556FLR-T Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter

Supported Devices and Features

This driver supports the following network adapters:

- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HPE CN1200E Dual Port Converged Network Adapter
- HPE CN1200E-T Adapter

HPE Emulex 10/20GbE iSCSI Driver for VMware vSphere 6.7
Version: 2020.09.14 **(Optional)**
Filename: cp044544.compsig; cp044544.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 Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.7*, version 2019.03.01 or later, for use with this driver.

Enhancements

This product now supports the following network adapters:

- HP FlexFabric 10Gb 2-port 556FLR-T Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter

Supported Devices and Features

This driver supports the following network adapters:

- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HPE CN1200E Dual Port Converged Network Adapter
- HPE CN1200E-T Adapter

HPE Intel i40en Driver for VMware vSphere 6.7
Version: 2021.12.00 **(Recommended)**
Filename: cp047109.compsig; cp047109.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 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 6.7
Version: 2021.09.04 **(Recommended)**
Filename: cp047110.compsig; cp047110.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 3.15.0 or later, for use with this driver.

Enhancements

This product enhances the reliability of TX/RX ring hang detection and recovery procedures.

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 6.7
Version: 2021.12.00 **(Recommended)**
Filename: cp047114.compsig; cp047114.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 6.7
Version: 2022.03.23 **(Recommended)**
Filename: cp050054.compsig; cp050054.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 CP0xxxxx.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.

Fixes

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 6.7
Version: 2022.03.23 **(Recommended)**
Filename: cp050055.compsig; cp050055.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 CP0xxxxx.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.

Fixes

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

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Intel icea Driver for VMware vSphere 6.7
Version: 2022.03.23 **(Recommended)**
Filename: cp050787.compsig; cp050787.zip

Important Note!

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

HPE recommends the firmware provided in *Intel Firmware Package For E810 Ethernet Adapter*, version 3.10 or later, for use with this driver.

Enhancements

This product is updated to maintain compatibility with *Intel Firmware Package For E810 Ethernet Adapter* (PLDM) version 3.10.

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

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nmlx4_en driver component for VMware ESXi 6.7

Version: 2020.11.11 **(Recommended)**
Filename: cp046262.compsig; cp046262.zip

Important Note!

Known issues in version 3.17.70.1:

- ConnectX-3 Pro 10G adapter cards wrongly report support for 40G speed when running the "esxcli network nic get" command.

- When the port is DOWN, the management interface port type field (nmlx_en_MgmtIFPortType) indicates one of the port types supported by the device, in the following order: TP, FIBER, DA, NONE. If the cable supports several 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.

- Management interface port type field (nmlx_en_MgmtIFPortType) reports SFP-to-RJ45 cable as FIBER.

- Management interface auto negotiation field (nmlx_en_MgmtIFAutoNegMode) is equivalent to "esxcli network nic get -n vmnicX" field "Pause Autonegotiate"

Enhancements

Changes and New features in version 3.17.70.1:

- Adapter card's PSID is now displayed in the Privstats (Private statistics).

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 6.5 and 6.7 MST Drivers Offline Bundle for Mellanox Adapters
Version: 4.12.0.105 **(Recommended)**
Filename: MLNX-NMST-ESX-6.5.0-4.12.0.105.zip

Prerequisites

NA

Enhancements

VM65/67 nmst 4.12.0.105

Driver - Storage Controller
HPE MR416i-a, MR416i-p, MR216i-a, MR216i-p controller (64-bit) Driver for vSphere 6.7
Version: 7.716.03.00 (B) **(Recommended)**
Filename: Broadcom-lsi-mr3_7.716.03.00-1OEM.670.0.0.8169922-offline_bundle-17653784.zip

Enhancements

- Added support for DL20 Gen10 Plus Server.

HPE MR416i-a, MR416i-p, MR216i-a, MR216i-p controller (64-bit) Driver for vSphere 6.7 (Driver Component)
Version: 2021.04.01 (B) **(Recommended)**
Filename: cp049485.compsig; cp049485.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 and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Enhancements

- Added support for DL20 Gen10 Plus Server.

HPE ProLiant Gen10 Smart Array and Gen10 Plus Smart RAID Controller Driver for VMware vSphere 6.7 (Bundle file)
Version: 67.4150.0.119 **(Recommended)**
Filename: Microchip-smartpqi_67.4150.0.119-1OEM.670.0.0.8169922-offline_bundle-18384766.zip

Fixes

- A PSOD issue when system is running MBT Tool
- Fixed an issue where OS boot may fail during logical volume rebuild.
- Fixed an issue where logical disks are not exposed to OS.
- Fixed an issue with log spew during device resets.
- A PSOD issue with Task Management Function handler
- Fixed an issue where vSAN logs were showing higher latency for physical disks.

- Fixed an issue to avoid failing IOs for devices which are offline.
- Fixed an issue where error messages were printed for ignorable errors.

HPE ProLiant Gen10 Smart Array and Gen10 Plus Smart RAID Controller Driver for VMware vSphere 6.7 (Driver Component).
Version: 2021.09.01 **(Recommended)**
Filename: cp047415.compsig; cp047415.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.

Fixes

- A PSOD issue when system is running MBT Tool
- Fixed an issue where OS boot may fail during logical volume rebuild.
- Fixed an issue where logical disks are not exposed to OS.
- Fixed an issue with log spew during device resets.
- A PSOD issue with Task Management Function handler
- Fixed an issue where vSAN logs were showing higher latency for physical disks.
- Fixed an issue to avoid failing IOs for devices which are offline.
- Fixed an issue where error messages were printed for ignorable errors.

HPE Smart Array P824i-p MR controller (64-bit) Driver for vSphere 6.7
Version: 7.706.09.00 **(Recommended)**
Filename: Release_Notes_lsi_mr3-7.706.09.00-1OEM.txt; VMW-ESX-6.7.0-lsi_mr3-7.706.09.00-offline_bundle-12095481.zip

Fixes

Addressed a vSAN Fault Tolerance test failure seen in JBOD mode.

HPE Smart Array P824i-p MR controller (64-bit) Driver for vSphere 6.7 (Driver Component)
Version: 2019.12.13 **(Recommended)**
Filename: cp042807.compsig; cp042807.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 and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Fixes

Addressed a vSAN Fault Tolerance test failure seen in JBOD mode.

Firmware - Network   **Top**
Broadcom Firmware Package for BCM5741x adapters
Version: 219.0.144.0 **(Recommended)**
Filename: bcm219.0.144.0.pup.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,

- Broadcom NetXtreme-E Driver for Microsoft Windows Server, version 219.0.44.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.2-219.0.55.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2021.09.04 or later

Fixes

- This product addresses an issue where unexpected firmware update failure due to NVM fragementation.
- This product corrects an issue where the SSID of Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter

Supported Devices and Features

This product supports the following network adapters:

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

HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for VMware vSphere 6.7
Version: 2021.10.01 **(Recommended)**
Filename: CP046754.compsig; CP046754.zip

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE FlexFabric 20Gb 2-port 650FLB Adapter	20Gb	12.0.1277.0	12.0.1345.0	12.0.1269.0	12.0.1171.0
HPE FlexFabric 20Gb 2-port 650M Adapter	20Gb	12.0.1277.0	12.0.1345.0	12.0.1269.0	12.0.1171.0

Prerequisites

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

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

Enhancements

Updated CNA (XE100 series) firmware

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE FlexFabric 20Gb 2-port 650FLB Adapter	20Gb	12.0.1277.0	12.0.1345.0	12.0.1269.0	12.0.1171.0
HPE FlexFabric 20Gb 2-port 650M Adapter	20Gb	12.0.1277.0	12.0.1345.0	12.0.1269.0	12.0.1171.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HPE FlexFabric 20Gb 2-port 650FLB Adapter
- HPE FlexFabric 20Gb 2-port 650M Adapter

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

HPE Blade QLogic NX2 Online Firmware Upgrade Utility for VMware
Version: 1.5.2 **(Optional)**
Filename: CP047647.compsig; CP047647.zip

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.

Fixes

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 Firmware Package for BCM5741x adapters
Version: 218.0.303000 **(Recommended)**
Filename: bcm218.0.303000.Optimized.pup.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,

- HPE Broadcom NetXtreme-E Driver for Windows Server , version 219.0.44.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.2-219.0.55.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2022.03.04 or later

Fixes

- 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 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	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 10Gb 2-port 535T Adapter						
HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter						
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.

Fixes

- 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.

Fixes

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 Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.7
Version: 2021.10.01 **(Recommended)**
Filename: CP046765.compsig; CP046765.zip

Important Note!

This Firmware package contains following firmware version:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot BIOS
HPE CN1200E Dual Port Converged Network Adapter	20Gb	12.0.1277.0	12.0.1345.0	12.0.1269.0	12.0.1171.0
HPE CN1200E-T Dual Port Adapter	20Gb	12.0.1277.0	12.0.1345.0	12.0.1269.0	12.0.1171.0

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 version:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot BIOS
HPE CN1200E Dual Port Converged Network Adapter	20Gb	12.0.1277.0	12.0.1345.0	12.0.1269.0	12.0.1171.0
HPE CN1200E-T Dual Port Adapter	20Gb	12.0.1277.0	12.0.1345.0	12.0.1269.0	12.0.1171.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HPE CN1200E Dual Port Converged Network Adapter
- HPE CN1200E-T Dual Port Converged Network 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.

Fixes

- 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 Firmware Package for Arrowhead adapters
Version: 8.55.27 (B) **(Recommended)**
Filename: ql_hp_ah_mbi_8.55.27_pldm.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,

- HPE QLogic FastLinQ 10/25/50 GbE Drivers for Linux, version 8.55.14.0-2 or later
- HPE QLogic FastLinQ 10/25/50 GbE Drivers for Microsoft Windows Server x64 Editions, version 8.58.16.0 or later
- HPE QLogic FastLinQ 10/25/50 GbE Multifunction Drivers for VMware, version 2021.09.04 or later

Enhancements

This product adjustment on platforms supported.

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 Adapter
- HPE StoreFabric CN1200R-T Converged Network Adapter
- HPE StoreFabric CN1300R Converged Network 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.

Fixes

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.

Fixes

- 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

Intel Firmware Package For E810-2CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter
Version: 3.00 **(Recommended)**
Filename: HPE_E810_2CQDA2_O_SEC_3p00_PLDMoMCTP_80008271.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 1.9.65.0 or later
- Intel ice Drivers for Linux, version 1.6.4-1 or later
- Intel icea Driver for VMware, version 2021.09.04 or later

Fixes

This product addresses an issue where Firmware version isn't correct in AHS log when upgading Firmware.

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: 3.00 (B) **(Recommended)**
Filename: HPE_E810_CQDA2_3p00_PLDMoMCTP_800095B8.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 1.9.65.0 or later
- Intel ice Drivers for SUSE Linux, version 1.6.4-1 or later
- Intel icea Driver for VMware, version 2021.09.04 or later

Fixes

This product correct an issue which the Operation failed error in POST when Breakout cable connected.

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: 3.00 (B) **(Recommended)**
Filename: HPE_E810_CQDA2_OCP_3p00_NCSIwPLDMoMCTP_800095B6.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 1.9.65.0 or later
- Intel ice Drivers for Linux, version 1.6.4-1 or later
- Intel icea Driver for VMware, version 2021.09.04 or later

Fixes

This product correct an issue which the Operation failed error in POST when Breakout cable connected.

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: 3.00 **(Recommended)**
Filename: HPE_E810_XXVDA2_SD_3p00_PLDMoMCTP_80008250.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 1.9.65.0 or later

- Intel ice Drivers for Linux, version 1.6.4-1 or later
- Intel icea Driver for VMware, version 2021.09.04 or later

Fixes

This product addresses an issue where Firmware version isn't correct in AHS log when upgading Firmware.

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: 3.00 **(Recommended)**
Filename: HPE_E810_XXVDA2_SD_OCP_3p00_NCSIwPLDMoMCTP_80008265.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 1.9.65.0 or later
- Intel ice Drivers for Linux, version 1.6.4-1 or later
- Intel icea Driver for VMware, version 2021.09.04 or later

Fixes

This product addresses an issue where Firmware version isn't correct in AHS log when upgading Firmware.

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: 3.00 **(Recommended)**
Filename: HPE_E810_XXVDA4_FH_3p00_PLDMoMCTP_80008278.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 1.9.65.0 or later
- Intel ice Drivers for Linux, version 1.6.4-1 or later
- Intel icea Driver for VMware, version 2021.09.04 or later

Fixes

This product addresses an issue where Firmware version isn't correct in AHS log when upgading Firmware.

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: 3.00 **(Recommended)**
Filename: HPE_E810_XXV4_OCP_3p00_NCSIwPLDMoMCTP_80008280.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 1.9.65.0 or later
- Intel ice Drivers for Linux, version 1.6.4-1 or later
- Intel icea Driver for VMware, version 2021.09.04 or later

Fixes

This product addresses an issue where Firmware version isn't correct in AHS log when upgading Firmware.

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: 3.16.50 **(Recommended)**
Filename: CP049898.compsig; CP049898.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
HPE Ethernet 10Gb 2-port SFP+ OCP3 X710-DA2 Adapter	8000B437	1.3082.0	8.30
HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter	8000B735	1.3082.0	8.30
Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter	80001099	1.3082.0	N/A
Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter	80001097	1.3082.0	N/A
Intel(R) I350 Gigabit Network Connection (2-port)	8000108E	1.3082.0	N/A
Intel(R) I350 Gigabit Network Connection (4-port)	8000108F	1.3082.0	N/A

The combo image v1.3082.0 includes: Boot Agent: 1GbE - v1.5.89, Boot Agent I40E - v1.1.31 & UEFI Drivers: 1GbE - v9.7.06, 40 gigabit driver - v4.8.08.

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 the incorrect translation is seen with Intel Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter.

Supported Devices and Features

This package supports the following network adapters:

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

Marvell FastLinQ Firmware Package for Arrowhead adapters
Version: 8.55.14 **(Recommended)**
Filename: ql_ah_mbi_open_8.55.14_pldm.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,

- Marvell FastLinQ 10/25/50 GbE Drivers for Microsoft Windows Server x64 Editions, version 8.58.16.0 or later
- HPE QLogic FastLinQ 10/25/50 GbE Drivers for Linux, version 8.55.14.0-2 or later
- HPE QLogic FastLinQ 10/25/50 GbE Multifunction Drivers for VMware, version 2021.09.04 or later

Fixes

This product contains support PLDM firmware upgrade base improvements.

Enhancements

Initial version

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10/25Gb 2-port SFP28 QL41232HLCU Adapter
- HPE Ethernet 10/25Gb 2-port SFP28 QL41232HQCU OCP3 Adapter
- HPE Ethernet 10Gb 2-port BaseT QL41132HLRJ Adapter
- HPE Ethernet 10Gb 2-port BaseT QL41132HQRJ OCP3 Adapter
- HPE Ethernet 10Gb 2-port SFP+ QL41132HLCU Adapter
- HPE Ethernet 10Gb 2-port SFP+ QL41132HQCU OCP3 Adapter
- HPE Ethernet 10Gb 4-port SFP+ QL41134HLCU Adapter

Mellanox Firmware Package (FWPKG) for Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE
Version: 16.32.1010 **(Recommended)**
Filename: 16_32_1010-MCX562A-ACA_Ax_Bx.pldm.fwpkg

Important Note!

Certain software including drivers and documents may be available from Mellanox. If you select a URL that directs you to http://www.mellanox.com/, you are then leaving HPE.com. Please follow the instructions on http://www.mellanox.com/ to download Mellanox software or documentation. When downloading the Mellanox

software or documentation, you may be subject to Mellanox 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.mellanox.com/, except that HPE may provide a limited warranty for Mellanox 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.mellanox.com/display/ConnectX5Firmwarev16321010/Known+Issues

<u>**Prerequisites**</u>

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 16.32.1010

- Firmware got into an unresponsive state and caused unexpected behavior when connecting an optical transceiver that support RxLOS and the remote side port was down.
- The link status was reported incorrectly and consequently caused the link to go down due to incorrect definition of the RX_LOS polarity in the INI.
- The system got into an unresponsive state when a peer port went down while using an Optical module.
- Invalid RNR timeout when trying to set it during the rts2rts_qp transition.
- The system could not create more than 128K QPs.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.
- PCIe lane margining capability issues.
- An issue related to the sl2vl mad that caused a few msec hiccup in the transmission on an InfiniBand network when the SM sent the sl2vl mad to a node in the cluster.

<u>**Enhancements**</u>

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

New features and changes included in version 16.32.1010:

- Added a new NvConfig parameter LOG_MAX_QUEUE to set the maximum number of work queue resources (QP, RQ, SQ...) that can be created per function. The default value is 2^17.
- Blocked the VF's ability to use both padding and signature in order to prevent the NIC from getting into an unresponsive state.
- Enabled Rate Limit per VM instead of VM-TC. This capability is implemented by adding support to a new Scheduling element type: rate limit elements that will connect to the rate_limit and will share its rate limit.
- Performance improvements in the DCT with AR flow by exposing a hint to the software in DCI software context that indicates that RDMA WRITE on this DCI is not supported.
- Added support for QSHR access register to enable Set and Query rate limit perhost per-port.
- The firmware now exposes a new Software Steering ICM resource for VXLAN encap expand in order for the SW Steering to manage this resource directly.
- Enabled the exposure of new ICM resource to the software steering for VXLAN encapsulation expansion.
- Limited the external loopback speed to the used module's capabilities.
- Improved linkup time when using the fast linkup capability.
- Added support for DSFP AOC (CMIS) v4 when error code is not reported by the module.

<u>**Supported Devices and Features**</u>

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

Mellanox Firmware Package (FWPKG) for HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter
Version: 16.32.1010 **(Recommended)**
Filename: 16_32_1010-MCX515A-CCA_HPE_Ax.pldm.fwpkg

<u>**Important Note!**</u>

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/ConnectX5Firmwarev16321010/Known+Issues

<u>**Prerequisites**</u>

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 16.32.1010

- Firmware got into an unresponsive state and caused unexpected behavior when connecting an optical transceiver that support RxLOS and the remote side port was down.

- The link status was reported incorrectly and consequently caused the link to go down due to incorrect definition of the RX_LOS polarity in the INI.
- The system got into an unresponsive state when a peer port went down while using an Optical module.
- Invalid RNR timeout when trying to set it during the rts2rts_qp transition.
- A fatal assert 0x81C5 occurred when calling get_vport_mad from the MAD APIs. The firmware was trying to compute the number of vPorts using a global function number. To avoid this issue, the API was updated to remove any assumption on the function number. Note: This issue is affects only IB devices.
- During events, stress caused the firmware to reset the Arm host of the vPort without sending an event. Thus preventing the software from rearming the vPort as it did not receive any event, and the firmware did not send the event because the vPort had no Arm set.
- The system could not create more than 128K QPs.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.
- PCIe lane margining capability issues.
- An issue related to the sl2vl mad that caused a few msec hiccup in the transmission on an InfiniBand network when the SM sent the sl2vl mad to a node in the cluster.

Enhancements

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

New features and changes included in version 16.32.1010:

- Added support for blocking unwanted GMP classes by dedicated MADs.
- Added a new NvConfig parameter LOG_MAX_QUEUE to set the maximum number of work queue resources (QP, RQ, SQ...) that can be created per function. The default value is 2^17.
- Added a Congestion Control Key to all Congestion Control MADs to authenticate that they are originated from a trusted source.
- Added an SMP firewall to block the option of sending SMPs (MADS sent on QP0 from the Subnet Manager) from unauthorized hosts to prevent fake SMPs from being recognized as the SM.
- Vendor Specific MADs Class 0x9 is no longer supported by the firmware. In case the firmware detects such MAD, the firmware will return a "NOT SUPPORTED" error to the user.
- Blocked the VF's ability to use both padding and signature in order to prevent the NIC from getting into an unresponsive state.
- Enabled Rate Limit per VM instead of VM-TC. This capability is implemented by adding support to a new Scheduling element type: rate limit elements that will connect to the rate_limit and will share its rate limit.
- Performance improvements in the DCT with AR flow by exposing a hint to the software in DCI software context that indicates that RDMA WRITE on this DCI is not supported.
- Added support for dynamic timeout mechanism when in InfiniBand mode.
- Added support for QSHR access register to enable Set and Query rate limit perhost per-port.
- The firmware now exposes a new Software Steering ICM resource for VXLAN encap expand in order for the SW Steering to manage this resource directly.
- Added support for asymmetrical VFs per PF. To enable it: PF_NUM_OF_VF_VALID must be true, and PF_NUM_OF_VF to a none zero value.
- Added 2 new MAD access registers to enable mlxlink to read/write access registers by LID (to the whole subnet).
- Enabled the exposure of new ICM resource to the software steering for VXLAN encapsulation expansion.
- Limited the external loopback speed to the used module's capabilities.
- Improved linkup time when using the fast linkup capability.
- Disabled VST on dual port adapter cards when one port is configured as ETH and the other as IB as VST is not available when the port is set as ETH.
- Added support for DSFP AOC (CMIS) v4 when error code is not reported by the module.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P31246-B21	HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter	MT_0000000591

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter
Version: 20.32.1010 **(Recommended)**
Filename: 20_32_1010-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/ConnectX6Firmwarev20321010/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 20.32.1010:

- System could not create more than 128K QPs.
- Incorrect indication of the PCIe link down in the AER registers on PCIe switch upstream port.
- Invalid RNR timeout when trying to set it during the rts2rts_qp transition.
- The flash frequency on boot was lower than expected (under 50Mhz). The issue was fixed by enabling the firmware to increase it on boot2 to normal frequency.
- A race condition between DC QP flush and DC packets that led to stuck slices in the hardware. To avoid such situation, firmware keeps the TCU drop set until QP flush is done.
- Firmware got into an unresponsive state and caused unexpected behavior when connecting an optical transceiver that support RxLOS and the remote side port was down.

- The link status was reported incorrectly and consequently caused the link to go down due to incorrect definition of the RX_LOS polarity in the INI.

Enhancements

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

New features and changes included in version 20.32.1010:

- Added support for blocking unwanted GMP classes by dedicated MADs.
- Added a new NvConfig parameter LOG_MAX_QUEUE to set the maximum number of work queue resources (QP, RQ, SQ...) that can be created per function. The default value is 2^17.
- Added a Congestion Control Key to all Congestion Control MADs to authenticate that they are originated from a trusted source.
- Added an SMP firewall to block the option of sending SMPs (MADS sent on QP0 from the Subnet Manager) from unauthorized hosts to prevent fake SMPs from being recognized as the SM.
- Vendor Specific MADs Class 0x9 is no longer supported by the firmware. If case the firmware detects such MAD, the firmware will return a "NOT SUPPORTED" error to the user.
- Blocked the VF's ability to use both padding and signature in order to prevent the NIC from getting into an unresponsive state.
- Enabled Rate Limit per VM instead of VM-TC. This capability is implemented by adding support to a new Scheduling element type: rate limit elements that will connect to the rate_limit and will share its rate limit.
- Performance improvements in the DCT with AR flow by exposing a hint to the software in DCI software context that indicates that RDMA WRITE on this DCI is not supported.
- Added support for dynamic timeout mechanism when in InfiniBand mode.
- Added support for QSHR access register to enable Set and Query rate limit per-host per-port.
- The firmware now exposes a new Software Steering ICM resource for VXLAN encap expand in order for the SW Steering to manage this resource directly.
- Added support for asymmetrical VFs per PF. To enable it: PF_NUM_OF_VF_VALID must be true, and PF_NUM_OF_VF to a none zero value.
- Added 2 new MAD access registers to enable mlxlink to read/write access registers by LID (to the whole subnet).
- Enabled the exposure of new ICM resource to the software steering for VXLAN encapsulation expansion.
- Added support for DSFP AOC (CMIS) v4 when error code is not reported by the module.
- Limited the external loopback speed according to the used module's capabilities.
- Modified the Effective BER calculation method. Due to this, the value of the Effective BER will be slightly higher, however the link quality remains the same as prior to this change.
- This firmware version includes the following PCIe changes:
  - Fixed the ACS Port Number field in DSPs and ACS Egress Control Vector field in DSPs.
  - Added support for VSC on USP of PCIe Switch.
  - Fixed the mapping of Legacy Interrupts in the PCIe Switch.
  - Fixed MRRS & MPS configurations in DSPs.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P23664-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter	MT_0000000451

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter
Version: 20.32.1010 **(Recommended)**
Filename: 20_32_1010-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.

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/ConnectX6Firmwarev20321010/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 20.32.1010:

- System could not create more than 128K QPs.
- Incorrect indication of the PCIe link down in the AER registers on PCIe switch upstream port.
- Invalid RNR timeout when trying to set it during the rts2rts_qp transition.
- The flash frequency on boot was lower than expected (under 50Mhz). The issue was fixed by enabling the firmware to increase it on boot2 to normal frequency.
- A race condition between DC QP flush and DC packets that led to stuck slices in the hardware. To avoid such situation, firmware keeps the TCU drop set until QP flush is done.

- Firmware got into an unresponsive state and caused unexpected behavior when connecting an optical transceiver that support RxLOS and the remote side port was down.
- The link status was reported incorrectly and consequently caused the link to go down due to incorrect definition of the RX_LOS polarity in the INI.

Enhancements

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

New features and changes included in version 20.32.1010:

- Added support for blocking unwanted GMP classes by dedicated MADs.
- Added a new NvConfig parameter LOG_MAX_QUEUE to set the maximum number of work queue resources (QP, RQ, SQ...) that can be created per function. The default value is 2^{17}.
- Added a Congestion Control Key to all Congestion Control MADs to authenticate that they are originated from a trusted source.
- Added an SMP firewall to block the option of sending SMPs (MADS sent on QP0 from the Subnet Manager) from unauthorized hosts to prevent fake SMPs from being recognized as the SM.
- Vendor Specific MADs Class 0x9 is no longer supported by the firmware. If case the firmware detects such MAD, the firmware will return a "NOT SUPPORTED" error to the user.
- Blocked the VF's ability to use both padding and signature in order to prevent the NIC from getting into an unresponsive state.
- Enabled Rate Limit per VM instead of VM-TC. This capability is implemented by adding support to a new Scheduling element type: rate limit elements that will connect to the rate_limit and will share its rate limit.
- Performance improvements in the DCT with AR flow by exposing a hint to the software in DCI software context that indicates that RDMA WRITE on this DCI is not supported.
- Added support for dynamic timeout mechanism when in InfiniBand mode.
- Added support for QSHR access register to enable Set and Query rate limit per-host per-port.
- The firmware now exposes a new Software Steering ICM resource for VXLAN encap expand in order for the SW Steering to manage this resource directly.
- Added support for asymmetrical VFs per PF. To enable it: PF_NUM_OF_VF_VALID must be true, and PF_NUM_OF_VF to a none zero value.
- Added 2 new MAD access registers to enable mlxlink to read/write access registers by LID (to the whole subnet).
- Enabled the exposure of new ICM resource to the software steering for VXLAN encapsulation expansion.
- Added support for DSFP AOC (CMIS) v4 when error code is not reported by the module.
- Limited the external loopback speed according to the used module's capabilities.
- Modified the Effective BER calculation method. Due to this, the value of the Effective BER will be slightly higher, however the link quality remains the same as prior to this change.
- This firmware version includes the following PCIe changes:
  - Fixed the ACS Port Number field in DSPs and ACS Egress Control Vector field in DSPs.
  - Added support for VSC on USP of PCIe Switch.
  - Fixed the mapping of Legacy Interrupts in the PCIe Switch.
  - Fixed MRRS & MPS configurations in DSPs.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P31323-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter	MT_0000000592

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter
Version: 20.32.1010 **(Recommended)**
Filename: 20_32_1010-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

A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/ConnectX6Firmwarev20321010/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 20.32.1010:

- System could not create more than 128K QPs.
- Incorrect indication of the PCIe link down in the AER registers on PCIe switch upstream port.
- Invalid RNR timeout when trying to set it during the rts2rts_qp transition.
- The flash frequency on boot was lower than expected (under 50Mhz). The issue was fixed by enabling the firmware to increase it on boot2 to normal frequency.
- A race condition between DC QP flush and DC packets that led to stuck slices in the hardware. To avoid such situation, firmware keeps the TCU drop set until QP flush is done.
- Firmware got into an unresponsive state and caused unexpected behavior when connecting an optical transceiver that support RxLOS and the remote side port was down.
- The link status was reported incorrectly and consequently caused the link to go down due to incorrect definition of the RX_LOS polarity in the INI.

Enhancements

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

New features and changes included in version 20.32.1010:

- Added support for blocking unwanted GMP classes by dedicated MADs.
- Added a new NvConfig parameter LOG_MAX_QUEUE to set the maximum number of work queue resources (QP, RQ, SQ...) that can be created per function. The default value is 2^17.
- Added a Congestion Control Key to all Congestion Control MADs to authenticate that they are originated from a trusted source.
- Added an SMP firewall to block the option of sending SMPs (MADS sent on QP0 from the Subnet Manager) from unauthorized hosts to prevent fake SMPs from being recognized as the SM.
- Vendor Specific MADs Class 0x9 is no longer supported by the firmware. If case the firmware detects such MAD, the firmware will return a "NOT SUPPORTED" error to the user.
- Blocked the VF's ability to use both padding and signature in order to prevent the NIC from getting into an unresponsive state.
- Enabled Rate Limit per VM instead of VM-TC. This capability is implemented by adding support to a new Scheduling element type: rate limit elements that will connect to the rate_limit and will share its rate limit.
- Performance improvements in the DCT with AR flow by exposing a hint to the software in DCI software context that indicates that RDMA WRITE on this DCI is not supported.
- Added support for dynamic timeout mechanism when in InfiniBand mode.
- Added support for QSHR access register to enable Set and Query rate limit per-host per-port.
- The firmware now exposes a new Software Steering ICM resource for VXLAN encap expand in order for the SW Steering to manage this resource directly.
- Added support for asymmetrical VFs per PF. To enable it: PF_NUM_OF_VF_VALID must be true, and PF_NUM_OF_VF to a none zero value.
- Added 2 new MAD access registers to enable mlxlink to read/write access registers by LID (to the whole subnet).
- Enabled the exposure of new ICM resource to the software steering for VXLAN encapsulation expansion.
- Added support for DSFP AOC (CMIS) v4 when error code is not reported by the module.
- Limited the external loopback speed according to the used module's capabilities.
- Modified the Effective BER calculation method. Due to this, the value of the Effective BER will be slightly higher, however the link quality remains the same as prior to this change.
- This firmware version includes the following PCIe changes:
  - Fixed the ACS Port Number field in DSPs and ACS Egress Control Vector field in DSPs.
  - Added support for VSC on USP of PCIe Switch.
  - Fixed the mapping of Legacy Interrupts in the PCIe Switch.
  - Fixed MRRS & MPS configurations in DSPs.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P31324-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter	MT_0000000594

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter
Version: 20.32.1010 **(Recommended)**
Filename: 20_32_1010-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/ConnectX6Firmwarev20321010/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 20.32.1010:

- System could not create more than 128K QPs.
- Incorrect indication of the PCIe link down in the AER registers on PCIe switch upstream port.
- Invalid RNR timeout when trying to set it during the rts2rts_qp transition.
- The flash frequency on boot was lower than expected (under 50Mhz). The issue was fixed by enabling the firmware to increase it on boot2 to normal frequency.
- A race condition between DC QP flush and DC packets that led to stuck slices in the hardware. To avoid such situation, firmware keeps the TCU drop set until QP flush is done.
- Firmware got into an unresponsive state and caused unexpected behavior when connecting an optical transceiver that support RxLOS and the remote side port was down.
- The link status was reported incorrectly and consequently caused the link to go down due to incorrect definition of the RX_LOS polarity in the INI.

Enhancements

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

New features and changes included in version 20.32.1010:

- Added support for blocking unwanted GMP classes by dedicated MADs.
- Added a new NvConfig parameter LOG_MAX_QUEUE to set the maximum number of work queue resources (QP, RQ, SQ...) that can be created per function. The default value is 2^17.
- Added a Congestion Control Key to all Congestion Control MADs to authenticate that they are originated from a trusted source.
- Added an SMP firewall to block the option of sending SMPs (MADS sent on QP0 from the Subnet Manager) from unauthorized hosts to prevent fake SMPs from being recognized as the SM.
- Vendor Specific MADs Class 0x9 is no longer supported by the firmware. If case the firmware detects such MAD, the firmware will return a "NOT SUPPORTED" error to the user.
- Blocked the VF's ability to use both padding and signature in order to prevent the NIC from getting into an unresponsive state.
- Enabled Rate Limit per VM instead of VM-TC. This capability is implemented by adding support to a new Scheduling element type: rate limit elements that will connect to the rate_limit and will share its rate limit.
- Performance improvements in the DCT with AR flow by exposing a hint to the software in DCI software context that indicates that RDMA WRITE on this DCI is not supported.
- Added support for dynamic timeout mechanism when in InfiniBand mode.
- Added support for QSHR access register to enable Set and Query rate limit per-host per-port.
- The firmware now exposes a new Software Steering ICM resource for VXLAN encap expand in order for the SW Steering to manage this resource directly.

- Added support for asymmetrical VFs per PF. To enable it: PF_NUM_OF_VF_VALID must be true, and PF_NUM_OF_VF to a none zero value.
- Added 2 new MAD access registers to enable mlxlink to read/write access registers by LID (to the whole subnet).
- Enabled the exposure of new ICM resource to the software steering for VXLAN encapsulation expansion.
- Added support for DSFP AOC (CMIS) v4 when error code is not reported by the module.
- Limited the external loopback speed according to the used module's capabilities.
- Modified the Effective BER calculation method. Due to this, the value of the Effective BER will be slightly higher, however the link quality remains the same as prior to this change.
- This firmware version includes the following PCIe changes:
  - Fixed the ACS Port Number field in DSPs and ACS Egress Control Vector field in DSPs.
  - Added support for VSC on USP of PCIe Switch.
  - Fixed the mapping of Legacy Interrupts in the PCIe Switch.
  - Fixed MRRS & MPS configurations in DSPs.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P31348-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port PCIe4 x16 OCP3 QSFP56 MCX653436A-HDAI Adapter	MT_0000000593

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter
Version: 20.32.1010 **(Recommended)**
Filename: 20_32_1010-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:

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/ConnectX6Firmwarev20321010/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 20.32.1010:

- System could not create more than 128K QPs.
- Incorrect indication of the PCIe link down in the AER registers on PCIe switch upstream port.
- Invalid RNR timeout when trying to set it during the rts2rts_qp transition.
- The flash frequency on boot was lower than expected (under 50Mhz). The issue was fixed by enabling the firmware to increase it on boot2 to normal frequency.
- A race condition between DC QP flush and DC packets that led to stuck slices in the hardware. To avoid such situation, firmware keeps the TCU drop set until QP flush is done.
- Firmware got into an unresponsive state and caused unexpected behavior when connecting an optical transceiver that support RxLOS and the remote side port was down.
- The link status was reported incorrectly and consequently caused the link to go down due to incorrect definition of the RX_LOS polarity in the INI.

Enhancements

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

New features and changes included in version 20.32.1010:

- Added support for blocking unwanted GMP classes by dedicated MADs.
- Added a new NvConfig parameter LOG_MAX_QUEUE to set the maximum number of work queue resources (QP, RQ, SQ...) that can be created per function. The default value is 2^17.
- Added a Congestion Control Key to all Congestion Control MADs to authenticate that they are originated from a trusted source.
- Added an SMP firewall to block the option of sending SMPs (MADS sent on QP0 from the Subnet Manager) from unauthorized hosts to prevent fake SMPs from being recognized as the SM.
- Vendor Specific MADs Class 0x9 is no longer supported by the firmware. If case the firmware detects such MAD, the firmware will return a "NOT SUPPORTED" error to the user.
- Blocked the VF's ability to use both padding and signature in order to prevent the NIC from getting into an unresponsive state.
- Enabled Rate Limit per VM instead of VM-TC. This capability is implemented by adding support to a new Scheduling element type: rate limit elements that will connect to the rate_limit and will share its rate limit.
- Performance improvements in the DCT with AR flow by exposing a hint to the software in DCI software context that indicates that RDMA WRITE on this DCI is not supported.
- Added support for dynamic timeout mechanism when in InfiniBand mode.
- Added support for QSHR access register to enable Set and Query rate limit per-host per-port.
- The firmware now exposes a new Software Steering ICM resource for VXLAN encap expand in order for the SW Steering to manage this resource directly.
- Added support for asymmetrical VFs per PF. To enable it: PF_NUM_OF_VF_VALID must be true, and PF_NUM_OF_VF to a none zero value.
- Added 2 new MAD access registers to enable mlxlink to read/write access registers by LID (to the whole subnet).
- Enabled the exposure of new ICM resource to the software steering for VXLAN encapsulation expansion.

- Added support for DSFP AOC (CMIS) v4 when error code is not reported by the module.
- Limited the external loopback speed according to the used module's capabilities.
- Modified the Effective BER calculation method. Due to this, the value of the Effective BER will be slightly higher, however the link quality remains the same as prior to this change.
- This firmware version includes the following PCIe changes:
    - Fixed the ACS Port Number field in DSPs and ACS Egress Control Vector field in DSPs.
    - Added support for VSC on USP of PCIe Switch.
    - Fixed the mapping of Legacy Interrupts in the PCIe Switch.
    - Fixed MRRS & MPS configurations in DSPs.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P23665-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter	MT_0000000452

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter
Version: 20.32.1010 **(Recommended)**
Filename: 20_32_1010-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:

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/ConnectX6Firmwarev20321010/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 20.32.1010:

- System could not create more than 128K QPs.
- Incorrect indication of the PCIe link down in the AER registers on PCIe switch upstream port.
- Invalid RNR timeout when trying to set it during the rts2rts_qp transition.
- The flash frequency on boot was lower than expected (under 50Mhz). The issue was fixed by enabling the firmware to increase it on boot2 to normal frequency.

A race condition between DC QP flush and DC packets that led to stuck slices in the hardware. To avoid such situation, firmware keeps the TCU drop set until QP flush is done.

- Firmware got into an unresponsive state and caused unexpected behavior when connecting an optical transceiver that support RxLOS and the remote side port was down.
- The link status was reported incorrectly and consequently caused the link to go down due to incorrect definition of the RX_LOS polarity in the INI.

Enhancements

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

New features and changes included in version 20.32.1010:

- Added support for blocking unwanted GMP classes by dedicated MADs.
- Added a new NvConfig parameter LOG_MAX_QUEUE to set the maximum number of work queue resources (QP, RQ, SQ...) that can be created per function. The default value is 2^17.
- Added a Congestion Control Key to all Congestion Control MADs to authenticate that they are originated from a trusted source.
- Added an SMP firewall to block the option of sending SMPs (MADS sent on QP0 from the Subnet Manager) from unauthorized hosts to prevent fake SMPs from being recognized as the SM.
- Vendor Specific MADs Class 0x9 is no longer supported by the firmware. If case the firmware detects such MAD, the firmware will return a "NOT SUPPORTED" error to the user.
- Blocked the VF's ability to use both padding and signature in order to prevent the NIC from getting into an unresponsive state.
- Enabled Rate Limit per VM instead of VM-TC. This capability is implemented by adding support to a new Scheduling element type: rate limit elements that will connect to the rate_limit and will share its rate limit.
- Performance improvements in the DCT with AR flow by exposing a hint to the software in DCI software context that indicates that RDMA WRITE on this DCI is not supported.
- Added support for dynamic timeout mechanism when in InfiniBand mode.
- Added support for QSHR access register to enable Set and Query rate limit per-host per-port.
- The firmware now exposes a new Software Steering ICM resource for VXLAN encap expand in order for the SW Steering to manage this resource directly.
- Added support for asymmetrical VFs per PF. To enable it: PF_NUM_OF_VF_VALID must be true, and PF_NUM_OF_VF to a none zero value.
- Added 2 new MAD access registers to enable mlxlink to read/write access registers by LID (to the whole subnet).
- Enabled the exposure of new ICM resource to the software steering for VXLAN encapsulation expansion.
- Added support for DSFP AOC (CMIS) v4 when error code is not reported by the module.
- Limited the external loopback speed according to the used module's capabilities.
- Modified the Effective BER calculation method. Due to this, the value of the Effective BER will be slightly higher, however the link quality remains the same as prior to this change.
- This firmware version includes the following PCIe changes:
  - Fixed the ACS Port Number field in DSPs and ACS Egress Control Vector field in DSPs.
  - Added support for VSC on USP of PCIe Switch.
  - Fixed the mapping of Legacy Interrupts in the PCIe Switch.
  - Fixed MRRS & MPS configurations in DSPs.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P23666-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter	MT_0000000453

Mellanox Firmware Package(FWPKG) for HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter
Version: 16.32.1010 **(Recommended)**
Filename: 16_32_1010-MCX512F-ACH_Ax_Bx.pldm.fwpkg

Important Note!

Certain software including drivers and documents may be available from Mellanox. If you select a URL that directs you to http://www.mellanox.com/, you are then leaving HPE.com. Please follow the instructions on http://www.mellanox.com/ to download Mellanox software or documentation. When downloading the Mellanox software or documentation, you may be subject to Mellanox 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.mellanox.com/, except that HPE may provide a limited warranty for Mellanox 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.mellanox.com/display/ConnectX5Firmwarev16321010/Known+Issues

Prerequisites

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

Fixes

The following issues have been fixed in version 16.32.1010

- Firmware got into an unresponsive state and caused unexpected behavior when connecting an optical transceiver that support RxLOS and the remote side port was down.
- The link status was reported incorrectly and consequently caused the link to go down due to incorrect definition of the RX_LOS polarity in the INI.
- The system got into an unresponsive state when a peer port went down while using an Optical module.
- Invalid RNR timeout when trying to set it during the rts2rts_qp transition.
- The system could not create more than 128K QPs.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.
- PCIe lane margining capability issues.
- An issue related to the sl2vl mad that caused a few msec hiccup in the transmission on an InfiniBand network when the SM sent the sl2vl mad to a node in the cluster.

Enhancements

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

New features and changes included in version 16.32.1010:

- Added a new NvConfig parameter LOG_MAX_QUEUE to set the maximum number of work queue resources (QP, RQ, SQ...) that can be created per function. The default value is 2^17.
- Blocked the VF's ability to use both padding and signature in order to prevent the NIC from getting into an unresponsive state.
- Enabled Rate Limit per VM instead of VM-TC. This capability is implemented by adding support to a new Scheduling element type: rate limit elements that will connect to the rate_limit and will share its rate limit.
- Performance improvements in the DCT with AR flow by exposing a hint to the software in DCI software context that indicates that RDMA WRITE on this DCI is not supported.
- Added support for QSHR access register to enable Set and Query rate limit perhost per-port.
- The firmware now exposes a new Software Steering ICM resource for VXLAN encap expand in order for the SW Steering to manage this resource directly.
- Enabled the exposure of new ICM resource to the software steering for VXLAN encapsulation expansion.
- Limited the external loopback speed to the used module's capabilities.
- Improved linkup time when using the fast linkup capability.
- Added support for DSFP AOC (CMIS) v4 when error code is not reported by the module.

Supported Devices and Features

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

Online Firmware Upgrade Utility (ESXi 6.7) for HPE Mellanox VPI (Ethernet and Infiniband mode) devices on VMware ESXi 6.7
Version: 1.0.5 **(Recommended)**
Filename: CP045903.compsig; CP045903.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 mlxconfig 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 0xfffff).
- 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.
- 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.

Fixes

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 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 - NVDIMM
Firmware Package - 16GB NVDIMM-N DDR4-2666
Version: 1.04 (C) **(Recommended)**
Filename: nvdimm-16gb_1.04.fwpkg

Enhancements

- Add Microsoft Windows Server 2022 support.
- Add VMWare vSphere 6.5 U3 support.

Supported Devices and Features

This package supports the following Memory Device:

- HPE 16GB NVDIMM Single Rank x4 DDR4-2666 Module Kit

Firmware package for HPE Persistent Memory featuring Intel Optane DC Persistent Memory on HPE Gen10 Plus Servers
Version: 02.02.00.1553 (B) **(Recommended)**
Filename: dcpmm_02.02.00.1553.fwpkg

Important Note!

This software package contains Intel Optane DC Persistent Memory Firmware version 2.2.0.1553

Fixes

This product corrects an issue that three different capacities of Intel Optane DC Persistent Memory are identifiable with three individual device GUID.

Supported Devices and Features

This package supports the following Memory Devices:

- HPE 512GB 3200 Persistent Memory Kit featuring Intel Optane DC Persistent Memory
- HPE 256GB 3200 Persistent Memory Kit featuring Intel Optane DC Persistent Memory
- HPE 128GB 3200 Persistent Memory Kit featuring Intel Optane DC Persistent Memory

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Firmware package for HPE Persistent Memory featuring Intel Optane DC Persistent Memory on HPE Gen10 Servers
Version: 01.02.00.5446 **(Recommended)**
Filename: dcpmm_01.02.00.5446.fwpkg

Important Note!

This software package contains Intel Optane DC Persistent Memory Firmware version 1.2.0.5446

Enhancements

- Add VMWare ESXi 6.5 U3 support
- Add Microsoft Windows Server 2022 support

Supported Devices and Features

This package supports the following Memory Devices:

- HPE 512GB 2666 Persistent Memory Kit featuring Intel Optane DC Persistent Memory
- HPE 256GB 2666 Persistent Memory Kit featuring Intel Optane DC Persistent Memory
- HPE 128GB 2666 Persistent Memory Kit featuring Intel Optane DC Persistent Memory

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Firmware - Storage Controller
HPE MR216i-a Gen10 Plus Tri Mode Controller
Version: 52.16.3-3913 (B) **(Recommended)**
Filename: HPE_MR216i-a_Gen10P_52.16.3-3913.fwpkg

Important Note!

This firmware version to be used on MR216i-a controllers.

Enhancements

- Added support for DL20 Gen10 Plus Server.

HPE MR216i-p Gen10 Plus Tri Mode Controller
Version: 52.16.3-3913 (B) **(Recommended)**
Filename: HPE_MR216i-p_Gen10P_52.16.3-3913.fwpkg

Important Note!

This firmware version to be used on MR216i-p controllers.

Enhancements

- Added support for DL20 Gen10 Plus Server.

HPE MR416i-a Gen10 Plus Tri Mode Controller
Version: 52.16.3-3913 (B) **(Recommended)**

Filename: HPE_MR416i-a_Gen10P_52.16.3-3913.fwpkg

Important Note!

This firmware version to be used on MR416i-a controllers.

Enhancements

- Added support for DL20 Gen10 Plus Server.

HPE MR416i-p Gen10 Plus Tri Mode Controller
Version: 52.16.3-3913 (B) **(Recommended)**
Filename: HPE_MR416i-p_Gen10P_52.16.3-3913.fwpkg

Important Note!

This firmware version to be used on MR416i-p controllers.

Enhancements

- Added support for DL20 Gen10 Plus Server.

Online Firmware Flash for ESXi - HPE NS204i-p, NS204i-d, NS204i-t, NS204i-r Gen10+ Boot Controller
Version: 1.0.14.1055 **(Critical)**
Filename: CP047954.compsig; CP047954.zip

Important Note!

VMware **7.0u1** <u>is</u> supported by HPE NS204i-p, NS204i-d, NS204i-t and NS204i-r Gen10+ Boot Controller

VMware 7.0 is <u>NOT</u> supported by HPE NS204i-p, NS204i-d, NS204i-t and NS204i-r Gen10+ Boot Controller

Fixes

Firmware may skip rebuilding chunks of data on the new drive when the drive rebuild is performed followed by a Redfish Read on servers with NS204i adapter card.

Online ROM Flash Component for ESXi (x86) - HPE Smart Array P824i-p MR Gen10
Version: 24.23.0-0043 (A) **(Recommended)**
Filename: CP044920.compsig; CP044920.zip

Fixes

- Over-temp issue was a false IML due to a >=60C threshold, modified the threshold to >65C in new version.

  Please reference Customer Advisory [a00101958en_us](a00101958en_us)

Enhancements

- Added support for the Apollo 4510 system

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.**

Fixes

- 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.
- 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

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Online ROM Flash Component for VMware ESXi - HPE Apollo 2000 Gen10 Backplane Expander Firmware
Version: 1.00 (C) **(Optional)**
Filename: CP037611.compsig; CP037611.zip

Important Note!

Customers who already installed firmware version 1.00 do not need to update to 1.00 (C).

Enhancements

- Added support for VMware vSphere 6.7 OS

Online ROM Flash Component for VMware ESXi - HPE Apollo 2000 Gen10 Plus Backplane Expander FW

Version: 1.27 **(Recommended)**
Filename: CP046386.compsig; CP046386.zip

Enhancements

Initial Release

Online ROM Flash Component for VMware ESXi - HPE Apollo 4200 Backplane Expander Firmware
Version: 1.79 (C) **(Recommended)**
Filename: CP047952.zip; CP047952_part1.compsig; CP047952_part2.compsig

Important Note!

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

Enhancements

Update Note with publish requirement

Online ROM Flash Component for VMware ESXi - HPE Apollo 4200 Gen10 Plus Backplane Expander Firmware
Version: 0.39 (B) **(Recommended)**
Filename: CP049505.compsig; CP049505.zip

Prerequisites

- Before upgrading to 0.39(B), please flash to the transition version 0.39 first by standalone update approach to activate the new PID naming.
- 0.39(B) is the minimum version for Gen10plus 4200 expander FW.
- **0.39 transition version link:** https://www.hpe.com/global/swpublishing/MTX-baec686eb389427aa933bbf9f0

Fixes

- Modify Product ID to "A4200 Gen10P LFF" and "A4200 Gen10P SFF" to distinguish the different generation expander backplane.

Online ROM Flash Component for VMware ESXi - HPE Apollo 45xx Gen10 Backplane Expander Firmware
Version: 1.56 (D) **(Recommended)**
Filename: CP038103.compsig; CP038103.zip

Enhancements

- Added HPE Smart Array P824i-p controller support

Online ROM Flash Component for VMware ESXi - HPE SAS Expander Firmware for HPE D2500sb Storage Blade
Version: 2.02 (A) **(Recommended)**
Filename: CP044325.compsig; CP044325.zip

Important Note!

- When using ESXi6.0 you must be at upgrade 3 or newer. The required SmartPQI driver is not present in earlier versions of the OS

Prerequisites

When using ESXi6.0 you must be at upgrade 3 or newer. The required SmartPQI driver is not present in earlier versions of the OS

Enhancements

Added ESXi 7.0 support.

Universal Firmware Package for HPE Gen10 Plus Boot Controller NS204i-p, NS204i-d, NS204i-t, NS204i-r
Version: 1.0.14.1060 **(Recommended)**
Filename: HPE_NS204i_Gen10P_PLDM_1060.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?swItemId=MTX-1b2c98e9d2594b9db679e89bbe#tab-history
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?swItemId=MTX_141038fe565b457ca9fe4d28de#tab-history

Enhancements

- Enable PLDM T5 FWPKG for controller FW flashing directly through iLO

- IML event enhancement

Firmware - Storage Fibre Channel **Top**
HPE Firmware Flash for Emulex Mezzanine Fibre Channel Host Bus Adapters for VMware vSphere 6.7

Version: 2021.10.01 **(Recommended)**
Filename: CP046786.compsig; CP046786.zip

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class	16Gb	12.8.528.12	12.8.528.12	12.8.528.10	12.8.502.0

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 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class	16Gb	12.8.528.12	12.8.528.12	12.8.528.10	12.8.502.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class

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HPE Firmware Flash for QLogic Fibre Channel Host Bus Adapters for VMware vSphere 6.7
Version: 2021.10.01 **(Recommended)**
Filename: CP046821.compsig; CP046821.zip

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Firmware	UEFI	Boot Bios
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.06.02	7.04	3.64
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.06.02	7.04	3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.06.02	7.04	3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.06.02	7.04	3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.06.02	7.11	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.06.02	7.11	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 SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.06.02	7.04	3.64
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.06.02	7.04	3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.06.02	7.04	3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.06.02	7.04	3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.06.02	7.11	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.06.02	7.11	0.0

Supported Devices and Features

This firmware supports the following HPE adapters:

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter

32Gb Fibre Channel Host Bus Adapter:

- HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1600Q 32Gb Dual Port 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

HPE Firmware Flash for QLogic Mezzanine Fibre Channel Host Bus Adapters for VMware vSphere 6.7
Version: 2021.10.01 **(Recommended)**
Filename: CP046777.compsig; CP046777.zip

Important Note!

Release Notes:
HPE QLogic Adapter Release Notes

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Firmware	UEFI	Boot Bios
HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem	16Gb	6.04.04	8.08.232	7.04	3.43

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

Updated the Firmware/BIOS/UEFI packages for 16 Gb products.

Adapter	Speed	MBI	Firmware	UEFI	Boot Bios
HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem	16Gb	6.04.04	8.08.232	7.04	3.43

Supported Devices and Features

This version of the enablement kit supports the following devices:

16Gb Fibre Channel Host Bus Adapter:

- HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

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Software - Management
HPE Management Bundle Smart Component for ESXi 6.7 for Gen10 and Gen10 Plus Servers
Version: 2021.10.01 **(Recommended)**
Filename: cp047522.compsig; cp047522.zip

Fixes

Agentless Management Service

- Fix excessive poll failure logging on iLO reset
- Applied fixes to net-snmp open source code for CVE-2018-18065, CVE-2018-18066, CVE-2015-5621

iLO Driver

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

Enhancements

Agentless Management Service

- Added support for new cpqIdeAtaDiskCapacityHighBytes and cpqIdeAtaDiskCapacityLowBytes MIB OIDs
- Added support for hrSystemUptime MIB OID
- Added support for cpqIdeAtaDiskSSDWearStatusChange trap
- Added support for Pensando NIC devices

Software - Storage Controller
HPE MegaRAID Storage Administrator StorCLI for VMware6.7
Version: 2021.04.00 **(Recommended)**
Filename: cp045812.compsig; cp045812.zip

Enhancements

initial release

HPE MegaRAID Storage Administrator StorCLI for VMware6.7
Version: 2021.04 **(Recommended)**
Filename: cp045860.compsig; cp045860.zip

Enhancements

- Support for maintaining, monitoring and configuring MegaRAID Gen10+ Controllers: MR416i-a, MR416i-p, MR216i-a, MR216i-p

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Software - Storage Fibre Channel

HPE QLogic Fibre Channel driver component for VMware vSphere 6.7
Version: 2021.10.01 **(Recommended)**
Filename: cp046818.compsig; cp046818.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 and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Prerequisites

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

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

Fixes

Fixed the following:

- Addressed unwanted behavior with Fabric Port Identification Number (FPIN) based congestion throttling leading to poor performance.
- Fixed an unwanted behavior where stale connection IDs could be used with Fibre Channel- Non Volatile Memory Express (FC-NVMe) traffic.

- Fixed an unwanted behavior with response queue handling to avoid the problem referenced by https://kb.vmware.com/s/article/81721

Enhancements

Added the following:

- Made improvements to the Fabric Port Identification Number (FPIN) and Universal Storage Area Network (SAN) Congestion Mitigation(USCM) Congestion Management algorithm

- Implemented the vmkmgmt Application programming Interface (API) to report Non-Volatile Memory Express (NVMe) target info and send Non-Volatile Memory Express (NVMe) pass through commands

Driver version 3.1.46.0

Supported Devices and Features

This driver supports the following HPE adapters:

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter

32Gb Fibre Channel Host Bus Adapter:

- HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1600Q 32Gb Dual Port 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

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HPE QLogic Mezzanine Fibre Channel driver component for VMware vSphere 6.7
Version: 2021.10.01 **(Recommended)**
Filename: cp046774.compsig; cp046774.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 and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Prerequisites

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

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

Fixes

Fixed the following:

- Addressed unwanted behavior with Fabric Port Identification Number (FPIN) based congestion throttling leading to poor performance.
- Fixed an unwanted behavior where stale connection IDs could be used with Fibre Channel- Non Volatile Memory Express (FC-NVMe) traffic.

- Fixed an unwanted behavior with response queue handling to avoid the problem referenced by https://kb.vmware.com/s/article/81721

Enhancements

Added the following:

- Made improvements to the Fabric Port Identification Number (FPIN) and Universal Storage Area Network (SAN) Congestion Mitigation(USCM) Congestion Management algorithm

- Implemented the vmkmgmt Application programming Interface (API) to report Non-Volatile Memory Express (NVMe) target info and send Non-Volatile Memory Express (NVMe) pass through commands

Driver version 3.1.46.0

Supported Devices and Features

This version of the enablement kit supports the following devices:

16Gb Fibre Channel Host Bus Adapter:

- HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

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HPE Storage Emulex Mezzanine Fibre Channel driver component for VMware vSphere 6.7
Version: 2021.10.01 **(Recommended)**
Filename: cp046793.compsig; cp046793.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 and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

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 12.8.528.14

Supported Devices and Features

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

16Gb FC Adapter:

- HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class

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Software - System Management
Agentless Management Service Offline Bundle for VMware ESXi 6.7 for Gen 10 and Gen10 Plus Servers
Version: gen10.11.8.0 **(Recommended)**
Filename: ams-esxi6.7-bundle-gen10.11.8.0.15-1.zip

Fixes

Agentless Management Service

- Fix excessive poll failure logging on iLO reset
- Applied fixes to net-snmp open source code for CVE-2018-18065, CVE-2018-18066, CVE-2015-5621

iLO Driver

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

Enhancements

Agentless Management Service

- Added support for new cpqIdeAtaDiskCapacityHighBytes and cpqIdeAtaDiskCapacityLowBytes MIB OIDs
- Added support for hrSystemUptime MIB OID
- Added support for cpqIdeAtaDiskSSDWearStatusChange trap
- Added support for Pensando NIC devices

Supported Devices and Features

VMware ESXi support:

- VMware ESXi 6.7 U2
- VMware ESXi 6.7 U3

HPE MegaRAID Storage Administrator StorCLI for VMware
Version: 1.25.12 **(Optional)**
Filename: vmware-esx-storcli-1.25.12.vib; VMWARE_MN_NDS_Readme.txt

Enhancements

- Added support for the Apollo 4510 system

HPE MegaRAID Storage Administrator StorCLI for VMware
Version: 007.1616.0000.0000 **(Recommended)**
Filename: storcli-esxi6.7-bundle-007.1616.0000.0000.zip

Enhancements

- This version of StorCLI supports maintaining, troubleshooting, and configuration functions for the MegaRAID® Gen10+ controller products: MR416i-a, MR416i-

p, MR216i-a, MR216i-p

HPE MegaRAID Storage Administrator StorCLI for VMware
Version: 1.25.16 **(Recommended)**
Filename: storcli-esxi6.7-bundle-1.25.16.zip

Enhancements

Added ProLiant features support (Megacell status, AHS, Spade, Sanitize & Expander)

Integrated Smart Update Tools for VMware ESXi 6.7
Version: 2.9.1.0 **(Recommended)**
Filename: sut-esxi6.7-offline-bundle-2.9.1.0-6.zip

Important Note!

Integrated Smart Update Tools for ESXi provides support for firmware and driver updates via iLO Repository

Fixes

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

Enhancements

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

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Smart Storage Administrator (SSA) CLI for VMware 6.7
Version: 5.30.6.0 **(Recommended)**
Filename: MIS_bootbank_ssacli_5.30.6.0-6.7.0.7535516.oem.vib

Fixes

- 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.

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