

Release Notes for Gen10 Service Pack for ProLiant, v2022.03.1

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BIOS - System ROM

Online ROM Flash Component for Windows x64 - HPE ProLiant DL20 Gen10 Plus Servers

Version: 1.54_01-13-2022 **(Recommended)**

Filename: cp050006.compsig; cp050006.exe

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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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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.

Online ROM Flash Component for Windows x64 - HPE ProLiant ML30 Gen10 Plus Servers
Version: 1.54_01-13-2022 **(Recommended)**
Filename: cp050009.compsig; cp050009.exe

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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.

Version: 2.62_03-08-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u38-2.62_2022_03_08-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u38-2.62_2022_03_08-1.1.x86_64.rpm

Important Note!

Important Notes:

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Deliverable Name:

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

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes**Important Notes:**

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

Online ROM Flash Component for Linux - HPE Apollo 4200 Gen10 Plus/HPE ProLiant XL420 Gen10 Plus (U50) Servers

Version: 1.58_01-13-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u50-1.58_2022_01_13-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-u50-1.58_2022_01_13-1.1.x86_64_part1.compsig;
RPMS/x86_64/firmware-system-u50-1.58_2022_01_13-1.1.x86_64_part2.compsig

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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.

Online ROM Flash Component for Linux - HPE Apollo 4200 Gen10/HPE ProLiant XL420 Gen10 (U39) Servers

Version: 2.62_03-08-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u39-2.62_2022_03_08-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u39-2.62_2022_03_08-1.1.x86_64.rpm

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

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

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes**Important Notes:**

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Filename: RPMS/x86_64/firmware-system-u40-2.62_2022_03_08-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u40-2.62_2022_03_08-1.1.x86_64.rpm

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

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

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes**Important Notes:**

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Linux - HPE Apollo 6500 Gen10 Plus/HPE ProLiant XL645d Gen10 Plus (A48) Servers

Version: 2.56_02-10-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-a48-2.56_2022_02_10-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-a48-2.56_2022_02_10-1.1.x86_64_part1.compsig;
RPMS/x86_64/firmware-system-a48-2.56_2022_02_10-1.1.x86_64_part2.compsig

Important Note!

Important Notes:

None

Deliverable Name:

HPE Apollo 6500 Gen10 Plus/HPE ProLiant XL645d Gen10 Plus System ROM - A48

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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

Online ROM Flash Component for Linux - HPE Apollo 6500 Gen10 Plus/HPE ProLiant XL675d Gen10 Plus (A47) Servers

Version: 2.56_02-10-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-a47-2.56_2022_02_10-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-a47-2.56_2022_02_10-1.1.x86_64_part1.compsig; RPMS/x86_64/firmware-system-a47-2.56_2022_02_10-1.1.x86_64_part2.compsig

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL675d Gen10 Plus System ROM - A47

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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

Online ROM Flash Component for Linux - HPE Apollo 6500 Gen10/HPE ProLiant XL270d Gen10 (U45) Servers

Version: 2.62_03-08-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u45-2.62_2022_03_08-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u45-2.62_2022_03_08-1.1.x86_64.rpm

Important Note!**Important Notes:**

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Deliverable Name:

HPE ProLiant XL270d Gen10 System ROM - U45

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes**Important Notes:**

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

Online ROM Flash Component for Linux - HPE DL110 Gen10 Plus Telco (U56) Servers

Version: 1.58_01-13-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u56-1.58_2022_01_13-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-u56-1.58_2022_01_13-1.1.x86_64_part1.compsig;
RPMS/x86_64/firmware-system-u56-1.58_2022_01_13-1.1.x86_64_part2.compsig

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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.

Online ROM Flash Component for Linux - HPE ProLiant DL160 Gen10/DL180 Gen10 (U31) Servers

Version: 2.62_03-08-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u31-2.62_2022_03_08-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u31-2.62_2022_03_08-1.1.x86_64.rpm

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant DL160 Gen10/DL180 Gen10 System ROM - U31

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Linux - HPE ProLiant DL20 Gen10 (U43) Servers

Version: 2.56_01-20-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u43-2.56_2022_01_20-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u43-2.56_2022_01_20-1.1.x86_64.rpm

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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

Online ROM Flash Component for Linux - HPE ProLiant DL20 Gen10 Plus Servers

Version: 1.54_01-13-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u60-1.54_2022_01_13-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u60-1.54_2022_01_13-1.1.x86_64.rpm

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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.

Online ROM Flash Component for Linux - HPE ProLiant DL325 Gen10 (A41) Servers

Version: 2.56_02-10-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-a41-2.56_2022_02_10-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-a41-2.56_2022_02_10-1.1.x86_64.rpm

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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

Online ROM Flash Component for Linux - HPE ProLiant DL325/DL325 v2/DL345 Gen10 Plus (A43) Servers

Version: 2.56_02-10-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-a43-2.56_2022_02_10-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-a43-2.56_2022_02_10-1.1.x86_64_part1.compsig;
RPMS/x86_64/firmware-system-a43-2.56_2022_02_10-1.1.x86_64_part2.compsig

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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

Online ROM Flash Component for Linux - HPE ProLiant DL360 Gen10 (U32) Servers

Version: 2.62_03-08-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u32-2.62_2022_03_08-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u32-2.62_2022_03_08-1.1.x86_64.rpm

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant DL360 Gen10 System ROM - U32

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Linux - HPE ProLiant DL360/DL380 Gen10 Plus (U46) Servers

Version: 1.58_01-13-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u46-1.58_2022_01_13-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-u46-1.58_2022_01_13-1.1.x86_64_part1.compsig;
RPMS/x86_64/firmware-system-u46-1.58_2022_01_13-1.1.x86_64_part2.compsig

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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.

Online ROM Flash Component for Linux - HPE ProLiant DL365/DL385/DL385 v2 Gen10 Plus (A42) Servers

Version: 2.56_02-10-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-a42-2.56_2022_02_10-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-a42-2.56_2022_02_10-1.1.x86_64_part1.compsig;
RPMS/x86_64/firmware-system-a42-2.56_2022_02_10-1.1.x86_64_part2.compsig

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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

Online ROM Flash Component for Linux - HPE ProLiant DL380 Gen10 (U30) Servers

Version: 2.62_03-08-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u30-2.62_2022_03_08-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u30-2.62_2022_03_08-1.1.x86_64.rpm

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant DL380 Gen10 System ROM - U30

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Linux - HPE ProLiant DL385 Gen10 (A40) Servers

Version: 2.56_02-10-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-a40-2.56_2022_02_10-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-a40-2.56_2022_02_10-1.1.x86_64.rpm

Important Note!

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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

Online ROM Flash Component for Linux - HPE ProLiant DL560 Gen10/DL580 Gen10 (U34) Servers

Version: 2.62_03-08-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u34-2.62_2022_03_08-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u34-2.62_2022_03_08-1.1.x86_64.rpm

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant DL560 Gen10/DL580 Gen10 System ROM - U34

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes**Important Notes:**

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Linux - HPE ProLiant MicroServer Gen10 Plus (U48) Servers

Version: 2.56_01-20-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u48-2.56_2022_01_20-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u48-2.56_2022_01_20-1.1.x86_64.rpm

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 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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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

Online ROM Flash Component for Linux - HPE ProLiant ML110 Gen10 (U33) Servers

Version: 2.62_03-08-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u33-2.62_2022_03_08-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u33-2.62_2022_03_08-1.1.x86_64.rpm

Important Note!**Important Notes:**

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant ML110 Gen10 System ROM - U33

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Linux - HPE ProLiant ML30 Gen10 (U44) Servers

Version: 2.56_01-20-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u44-2.56_2022_01_20-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u44-2.56_2022_01_20-1.1.x86_64.rpm

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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

Online ROM Flash Component for Linux - HPE ProLiant ML30 Gen10 Plus Servers

Version: 1.54_01-13-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u61-1.54_2022_01_13-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u61-1.54_2022_01_13-1.1.x86_64.rpm

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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.

Version: 2.62_03-08-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u41-2.62_2022_03_08-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u41-2.62_2022_03_08-1.1.x86_64.rpm

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant ML350 Gen10 System ROM - U41

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes**Important Notes:**

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Linux - HPE ProLiant XL220n/XL290n Gen10 Plus 1U Node and 2U Node Configure-to-order Server (U47)

Version: 1.58_01-13-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u47-1.58_2022_01_13-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-u47-1.58_2022_01_13-1.1.x86_64_part1.compsig;
RPMS/x86_64/firmware-system-u47-1.58_2022_01_13-1.1.x86_64_part2.compsig

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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.

Online ROM Flash Component for Linux - HPE ProLiant XL225n Gen10 Plus (A46) Servers

Version: 2.56_02-10-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-a46-2.56_2022_02_10-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-a46-2.56_2022_02_10-1.1.x86_64_part1.compsig;
RPMS/x86_64/firmware-system-a46-2.56_2022_02_10-1.1.x86_64_part2.compsig

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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

Online ROM Flash Component for Linux - HPE ProLiant XL230k Gen10 (U37) Server

Version: 2.62_03-08-2022 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u37-2.62_2022_03_08-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u37-2.62_2022_03_08-1.1.x86_64.rpm

Important Note!**Important Notes:**

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Deliverable Name:

HPE ProLiant XL230k Gen10 System ROM - U37

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes**Important Notes:**

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE Apollo 2000 Gen10/HPE ProLiant XL170r/XL190r Gen10 (U38) Servers
Version: 2.62_03-08-2022 **(Recommended)**
Filename: cp051199.compsig; cp051199.exe

Important Note!

Important Notes:

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Deliverable Name:

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

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes**Important Notes:**

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

Version: 1.58_01-13-2022 **(Recommended)**

Filename: cp050647.exe; cp050647_part1.compsig; cp050647_part2.compsig

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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.

Online ROM Flash Component for Windows x64 - HPE Apollo 4200 Gen10/HPE ProLiant XL420 Gen10 (U39) Servers

Version: 2.62_03-08-2022 **(Recommended)**

Filename: cp051304.compsig; cp051304.exe

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

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

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE Apollo 4510 Gen10/HPE ProLiant XL450 Gen10 (U40) Servers
Version: 2.62_03-08-2022 **(Recommended)**
Filename: cp051281.compsig; cp051281.exe

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

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

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE Apollo 6500 Gen10 Plus/HPE ProLiant XL645d Gen10 Plus (A48) Servers

Version: 2.56_02-10-2022 **(Recommended)**

Filename: cp050506.exe; cp050506_part1.compsig; cp050506_part2.compsig

Important Note!

Important Notes:

None

Deliverable Name:

HPE Apollo 6500 Gen10 Plus/HPE ProLiant XL645d Gen10 Plus System ROM - A48

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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

Online ROM Flash Component for Windows x64 - HPE Apollo 6500 Gen10 Plus/HPE ProLiant XL675d Gen10 Plus (A47) Servers

Version: 2.56_02-10-2022 **(Recommended)**

Filename: cp050503.exe; cp050503_part1.compsig; cp050503_part2.compsig

Important Note!**Important Notes:**

None

Deliverable Name:

HPE ProLiant XL675d Gen10 Plus System ROM - A47

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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

Online ROM Flash Component for Windows x64 - HPE Apollo 6500 Gen10/HPE ProLiant XL270d Gen10 (U45) Servers
Version: 2.62_03-08-2022 **(Recommended)**
Filename: cp051196.compsig; cp051196.exe

Important Note!

Important Notes:

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Deliverable Name:

HPE ProLiant XL270d Gen10 System ROM - U45

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes**Important Notes:**

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE ProLiant DL160 Gen10/DL180 Gen10 (U31) Servers
Version: 2.62_03-08-2022 **(Recommended)**
Filename: cp051162.compsig; cp051162.exe

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.

4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant DL160 Gen10/DL180 Gen10 System ROM - U31

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE ProLiant DL20 Gen10 (U43) Servers
Version: 2.56_01-20-2022 **(Recommended)**
Filename: cp050865.compsig; cp050865.exe

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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

Online ROM Flash Component for Windows x64 - HPE ProLiant DL325 Gen10 (A41) Servers

Version: 2.56_02-10-2022 **(Recommended)**

Filename: cp050797.compsig; cp050797.exe

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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

Online ROM Flash Component for Windows x64 - HPE ProLiant DL325/DL325 v2/DL345 Gen10 Plus (A43) Servers
Version: 2.56_02-10-2022 **(Recommended)**
Filename: cp050442.exe; cp050442_part1.compsig; cp050442_part2.compsig

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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

Online ROM Flash Component for Windows x64 - HPE ProLiant DL360 Gen10 (U32) Servers
Version: 2.62_03-08-2022 **(Recommended)**
Filename: cp051168.compsig; cp051168.exe

Important Note!**Important Notes:**

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.

3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.

4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant DL360 Gen10 System ROM - U32

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes**Important Notes:**

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE ProLiant DL360/DL380 Gen10 Plus (U46) Servers

Version: 1.58_01-13-2022 **(Recommended)**

Filename: cp050612.exe; cp050612_part1.compsig; cp050612_part2.compsig

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL365/DL385/DL385 v2 Gen10 Plus (A42) Servers

Version: 2.56_02-10-2022 **(Recommended)**

Filename: cp050447.exe; cp050447_part1.compsig; cp050447_part2.compsig

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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

Online ROM Flash Component for Windows x64 - HPE ProLiant DL380 Gen10 (U30) Servers
Version: 2.62_03-08-2022 **(Recommended)**
Filename: cp051159.compsig; cp051159.exe

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant DL380 Gen10 System ROM - U30

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes**Important Notes:**

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".

2. Save and reboot the server.

3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.

4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE ProLiant DL385 Gen10 (A40) Servers

Version: 2.56_02-10-2022 **(Recommended)**

Filename: cp050794.compsig; cp050794.exe

Important Note!

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant DL560 Gen10/DL580 Gen10 System ROM - U34

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE ProLiant MicroServer Gen10 Plus (U48) Servers

Version: 2.56_01-20-2022 **(Recommended)**

Filename: cp050882.compsig; cp050882.exe

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 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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant ML110 Gen10 System ROM - U33

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE ProLiant ML30 Gen10 (U44) Servers

Version: 2.56_01-20-2022 **(Recommended)**

Filename: cp050872.compsig; cp050872.exe

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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

Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant ML350 Gen10 System ROM - U41

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE ProLiant XL220n/XL290n Gen10 Plus 1U Node and 2U Node Configure-to-order Server (U47)

Version: 1.58_01-13-2022 (**Recommended**)

Filename: cp050758.exe; cp050758_part1.compsig; cp050758_part2.compsig

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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.

Online ROM Flash Component for Windows x64 - HPE ProLiant XL225n Gen10 Plus (A46) Server
Version: 2.56_02-10-2022 **(Recommended)**
Filename: cp050500.exe; cp050500_part1.compsig; cp050500_part2.compsig

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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

Online ROM Flash Component for Windows x64 - HPE ProLiant XL230k Gen10 (U37) Server

Version: 2.62_03-08-2022 **(Recommended)**

Filename: cp051193.compsig; cp051193.exe

Important Note!

Important Notes:

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Deliverable Name:

HPE ProLiant XL230k Gen10 System ROM - U37

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes**Important Notes:**

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

ROM Flash Firmware Package - HPE Apollo 2000 Gen10/HPE ProLiant XL170r/XL190r Gen10 (U38) Servers
Version: 2.62_03-08-2022 **(Recommended)**
Filename: U38_2.62_03_08_2022.fwpkg

Important Note!

Important Notes:

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Deliverable Name:

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

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

Fixes**Important Notes:**

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

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 4200 Gen10/HPE ProLiant XL420 Gen10 (U39) Servers
Version: 2.62_03-08-2022 **(Recommended)**
Filename: U39_2.62_03_08_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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

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

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".

2. Save and reboot the server.

3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.

4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

ROM Flash Firmware Package - HPE Apollo 4510 Gen10/HPE ProLiant XL450 Gen10 (U40) Servers

Version: 2.62_03-08-2022 **(Recommended)**

Filename: U40_2.62_03_08_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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

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

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".

2. Save and reboot the server.

3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.

4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

ROM Flash Firmware Package - HPE Apollo 6500 Gen10/HPE ProLiant XL270d Gen10 (U45) Servers

Version: 2.62_03-08-2022 **(Recommended)**

Filename: U45_2.62_03_08_2022.fwpkg

Important Note!

Important Notes:

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Deliverable Name:

HPE ProLiant XL270d Gen10 System ROM - U45

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

Fixes

Important Notes:

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

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 DL160 Gen10/DL180 Gen10 (U31) Servers

Version: 2.62_03-08-2022 **(Recommended)**

Filename: U31_2.62_03_08_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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".

2. Save and reboot the server.

3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.

4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant DL160 Gen10/DL180 Gen10 System ROM - U31

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

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

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 Firmware Package - HPE ProLiant DL360 Gen10 (U32) Servers
Version: 2.62_03-08-2022 **(Recommended)**
Filename: U32_2.62_03_08_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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant DL360 Gen10 System ROM - U32

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.

3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.

4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant DL380 Gen10 (U30) Servers

Version: 2.62_03-08-2022 **(Recommended)**

Filename: U30_2.62_03_08_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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant DL380 Gen10 System ROM - U30

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.

3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.

4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

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

Important Note!

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

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 Firmware Package - HPE ProLiant DL560 Gen10/DL580 Gen10 (U34) Servers
Version: 2.62_03-08-2022 **(Recommended)**
Filename: U34_2.62_03_08_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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".
2. Save and reboot the server.
3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.
4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".
5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant DL560 Gen10/DL580 Gen10 System ROM - U34

Release Version:

2.62_03-08-2022

Last Recommended or Critical Revision:

2.62_03-08-2022

Previous Revision:

2.60_01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".

2. Save and reboot the server.

3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.

4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)". For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

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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

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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 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 ML110 Gen10 (U33) Servers

Version: 2.62 03-08-2022 (Recommended)

Filename: U33_2.62_03_08_2022.fwpkg

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Important Note!

Important Notes:

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

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".

2. Save and reboot the server.

3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.

4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)". For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant ML110 Gen10 System ROM - U33

Release Version:

2.62 03-08-2022

Last Recommended or Critical Revision:

2.62 03-08-2022

Previous Revision:

2.60 01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".

2. Save and reboot the server.

3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.

4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)". For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

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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

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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

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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

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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 ML350 Gen10 (U41) Servers

Version: 2.62 03-08-2022 (Recommended)

Filename: U41 2.62 03 08 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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available.

Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".

2. Save and reboot the server.

3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.

4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Deliverable Name:

HPE ProLiant ML350 Gen10 System ROM - U41

Release Version:

2.62 03-08-2022

Last Recommended or Critical Revision:

2.62 03-08-2022

Previous Revision:

2.60 01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

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.

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM which is no longer available. Proceed with the following steps after updating to System ROM 2.62 from System ROM 2.60.

1. Reboot the server and navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Advanced ECC Support".

2. Save and reboot the server.

3. Confirm that "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is loaded during the POST or by navigating to RBSU > Advanced Memory Protection. If "Advanced Memory Protection Mode: Fast Fault Tolerant Memory (ADDDC)" is set, skip steps 4 and 5.

4. If AMP mode is not set to Fast Fault Tolerant Memory (ADDDC), navigate to BIOS/Platform Configuration (RBSU) > Advanced Memory Protection > Change to "Fast Fault Tolerant Memory (ADDDC)".

5. Save and reboot the server.

Note: If the workload profile does not allow to change the AMP mode to "Advanced ECC Support" as in Step 1, set the Custom workload profile to configure the "Advanced ECC Support". On Step 4, revert back to the desired workload profile and AMP mode "Fast Fault Tolerant Memory (ADDDC)".

For details, see https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00121538en_us.

Firmware Dependencies:

None

Problems Fixed:

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 where the system will boot with the Advanced Memory Protection (AMP) mode set to Advanced ECC when the AMP mode is configured to HPE Fast Fault Tolerant (ADDDC) when using the System ROM (01/13/2022) v2.60 revision. This issue does not occur if AMP mode is configured to any other mode except ADDDC. This issue does not occur with any other revision of the System ROM.

Known Issues:

None

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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: 2.62 03-08-2022 (Recommended)

Filename: U37_2.62_03_08_2022.fwpgk

-

Important Note!

Important Notes:

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Deliverable Name:

HPE ProLiant XL230k Gen10 System ROM - U37

Release Version:

2.62 03-08-2022

Last Recommended or Critical Revision:

2.62 03-08-2022

Previous Revision:

2.60 01-13-2022

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

-

Fixes

Important Notes:

This System ROM should be considered Critical for any systems using the v2.60 revision of the System ROM.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Advanced Memory Protection (AMP) mode was incorrectly forced to Advanced ECC from HPE Fast Fault Tolerant (ADDDC) mode after updating to Sysrom ROM 01/13/2022 v2.60.

Known Issues:

None

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ROM Flash Universal Firmware Package - HPE Apollo 6500 Gen10 Plus/HPE ProLiant XL645d Gen10 Plus (A48) Servers

Version: 2.56 02-10-2022 (Recommended)

Filename: A48_2.56_02_10_2022.fwpkg

-

Important Note!

Important Notes:

None

Deliverable Name:

HPE Apollo 6500 Gen10 Plus/HPE ProLiant XL645d Gen10 Plus System ROM - A48

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

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ROM Flash Universal Firmware Package - HPE Apollo 6500 Gen10 Plus/HPE ProLiant XL675d Gen10 Plus (A47) Servers

Version: 2.56 02-10-2022 (Recommended)

Filename: A47_2.56_02_10_2022.fwpkg

-

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL675d Gen10 Plus System ROM - A47

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

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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

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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

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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

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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 - Chipset

[Top](#)

Identifiers for AMD EPYC Processors for Microsoft Windows

Version: 4.2.0.0 **(Recommended)**

Filename: cp050588.compsig; cp050588.exe

Fixes

- Fixed version control issues

Identifiers for Intel Xeon E-22xx Processor for Microsoft Windows

Version: 10.1.18807.8279 **(Recommended)**

Filename: cp050604.compsig; cp050604.exe

Fixes

- Fixed version control issues

Identifiers for Intel Xeon E-23xx Processor for Microsoft Windows

Version: 10.1.18807.8279 **(Recommended)**

Filename: cp050605.compsig; cp050605.exe

Fixes

- Fixed version control issues

Identifiers for Intel Xeon Scalable Processors (First and Second Generation) for Microsoft Windows

Version: 10.1.18807.8279 (B) **(Recommended)**

Filename: cp050589.compsig; cp050589.exe

Fixes

- Fixed version control issues

Identifiers for Intel Xeon Scalable Processors (Third Generation) for Microsoft Windows

Version: 10.1.18807.8279 **(Recommended)**

Filename: cp050590.compsig; cp050590.exe

Fixes

- Fixed version control issues

Enhancements

- Modified install time
-

Driver - Lights-Out Management

[Top](#)

HPE iLO Native Driver for ESXi 7.0

Version: 10.7.5 **(Recommended)**

Filename: ilo-driver_700.10.7.5.2-1OEM.700.1.0.15843807_17856914.zip

Fixes

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

Driver - Network

[Top](#)

Broadcom NetXtreme-E Driver for Microsoft Windows Server 2019

Version: 219.0.44.0 **(Recommended)**

Filename: cp047541.compsig; cp047541.exe

Important Note!

HPE recommends the firmware provided in Broadcom Firmware Package for BCM5741x adapters, version 219.0.144.0 or later, for use with this driver.

Fixes

- This product correct an issue which System was unavailable to the create more then 32 Virtual Functions (VFs) per Virtual Functions (VFs)
- This product correct an issue which BSOD during heavy TX traffic.
- This product correct an issue which driver Initialization failure on Virtual functions
- This product correct an issue which BSOD after updating the inbox driver on Windows 2019.
- This product correct an issue which invalid link speed options on Base-T devices

- This product correct an issue which VF invalid on Windows virtual machines host

Supported Devices and Features

This product supports the following network adapters:

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

Broadcom NetXtreme-E Driver for Microsoft Windows Server 2022

Version: 219.0.44.0 **(Recommended)**

Filename: cp047542.compsig; cp047542.exe

Important Note!

HPE recommends the firmware provided in Broadcom Firmware Package for BCM5741x adapters, version 219.0.144.0 or later, for use with this driver.

Enhancements

Initial release.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port SFP+ BCM57412 OCP3 Adapter
- HPE Ethernet 10Gb 2-port SFP+ BCM57412 Adapter
- HPE Ethernet 10Gb 2-port BaseT BCM57416 OCP3 Adapter

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

Broadcom NetXtreme-E Driver for Windows Server 2016

Version: 218.0.32.0 **(Optional)**

Filename: cp045254.compsig; cp045254.exe

Important Note!

HPE recommends the firmware provided in *Broadcom NetXtreme-E Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.4.0 or later, for use with this driver.

Fixes

- This product correct an issue where an system are freeze and reboot when system recovering after non-fatal error.
- This product correct an issue which fixes VF will not load on certain Virtual OS when Windows is host OS.
- This product correct an issue which fixes user mode RDMA blue screen of death (BSoD) caused by an IRP SystemBuffer access race condition
- This product corrects a Windows Stop Error blue screen of death (BSoD) seen when uninstalling the NDIS driver

Supported Devices and Features

This product supports the following network adapters:

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

Broadcom NX1 1Gb Driver for Windows Server x64 Editions

Version: 219.0.1.0 **(Recommended)**

Filename: cp048940.compsig; cp048940.exe

Important Note!

HPE recommends the firmware provided in *HPE Broadcom NX1 Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.5.0 or later, for use with this driver.

Enhancements

Initial version

Supported Devices and Features

This product supports the following network adapters:

- Broadcom BCM5720 Ethernet 1Gb 2-port BASE-T LOM Adapter for HPE

HPE Broadcom NetXtreme-E Driver for Windows Server 2019

Version: 219.0.44.0 **(Recommended)**

Filename: cp047875.compsig; cp047875.exe

Important Note!

HPE recommends the *HPE Broadcom NetXtreme-E Firmware Package for BCM5741x adapters Version*, 218.0.259000 or later, for use with this driver.

Fixes

- This product correct an issue which System was unavailable to the create more then 32 Virtual Functions (VFs) per Virtual Functions (VFs)
- This product correct an issue which BSOD during heavy TX traffic.
- This product correct an issue which driver Initialization failure on Virtual functions
- This product correct an issue which BSOD after updating the inbox driver on Windows 2019.
- This product correct an issue which invalid link speed options on Base-T devices
- This product correct an issue which VF invalid on Windows virtual machines host

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 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

HPE Broadcom NetXtreme-E Driver for Windows Server 2022

Version: 219.0.44.0 (**Recommended**)

Filename: cp047876.compsig; cp047876.exe

Important Note!

HPE recommends the *HPE Broadcom NetXtreme-E Firmware Package for BCM5741x adapters Version, 218.0.259000* or later, for use with this driver.

Enhancements

Initial release.

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 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

HPE Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 7

Version: 1.10.2-219.0.55.0 (**Recommended**)

Filename: kmod-bnxt_en-1.10.2-219.0.55.0.rhel7u8.x86_64.compsig; kmod-bnxt_en-1.10.2-219.0.55.0.rhel7u8.x86_64.rpm; kmod-bnxt_en-1.10.2-219.0.55.0.rhel7u9.x86_64.compsig; kmod-bnxt_en-1.10.2-219.0.55.0.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the *HPE Broadcom NetXtreme-E Firmware Version*, 218.0.259000 or later, for use with this driver.

Fixes

- This product addresses an issue where Receive (RX) packet crash under heavy traffic.
- This product addresses an issue where Virtual Functions (VFs) cannot be configured while the Physical Function (PF) interface is administratively down.
- This product addresses an issue where system crash when driver unloads while firmware reset is in progress.

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

HPE Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 8

Version: 1.10.2-219.0.55.0 **(Recommended)**

Filename: kmod-bnxt_en-1.10.2-219.0.55.0.rhel8u3.x86_64.compsig; kmod-bnxt_en-1.10.2-219.0.55.0.rhel8u3.x86_64.rpm; kmod-bnxt_en-1.10.2-219.0.55.0.rhel8u4.x86_64.compsig; kmod-bnxt_en-1.10.2-219.0.55.0.rhel8u4.x86_64.rpm; README

Important Note!

HPE recommends the *HPE Broadcom NetXtreme-E Firmware Version*, 218.0.259000 or later, for use with this driver.

Fixes

- This product addresses an issue where Receive (RX) packet crash under heavy traffic.
- This product addresses an issue where Virtual Functions (VFs) cannot be configured while the Physical Function (PF) interface is administratively down.
- This product addresses an issue where system crash when driver unloads while firmware reset is in progress.

Enhancements

This product now supports Red Hat Enterprise Linux 8 update 4

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 631SFP28 Adapter

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

HPE Broadcom NetXtreme-E Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 1.10.2-219.0.55.0 (**Recommended**)

Filename: bnxt_en-kmp-default-1.10.2_k4.12.14_120-219.0.55.0.sles12sp5.x86_64.compsig; bnxt_en-kmp-default-1.10.2_k4.12.14_120-219.0.55.0.sles12sp5.x86_64.rpm; README

Important Note!

HPE recommends the *HPE Broadcom NetXtreme-E Firmware Version*, 218.0.259000 or later, for use with this driver.

Fixes

- This product addresses an issue where Receive (RX) packet crash under heavy traffic.
- This product addresses an issue where Virtual Functions (VFs) cannot be configured while the Physical Function (PF) interface is administratively down.
- This product addresses an issue where system crash when driver unloads while firmware reset is in progress.

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

HPE Broadcom NetXtreme-E Drivers for SUSE Linux Enterprise Server 15

Version: 1.10.2-219.0.55.0 **(Recommended)**

Filename: bnxt_en-kmp-default-1.10.2_k5.3.18_22-219.0.55.0.sles15sp2.x86_64.compsig; bnxt_en-kmp-default-1.10.2_k5.3.18_22-219.0.55.0.sles15sp2.x86_64.rpm;
bnxt_en-kmp-default-1.10.2_k5.3.18_57-219.0.55.0.sles15sp3.x86_64.compsig; bnxt_en-kmp-default-1.10.2_k5.3.18_57-219.0.55.0.sles15sp3.x86_64.rpm; README

Important Note!

HPE recommends the *HPE Broadcom NetXtreme-E Firmware Version*, 218.0.259000 or later, for use with this driver.

Fixes

- This product addresses an issue where Receive (RX) packet crash under heavy traffic.
- This product addresses an issue where Virtual Functions (VFs) cannot be configured while the Physical Function (PF) interface is administratively down.
- This product addresses an issue where system crash when driver unloads while firmware reset is in progress.

Enhancements

This product now supports SUSE Linux Enterprise Server 15 Service Pack 3

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

HPE Broadcom NetXtreme-E Drivers for VMware vSphere 6.5

Version: 2021.09.04 **(Recommended)**

Filename: cp049059.compsig; cp049059.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 vibsddepot.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 additional driver input/output control(ioctl) needed to support Firmware reset/error recovery counters.

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 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 vibsddepot.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 Broadcom NetXtreme-E Drivers for VMware vSphere 7.0

Version: 2021.09.04 **(Recommended)**

Filename: cp047900.compsig; cp047900.zip

Important Note!

- This component is intended to be used by HPE applications. It is a zip file that contains the same driver deliverable available from the vmware.com and the HPE vibspot.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 Broadcom NetXtreme-E RoCE Library for Red Hat Enterprise Linux 7 Update 8

Version: 219.0.8.0 (**Recommended**)

Filename: libbnxt_re-219.0.8.0-rhel7u8.x86_64.compsig; libbnxt_re-219.0.8.0-rhel7u8.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 7, version 1.10.2-219.0.48.0 or later, must be installed before installing this product.

The libibverbs and rdma-core package must be installed on the target system prior to the installation of the RoCE library. If not already present, the packages can be obtained from the operating system installation media.

Fixes

- This product addresses an issue where HardWare Resource Manager(HWRM) timeouts observed when firmware undergoes reset in the ethernet interface down state.
- This product addresses an issue where Receive (RX) packet crash under heavy traffic.

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

HPE Broadcom NetXtreme-E RoCE Library for Red Hat Enterprise Linux 7 Update 9

Version: 219.0.8.0 (**Recommended**)

Filename: libbnxt_re-219.0.8.0-rhel7u9.x86_64.compsig; libbnxt_re-219.0.8.0-rhel7u9.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 7, version 1.10.2-219.0.48.0 or later, must be installed before installing this product.

The libibverb and rdma-core package must be installed on the target system prior to the installation of the RoCE library. If not already present, the packages can be obtained from the operating system installation media.

Fixes

- This product addresses an issue where HardWare Resource Manager(HWRM) timeouts observed when firmware undergoes reset in the ethernet interface down state.
- This product addresses an issue where Receive (RX) packet crash under heavy traffic.

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 631SFP28 Adapter

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

HPE Broadcom NetXtreme-E RoCE Library for Red Hat Enterprise Linux 8 Update 2.

Version: 218.0.7.0 **(Optional)**

Filename: libbnxt_re-218.0.7.0-rhel8u2.x86_64.compsig; libbnxt_re-218.0.7.0-rhel8u2.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 8, version 1.10.2-218.0.65.0 or later, must be installed before installing this product.

The libibverbs and rdma-core package must be installed on the target system prior to the installation of the RoCE library. If not already present, the packages can be obtained from the operating system installation media.

Enhancements

Initial release.

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

HPE Broadcom NetXtreme-E RoCE Library for Red Hat Enterprise Linux 8 Update 3.

Version: 218.0.7.0 **(Optional)**

Filename: libbnxt_re-218.0.7.0-rhel8u3.x86_64.compsig; libbnxt_re-218.0.7.0-rhel8u3.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 8, version 1.10.2-218.0.65.0 or later, must be installed before installing this product.

The libibverb and rdma-core package must be installed on the target system prior to the installation of the RoCE library. If not already present, the packages can be obtained from the operating system installation media.

Enhancements

Initial release.

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

HPE Broadcom NetXtreme-E RoCE Library for Red Hat Enterprise Linux 8 Update 4.

Version: 219.0.8.0 (B) **(Recommended)**

Filename: libbnxt_re-219.0.8.0-rhel8u4.x86_64.compsig; libbnxt_re-219.0.8.0-rhel8u4.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 8, version 1.10.2-219.0.48.0 or later, must be installed before installing this product.

The libibverbs and rdma-core package must be installed on the target system prior to the installation of the RoCE library. If not already present, the packages can be obtained from the operating system installation media.

Fixes

- This product addresses an issue where HardWare Resource Manager(HWRM) timeouts observed when firmware undergoes reset in the ethernet interface down state.
- This product addresses an issue where Receive (RX) packet crash under heavy traffic.

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

HPE Broadcom NetXtreme-E RoCE Library for SUSE Linux Enterprise Server 12 SP4

Version: 218.0.7.0 **(Optional)**

Filename: libbnxt_re-218.0.7.0-sles12sp4.x86_64.compsig; libbnxt_re-218.0.7.0-sles12sp4.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for SUSE Linux Enterprise Server 12, version 1.10.2-218.0.65.0 or later, must be installed before installing this product.

The libibverbs and rdma-core package must be installed on the target system prior to the installation of the RoCE library. If not already present, the packages can be obtained from the operating system installation media.

Fixes

This product now supports rdma-core v29(rdma user space application)

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

HPE Broadcom NetXtreme-E RoCE Library for SUSE Linux Enterprise Server 12 SP5

Version: 219.0.8.0 (**Recommended**)

Filename: libbnxt_re-219.0.8.0-sles12sp5.x86_64.compsig; libbnxt_re-219.0.8.0-sles12sp5.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for SUSE Linux Enterprise Server 12, version 1.10.2-219.0.48.0 or later, must be installed before installing this product.

The libibverb and rdma-core package must be installed on the target system prior to the installation of the RoCE library. If not already present, the packages can be obtained from the operating system installation media.

Fixes

- This product addresses an issue where HardWare Resource Manager(HWRM) timeouts observed when firmware undergoes reset in the ethernet interface down state.
- This product addresses an issue where Receive (RX) packet crash under heavy traffic.

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

HPE Broadcom NetXtreme-E RoCE Library for SUSE Linux Enterprise Server 15

Version: 216.0.88.3 **(Optional)**

Filename: libbnxt_re-216.0.88.3-sles15sp0.x86_64.compsig; libbnxt_re-216.0.88.3-sles15sp0.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for SUSE Linux Enterprise Server 15, version 1.10.1-216.0.169.4 or later, must be installed before installing this product.

The libibverbs and rdma-core package must be installed on the target system prior to the installation of the RoCE library. If not already present, the packages can be obtained from the operating system installation media.

Fixes

- This product corrects an issue which RoCE bond is not getting created automatically after system reboot.
- This product corrects an issue which errors/performance may degrades after hot plug operation is performed.

Enhancements

- This product now disables loading RoCE driver on VFs when Link Aggregation is enabled.

- This product now supports rdma-core v22.

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 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

HPE Broadcom NetXtreme-E RoCE Library for SUSE Linux Enterprise Server 15 SP1

Version: 218.0.7.0 **(Optional)**

Filename: libbnxt_re-218.0.7.0-sles15sp1.x86_64.compsig; libbnxt_re-218.0.7.0-sles15sp1.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for SUSE Linux Enterprise Server 15, version 1.10.2-218.0.65.0 or later, must be installed before installing this product.

The libibverb and rdma-core package must be installed on the target system prior to the installation of the RoCE library. If not already present, the packages can be obtained from the operating system installation media..

Fixes

This product now supports rdma-core v29(rdma user space application)

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

HPE Broadcom NetXtreme-E RoCE Library for SUSE Linux Enterprise Server 15 SP2

Version: 219.0.8.0 (**Recommended**)

Filename: libbnxt_re-219.0.8.0-sles15sp2.x86_64.compsig; libbnxt_re-219.0.8.0-sles15sp2.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for SUSE Linux Enterprise Server 15, version 1.10.2-219.0.48.0 or later, must be installed before installing this product.

The libibverb and rdma-core package must be installed on the target system prior to the installation of the RoCE library. If not already present, the packages can be obtained from the operating system installation media..

Fixes

- This product addresses an issue where HardWare Resource Manager(HWRM) timeouts observed when firmware undergoes reset in the ethernet interface down state.
- This product addresses an issue where Receive (RX) packet crash under heavy traffic.

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 631SFP28 Adapter

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

HPE Broadcom NetXtreme-E RoCE Library for SUSE Linux Enterprise Server 15 SP3

Version: 219.0.8.0 (B) **(Recommended)**

Filename: libbnxt_re-219.0.8.0-sles15sp3.x86_64.compsig; libbnxt_re-219.0.8.0-sles15sp3.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for SUSE Linux Enterprise Server 15, version 1.10.2-219.0.48.0 or later, must be installed before installing this product.

The libibverb and rdma-core package must be installed on the target system prior to the installation of the RoCE library. If not already present, the packages can be obtained from the operating system installation media..

Fixes

- This product addresses an issue where HardWare Resource Manager(HWRM) timeouts observed when firmware undergoes reset in the ethernet interface down state.
- This product addresses an issue where Receive (RX) packet crash under heavy traffic.

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 631SFP28 Adapter
 - HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter
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HPE Broadcom NX1 1Gb Driver for Windows Server x64 Editions

Version: 219.0.1.0 **(Recommended)**

Filename: cp047793.compsig; cp047793.exe

Important Note!

HPE recommends the firmware provided in *HPE Broadcom NX1 Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.5.0 or later, for use with this driver.

Fixes

This product correct an issue which fixes Windows driver causes NMI/RSOD during OS shutdown

Enhancements

This product now supports Microsoft Windows Server 2022.

Supported Devices and Features

This driver 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 Broadcom tg3 Ethernet Drivers for Red Hat Enterprise Linux 7 x86_64

Version: 3.139b-1 **(Optional)**

Filename: kmod-tg3-3.139b-1.rhel7u8.x86_64.compsig; kmod-tg3-3.139b-1.rhel7u8.x86_64.rpm; kmod-tg3-3.139b-1.rhel7u9.x86_64.compsig; kmod-tg3-3.139b-1.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE NX1 Broadcom Online Firmware Upgrade Utility for Linux x86_64*, version 2.27.0 or later, for use with these drivers.

Fixes

The products fixes an a race condition issue where driver will still try to access the PHY(physical layer) although it was already brought down when the tg3 timer fires

Enhancements

This product now supports Red Hat Enterprise Linux 7 update 9

Supported Devices and Features

These drivers support 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 Broadcom tg3 Ethernet Drivers for Red Hat Enterprise Linux 8

Version: 3.139b-1 (B) **(Optional)**

Filename: kmod-tg3-3.139b-1.rhel8u3.x86_64.compsig; kmod-tg3-3.139b-1.rhel8u3.x86_64.rpm; kmod-tg3-3.139b-1.rhel8u4.x86_64.compsig; kmod-tg3-3.139b-1.rhel8u4.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE NX1 Broadcom Online Firmware Upgrade Utility for Linux x86_64*, version 2.28.0 or later, for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 8 update 4

Supported Devices and Features

These drivers support 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 Broadcom tg3 Ethernet Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 3.139b-2 (B) **(Optional)**

Filename: README; tg3-kmp-default-3.139b_k4.12.14_120-2.sles12sp5.x86_64.compsig; tg3-kmp-default-3.139b_k4.12.14_120-2.sles12sp5.x86_64.rpm

Important Note!

HPE recommends the firmware provided in *HPE NX1 Broadcom Online Firmware Upgrade Utility for Linux x86_64*, version 2.28.0 or later, for use with these drivers.

Enhancements

This product removed SUSE Linux Enterprise Server 12 Service Pack 4 supports.

Supported Devices and Features

These drivers support 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 Broadcom tg3 Ethernet Drivers for SUSE Linux Enterprise Server 15

Version: 3.139b-2 (B) **(Optional)**

Filename: README; tg3-kmp-default-3.139b_k5.3.18_22-2.sles15sp2.x86_64.compsig; tg3-kmp-default-3.139b_k5.3.18_22-2.sles15sp2.x86_64.rpm; tg3-kmp-default-3.139b_k5.3.18_57-2.sles15sp3.x86_64.compsig; tg3-kmp-default-3.139b_k5.3.18_57-2.sles15sp3.x86_64.rpm

Important Note!

HPE recommends the firmware provided in *HPE NX1 Broadcom Online Firmware Upgrade Utility for Linux x86_64*, version 2.28.0 or later, for use with these drivers.

Enhancements

This product now supports SUSE Linux Enterprise Server 15 Service Pack 3

Supported Devices and Features

These drivers support 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 Emulex 10/20 GbE Driver for VMware vSphere 6.5

Version: 2020.09.14 **(Optional)**

Filename: cp044545.compsig; cp044545.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 vib depot.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 6.5*, 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 10/20 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 vib depot.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 10/20 GbE Driver for Windows Server 2016

Version: 12.0.1195.0 (C) **(Optional)**

Filename: cp044541.compsig; cp044541.exe

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Windows (x64)*, 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 10/20 GbE Driver for Windows Server 2019

Version: 12.0.1195.0 (C) **(Optional)**

Filename: cp044542.compsig; cp044542.exe

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Windows (x64)*, 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 10/20 GbE iSCSI Driver for Windows Server 2016

Version: 12.0.1171.0 (C) **(Optional)**

Filename: cp044561.compsig; cp044561.exe

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Windows (x64)*, 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 10/20 GbE iSCSI Driver for Windows Server 2019

Version: 12.0.1171.0 (C) **(Optional)**

Filename: cp044562.compsig; cp044562.exe

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Windows (x64)*, 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 Drivers for Red Hat Enterprise Linux 7 x86_64

Version: 12.0.1342.0-1 **(Optional)**

Filename: kmod-be2net-12.0.1342.0-1.rhel7u8.x86_64.compsig; kmod-be2net-12.0.1342.0-1.rhel7u8.x86_64.rpm; kmod-be2net-12.0.1342.0-1.rhel7u9.x86_64.compsig; kmod-be2net-12.0.1342.0-1.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2020.08.01 for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 7 Update 8 and Red Hat Enterprise Linux 7 Update 9.

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 10Gb Converged Network Adapter
- HPE CN1200E 10GBASE-T Dual Port Converged Network Adapter

HPE Emulex 10/20GbE Drivers for Red Hat Enterprise Linux 8

Version: 12.0.1342.0-1 **(Optional)**

Filename: kmod-be2net-12.0.1342.0-1.rhel8u2.x86_64.compsig; kmod-be2net-12.0.1342.0-1.rhel8u2.x86_64.rpm; kmod-be2net-12.0.1342.0-1.rhel8u3.x86_64.compsig; kmod-be2net-12.0.1342.0-1.rhel8u3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2020.08.01 for use with these drivers.

Enhancements

- This product now supports Red Hat Enterprise Linux 8 Update 2 and Red Hat Enterprise Linux 8 Update 3
- This product now supports elx_net_install.sh installation script to install be2net driver on Red Hat Enterprise Linux 8 Update 1 or later.

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 10Gb Converged Network Adapter
- HPE CN1200E 10GBASE-T Dual Port Converged Network Adapter

HPE Emulex 10/20GbE Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 12.0.1342.0-1 **(Optional)**

Filename: be2net-kmp-default-12.0.1342.0_k4.12.14_120-1.sles12sp5.x86_64.compsig; be2net-kmp-default-12.0.1342.0_k4.12.14_120-1.sles12sp5.x86_64.rpm; be2net-kmp-default-12.0.1342.0_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; be2net-kmp-default-12.0.1342.0_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2020.08.01 for use with these drivers.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 Service Pack 5

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 10Gb Converged Network Adapter
- HPE CN1200E 10GBASE-T Dual Port Converged Network Adapter

HPE Emulex 10/20GbE Drivers for SUSE Linux Enterprise Server 15

Version: 12.0.1342.0-1 **(Optional)**

Filename: be2net-kmp-default-12.0.1342.0_k4.12.14_195-1.sles15sp1.x86_64.compsig; be2net-kmp-default-12.0.1342.0_k4.12.14_195-1.sles15sp1.x86_64.rpm;
be2net-kmp-default-12.0.1342.0_k5.3.18_22-1.sles15sp2.x86_64.compsig; be2net-kmp-default-12.0.1342.0_k5.3.18_22-1.sles15sp2.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2019.12.01 for use with these drivers.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 Service Pack 2

This product now supports elx_net_install.sh installation script to install be2net driver on SUSE Linux Enterprise Server 12 Service Pack 1 or later.

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 10Gb Converged Network Adapter
- HPE CN1200E 10GBASE-T Dual Port Converged Network Adapter

HPE Emulex 10/20GbE iSCSI Driver for VMware vSphere 6.5

Version: 2020.09.14 **(Optional)**

Filename: cp044543.compsig; cp044543.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 6.5*, 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 vib depot.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 Drivers for Red Hat Enterprise Linux 7 x86_64

Version: 12.0.1342.0-1 **(Optional)**

Filename: kmod-be2iscsi-12.0.1342.0-1.rhel7u8.x86_64.compsig; kmod-be2iscsi-12.0.1342.0-1.rhel7u8.x86_64.rpm; kmod-be2iscsi-12.0.1342.0-1.rhel7u9.x86_64.compsig; kmod-be2iscsi-12.0.1342.0-1.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2020.08.01 for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 7 Update 8 and Red Hat Enterprise Linux 7 Update 9

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 10Gb Converged Network Adapter
 - HPE CN1200E 10GBASE-T Dual Port Converged Network Adapter
-

HPE Emulex 10/20GbE iSCSI Drivers for Red Hat Enterprise Linux 8

Version: 12.0.1342.0-1 **(Optional)**

Filename: kmod-be2iscsi-12.0.1342.0-1.rhel8u2.x86_64.compsig; kmod-be2iscsi-12.0.1342.0-1.rhel8u2.x86_64.rpm; kmod-be2iscsi-12.0.1342.0-1.rhel8u3.x86_64.compsig; kmod-be2iscsi-12.0.1342.0-1.rhel8u3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2020.08.01 for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 8 Update 2 and Red Hat Enterprise Linux 8 Update 3

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 10Gb Converged Network Adapter
- HPE CN1200E 10GBASE-T Dual Port Converged Network Adapter

HPE Emulex 10/20GbE iSCSI Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 12.0.1342.0-1 **(Optional)**

Filename: be2iscsi-kmp-default-12.0.1342.0_k4.12.14_120-1.sles12sp5.x86_64.compsig; be2iscsi-kmp-default-12.0.1342.0_k4.12.14_120-1.sles12sp5.x86_64.rpm; be2iscsi-kmp-default-12.0.1342.0_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; be2iscsi-kmp-default-12.0.1342.0_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2020.08.01 for use with these drivers.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 Service Pack 5

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 10Gb Converged Network Adapter
- HPE CN1200E 10GBASE-T Dual Port Converged Network Adapter

HPE Emulex 10/20GbE iSCSI Drivers for SUSE Linux Enterprise Server 15

Version: 12.0.1342.0-1 **(Optional)**

Filename: be2iscsi-kmp-default-12.0.1342.0_k4.12.14_195-1.sles15sp1.x86_64.compsig; be2iscsi-kmp-default-12.0.1342.0_k4.12.14_195-1.sles15sp1.x86_64.rpm;
be2iscsi-kmp-default-12.0.1342.0_k5.3.18_22-1.sles15sp2.x86_64.compsig; be2iscsi-kmp-default-12.0.1342.0_k5.3.18_22-1.sles15sp2.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2020.08.01 for use with these drivers.

Enhancements

This product now supports SUSE Linux Enterprise Server 15 Service Pack 1 and SUSE Linux Enterprise Server 15 Service Pack 2

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 10Gb Converged Network Adapter
- HPE CN1200E 10GBASE-T Dual Port Converged Network Adapter

HPE Intel E1R Driver for Windows Server 2016

Version: 12.16.4.1 **(Recommended)**

Filename: cp047043.compsig; cp047043.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.5.0 or later, for use with this driver.

Enhancements

This product is updated to maintain compatibility with updated Windows installation library NicInE1R.dll and e1rmsg.dll.

Supported Devices and Features

This driver supports the following HPE Intel E1R network adapters:

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

HPE Intel E1R Driver for Windows Server 2019

Version: 12.18.12.1 **(Recommended)**

Filename: cp047044.compsig; cp047044.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.5.0 or later, for use with this driver.

Enhancements

This product is updated to maintain compatibility with updated Windows installation library NicInE1R.dll and e1rmsg.dll.

Supported Devices and Features

This driver supports the following HPE Intel E1R network adapters:

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

HPE Intel E1R Driver for Windows Server 2022

Version: 13.0.9.0 **(Recommended)**

Filename: cp049621.compsig; cp049621.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.6.0 or later, for use with this driver.

Enhancements

Initial version

Supported Devices and Features

This driver supports the following HPE Intel E1R network adapters:

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

HPE Intel i40e Drivers for Red Hat Enterprise Linux 7 x86_64

Version: 2.17.4-1 **(Recommended)**

Filename: kmod-hp-i40e-2.17.4-1.rhel7u8.x86_64.compsig; kmod-hp-i40e-2.17.4-1.rhel7u8.x86_64.rpm; kmod-hp-i40e-2.17.4-1.rhel7u9.x86_64.compsig; kmod-hp-i40e-2.17.4-1.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.50 or later, for use with these drivers.

Fixes

- This product addresses an issue where double count in crc_error and size_error counter.

- This product addresses an issue where ethtool status triggers a warning due to invalid size on veb_tc when veb-stats was enabled.
- This product addresses an issue where the kernel error message about PF reset failed.
- This product addresses an issue where the adapter LED is not blinking via ethtool command
- This product addresses an issue where physical functions cannot synchronize tpid setting
- This product addresses an issue where Linux kernel problem (kernel Oops) when Virtual Station Interface (VSI) reset.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT 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 563i Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter

HPE Intel i40e Drivers for Red Hat Enterprise Linux 8

Version: 2.17.4-1 **(Recommended)**

Filename: kmod-hp-i40e-2.17.4-1.rhel8u3.x86_64.compsig; kmod-hp-i40e-2.17.4-1.rhel8u3.x86_64.rpm; kmod-hp-i40e-2.17.4-1.rhel8u4.x86_64.compsig; kmod-hp-i40e-2.17.4-1.rhel8u4.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.50 or later, for use with these drivers.

Fixes

- This product addresses an issue where double count in crc_error and size_error counter.
- This product addresses an issue where ethtool status triggers a warning due to invalid size on veb_tc when veb-stats was enabled.
- This product addresses an issue where the kernel error message about PF reset failed.

- This product addresses an issue where the adapter LED is not blinking via ethtool command
- This product addresses an issue where physical functions cannot synchronize tpid setting
- This product addresses an issue where Linux kernel problem (kernel Oops) when Virtual Station Interface (VSI) reset.

Enhancements

This product now supports Red Hat Enterprise Linux 8 update 4

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT 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 563i Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter

HPE Intel i40e Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 2.17.4-1 **(Recommended)**

Filename: hp-i40e-kmp-default-2.17.4_k4.12.14_120-1.sles12sp5.x86_64.compsig; hp-i40e-kmp-default-2.17.4_k4.12.14_120-1.sles12sp5.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.50 or later, for use with these drivers.

Fixes

- This product addresses an issue where double count in crc_error and size_error counter.

- This product addresses an issue where ethtool status triggers a warning due to invalid size on veb_tc when veb-stats was enabled.
- This product addresses an issue where the kernel error message about PF reset failed.
- This product addresses an issue where the adapter LED is not blinking via ethtool command
- This product addresses an issue where physical functions cannot synchronize tpid setting
- This product addresses an issue where Linux kernel problem (kernel Oops) when Virtual Station Interface (VSI) reset.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT 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 563i Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter

HPE Intel i40e Drivers for SUSE Linux Enterprise Server 15

Version: 2.17.4-1 **(Recommended)**

Filename: hp-i40e-kmp-default-2.17.4_k5.3.18_22-1.sles15sp2.x86_64.compsig; hp-i40e-kmp-default-2.17.4_k5.3.18_22-1.sles15sp2.x86_64.rpm; hp-i40e-kmp-default-2.17.4_k5.3.18_57-1.sles15sp3.x86_64.compsig; hp-i40e-kmp-default-2.17.4_k5.3.18_57-1.sles15sp3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.50 or later, for use with these drivers.

Fixes

- This product addresses an issue where double count in crc_error and size_error counter.
- This product addresses an issue where ethtool status triggers a warning due to invalid size on veb_tc when veb-stats was enabled.
- This product addresses an issue where the kernel error message about PF reset failed.

- This product addresses an issue where the adapter LED is not blinking via ethtool command
- This product addresses an issue where physical functions cannot synchronize tpid setting
- This product addresses an issue where Linux kernel problem (kernel Oops) when Virtual Station Interface (VSI) reset.

Enhancements

This product now supports SUSE Linux Enterprise Server 15 Service Pack 3

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT 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 563i Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter

HPE Intel i40ea Driver for Windows Server 2016

Version: 1.16.62.0 **(Recommended)**

Filename: cp047045.compsig; cp047045.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.5.50 or later, for use with this driver.

Enhancements

This product is updated to maintain compatibility with updated Windows installation library i40eamsg.dll.

Supported Devices and Features

This product supports the following network adapters:

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

HPE Intel i40ea Driver for Windows Server 2019

Version: 1.16.62.0 (**Recommended**)

Filename: cp047046.compsig; cp047046.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.5.50 or later, for use with this driver.

Enhancements

This product is updated to maintain compatibility with updated Windows installation library i40eamsg.dll.

Supported Devices and Features

This product supports the following network adapters:

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

HPE Intel i40ea Driver for Windows Server 2022

Version: 1.16.139.0 **(Recommended)**

Filename: cp049616.compsig; cp049616.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.6.0 or later, for use with this driver.

Enhancements

Initial version

Supported Devices and Features

This product supports the following network adapters:

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

HPE Intel i40eb Driver for Windows Server 2016

Version: 1.16.62.0 **(Recommended)**

Filename: cp047047.compsig; cp047047.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.5.50 or later, for use with this driver.

Enhancements

This product is updated to maintain compatibility with updated Windows installation library i40ebmsg.dll.

Supported Devices and Features

This product supports the following network adapters:

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

HPE Intel i40eb Driver for Windows Server 2019

Version: 1.16.62.0 **(Recommended)**

Filename: cp047048.compsig; cp047048.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.5.50 or later, for use with this driver.

Enhancements

This product is updated to maintain compatibility with updated Windows installation library i40ebmsg.dll.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 568i Adapter

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

HPE Intel i40eb Driver for Windows Server 2022

Version: 1.16.141.0 **(Recommended)**

Filename: cp049617.compsig; cp049617.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.6.0 or later, for use with this driver.

Enhancements

Initial version

Supported Devices and Features

This product supports the following network adapters:

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

HPE Intel i40en Driver for VMware vSphere 6.5

Version: 2021.12.00 **(Recommended)**

Filename: cp049058.compsig; cp049058.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 vibsddepot.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 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 vibstest.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 i40en Driver for VMware vSphere 7.0

Version: 2021.12.00 (**Recommended**)

Filename: cp045338.compsig; cp045338.zip

Important Note!

This component is intended to be used by HPE applications. It is a zip file that contains the same driver deliverable available from the vmware.com and the HPE vib depot.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 iavf Driver for Windows Server 2016

Version: 1.12.9.0 **(Optional)**

Filename: cp045011.compsig; cp045011.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.4.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 1.13.104.0 or later.

Enhancements

This product is updated to maintain compatibility with updated Windows installation library iavfmsg.dll.

Supported Devices and Features

This product supports the following HPE Intel i40ea network adapters:

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

This product supports the following HPE Intel i40eb network adapters:

- 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 iavf Driver for Windows Server 2019

Version: 1.12.9.0 **(Optional)**

Filename: cp045010.compsig; cp045010.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.4.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 1.13.104.0 or later.

Enhancements

This product is updated to maintain compatibility with updated Windows installation library iavfmsg.dll.

Supported Devices and Features

This product supports the following HPE Intel i40ea network adapters:

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

This product supports the following HPE Intel i40eb network adapters:

- 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 iavf Driver for Windows Server 2022

Version: 1.13.8.0 **(Recommended)**

Filename: cp049687.compsig; cp049687.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.6.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 1.16.139.0 or later.

Enhancements

Initial version.

Supported Devices and Features

This product supports the following HPE Intel i40ea network adapters:

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

This product supports the following HPE Intel i40eb network adapters:

- 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 iavf Drivers for Red Hat Enterprise Linux 7 x86_64

Version: 4.2.7-1 **(Recommended)**

Filename: kmod-hp-iavf-4.2.7-1.rhel7u8.x86_64.compsig; kmod-hp-iavf-4.2.7-1.rhel7u8.x86_64.rpm; kmod-hp-iavf-4.2.7-1.rhel7u9.x86_64.compsig; kmod-hp-iavf-4.2.7-1.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.0 or later, for use with these drivers.

Fixes

- This product addresses an issue where HyperV Ping is lost after change MTU on VF interface in a VM linux
- This product addresses an issue which could lead to traffic interrupts and full traffic stop through the bond when VFs were added to bonding-alb/tlb modes

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT 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 563i Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter

HPE Intel iavf Drivers for Red Hat Enterprise Linux 8

Version: 4.2.7-1 **(Recommended)**

Filename: kmod-hp-iavf-4.2.7-1.rhel8u3.x86_64.compsig; kmod-hp-iavf-4.2.7-1.rhel8u3.x86_64.rpm; kmod-hp-iavf-4.2.7-1.rhel8u4.x86_64.compsig; kmod-hp-iavf-4.2.7-1.rhel8u4.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.0 or later, for use with these drivers.

Fixes

- This product addresses an issue where HyperV Ping is lost after change MTU on VF interface in a VM linux
- This product addresses an issue which could lead to traffic interrupts and full traffic stop through the bond when VFs were added to bonding-alb/tlb modes

Enhancements

This product now supports Red Hat Enterprise Linux 8 update 4

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT 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 563i Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter

HPE Intel iavf Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 4.2.7-1 **(Recommended)**

Filename: hp-iavf-kmp-default-4.2.7_k4.12.14_120-1.sles12sp5.x86_64.compsig; hp-iavf-kmp-default-4.2.7_k4.12.14_120-1.sles12sp5.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.0 or later, for use with these drivers.

Fixes

- This product addresses an issue where HyperV Ping is lost after change MTU on VF interface in a VM linux
- This product addresses an issue which could lead to traffic interrupts and full traffic stop through the bond when VFs were added to bonding-alb/tlb modes

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT 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 563i Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter

HPE Intel iavf Drivers for SUSE Linux Enterprise Server 15

Version: 4.2.7-1 **(Recommended)**

Filename: hp-iavf-kmp-default-4.2.7_k5.3.18_22-1.sles15sp2.x86_64.compsig; hp-iavf-kmp-default-4.2.7_k5.3.18_22-1.sles15sp2.x86_64.rpm; hp-iavf-kmp-default-4.2.7_k5.3.18_57-1.sles15sp3.x86_64.compsig; hp-iavf-kmp-default-4.2.7_k5.3.18_57-1.sles15sp3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.0 or later, for use with these drivers.

Fixes

- This product addresses an issue where HyperV Ping is lost after change MTU on VF interface in a VM linux
- This product addresses an issue which could lead to traffic interrupts and full traffic stop through the bond when VFs were added to bonding-alb/tlb modes

Enhancements

This product now supports SUSE Linux Enterprise Server 15 Service Pack 3

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT 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 563i Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter

- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter

HPE Intel igb Drivers for Red Hat Enterprise Linux 7 x86_64

Version: 6.8.5-2 (**Recommended**)

Filename: kmod-hp-igb-6.8.5-2.rhel7u8.x86_64.compsig; kmod-hp-igb-6.8.5-2.rhel7u8.x86_64.rpm; kmod-hp-igb-6.8.5-2.rhel7u9.x86_64.compsig; kmod-hp-igb-6.8.5-2.rhel7u9.x86_64.rpm; README

Fixes

This product fix an issue where the firmware update fail on Linux

Supported Devices and Features

These drivers support the following Intel 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 Communication Board
- HPE Ethernet 1Gb 4-port 366T Adapter

HPE Intel igb Drivers for Red Hat Enterprise Linux 8

Version: 6.8.5-2 (**Recommended**)

Filename: kmod-hp-igb-6.8.5-2.rhel8u3.x86_64.compsig; kmod-hp-igb-6.8.5-2.rhel8u3.x86_64.rpm; kmod-hp-igb-6.8.5-2.rhel8u4.x86_64.compsig; kmod-hp-igb-6.8.5-2.rhel8u4.x86_64.rpm; README

Fixes

This product fix an issue where the firmware update fail on Linux

Supported Devices and Features

These drivers support the following Intel 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 Communication Board
- HPE Ethernet 1Gb 4-port 366T Adapter

HPE Intel igb Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 6.8.5-2 **(Recommended)**

Filename: hp-igb-kmp-default-6.8.5_k4.12.14_120-2.sles12sp5.x86_64.compsig; hp-igb-kmp-default-6.8.5_k4.12.14_120-2.sles12sp5.x86_64.rpm; README

Fixes

This product fix an issue where the firmware update fail on Linux

Supported Devices and Features

These drivers support the following Intel 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 Communication Board
- HPE Ethernet 1Gb 4-port 366T Adapter

HPE Intel igb Drivers for SUSE Linux Enterprise Server 15

Version: 6.8.5-2 **(Recommended)**

Filename: hp-igb-kmp-default-6.8.5_k5.3.18_22-2.sles15sp2.x86_64.compsig; hp-igb-kmp-default-6.8.5_k5.3.18_22-2.sles15sp2.x86_64.rpm; hp-igb-kmp-default-6.8.5_k5.3.18_57-2.sles15sp3.x86_64.compsig; hp-igb-kmp-default-6.8.5_k5.3.18_57-2.sles15sp3.x86_64.rpm; README

Fixes

This product fix an issue where the firmware update fail on Linux

Supported Devices and Features

These drivers support the following Intel 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 Communication Board
- HPE Ethernet 1Gb 4-port 366T Adapter

HPE Intel igbn Driver for VMware vSphere 6.5

Version: 2021.09.04 **(Recommended)**

Filename: cp049060.compsig; cp049060.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 vib depot.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 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 vibstap.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 igbn Driver for VMware vSphere 7.0

Version: 2021.09.04 **(Recommended)**

Filename: cp047111.compsig; cp047111.zip

Important Note!

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

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

Supported Devices and Features

These drivers support the following network adapters:

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

HPE Intel ixgbe Drivers for Red Hat Enterprise Linux 7 x86_64

Version: 5.13.4-1 **(Recommended)**

Filename: kmod-hp-ixgbe-5.13.4-1.rhel7u8.x86_64.compsig; kmod-hp-ixgbe-5.13.4-1.rhel7u8.x86_64.rpm; kmod-hp-ixgbe-5.13.4-1.rhel7u9.x86_64.compsig; kmod-hp-ixgbe-5.13.4-1.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.50 or later, for use with these drivers.

Enhancements

This products enhances the mechanism that enable MDD(Malicious Driver Detection) when SRIOV is disabled.

Supported Devices and Features

These drivers support the following network adapters:

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

- HPE Ethernet 10Gb 2-port 561FLR-T Adapter

HPE Intel ixgbe Drivers for Red Hat Enterprise Linux 8

Version: 5.13.4-1 **(Recommended)**

Filename: kmod-hp-ixgbe-5.13.4-1.rhel8u3.x86_64.compsig; kmod-hp-ixgbe-5.13.4-1.rhel8u3.x86_64.rpm; kmod-hp-ixgbe-5.13.4-1.rhel8u4.x86_64.compsig; kmod-hp-ixgbe-5.13.4-1.rhel8u4.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.50 or later, for use with these drivers.

Enhancements

- This products enhances the mechanism that enable MDD(Malicious Driver Detection) when SRIOV is disabled.
- This product now supports Red Hat Enterprise Linux 8 update 4

Supported Devices and Features

These drivers support the following network adapters:

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

HPE Intel ixgbe Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 5.13.4-1 **(Recommended)**

Filename: hp-ixgbe-kmp-default-5.13.4_k4.12.14_120-1.sles12sp5.x86_64.compsig; hp-ixgbe-kmp-default-5.13.4_k4.12.14_120-1.sles12sp5.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.50 or later, for use with these drivers.

Enhancements

This products enhances the mechanism that enable MDD(Malicious Driver Detection) when SRIOV is disabled.

Supported Devices and Features

These drivers support the following network adapters:

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

HPE Intel ixgbe Drivers for SUSE Linux Enterprise Server 15

Version: 5.13.4-1 **(Recommended)**

Filename: hp-ixgbe-kmp-default-5.13.4_k5.3.18_22-1.sles15sp2.x86_64.compsig; hp-ixgbe-kmp-default-5.13.4_k5.3.18_22-1.sles15sp2.x86_64.rpm; hp-ixgbe-kmp-default-5.13.4_k5.3.18_57-1.sles15sp3.x86_64.compsig; hp-ixgbe-kmp-default-5.13.4_k5.3.18_57-1.sles15sp3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.50 or later, for use with these drivers.

Enhancements

- This products enhances the mechanism that enable MDD(Malicious Driver Detection) when SRIOV is disabled.
- This product now supports SUSE Linux Enterprise Server 15 Service Pack 3

Supported Devices and Features

These drivers support the following network adapters:

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

HPE Intel ixgben Driver for VMware vSphere 6.5

Version: 2021.12.00 **(Recommended)**

Filename: cp049117.compsig; cp049117.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 vib depot.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 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 Intel ixgben Driver for VMware vSphere 7.0

Version: 2021.12.00 **(Recommended)**

Filename: cp047115.compsig; cp047115.zip

Important Note!

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

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

Fixes

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

Supported Devices and Features

These drivers support the following network adapters:

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

- HPE Ethernet 10Gb 2-port 562T Adapter
- HPE Ethernet 10Gb 2-port 562FLR-T Adapter

HPE Intel ixgbevf Drivers for Red Hat Enterprise Linux 7 x86_64

Version: 4.13.3-1 (**Recommended**)

Filename: kmod-hp-ixgbevf-4.13.3-1.rhel7u8.x86_64.compsig; kmod-hp-ixgbevf-4.13.3-1.rhel7u8.x86_64.rpm; kmod-hp-ixgbevf-4.13.3-1.rhel7u9.x86_64.compsig; kmod-hp-ixgbevf-4.13.3-1.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.50 or later, for use with these drivers.

Fixes

- This product addresses an issue where potential memory leak
- This product addresses an issue where eXpress Data Path(XDP) frame size calculations.

Supported Devices and Features

These drivers support the following network adapters:

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

HPE Intel ixgbevf Drivers for Red Hat Enterprise Linux 8

Version: 4.13.3-1 **(Recommended)**

Filename: kmod-hp-ixgbevf-4.13.3-1.rhel8u3.x86_64.compsig; kmod-hp-ixgbevf-4.13.3-1.rhel8u3.x86_64.rpm; kmod-hp-ixgbevf-4.13.3-1.rhel8u4.x86_64.compsig; kmod-hp-ixgbevf-4.13.3-1.rhel8u4.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.50 or later, for use with these drivers.

Fixes

- This product addresses an issue where potential memory leak
- This product addresses an issue where eXpress Data Path(XDP) frame size calculations.

Enhancements

This product now supports Red Hat Enterprise Linux 8 update 4

Supported Devices and Features

These drivers support the following network adapters:

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

HPE Intel ixgbevf Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 4.13.3-1 **(Recommended)**

Filename: hp-ixgbevf-kmp-default-4.13.3_k4.12.14_120-1.sles12sp5.x86_64.compsig; hp-ixgbevf-kmp-default-4.13.3_k4.12.14_120-1.sles12sp5.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.50 or later, for use with these drivers.

Fixes

- This product addresses an issue where potential memory leak
- This product addresses an issue where eXpress Data Path(XDP) frame size calculations.

Supported Devices and Features

These drivers support the following network adapters:

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

HPE Intel ixgbevf Drivers for SUSE Linux Enterprise Server 15

Version: 4.13.3-1 **(Recommended)**

Filename: hp-ixgbevf-kmp-default-4.13.3_k5.3.18_22-1.sles15sp2.x86_64.compsig; hp-ixgbevf-kmp-default-4.13.3_k5.3.18_22-1.sles15sp2.x86_64.rpm; hp-ixgbevf-kmp-default-4.13.3_k5.3.18_57-1.sles15sp3.x86_64.compsig; hp-ixgbevf-kmp-default-4.13.3_k5.3.18_57-1.sles15sp3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.22.50 or later, for use with these drivers.

Fixes

- This product addresses an issue where potential memory leak
- This product addresses an issue where eXpress Data Path(XDP) frame size calculations.

Enhancements

This product now supports SUSE Linux Enterprise Server 15 Service Pack 3

Supported Devices and Features

These drivers support the following network adapters:

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

HPE Intel ixn Driver for Windows Server 2016

Version: 4.1.239.0 (**Recommended**)

Filename: cp047056.compsig; cp047056.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.5.50 or later, for use with this driver.

Enhancements

This product is updated to maintain compatibility with updated Windows installation library NicInIXN.dll and ixnmsg.dll.

Supported Devices and Features

This component supports the following network adapters:

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

HPE Intel ixn Driver for Windows Server 2019

Version: 4.1.239.0 (**Recommended**)

Filename: cp047049.compsig; cp047049.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.5.50 or later, for use with this driver.

Enhancements

This product is updated to maintain compatibility with updated Windows installation library NicInIXN.dll and ixnmsg.dll.

Supported Devices and Features

This component supports the following network adapters:

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

HPE Intel ixs Driver for Windows Server 2016

Version: 4.1.239.0 **(Recommended)**

Filename: cp047050.compsig; cp047050.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.5.50 or later, for use with this driver.

Enhancements

This product is updated to maintain compatibility with updated Windows installation library NicInIXS.dll and ixsmg.dll.

Supported Devices and Features

This driver supports the following network adapters:

- HPE Ethernet 10Gb 2-port 562FLR-T Adapter
- HPE Ethernet 10Gb 2-port 562T Adapter

HPE Intel ixs Driver for Windows Server 2019

Version: 4.1.239.0 **(Recommended)**

Filename: cp047051.compsig; cp047051.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.2.5.0 or later, for use with this driver.

Enhancements

This product is updated to maintain compatibility with updated Windows installation library NicInIXS.dll and ixsmg.dll.

Supported Devices and Features

This driver supports the following network adapters:

- HPE Ethernet 10Gb 2-port 562FLR-T Adapter
- HPE Ethernet 10Gb 2-port 562T Adapter

HPE Intel ixs Driver for Windows Server 2022

Version: 4.1.246.0 (Recommended)

Filename: cp049619.compsig; cp049619.exe

-

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.6.0 or later, for use with this driver.

-

Enhancements

Initial version

-

Supported Devices and Features

This driver supports the following network adapters:

- **HPE Ethernet 10Gb 2-port 562FLR-T Adapter**

- HPE Ethernet 10Gb 2-port 562T Adapter

-

HPE Intel vxn Driver for Windows Server 2016

Version: 2.1.243.0 (Recommended)

Filename: cp047054.compsig; cp047054.exe

-

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.5.50 or later, for use with this driver.

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Prerequisites

This driver requires host driver version , ixn 4.1.239.0, ixt 4.1.229.0 or later.

-

Enhancements

This product is updated to maintain compatibility with updated Windows installation library NicInVXN.dll and vxnmsg.dll.

-

Supported Devices and Features

This component supports the following HPE Intel ixn network adapters:

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

This component supports the following HPE Intel ixt network adapters:

- HPE Ethernet 10Gb 2-port 561FLR-T Adapter
- HPE Ethernet 10Gb 2-port 561T Adapter

-

HPE Intel vxn Driver for Windows Server 2019

Version: 2.1.241.0 (Recommended)

Filename: cp047055.compsig; cp047055.exe

-

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.5.50 or later, for use with this driver.

-

Prerequisites

This driver requires host driver version , ixn 4.1.239.0, ixt 4.1.228.0 or later.

-

Enhancements

This product is updated to maintain compatibility with updated Windows installation library NicInVXN.dll and vxnmsg.dll.

-

Supported Devices and Features

This component supports the following HPE Intel ixn network adapters:

- **HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter**
- **HPE Ethernet 10Gb 2-port 560SFP+ Adapter**

This component supports the following HPE Intel ixt network adapters:

- **HPE Ethernet 10Gb 2-port 561FLR-T Adapter**
 - **HPE Ethernet 10Gb 2-port 561T Adapter**
-

HPE Intel vxs Driver for Windows Server 2016

Version: 2.1.232.0 (Recommended)

Filename: cp047084.compsig; cp047084.exe

-

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.5.50 or later, for use with this driver.

-

Prerequisites

This driver requires host driver version 4.1.239.0 or later.

-

Enhancements

This product is updated to maintain compatibility with updated Windows installation library NicInVXS.dll and vxsmmsg.dll.

-

Supported Devices and Features

This driver supports the following network adapters:

- **HPE Ethernet 10Gb 2-port 562FLR-T Adapter**
- **HPE Ethernet 10Gb 2-port 562T Adapter**

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HPE Intel vxs Driver for Windows Server 2019

Version: 2.1.230.0 (Recommended)

Filename: cp047085.compsig; cp047085.exe

-

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.5.50 or later, for use with this driver.

-

Prerequisites

This driver requires host driver version 4.1.239.0 or later.

-

Enhancements

This product is updated to maintain compatibility with updated Windows installation library NicInVXS.dll and vxsmg.dll.

-

Supported Devices and Features

This driver supports the following network adapters:

- **HPE Ethernet 10Gb 2-port 562FLR-T Adapter**
- **HPE Ethernet 10Gb 2-port 562T Adapter**

HPE Intel vxs Driver for Windows Server 2022

Version: 2.1.241.0 (Recommended)

Filename: cp049620.compsig; cp049620.exe

-

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.6.0 or later, for use with this driver.

-

Prerequisites

This driver requires host driver version 4.1.246.0 or later.

-

Enhancements

Initial version

-

Supported Devices and Features

This driver supports the following network adapters:

- HPE Ethernet 10Gb 2-port 562FLR-T Adapter
- HPE Ethernet 10Gb 2-port 562T Adapter

-

HPE Mellanox CX4LX and CX5 Driver for Microsoft Windows Server 2016

Version: 2.80.25134.0 (Recommended)

Filename: cp050319.compsig; cp050319.exe

-

Fixes

- This product correct an issue which fixed a possible system crash when deleting vPort under Rx traffic.
- This product correct an issue which fixed an issue that allowed the installation process to be completed successfully even though one of the drivers was not updated.
- This product correct an issue which fixed an issue that caused traffic lose and connection closure when TCP Timestamp option (ts-val) is present and the MSB is set together with RSC.

-

Enhancements

This driver now allows the Event Viewer to overcome an OS limitation related to long names.

-

Supported Devices and Features

This driver supports the following network adapters:

- **HPE Ethernet 100Gb 1-port 842QSFP28 Adapter**
- **HPE Ethernet 25Gb 2-port 640SFP28 Adapter**
- **HPE Ethernet 25Gb 2-port 640 FLR-SFP28 Adapter**
- **HPE Ethernet 10Gb 2-port 548SFP+ Adapter**
- **HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter**
- **HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter**
- **HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter**
- **HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter**

HPE Mellanox CX4LX and CX5 Driver for Microsoft Windows Server 2019

Version: 2.80.25134.0 (Recommended)

Filename: cp050320.compsig; cp050320.exe

-

Fixes

- **This product correct an issue which fixed a possible system crash when deleting vPort under Rx traffic.**
- **This product correct an issue which fixed an issue that allowed the installation process to be completed successfully even though one of the drivers was not updated.**
- **This product correct an issue which fixed an issue that caused traffic lose and connection closure when TCP Timestamp option (ts-val) is present and the MSB is set together with RSC.**

-

Enhancements

This driver now allows the Event Viewer to overcome an OS limitation related to long names.

-

Supported Devices and Features

This driver supports the following network adapters:

- HPE Ethernet 100Gb 1-port 842QSFP28 Adapter
- HPE Ethernet 25Gb 2-port 640SFP28 Adapter
- HPE Ethernet 25Gb 2-port 640 FLR-SFP28 Adapter
- HPE Ethernet 10Gb 2-port 548SFP+ Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter
- HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter

-

HPE Mellanox CX4LX and CX5 Driver for Microsoft Windows Server 2022

Version: 2.80.25134.0 (Recommended)

Filename: cp050321.compsig; cp050321.exe

-

Fixes

- This product correct an issue which fixed a possible system crash when deleting vPort under Rx traffic.
- This product correct an issue which fixed an issue that allowed the installation process to be completed successfully even though one of the drivers was not updated.
- This product correct an issue which fixed an issue that caused traffic lose and connection closure when TCP Timestamp option (ts-val) is present and the MSB is set together with RSC.

-

Enhancements

This driver now allows the Event Viewer to overcome an OS limitation related to long names.

-

Supported Devices and Features

This driver supports the following network adapters:

- HPE Ethernet 100Gb 1-port 842QSFP28 Adapter

- HPE Ethernet 25Gb 2-port 640SFP28 Adapter
- HPE Ethernet 25Gb 2-port 640 FLR-SFP28 Adapter
- HPE Ethernet 10Gb 2-port 548SFP+ Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter
- HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter

-

HPE Mellanox MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode for Red Hat Enterprise Linux 7 Update 8 (x86_64)

Version: 4.18 (Recommended)

Filename: kmod-kernel-mft-mlnx-4.18.0-1.rhel7u8.x86_64.compsig; kmod-kernel-mft-mlnx-4.18.0-1.rhel7u8.x86_64.rpm; mft-4.18.0-106.rhel7u8.x86_64.compsig; mft-4.18.0-106.rhel7u8.x86_64.rpm

-

Fixes

The following issues have been fixed in MFT version 4.18:

- **Using Phyless reset with level 4 (warm reboot with NIC phyless reset) occasionally resulted in hardware errors and link dropping.**

-

Enhancements

Changes and New features in MFT version 4.18:

- **Python 2.x is now end-of-life and no longer supported by MFT. To use the latest and up-to-date MFT tools, recommend using Python 3.x.**
- **When downgrading to a firmware version that does not support the flash type of the device, flint will present the user a clear error of such scenario.**
- **Added a new reset-type ("NIC only reset") to mlxfwreset which is applicable only to SmartNIC devices. The new reset-type is also the new default for SmartNIC devices. In case of reset-type is set to "NIC only reset", mlxfwreset will not reset the internal host.**
- **Added support for new PRBS TX/RX patterns (--tx prbs <tx prbs mode> & --rx prbs <rx prbs mode>) with mlxlink tool.**
- **Added new show counters for 16nm devices with mlxlink tool.**
- **Extended the list of the cable information received for 16nm devices when running the "show module" mlxlink command.**
- **Extended the information collection for 7nm and 16nm devices with mlxlink tool. See "--amber collect" flag.**
- **Extended the list of the cable information (LOL, LOS, FSM, and module status) for CMIS when running the "show module" mlxlink command.**

- Added support for InfiniBand operations in the mlxlink tool. Now HCA devices can be accessed via the InfiniBand protocol.
- MFT tools will now use class 0xA instead of class 9 for ConfigSpaceAccess MADs.
- Added support for Vendor Specific Key Security. Vendor Specific Keys are an authentication mechanism for using GMP MADs.

-

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 7 Update 8 (x86_64) supported by this binary rpm are:
3.10.0-1127.el7 - (x86_64) and future update kernels.

-

HPE Mellanox MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode for Red Hat Enterprise Linux 7 Update 9 (x86_64)

Version: 4.18 (Recommended)

Filename: kmod-kernel-mft-mlnx-4.18.0-1.rhel7u9.x86_64.compsig; kmod-kernel-mft-mlnx-4.18.0-1.rhel7u9.x86_64.rpm; mft-4.18.0-106.rhel7u9.x86_64.compsig; mft-4.18.0-106.rhel7u9.x86_64.rpm

-

Fixes

The following issues have been fixed in MFT version 4.18:

- Using Phyless reset with level 4 (warm reboot with NIC phyless reset) occasionally resulted in hardware errors and link dropping.

-

Enhancements

Changes and New features in MFT version 4.18:

- Python 2.x is now end-of-life and no longer supported by MFT. To use the latest and up-to-date MFT tools, recommend using Python 3.x.
- When downgrading to a firmware version that does not support the flash type of the device, flint will present the user a clear error of such scenario.
- Added a new reset-type ("NIC only reset") to mlxfwreset which is applicable only to SmartNIC devices. The new reset-type is also the new default for SmartNIC devices. In case of reset-type is set to "NIC only reset", mlxfwreset will not reset the internal host.
- Added support for new PRBS TX/RX patterns (--tx prbs <tx prbs mode> & --rx prbs <rx prbs mode>) with mlxlink tool.
- Added new show counters for 16nm devices with mlxlink tool.

- Extended the list of the cable information received for 16nm devices when running the "show module" mlxlink command.
- Extended the information collection for 7nm and 16nm devices with mlxlink tool. See "--amber collect" flag.
- Extended the list of the cable information (LOL, LOS, FSM, and module status) for CMIS when running the "show module" mlxlink command.
- Added support for InfiniBand operations in the mlxlink tool. Now HCA devices can be accessed via the InfiniBand protocol.
- MFT tools will now use class 0xA instead of class 9 for ConfigSpaceAccess MADs.
- Added support for Vendor Specific Key Security. Vendor Specific Keys are an authentication mechanism for using GMP MADs.

-

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 7 Update 9 (x86_64) supported by this binary rpm are:
3.10.0-1160.el7 - (x86_64) and future update kernels.

-

HPE Mellanox MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode for Red Hat Enterprise Linux 8 Update 4 (x86_64)

Version: 4.18 (Recommended)

Filename: kmod-kernel-mft-mlnx-4.18.0-1.rhel8u4.x86_64.compsig; kmod-kernel-mft-mlnx-4.18.0-1.rhel8u4.x86_64.rpm; mft-4.18.0-106.rhel8u4.x86_64.compsig; mft-4.18.0-106.rhel8u4.x86_64.rpm

-

Fixes

The following issues have been fixed in MFT version 4.18:

- Using Phyless reset with level 4 (warm reboot with NIC phyless reset) occasionally resulted in hardware errors and link dropping.

-

Enhancements

Changes and New features in MFT version 4.18:

- Python 2.x is now end-of-life and no longer supported by MFT. To use the latest and up-to-date MFT tools, recommend using Python 3.x.
- When downgrading to a firmware version that does not support the flash type of the device, flint will present the user a clear error of such scenario.

- Added a new reset-type ("NIC only reset") to mlxfwreset which is applicable only to SmartNIC devices. The new reset-type is also the new default for SmartNIC devices. In case of reset-type is set to "NIC only reset", mlxfwreset will not reset the internal host.
- Added support for new PRBS TX/RX patterns (--tx prbs <tx prbs mode> & --rx prbs <rx prbs mode>) with mlxlink tool.
- Added new show counters for 16nm devices with mlxlink tool.
- Extended the list of the cable information received for 16nm devices when running the "show module" mlxlink command.
- Extended the information collection for 7nm and 16nm devices with mlxlink tool. See "--amber collect" flag.
- Extended the list of the cable information (LOL, LOS, FSM, and module status) for CMIS when running the "show module" mlxlink command.
- Added support for InfiniBand operations in the mlxlink tool. Now HCA devices can be accessed via the InfiniBand protocol.
- MFT tools will now use class 0xA instead of class 9 for ConfigSpaceAccess MADs.
- Added support for Vendor Specific Key Security. Vendor Specific Keys are an authentication mechanism for using GMP MADs.

-

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 8 update 4 (x86_64) supported by this binary rpm are:
4.18.0-305.el8 - (x86_64) and future update kernels.

-

HPE Mellanox MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode for Red Hat Enterprise Linux 8 Update 5 (x86_64)

Version: 4.18 (Recommended)

Filename: kmod-kernel-mft-mlnx-4.18.0-1.rhel8u5.x86_64.compsig; kmod-kernel-mft-mlnx-4.18.0-1.rhel8u5.x86_64.rpm; mft-4.18.0-106.rhel8u5.x86_64.compsig; mft-4.18.0-106.rhel8u5.x86_64.rpm

-

Fixes

The following issues have been fixed in MFT version 4.18:

- Using Phyless reset with level 4 (warm reboot with NIC phyless reset) occasionally resulted in hardware errors and link dropping.

-

Enhancements

Changes and New features in MFT version 4.18:

- Python 2.x is now end-of-life and no longer supported by MFT. To use the latest and up-to-date MFT tools, recommend using Python 3.x.
- When downgrading to a firmware version that does not support the flash type of the device, flint will present the user a clear error of such scenario.
- Added a new reset-type ("NIC only reset") to mlxfwreset which is applicable only to SmartNIC devices. The new reset-type is also the new default for SmartNIC devices. In case of reset-type is set to "NIC only reset", mlxfwreset will not reset the internal host.
- Added support for new PRBS TX/RX patterns (--tx_prbs <tx_prbs_mode> & --rx_prbs <rx_prbs_mode>) with mlxlink tool.
- Added new show counters for 16nm devices with mlxlink tool.
- Extended the list of the cable information received for 16nm devices when running the "show module" mlxlink command.
- Extended the information collection for 7nm and 16nm devices with mlxlink tool. See "--amber_collect" flag.
- Extended the list of the cable information (LOL, LOS, FSM, and module status) for CMIS when running the "show module" mlxlink command.
- Added support for InfiniBand operations in the mlxlink tool. Now HCA devices can be accessed via the InfiniBand protocol.
- MFT tools will now use class 0xA instead of class 9 for ConfigSpaceAccess MADs.
- Added support for Vendor Specific Key Security. Vendor Specific Keys are an authentication mechanism for using GMP MADs.

-

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 8 update 5 (x86_64) supported by this binary rpm are:
4.18.0-348.el8 - (x86_64) and future update kernels.

-

HPE Mellanox MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode for SUSE Linux Enterprise Server 12 SP4 (AMD64/EM64T)

Version: 4.18 (Recommended)

Filename: kernel-mft-mlnx-kmp-default-4.18.0 k4.12.14 94.41-1.sles12sp4.x86_64.compsig; kernel-mft-mlnx-kmp-default-4.18.0 k4.12.14 94.41-1.sles12sp4.x86_64.rpm; mft-4.18.0-106.sles12sp4.x86_64.compsig; mft-4.18.0-106.sles12sp4.x86_64.rpm

-

Fixes

The following issues have been fixed in MFT version 4.18:

- Using Phyless reset with level 4 (warm reboot with NIC phyless reset) occasionally resulted in hardware errors and link dropping.

-

Enhancements

Changes and New features in MFT version 4.18:

- Python 2.x is now end-of-life and no longer supported by MFT. To use the latest and up-to-date MFT tools, recommend using Python 3.x.
- When downgrading to a firmware version that does not support the flash type of the device, flint will present the user a clear error of such scenario.
- Added a new reset-type ("NIC only reset") to mlxfwreset which is applicable only to SmartNIC devices. The new reset-type is also the new default for SmartNIC devices. In case of reset-type is set to "NIC only reset", mlxfwreset will not reset the internal host.
- Added support for new PRBS TX/RX patterns (--tx prbs <tx prbs mode> & --rx prbs <rx prbs mode>) with mlxlink tool.
- Added new show counters for 16nm devices with mlxlink tool.
- Extended the list of the cable information received for 16nm devices when running the "show module" mlxlink command.
- Extended the information collection for 7nm and 16nm devices with mlxlink tool. See "--amber collect" flag.
- Extended the list of the cable information (LOL, LOS, FSM, and module status) for CMIS when running the "show module" mlxlink command.
- Added support for InfiniBand operations in the mlxlink tool. Now HCA devices can be accessed via the InfiniBand protocol.
- MFT tools will now use class 0xA instead of class 9 for ConfigSpaceAccess MADs.
- Added support for Vendor Specific Key Security. Vendor Specific Keys are an authentication mechanism for using GMP MADs.

-

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 12 SP4 (AMD64/EM64T) supported by this binary rpm are:
4.12.14-94.41-default and future update kernels.

-

HPE Mellanox MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode for SUSE Linux Enterprise Server 12 SP5 (AMD64/EM64T)

Version: 4.18 (Recommended)

Filename: kernel-mft-mlnx-kmp-default-4.18.0 k4.12.14 120-1.sles12sp5.x86_64.compsig; kernel-mft-mlnx-kmp-default-4.18.0 k4.12.14 120-1.sles12sp5.x86_64.rpm; mft-4.18.0-106.sles12sp5.x86_64.compsig; mft-4.18.0-106.sles12sp5.x86_64.rpm

-

Fixes

The following issues have been fixed in MFT version 4.18:

- Using Phyless reset with level 4 (warm reboot with NIC phyless reset) occasionally resulted in hardware errors and link dropping.

-

Enhancements

Changes and New features in MFT version 4.18:

- Python 2.x is now end-of-life and no longer supported by MFT. To use the latest and up-to-date MFT tools, recommend using Python 3.x.
- When downgrading to a firmware version that does not support the flash type of the device, flint will present the user a clear error of such scenario.
- Added a new reset-type ("NIC only reset") to mlxfwreset which is applicable only to SmartNIC devices. The new reset-type is also the new default for SmartNIC devices. In case of reset-type is set to "NIC only reset", mlxfwreset will not reset the internal host.
- Added support for new PRBS TX/RX patterns (--tx prbs <tx prbs mode> & --rx prbs <rx prbs mode>) with mlxlink tool.
- Added new show counters for 16nm devices with mlxlink tool.
- Extended the list of the cable information received for 16nm devices when running the "show module" mlxlink command.
- Extended the information collection for 7nm and 16nm devices with mlxlink tool. See "--amber collect" flag.
- Extended the list of the cable information (LOL, LOS, FSM, and module status) for CMIS when running the "show module" mlxlink command.
- Added support for InfiniBand operations in the mlxlink tool. Now HCA devices can be accessed via the InfiniBand protocol.
- MFT tools will now use class 0xA instead of class 9 for ConfigSpaceAccess MADs.
- Added support for Vendor Specific Key Security. Vendor Specific Keys are an authentication mechanism for using GMP MADs.

-

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 12 SP5 (AMD64/EM64T) supported by this binary rpm are:
4.12.14-120-default and future update kernels.

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HPE Mellanox MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode for SUSE Linux Enterprise Server 15 SP2 (AMD64/EM64T)

Version: 4.18 (Recommended)

Filename: kernel-mft-mlx-kmp-default-4.18.0 k5.3.18 22-1.sles15sp2.x86_64.compsig; kernel-mft-mlx-kmp-default-4.18.0 k5.3.18 22-1.sles15sp2.x86_64.rpm; mft-4.18.0-106.sles15sp2.x86_64.compsig; mft-4.18.0-106.sles15sp2.x86_64.rpm

-

Fixes

The following issues have been fixed in MFT version 4.18:

- Using Phyless reset with level 4 (warm reboot with NIC phyless reset) occasionally resulted in hardware errors and link dropping.

-

Enhancements

Changes and New features in MFT version 4.18:

- Python 2.x is now end-of-life and no longer supported by MFT. To use the latest and up-to-date MFT tools, recommend using Python 3.x.
- When downgrading to a firmware version that does not support the flash type of the device, flint will present the user a clear error of such scenario.
- Added a new reset-type ("NIC only reset") to mlxfwreset which is applicable only to SmartNIC devices. The new reset-type is also the new default for SmartNIC devices. In case of reset-type is set to "NIC only reset", mlxfwreset will not reset the internal host.
- Added support for new PRBS TX/RX patterns (--tx prbs <tx prbs mode> & --rx prbs <rx prbs mode>) with mlxlink tool.
- Added new show counters for 16nm devices with mlxlink tool.
- Extended the list of the cable information received for 16nm devices when running the "show module" mlxlink command.
- Extended the information collection for 7nm and 16nm devices with mlxlink tool. See "--amber collect" flag.
- Extended the list of the cable information (LOL, LOS, FSM, and module status) for CMIS when running the "show module" mlxlink command.
- Added support for InfiniBand operations in the mlxlink tool. Now HCA devices can be accessed via the InfiniBand protocol.
- MFT tools will now use class 0xA instead of class 9 for ConfigSpaceAccess MADs.
- Added support for Vendor Specific Key Security. Vendor Specific Keys are an authentication mechanism for using GMP MADs.

-

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 15 SP2 (AMD64/EM64T) supported by this binary rpm are:
5.3.18-22-default and future update kernels.

HPE Mellanox MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode for SUSE Linux Enterprise Server 15 SP3 (AMD64/EM64T)

Version: 4.18 (Recommended)

Filename: kernel-mft-mlnx-kmp-default-4.18.0 k5.3.18 57-1.sles15sp3.x86_64.compsig; kernel-mft-mlnx-kmp-default-4.18.0 k5.3.18 57-1.sles15sp3.x86_64.rpm; mft-4.18.0-106.sles15sp3.x86_64.compsig; mft-4.18.0-106.sles15sp3.x86_64.rpm

Fixes

The following issues have been fixed in MFT version 4.18:

- **Using Phyless reset with level 4 (warm reboot with NIC phyless reset) occasionally resulted in hardware errors and link dropping.**

Enhancements

Changes and New features in MFT version 4.18:

- **Python 2.x is now end-of-life and no longer supported by MFT. To use the latest and up-to-date MFT tools, recommend using Python 3.x.**
- **When downgrading to a firmware version that does not support the flash type of the device, flint will present the user a clear error of such scenario.**
- **Added a new reset-type ("NIC only reset") to mlxfwreset which is applicable only to SmartNIC devices. The new reset-type is also the new default for SmartNIC devices. In case of reset-type is set to "NIC only reset", mlxfwreset will not reset the internal host.**
- **Added support for new PRBS TX/RX patterns (--tx prbs <tx prbs mode> & --rx prbs <rx prbs mode>) with mlxlink tool.**
- **Added new show counters for 16nm devices with mlxlink tool.**
- **Extended the list of the cable information received for 16nm devices when running the "show module" mlxlink command.**
- **Extended the information collection for 7nm and 16nm devices with mlxlink tool. See "--amber collect" flag.**
- **Extended the list of the cable information (LOL, LOS, FSM, and module status) for CMIS when running the "show module" mlxlink command.**
- **Added support for InfiniBand operations in the mlxlink tool. Now HCA devices can be accessed via the InfiniBand protocol.**
- **MFT tools will now use class 0xA instead of class 9 for ConfigSpaceAccess MADs.**
- **Added support for Vendor Specific Key Security. Vendor Specific Keys are an authentication mechanism for using GMP MADs.**

Supported Devices and Features

SUPPORTED KERNELS:

**The kernels of SUSE LINUX Enterprise Server 15 SP3 (AMD64/EM64T) supported by this binary rpm are:
5.3.18.57-default and future update kernels.**

-

HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-3 Pro Driver for Red Hat Enterprise Linux 7 Update 8 (x86_64)

Version: 4.9-4.0.8.1 (A) (Recommended)

Filename: kmod-mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.rhel7u8.x86_64.compsig; kmod-mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.rhel7u8.x86_64.rpm; mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.rhel7u8.x86_64.compsig; mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.rhel7u8.x86_64.rpm

-

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed/).

-

Prerequisites

Following packages must be installed from the respective OS distributions prior to installing the driver component:

- **Python version 2.7**

-

Fixes

The following changes have been made in sub-version 4.9-4.0.8.1(A):

- **Removed the support for Blade Servers.**

The following issues have been fixed in version 4.9-4.0.8.1:

- openibd did not load automatically after reboot on certain Linux Operating Systems.

-

Enhancements

No new features or changes were added in version 4.9-4.0.8.1.

-

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 7 Update 8 (x86_64) supported by this binary rpm are:
3.10.0-1127.el7 - (x86_64) and future update kernels.

-

HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-3 Pro Driver for Red Hat Enterprise Linux 7 Update 9 (x86_64)

Version: 4.9-4.0.8.1 (A) (Recommended)

Filename: kmod-mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.rhel7u9.x86_64.compsig; kmod-mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.rhel7u9.x86_64.rpm; mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.rhel7u9.x86_64.compsig; mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.rhel7u9.x86_64.rpm

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Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed/).

-

Prerequisites

Following packages must be installed from the respective OS distributions prior to installing the driver component:

- Python version 2.7

-

Fixes

The following changes have been made in sub-version 4.9-4.0.8.1 (A):

- Removed the support for Blade Servers.

The following issues have been fixed in version 4.9-4.0.8.1:

- openibd did not load automatically after reboot on certain Linux Operating Systems.

-

Enhancements

No new features or changes were added in version 4.9-4.0.8.1.

-

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 7 Update 9 (x86_64) supported by this binary rpm are:
3.10.0-1160.el7 - (x86_64) and future update kernels.

-

HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-3 Pro Driver for Red Hat Enterprise Linux 8 update 4 (x86_64)

Version: 4.9-4.0.8.1 (Recommended)

Filename: kmod-mlnx-ofa kernel-4.9-OFED.4.9.4.0.8.1.rhel8u4.x86_64.compsig; kmod-mlnx-ofa kernel-4.9-OFED.4.9.4.0.8.1.rhel8u4.x86_64.rpm; mlnx-ofa kernel-4.9-OFED.4.9.4.0.8.1.rhel8u4.x86_64.compsig; mlnx-ofa kernel-4.9-OFED.4.9.4.0.8.1.rhel8u4.x86_64.rpm

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Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet

mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed/).

-

Fixes

The following issues have been fixed in version 4.9-4.0.8.1:

- **openibd did not load automatically after reboot on certain Linux Operating Systems.**

-

Enhancements

No new features or changes were added in version 4.9-4.0.8.1.

-

Supported Devices and Features

SUPPORTED KERNELS:

**The kernels of Red Hat Enterprise Linux 8 update 4 (x86_64) supported by this binary rpm are:
4.18.0-304.el8 - (x86_64) and future update kernels.**

-

HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-3 Pro Driver for SUSE LINUX Enterprise Server 12 SP4 (AMD64/EM64T)

Version: 4.9-4.0.8.1 (A) (Recommended)

Filename: mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.sles12sp4.x86_64.compsig; mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.sles12sp4.x86_64.rpm; mlnx-ofa_kernel-kmp-default-4.9_k4.12.14_94.41-OFED.4.9.4.0.8.1.sles12sp4.x86_64.compsig; mlnx-ofa_kernel-kmp-default-4.9_k4.12.14_94.41-OFED.4.9.4.0.8.1.sles12sp4.x86_64.rpm

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Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet

mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed/).

-

Prerequisites

Following packages must be installed from the respective OS distributions prior to installing the driver component:

- **Python version 2.7**

-

Fixes

The following changes have been made in sub-version 4.9-4.0.8.1 (A):

- **Removed the support for Blade Servers.**

The following issues have been fixed in version 4.9-4.0.8.1:

- **openibd did not load automatically after reboot on certain Linux Operating Systems.**

-

Enhancements

No new features or changes were added in version 4.9-4.0.8.1.

-

Supported Devices and Features

SUPPORTED KERNELS:

**The kernels of SUSE LINUX Enterprise Server 12 SP4 (AMD64/EM64T) supported by this binary rpm are:
4.12.14-94.41-default - (AMD64/EM64T) and future update kernels.**

-

HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-3 Pro Driver for SUSE LINUX Enterprise Server 12 SP5 (AMD64/EM64T)

Version: 4.9-4.0.8.1 (A) (Recommended)

Filename: mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.sles12sp5.x86_64.compsig; mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.sles12sp5.x86_64.rpm; mlnx-ofa_kernel-kmp-default-4.9_k4.12.14_120-OFED.4.9.4.0.8.1.sles12sp5.x86_64.compsig; mlnx-ofa_kernel-kmp-default-4.9_k4.12.14_120-OFED.4.9.4.0.8.1.sles12sp5.x86_64.rpm

-

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed/).

-

Prerequisites

Following packages must be installed from the respective OS distributions prior to installing the driver component:

- **Python version 2.7**

-

Fixes

The following changes have been made in sub-version 4.9-4.0.8.1(A):

- **Removed the support for Blade Servers.**

The following issues have been fixed in version 4.9-4.0.8.1:

- **openibd did not load automatically after reboot on certain Linux Operating Systems.**

-

Enhancements

No new features or changes were added in version 4.9-4.0.8.1.

-

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 12 SP5 (AMD64/EM64T) supported by this binary rpm are:
4.12.14-120-default - (AMD64/EM64T) and future update kernels.

-

HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-3 Pro Driver for SUSE LINUX Enterprise Server 15 SP2 (AMD64/EM64T)

Version: 4.9-4.0.8.1 (A) (Recommended)

Filename: mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.sles15sp2.x86_64.compsig; mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.sles15sp2.x86_64.rpm

-

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed/).

-

Prerequisites

Following packages must be installed from the respective OS distributions prior to installing the driver component:

- **Python version 2.7**

-

Fixes

The following changes have been made in sub-version 4.9-4.0.8.1(A):

- **Removed the support for Blade Servers.**

The following issues have been fixed in version 4.9-4.0.8.1:

- openibd did not load automatically after reboot on certain Linux Operating Systems.

Enhancements

No new features or changes were added in version 4.9-4.0.8.1.

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 15 SP2 (AMD64/EM64T) supported by this binary rpm are:
5.3.18-22-default - (AMD64/EM64T) and future update kernels.

HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-3 Pro Driver for SUSE LINUX Enterprise Server 15 SP3 (AMD64/EM64T)

Version: 4.9-4.0.8.1 (A) (Recommended)

Filename: mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.sles15sp3.x86_64.compsig; mlnx-ofa_kernel-4.9-OFED.4.9.4.0.8.1.sles15sp3.x86_64.rpm; mlnx-ofa_kernel-kmp-default-4.9_k5.3.18_57-OFED.4.9.4.0.8.1.sles15sp3.x86_64.compsig; mlnx-ofa_kernel-kmp-default-4.9_k5.3.18_57-OFED.4.9.4.0.8.1.sles15sp3.x86_64.rpm

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed/).

Prerequisites

Following packages must be installed from the respective OS distributions prior to installing the driver component:

- Python version 2.7

-

Fixes

The following changes have been made in sub-version 4.9-4.0.8.1(A):

- Removed the support for Blade Servers.

The following issues have been fixed in version 4.9-4.0.8.1:

- openibd did not load automatically after reboot on certain Linux Operating Systems.

-

Enhancements

No new features or changes were added in version 4.9-4.0.8.1.

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Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 15 SP3 (AMD64/EM64T) supported by this binary rpm are:
5.3.18-53-default - (AMD64/EM64T) and future update kernels.

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HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-4, ConnectX-5 and ConnectX-6 Driver for Red Hat Enterprise Linux 7 Update 8 (x86_64)

Version: 5.5 (Recommended)

Filename: kmod-mlnx-ofa kernel-5.5-OFED.5.5.1.0.3.1.rhel7u8.x86_64.compsig; kmod-mlnx-ofa kernel-5.5-OFED.5.5.1.0.3.1.rhel7u8.x86_64.rpm; mlnx-ofa kernel-5.5-OFED.5.5.1.0.3.1.rhel7u8.x86_64.compsig; mlnx-ofa kernel-5.5-OFED.5.5.1.0.3.1.rhel7u8.x86_64.rpm

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Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install HPE signed MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed_cx4plus/).

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Prerequisites

Following packages must be installed from the respective OS distributions prior to installing the driver component:

- **Python version 2.7**

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Fixes

The following issues have been fixed in version 5.5:

- **There was a possibility of inconsistency in python3 header line (shebang line) because some distributions no longer have /usr/bin/python.**
- **The driver did not set the PCP-based priority for DCT (Dynamically Connected Transport), hence DCT response packets were transmitted without user priority.**
- **Running tcpdump on bonding standby port caused network connectivity loss.**
- **Suspend flow freed the VLAN data, so the data was not restored during the resume flow.**
- **Connection tracking rules with fragmentation had 0 stats.**
- **Traffic failed to pass when OVS bridge is configured with bond interface and IP is configured over the OVS internal (bridge) port.**
- **VXLAN with IPsec crypto offload was not functional.**
- **Conducting a driver restart while in VF LAG mode occasionally resulted in unwanted behaviour such as kernel crashes.**

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Enhancements

Changes and New Features included in version 5.5:

- **For ConnectX-4 and above, added support for bridge offloads with VLAN support that works on top of mlx5 representors in switchdev mode.**
- **For ConnectX-5 and above, added support for offloading packet replication to up to 32 destination through the use of TC rule.**
- **For ConnectX-4 and above, expanded the RDMA statistic tool to support setting vendor specific optional counters dynamically using netlink. The following optional counters are added to mlx5 ib: cc rx ce pkts,cc rx cnp pkts,cc tx cnp pkts.**
- **For ConnectX-5 and above, added support via mlxdevm to mark a given PCI subfunction (SF) or virtual function (VF) as a trusted function. The device/firmware decides how to define privileges and access to resources.**

- For all chipsets, added support for preventing VF memory exhaustion. This feature exposes a sysfs (to the system admin) which can set a limit on each VF memory consumption. Note: Currently the feature is only supported on Ethernet.
- For ConnectX-5 and above, added support for offloading the HTB qdisc to the NIC, allowing it to scale better by eliminating a single locking point. The configuration is done with the TC commands. Note: Kernel 5.15 or higher is required. Limited to 256 nodes.
- Added support for the activation of PTP and CQE compression simultaneously. Since CQE compression might harm the accuracy of the PTP, the feature enables PTP packets to be moved to a dedicated queue where they are not subjected to compression. However, this configuration conflicts with setting aRFS. Turning off CQE compression, causes a hiccup in traffic which may cause a loss of synchronization. To overcome this, restart the synchronization.

Note: This combination is supported only for Ethernet drivers. Other driver profiles, like IPoIB and representors, do not support this combination.

- Allowed installing multiple mlnx-ofa kernel development headers packages (for different kernel versions of the same mlnx-ofa kernel package version) side by side on the same system.
- For ConnectX-6 Dx, improved OVS failover through support for OVS groups in fast-failover mode + VF LAG configuration with OVS.
- For ConnectX-6 Dx, added support for exposing hairpin out of buffer drop counter per device. This feature shows buffer drops related only to hairpin queues which were opened on the queried device.

To enable this counting mode (this must be done before any hairpin rules are created), use the following: echo "on <peer devname>" > /sys/class/net/<dev>/hp_oob_cnt_mode where <peer devname> is the peer device to which traffic coming to the configured device will be forwarded to for transmission.

To read the drop counter, use the following: cat /sys/class/net/<dev>/hp_oob_cnt

- For ConnectX-6 Dx, added bridge offloads to support bonding (VF LAG), attaching bond device to bridge instead of uplink representors.
- For ConnectX-6 Dx, added OOB support for VLAN push on Rx (wire to VF) and VLAN pop on Tx (wire to VF) in switchdev mode.
- For ConnectX-6 Dx, added support in multiple flow steering priorities for FDB rules.
- For ConnectX-6 Dx and above, added support for driver resiliency against high load of RX resync operations.

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Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 7 Update 8 (x86_64) supported by this binary rpm are: 3.10.0-1127.el7 - (x86_64) and future update kernels.

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HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-4, ConnectX-5 and ConnectX-6 Driver for Red Hat Enterprise Linux 7 Update 9 (x86_64)

Version: 5.5 (Recommended)

Filename: kmod-mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.rhel7u9.x86_64.compsig; kmod-mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.rhel7u9.x86_64.rpm; mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.rhel7u9.x86_64.compsig; mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.rhel7u9.x86_64.rpm

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Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install HPE signed MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed_cx4plus/).

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Prerequisites

Following packages must be installed from the respective OS distributions prior to installing the driver component:

- Python version 2.7

-

Fixes

The following issues have been fixed in version 5.5:

- There was a possibility of inconsistency in python3 header line (shebang line) because some distributions no longer have /usr/bin/python.
- The driver did not set the PCP-based priority for DCT (Dynamically Connected Transport), hence DCT response packets were transmitted without user priority.
- Running tcpdump on bonding standby port caused network connectivity loss.
- Suspend flow freed the VLAN data, so the data was not restored during the resume flow.
- Connection tracking rules with fragmentation had 0 stats.
- Traffic failed to pass when OVS bridge is configured with bond interface and IP is configured over the OVS internal (bridge) port.
- VXLAN with IPsec crypto offload was not functional.
- Conducting a driver restart while in VF LAG mode occasionally resulted in unwanted behaviour such as kernel crashes.

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Enhancements

Changes and New Features included in version 5.5:

- For ConnectX-4 and above, added support for bridge offloads with VLAN support that works on top of mlx5 representors in switchdev mode.
- For ConnectX-5 and above, added support for offloading packet replication to up to 32 destination through the use of TC rule.
- For ConnectX-4 and above, expanded the RDMA statistic tool to support setting vendor specific optional counters dynamically using netlink. The following optional counters are added to mlx5 ib: cc rx ce pkts, cc rx cnp pkts, cc tx cnp pkts.
- For ConnectX-5 and above, added support via mlxdevm to mark a given PCI subfunction (SF) or virtual function (VF) as a trusted function. The device/firmware decides how to define privileges and access to resources.
- For all chipsets, added support for preventing VF memory exhaustion. This feature exposes a sysfs (to the system admin) which can set a limit on each VF memory consumption. Note: Currently the feature is only supported on Ethernet.
- For ConnectX-5 and above, added support for offloading the HTB qdisc to the NIC, allowing it to scale better by eliminating a single locking point. The configuration is done with the TC commands. Note: Kernel 5.15 or higher is required. Limited to 256 nodes.
- Added support for the activation of PTP and CQE compression simultaneously. Since CQE compression might harm the accuracy of the PTP, the feature enables PTP packets to be moved to a dedicated queue where they are not subjected to compression. However, this configuration conflicts with setting aRFS. Turning off CQE compression, causes a hiccup in traffic which may cause a loss of synchronization. To overcome this, restart the synchronization.

Note: This combination is supported only for Ethernet drivers. Other driver profiles, like IPoIB and representors, do not support this combination.

- Allowed installing multiple mlnx-ofa kernel development headers packages (for different kernel versions of the same mlnx-ofa kernel package version) side by side on the same system.
- For ConnectX-6 Dx, improved OVS failover through support for OVS groups in fast-failover mode + VF LAG configuration with OVS.
- For ConnectX-6 Dx, added support for exposing hairpin out of buffer drop counter per device. This feature shows buffer drops related only to hairpin queues which were opened on the queried device.

To enable this counting mode (this must be done before any hairpin rules are created), use the following: echo "on <peer devname>" > /sys/class/net/<dev>/hp oob cnt mode where <peer devname> is the peer device to which traffic coming to the configured device will be forwarded to for transmission.

To read the drop counter, use the following: cat /sys/class/net/<dev>/hp oob cnt

- For ConnectX-6 Dx, added bridge offloads to support bonding (VF LAG), attaching bond device to bridge instead of uplink representors.
- For ConnectX-6 Dx, added OOB support for VLAN push on Rx (wire to VF) and VLAN pop on Tx (wire to VF) in switchdev mode.
- For ConnectX-6 Dx, added support in multiple flow steering priorities for FDB rules.
- For ConnectX-6 Dx and above, added support for driver resiliency against high load of RX resync operations.

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Supported Devices and Features

SUPPORTED KERNELS:

**The kernels of Red Hat Enterprise Linux 7 Update 9 (x86_64) supported by this binary rpm are:
3.10.0-1160.el7 - (x86_64) and future update kernels.**

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HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-4, ConnectX-5 and ConnectX-6 Driver for Red Hat Enterprise Linux 8 Update 4 (x86_64)

Version: 5.5 (Recommended)

Filename: kmod-mlnx-ofa kernel-5.5-OFED.5.5.1.0.3.1.rhel8u4.x86_64.compsig; kmod-mlnx-ofa kernel-5.5-OFED.5.5.1.0.3.1.rhel8u4.x86_64.rpm; mlnx-ofa kernel-5.5-OFED.5.5.1.0.3.1.rhel8u4.x86_64.compsig; mlnx-ofa kernel-5.5-OFED.5.5.1.0.3.1.rhel8u4.x86_64.rpm

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Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install HPE signed MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed_cx4plus/).

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Fixes

The following issues have been fixed in version 5.5:

- **There was a possibility of inconsistency in python3 header line (shebang line) because some distributions no longer have /usr/bin/python.**
- **The driver did not set the PCP-based priority for DCT (Dynamically Connected Transport), hence DCT response packets were transmitted without user priority.**
- **Running tcpdump on bonding standby port caused network connectivity loss.**
- **Suspend flow freed the VLAN data, so the data was not restored during the resume flow.**
- **Connection tracking rules with fragmentation had 0 stats.**
- **Traffic failed to pass when OVS bridge is configured with bond interface and IP is configured over the OVS internal (bridge) port.**
- **VXLAN with IPsec crypto offload was not functional.**
- **Conducting a driver restart while in VF LAG mode occasionally resulted in unwanted behaviour such as kernel crashes.**

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Enhancements

Changes and New Features included in version 5.5:

- For ConnectX-4 and above, added support for bridge offloads with VLAN support that works on top of mlx5 representors in switchdev mode.
- For ConnectX-5 and above, added support for offloading packet replication to up to 32 destination through the use of TC rule.
- For ConnectX-4 and above, expanded the RDMA statistic tool to support setting vendor specific optional counters dynamically using netlink. The following optional counters are added to mlx5 ib: cc rx ce pkts, cc rx cnp pkts, cc tx cnp pkts.
- For ConnectX-5 and above, added support via mlxdevm to mark a given PCI subfunction (SF) or virtual function (VF) as a trusted function. The device/firmware decides how to define privileges and access to resources.
- For all chipsets, added support for preventing VF memory exhaustion. This feature exposes a sysfs (to the system admin) which can set a limit on each VF memory consumption. Note: Currently the feature is only supported on Ethernet.
- For ConnectX-5 and above, added support for offloading the HTB qdisc to the NIC, allowing it to scale better by eliminating a single locking point. The configuration is done with the TC commands. Note: Kernel 5.15 or higher is required. Limited to 256 nodes.
- Added support for the activation of PTP and COE compression simultaneously. Since COE compression might harm the accuracy of the PTP, the feature enables PTP packets to be moved to a dedicated queue where they are not subjected to compression. However, this configuration conflicts with setting aRFS. Turning off COE compression, causes a hiccup in traffic which may cause a loss of synchronization. To overcome this, restart the synchronization.

Note: This combination is supported only for Ethernet drivers. Other driver profiles, like IPoIB and representors, do not support this combination.

- Allowed installing multiple mlnx-ofa kernel development headers packages (for different kernel versions of the same mlnx-ofa kernel package version) side by side on the same system.
- For ConnectX-6 Dx, improved OVS failover through support for OVS groups in fast-failover mode + VF LAG configuration with OVS.
- For ConnectX-6 Dx, added support for exposing hairpin out of buffer drop counter per device. This feature shows buffer drops related only to hairpin queues which were opened on the queried device.

To enable this counting mode (this must be done before any hairpin rules are created), use the following: echo "on <peer devname>" > /sys/class/net/<dev>/hp_oob_cnt mode where <peer devname> is the peer device to which traffic coming to the configured device will be forwarded to for transmission.

To read the drop counter, use the following: cat /sys/class/net/<dev>/hp_oob_cnt

- For ConnectX-6 Dx, added bridge offloads to support bonding (VF LAG), attaching bond device to bridge instead of uplink representors.
- For ConnectX-6 Dx, added OOB support for VLAN push on Rx (wire to VF) and VLAN pop on Tx (wire to VF) in switchdev mode.
- For ConnectX-6 Dx, added support in multiple flow steering priorities for FDB rules.
- For ConnectX-6 Dx and above, added support for driver resiliency against high load of RX resync operations.

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Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 8 update 4(x86_64) supported by this binary rpm are:
4.18.0-296.el8 - (x86_64) and future update kernels.

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HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-4, ConnectX-5 and ConnectX-6 Driver for Red Hat Enterprise Linux 8 Update 5 (x86_64)

Version: 5.5 (Recommended)

Filename: kmod-mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.rhel8u5.x86_64.compsig; kmod-mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.rhel8u5.x86_64.rpm; mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.rhel8u5.x86_64.compsig; mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.rhel8u5.x86_64.rpm

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Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install HPE signed MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed_cx4plus/).

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Fixes

The following issues have been fixed in version 5.5:

- There was a possibility of inconsistency in python3 header line (shebang line) because some distributions no longer have /usr/bin/python.
- The driver did not set the PCP-based priority for DCT (Dynamically Connected Transport), hence DCT response packets were transmitted without user priority.
- Running tcpdump on bonding standby port caused network connectivity loss.
- Suspend flow freed the VLAN data, so the data was not restored during the resume flow.
- Connection tracking rules with fragmentation had 0 stats.
- Traffic failed to pass when OVS bridge is configured with bond interface and IP is configured over the OVS internal (bridge) port.
- VXLAN with IPsec crypto offload was not functional.
- Conducting a driver restart while in VF LAG mode occasionally resulted in unwanted behaviour such as kernel crashes.

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Enhancements

Changes and New Features included in version 5.5:

- For ConnectX-4 and above, added support for bridge offloads with VLAN support that works on top of mlx5 representors in switchdev mode.
- For ConnectX-5 and above, added support for offloading packet replication to up to 32 destination through the use of TC rule.
- For ConnectX-4 and above, expanded the RDMA statistic tool to support setting vendor specific optional counters dynamically using netlink. The following optional counters are added to mlx5 ib: cc rx ce pkts, cc rx cnp pkts, cc tx cnp pkts.
- For ConnectX-5 and above, added support via mlxdevm to mark a given PCI subfunction (SF) or virtual function (VF) as a trusted function. The device/firmware decides how to define privileges and access to resources.
- For all chipsets, added support for preventing VF memory exhaustion. This feature exposes a sysfs (to the system admin) which can set a limit on each VF memory consumption. Note: Currently the feature is only supported on Ethernet.
- For ConnectX-5 and above, added support for offloading the HTB qdisc to the NIC, allowing it to scale better by eliminating a single locking point. The configuration is done with the TC commands. Note: Kernel 5.15 or higher is required. Limited to 256 nodes.
- Added support for the activation of PTP and COE compression simultaneously. Since COE compression might harm the accuracy of the PTP, the feature enables PTP packets to be moved to a dedicated queue where they are not subjected to compression. However, this configuration conflicts with setting aRFS. Turning off COE compression, causes a hiccup in traffic which may cause a loss of synchronization. To overcome this, restart the synchronization.

Note: This combination is supported only for Ethernet drivers. Other driver profiles, like IPoIB and representors, do not support this combination.

- Allowed installing multiple mlnx-ofa kernel development headers packages (for different kernel versions of the same mlnx-ofa kernel package version) side by side on the same system.
- For ConnectX-6 Dx, improved OVS failover through support for OVS groups in fast-failover mode + VF LAG configuration with OVS.
- For ConnectX-6 Dx, added support for exposing hairpin out of buffer drop counter per device. This feature shows buffer drops related only to hairpin queues which were opened on the queried device.

To enable this counting mode (this must be done before any hairpin rules are created), use the following: echo "on <peer devname>" > /sys/class/net/<dev>/hp oob cnt mode where <peer devname> is the peer device to which traffic coming to the configured device will be forwarded to for transmission.

To read the drop counter, use the following: cat /sys/class/net/<dev>/hp oob cnt

- For ConnectX-6 Dx, added bridge offloads to support bonding (VF LAG), attaching bond device to bridge instead of uplink representors.
 - For ConnectX-6 Dx, added OOB support for VLAN push on Rx (wire to VF) and VLAN pop on Tx (wire to VF) in switchdev mode.
 - For ConnectX-6 Dx, added support in multiple flow steering priorities for FDB rules.
 - For ConnectX-6 Dx and above, added support for driver resiliency against high load of RX resync operations.
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Supported Devices and Features

SUPPORTED KERNELS:

**The kernels of Red Hat Enterprise Linux 8 update 4(x86_64) supported by this binary rpm are:
4.18.0-348.el8 - (x86_64) and future update kernels.**

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HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-4, ConnectX-5 and ConnectX-6 Driver for SUSE LINUX Enterprise Server 12 SP4 (AMD64/EM64T)

Version: 5.5 (Recommended)

Filename: mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.sles12sp4.x86_64.compsig; mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.sles12sp4.x86_64.rpm; mlnx-ofa_kernel-kmp-default-5.5_k4.12.14_94.41-OFED.5.5.1.0.3.1.sles12sp4.x86_64.compsig; mlnx-ofa_kernel-kmp-default-5.5_k4.12.14_94.41-OFED.5.5.1.0.3.1.sles12sp4.x86_64.rpm

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Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install HPE signed MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed_cx4plus/).

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Prerequisites

Following packages must be installed from the respective OS distributions prior to installing the driver component:

- **Python version 2.7**
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Fixes

The following issues have been fixed in version 5.5:

- There was a possibility of inconsistency in python3 header line (shebang line) because some distributions no longer have /usr/bin/python.
- The driver did not set the PCP-based priority for DCT (Dynamically Connected Transport), hence DCT response packets were transmitted without user priority.
- Running tcpdump on bonding standby port caused network connectivity loss.
- Suspend flow freed the VLAN data, so the data was not restored during the resume flow.
- Connection tracking rules with fragmentation had 0 stats.
- Traffic failed to pass when OVS bridge is configured with bond interface and IP is configured over the OVS internal (bridge) port.
- VXLAN with IPsec crypto offload was not functional.
- Conducting a driver restart while in VF LAG mode occasionally resulted in unwanted behaviour such as kernel crashes.

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Enhancements

Changes and New Features included in version 5.5:

- For ConnectX-4 and above, added support for bridge offloads with VLAN support that works on top of mlx5 representors in switchdev mode.
- For ConnectX-5 and above, added support for offloading packet replication to up to 32 destination through the use of TC rule.
- For ConnectX-4 and above, expanded the RDMA statistic tool to support setting vendor specific optional counters dynamically using netlink. The following optional counters are added to mlx5 ib: cc rx ce pkts,cc rx cnp pkts,cc tx cnp pkts.
- For ConnectX-5 and above, added support via mlxdevm to mark a given PCI subfunction (SF) or virtual function (VF) as a trusted function. The device/firmware decides how to define privileges and access to resources.
- For all chipsets, added support for preventing VF memory exhaustion. This feature exposes a sysfs (to the system admin) which can set a limit on each VF memory consumption. Note: Currently the feature is only supported on Ethernet.
- For ConnectX-5 and above, added support for offloading the HTB qdisc to the NIC, allowing it to scale better by eliminating a single locking point. The configuration is done with the TC commands. Note: Kernel 5.15 or higher is required. Limited to 256 nodes.
- Added support for the activation of PTP and COE compression simultaneously. Since COE compression might harm the accuracy of the PTP, the feature enables PTP packets to be moved to a dedicated queue where they are not subjected to compression. However, this configuration conflicts with setting aRFS. Turning off COE compression, causes a hiccup in traffic which may cause a loss of synchronization. To overcome this, restart the synchronization.

Note: This combination is supported only for Ethernet drivers. Other driver profiles, like IPoIB and representors, do not support this combination.

- Allowed installing multiple mlnx-ofa kernel development headers packages (for different kernel versions of the same mlnx-ofa kernel package version) side by side on the same system.
- For ConnectX-6 Dx, improved OVS failover through support for OVS groups in fast-failover mode + VF LAG configuration with OVS.
- For ConnectX-6 Dx, added support for exposing hairpin out of buffer drop counter per device. This feature shows buffer drops related only to hairpin queues which were opened on the queried device.

To enable this counting mode (this must be done before any hairpin rules are created), use the following: echo "on <peer devname>" >/sys/class/net/<dev>/hp_oob_cnt_mode where <peer devname> is the peer device to which traffic coming to the configured device will be forwarded to for transmission.

To read the drop counter, use the following: cat /sys/class/net/<dev>/hp_oob_cnt

- For ConnectX-6 Dx, added bridge offloads to support bonding (VF LAG), attaching bond device to bridge instead of uplink representors.
- For ConnectX-6 Dx, added OOB support for VLAN push on Rx (wire to VF) and VLAN pop on Tx (wire to VF) in switchdev mode.
- For ConnectX-6 Dx, added support in multiple flow steering priorities for FDB rules.
- For ConnectX-6 Dx and above, added support for driver resiliency against high load of RX resync operations.

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Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 12 SP4 (AMD64/EM64T) supported by this binary rpm are:
4.12.14-94.41-default - (AMD64/EM64T) and future update kernels.

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HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-4, ConnectX-5 and ConnectX-6 Driver for SUSE LINUX Enterprise Server 12 SP5 (AMD64/EM64T)

Version: 5.5 (Recommended)

Filename: mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.sles12sp5.x86_64.compsig; mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.sles12sp5.x86_64.rpm; mlnx-ofa_kernel-kmp-default-5.5_k4.12.14_120-OFED.5.5.1.0.3.1.sles12sp5.x86_64.compsig; mlnx-ofa_kernel-kmp-default-5.5_k4.12.14_120-OFED.5.5.1.0.3.1.sles12sp5.x86_64.rpm

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Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install HPE signed MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed_cx4plus/).

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Prerequisites

Following packages must be installed from the respective OS distributions prior to installing the driver component:

- Python version 2.7

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Fixes

The following issues have been fixed in version 5.5:

- There was a possibility of inconsistency in python3 header line (shebang line) because some distributions no longer have /usr/bin/python.
- The driver did not set the PCP-based priority for DCT (Dynamically Connected Transport), hence DCT response packets were transmitted without user priority.
- Running tcpdump on bonding standby port caused network connectivity loss.
- Suspend flow freed the VLAN data, so the data was not restored during the resume flow.
- Connection tracking rules with fragmentation had 0 stats.
- Traffic failed to pass when OVS bridge is configured with bond interface and IP is configured over the OVS internal (bridge) port.
- VXLAN with IPsec crypto offload was not functional.
- Conducting a driver restart while in VF LAG mode occasionally resulted in unwanted behaviour such as kernel crashes.

-

Enhancements

Changes and New Features included in version 5.5:

- For ConnectX-4 and above, added support for bridge offloads with VLAN support that works on top of mlx5 representors in switchdev mode.
- For ConnectX-5 and above, added support for offloading packet replication to up to 32 destination through the use of TC rule.
- For ConnectX-4 and above, expanded the RDMA statistic tool to support setting vendor specific optional counters dynamically using netlink. The following optional counters are added to mlx5 ib: cc rx ce pkts,cc rx cnp pkts,cc tx cnp pkts.
- For ConnectX-5 and above, added support via mlxdevm to mark a given PCI subfunction (SF) or virtual function (VF) as a trusted function. The device/firmware decides how to define privileges and access to resources.
- For all chipsets, added support for preventing VF memory exhaustion. This feature exposes a sysfs (to the system admin) which can set a limit on each VF memory consumption. Note: Currently the feature is only supported on Ethernet.
- For ConnectX-5 and above, added support for offloading the HTB qdisc to the NIC, allowing it to scale better by eliminating a single locking point. The configuration is done with the TC commands. Note: Kernel 5.15 or higher is required. Limited to 256 nodes.
- Added support for the activation of PTP and COE compression simultaneously. Since COE compression might harm the accuracy of the PTP, the feature enables PTP packets to be moved to a dedicated queue where they are not subjected to compression. However, this

configuration conflicts with setting aRFS. Turning off COE compression, causes a hiccup in traffic which may cause a loss of synchronization. To overcome this, restart the synchronization.

Note: This combination is supported only for Ethernet drivers. Other driver profiles, like IPoIB and representors, do not support this combination.

- Allowed installing multiple mlnx-ofa kernel development headers packages (for different kernel versions of the same mlnx-ofa kernel package version) side by side on the same system.
- For ConnectX-6 Dx, improved OVS failover through support for OVS groups in fast-failover mode + VF LAG configuration with OVS.
- For ConnectX-6 Dx, added support for exposing hairpin out of buffer drop counter per device. This feature shows buffer drops related only to hairpin queues which were opened on the queried device.

To enable this counting mode (this must be done before any hairpin rules are created), use the following: echo "on <peer_devname>" > /sys/class/net/<dev>/hp_oob_cnt_mode where <peer_devname> is the peer device to which traffic coming to the configured device will be forwarded to for transmission.

To read the drop counter, use the following: cat /sys/class/net/<dev>/hp_oob_cnt

- For ConnectX-6 Dx, added bridge offloads to support bonding (VF LAG), attaching bond device to bridge instead of uplink representors.
- For ConnectX-6 Dx, added OOB support for VLAN push on Rx (wire to VF) and VLAN pop on Tx (wire to VF) in switchdev mode.
- For ConnectX-6 Dx, added support in multiple flow steering priorities for FDB rules.
- For ConnectX-6 Dx and above, added support for driver resiliency against high load of RX resync operations.

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Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 12 SP5 (AMD64/EM64T) supported by this binary rpm are:
4.12.14-120-default - (AMD64/EM64T) and future update kernels.

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HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-4, ConnectX-5 and ConnectX-6 Driver for SUSE LINUX Enterprise Server 15 SP2 (AMD64/EM64T)

Version: 5.5 (Recommended)

Filename: mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.sles15sp2.x86_64.compsig; mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.sles15sp2.x86_64.rpm; mlnx-ofa_kernel-kmp-default-5.5_k5.3.18_22-OFED.5.5.1.0.3.1.sles15sp2.x86_64.compsig; mlnx-ofa_kernel-kmp-default-5.5_k5.3.18_22-OFED.5.5.1.0.3.1.sles15sp2.x86_64.rpm

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Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install HPE signed MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed_cx4plus/).

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Prerequisites

Following packages must be installed from the respective OS distributions prior to installing the driver component:

- Python version 2.7

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Fixes

The following issues have been fixed in version 5.5:

- There was a possibility of inconsistency in python3 header line (shebang line) because some distributions no longer have /usr/bin/python.
- The driver did not set the PCP-based priority for DCT (Dynamically Connected Transport), hence DCT response packets were transmitted without user priority.
- Running tcpdump on bonding standby port caused network connectivity loss.
- Suspend flow freed the VLAN data, so the data was not restored during the resume flow.
- Connection tracking rules with fragmentation had 0 stats.
- Traffic failed to pass when OVS bridge is configured with bond interface and IP is configured over the OVS internal (bridge) port.
- VXLAN with IPsec crypto offload was not functional.
- Conducting a driver restart while in VF LAG mode occasionally resulted in unwanted behaviour such as kernel crashes.

-

Enhancements

Changes and New Features included in version 5.5:

- For ConnectX-4 and above, added support for bridge offloads with VLAN support that works on top of mlx5 representors in switchdev mode.
- For ConnectX-5 and above, added support for offloading packet replication to up to 32 destination through the use of TC rule.
- For ConnectX-4 and above, expanded the RDMA statistic tool to support setting vendor specific optional counters dynamically using netlink. The following optional counters are added to mlx5 ib: cc rx ce pkts, cc rx cnp pkts, cc tx cnp pkts.
- For ConnectX-5 and above, added support via mlxdevm to mark a given PCI subfunction (SF) or virtual function (VF) as a trusted function. The device/firmware decides how to define privileges and access to resources.
- For all chipsets, added support for preventing VF memory exhaustion. This feature exposes a sysfs (to the system admin) which can set a limit on each VF memory consumption. Note: Currently the feature is only supported on Ethernet.
- For ConnectX-5 and above, added support for offloading the HTB qdisc to the NIC, allowing it to scale better by eliminating a single locking point. The configuration is done with the TC commands. Note: Kernel 5.15 or higher is required. Limited to 256 nodes.
- Added support for the activation of PTP and COE compression simultaneously. Since COE compression might harm the accuracy of the PTP, the feature enables PTP packets to be moved to a dedicated queue where they are not subjected to compression. However, this configuration conflicts with setting aRFS. Turning off COE compression, causes a hiccup in traffic which may cause a loss of synchronization. To overcome this, restart the synchronization.

Note: This combination is supported only for Ethernet drivers. Other driver profiles, like IPoIB and representors, do not support this combination.

- Allowed installing multiple mlnx-ofa kernel development headers packages (for different kernel versions of the same mlnx-ofa kernel package version) side by side on the same system.
- For ConnectX-6 Dx, improved OVS failover through support for OVS groups in fast-failover mode + VF LAG configuration with OVS.
- For ConnectX-6 Dx, added support for exposing hairpin out of buffer drop counter per device. This feature shows buffer drops related only to hairpin queues which were opened on the queried device.

To enable this counting mode (this must be done before any hairpin rules are created), use the following: echo "on <peer devname>" > /sys/class/net/<dev>/hp oob cnt mode where <peer devname> is the peer device to which traffic coming to the configured device will be forwarded to for transmission.

To read the drop counter, use the following: cat /sys/class/net/<dev>/hp oob cnt

- For ConnectX-6 Dx, added bridge offloads to support bonding (VF LAG), attaching bond device to bridge instead of uplink representors.
- For ConnectX-6 Dx, added OOB support for VLAN push on Rx (wire to VF) and VLAN pop on Tx (wire to VF) in switchdev mode.
- For ConnectX-6 Dx, added support in multiple flow steering priorities for FDB rules.
- For ConnectX-6 Dx and above, added support for driver resiliency against high load of RX resync operations.

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Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 15 SP2 (AMD64/EM64T) supported by this binary rpm are:
5.3.18-22-default - (AMD64/EM64T) and future update kernels.

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HPE Mellanox RoCE (RDMA over Converged Ethernet) ConnectX-4, ConnectX-5 and ConnectX-6 Driver for SUSE LINUX Enterprise Server 15 SP3 (AMD64/EM64T)

Version: 5.5 (Recommended)

Filename: mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.sles15sp3.x86_64.compsig; mlnx-ofa_kernel-5.5-OFED.5.5.1.0.3.1.sles15sp3.x86_64.rpm; mlnx-ofa_kernel-kmp-default-5.5_k5.3.18_57-OFED.5.5.1.0.3.1.sles15sp3.x86_64.compsig; mlnx-ofa_kernel-kmp-default-5.5_k5.3.18_57-OFED.5.5.1.0.3.1.sles15sp3.x86_64.rpm

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Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa kernel RPMs) supports only Ethernet mode of operation with RoCE (RDMA over Converged Ethernet) functionality for HPE Mellanox Ethernet-only adapters and HPE Mellanox VPI (Virtual Protocol Interconnect) adapters configured to operate in Ethernet mode. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install HPE signed MLNX-OFED drivers from Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed_cx4plus/).

-

Prerequisites

Following packages must be installed from the respective OS distributions prior to installing the driver component:

- Python version 2.7

-

Fixes

The following issues have been fixed in version 5.5:

- There was a possibility of inconsistency in python3 header line (shebang line) because some distributions no longer have /usr/bin/python.
- The driver did not set the PCP-based priority for DCT (Dynamically Connected Transport), hence DCT response packets were transmitted without user priority.
- Running tcpdump on bonding standby port caused network connectivity loss.
- Suspend flow freed the VLAN data, so the data was not restored during the resume flow.

- Connection tracking rules with fragmentation had 0 stats.
- Traffic failed to pass when OVS bridge is configured with bond interface and IP is configured over the OVS internal (bridge) port.
- VXLAN with IPsec crypto offload was not functional.
- Conducting a driver restart while in VF LAG mode occasionally resulted in unwanted behaviour such as kernel crashes.

Enhancements

Changes and New Features included in version 5.5:

- For ConnectX-4 and above, added support for bridge offloads with VLAN support that works on top of mlx5 representors in switchdev mode.
- For ConnectX-5 and above, added support for offloading packet replication to up to 32 destination through the use of TC rule.
- For ConnectX-4 and above, expanded the RDMA statistic tool to support setting vendor specific optional counters dynamically using netlink. The following optional counters are added to mlx5 ib: cc rx ce pkts,cc rx cnp pkts,cc tx cnp pkts.
- For ConnectX-5 and above, added support via mlxdevm to mark a given PCI subfunction (SF) or virtual function (VF) as a trusted function. The device/firmware decides how to define privileges and access to resources.
- For all chipsets, added support for preventing VF memory exhaustion. This feature exposes a sysfs (to the system admin) which can set a limit on each VF memory consumption. Note: Currently the feature is only supported on Ethernet.
- For ConnectX-5 and above, added support for offloading the HTB qdisc to the NIC, allowing it to scale better by eliminating a single locking point. The configuration is done with the TC commands. Note: Kernel 5.15 or higher is required. Limited to 256 nodes.
- Added support for the activation of PTP and COE compression simultaneously. Since COE compression might harm the accuracy of the PTP, the feature enables PTP packets to be moved to a dedicated queue where they are not subjected to compression. However, this configuration conflicts with setting aRFS. Turning off COE compression, causes a hiccup in traffic which may cause a loss of synchronization. To overcome this, restart the synchronization.

Note: This combination is supported only for Ethernet drivers. Other driver profiles, like IPoIB and representors, do not support this combination.

- Allowed installing multiple mlnx-ofa kernel development headers packages (for different kernel versions of the same mlnx-ofa kernel package version) side by side on the same system.
- For ConnectX-6 Dx, improved OVS failover through support for OVS groups in fast-failover mode + VF LAG configuration with OVS.
- For ConnectX-6 Dx, added support for exposing hairpin out of buffer drop counter per device. This feature shows buffer drops related only to hairpin queues which were opened on the queried device.

To enable this counting mode (this must be done before any hairpin rules are created), use the following: echo "on <peer devname>" > /sys/class/net/<dev>/hp oob cnt mode where <peer devname> is the peer device to which traffic coming to the configured device will be forwarded to for transmission.

To read the drop counter, use the following: cat /sys/class/net/<dev>/hp oob cnt

- For ConnectX-6 Dx, added bridge offloads to support bonding (VF LAG), attaching bond device to bridge instead of uplink representors.
- For ConnectX-6 Dx, added OOB support for VLAN push on Rx (wire to VF) and VLAN pop on Tx (wire to VF) in switchdev mode.

- For ConnectX-6 Dx, added support in multiple flow steering priorities for FDB rules.
- For ConnectX-6 Dx and above, added support for driver resiliency against high load of RX resync operations.

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Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 15 SP3 (AMD64/EM64T) supported by this binary rpm are:
5.3.18-57-default - (AMD64/EM64T) and future update kernels.

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HPE QLogic FastLinQ 10/25/50 GbE Drivers for Red Hat Enterprise Linux 7 x86_64

Version: 8.55.15.0-1 (Recommended)

Filename: kmod-qlgc-fastling-8.55.15.0-1.rhel7u8.x86_64.compsig; kmod-qlgc-fastling-8.55.15.0-1.rhel7u8.x86_64.rpm; kmod-qlgc-fastling-8.55.15.0-1.rhel7u9.x86_64.compsig; kmod-qlgc-fastling-8.55.15.0-1.rhel7u9.x86_64.rpm; README

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Important Note!

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 Linux x86_64, version 1.20.1 or later.

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Enhancements

This product improve error log during error return of rdma memory allocate

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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

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HPE QLogic FastLinQ 10/25/50 GbE Drivers for Red Hat Enterprise Linux 8

Version: 8.55.15.0-1 (Recommended)

Filename: kmod-qlgc-fastlinq-8.55.15.0-1.rhel8u4.x86_64.compsig; kmod-qlgc-fastlinq-8.55.15.0-1.rhel8u4.x86_64.rpm; kmod-qlgc-fastlinq-8.59.6.0-1.rhel8u5.x86_64.compsig; kmod-qlgc-fastlinq-8.59.6.0-1.rhel8u5.x86_64.rpm; README

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Important Note!

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 Linux x86_64, version 1.20.1 or later.

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Enhancements

This product improve error log during error return of rdma memory allocate

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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](#)

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HPE QLogic FastLinQ 10/25/50 GbE Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 8.55.15.0-1 (Recommended)

Filename: qlqc-fastling-kmp-default-8.55.15.0 k4.12.14 120-1.sles12sp5.x86_64.compsig; qlqc-fastling-kmp-default-8.55.15.0 k4.12.14 120-1.sles12sp5.x86_64.rpm; README

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Important Note!

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 Linux x86_64, version 1.20.1 or later.](#)

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Enhancements

This product improve error log during error return of rdma memory allocate

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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](#)

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HPE QLogic FastLinQ 10/25/50 GbE Drivers for SUSE Linux Enterprise Server 15

Version: 8.55.15.0-1 (Recommended)

Filename: qlgc-fastling-kmp-default-8.55.15.0 k5.3.18 22-1.sles15sp2.x86_64.compsig; qlgc-fastling-kmp-default-8.55.15.0 k5.3.18 22-1.sles15sp2.x86_64.rpm; qlgc-fastling-kmp-default-8.55.15.0 k5.3.18 57-1.sles15sp3.x86_64.compsig; qlgc-fastling-kmp-default-8.55.15.0 k5.3.18 57-1.sles15sp3.x86_64.rpm; README

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Important Note!

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 Linux x86_64, version 1.20.1 or later.**

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Enhancements

This product improve error log during error return of rdma memory allocate

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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**

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HPE QLogic FastLinQ 10/25/50 GbE Drivers for Windows Server x64 Editions

Version: 8.58.20.0 (Recommended)

Filename: cp049989.compsig; cp049989.exe

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Important Note!

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

- **HPE OLogic FastLinQ Firmware Package for Arrowhead adapters, version 8.55.27(B) or later.**
- **HPE OLogic FastLinQ Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.6.0 or later.**

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Fixes

This product correct an issue that the system potentially occurred Bugcheck 0xE4 in qenda network driver.

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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**

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HPE OLogic FastLinQ 10/25/50 GbE Multifunction Driver for VMware vSphere 6.5

Version: 2021.09.04 (Recommended)

Filename: cp049003.compsig; cp049003.zip

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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 vibsddepot.hp.com webpages, plus an HPE specific CP0xxxxx.xml file.

HPE recommends the firmware provided in HPE OLogic FastLinQ Firmware Package for Arrowhead adapters, version 8.55.27 or later, for use with these drivers.

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Enhancements

This product enhances that collection of Firmware debug data in different scenarios.

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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**

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HPE OLogic FastLinQ 10/25/50 GbE Multifunction Driver for VMware vSphere 6.7

Version: 2022.03.23 (Recommended)

Filename: cp050054.compsig; cp050054.zip

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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 vibsddepot.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.

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Fixes

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

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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 FastLinQ 10/25/50 GbE Multifunction Driver for VMware vSphere 7.0

Version: 2022.03.23 (Recommended)

Filename: cp049986.compsig; cp049986.zip

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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 vib depot.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 6.5

Version: 2021.09.04 (Recommended)

Filename: cp047871.compsig; cp047871.zip

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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 vibsddepot.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 1.29.0 or later, for use with this driver.

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Enhancements

This products enhances the mechanism that collation of data log.

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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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HPE QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 6.7

Version: 2022.03.23 (Recommended)

Filename: cp050055.compsig; cp050055.zip

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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 vibsddepot.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.

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Fixes

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

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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

-

HPE QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 7.0

Version: 2022.03.23 (Recommended)

Filename: cp049987.compsig; cp049987.zip

-

Important Note!

This component is intended to be used by HPE applications. It is a zip file that contains the same driver deliverable available from the vmware.com and the HPE vibsddepot.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 VXLAN 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

HPE QLogic NX2 10/20 GbE Multifunction Drivers for Red Hat Enterprise Linux 7 x86 64

Version: 7.15.02-1 (Recommended)

Filename: kmod-netxtreme2-7.15.02-1.rhel7u8.x86_64.compsig; kmod-netxtreme2-7.15.02-1.rhel7u8.x86_64.rpm; kmod-netxtreme2-7.15.02-1.rhel7u9.x86_64.compsig; kmod-netxtreme2-7.15.02-1.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64, version 2.30.0 or later, for use with these drivers.

Fixes

This product fixed the when Widows virtual machine guest over Linux host leads to Firmware asserts

Supported Devices and Features

These drivers support 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**

HPE QLogic NX2 10/20 GbE Multifunction Drivers for Red Hat Enterprise Linux 8

Version: 7.15.02-1 (Recommended)

Filename: kmod-netxtreme2-7.15.02-1.rhel8u4.x86_64.compsig; kmod-netxtreme2-7.15.02-1.rhel8u4.x86_64.rpm; kmod-netxtreme2-7.15.03-2.rhel8u5.x86_64.compsig; kmod-netxtreme2-7.15.03-2.rhel8u5.x86_64.rpm; README

-

Important Note!

HPE recommends the firmware provided in HPE QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64, version 2.30.0 or later, for use with these drivers.

-

Fixes

This product fixed the when Widows virtual machine guest over Linux host leads to Firmware asserts

-

Enhancements

This product now supports RedHat Linux Enterprise Server 8 Update 5

-

Supported Devices and Features

These drivers support the following network adapters:

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

-

HPE QLogic NX2 10/20 GbE Multifunction Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 7.15.02-1 (Recommended)

Filename: netxtreme2-kmp-default-7.15.02 k4.12.14 120-1.sles12sp5.x86 64.compsig; netxtreme2-kmp-default-7.15.02 k4.12.14 120-1.sles12sp5.x86 64.rpm; README

-

Important Note!

HPE recommends the firmware provided in HPE QLogic NX2 Online Firmware Upgrade Utility for Linux x86 64, version 2.30.0 or later, for use with these drivers.

-

Fixes

This product fixed the when Widows virtual machine guest over Linux host leads to Firmware asserts

-

Supported Devices and Features

These drivers support the following network adapters:

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

-

HPE QLogic NX2 10/20 GbE Multifunction Drivers for SUSE Linux Enterprise Server 15

Version: 7.15.02-1 (Recommended)

Filename: netxtreme2-kmp-default-7.15.02 k5.3.18 22-1.sles15sp2.x86 64.compsig; netxtreme2-kmp-default-7.15.02 k5.3.18 22-1.sles15sp2.x86 64.rpm; netxtreme2-kmp-default-7.15.02 k5.3.18 57-1.sles15sp3.x86 64.compsig; netxtreme2-kmp-default-7.15.02 k5.3.18 57-1.sles15sp3.x86 64.rpm; README

-

Important Note!

HPE recommends the firmware provided in HPE QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64, version 2.29.0 or later, for use with these drivers.

-

Fixes

This product fixed the when Widows virtual machine guest over Linux host leads to Firmware asserts

-

Supported Devices and Features

These drivers support the following network adapters:

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

-

HPE QLogic NX2 10/20 GbE Multifunction Drivers for Windows Server x64 Editions

Version: 7.13.206.0 (Recommended)

Filename: cp047060.compsig; cp047060.exe

-

Important Note!

HPE recommends the firmware provided in HPE QLogic NX2 Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.5.0 or later, for use with these drivers.

-

Fixes

- This product correct an issue where System crash while upgrading with NPAR SRIOV-EP mode enabled.

- This product correct an issue where BSOD in Windows NDIS driver while in WS2022 PCS Configuration.

-

Enhancements

This product now supports Microsoft Windows Server 2022.

-

Supported Devices and Features

This driver 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 i350 Driver for Windows Server 2016

Version: 12.16.4.1 (Recommended)

Filename: cp047041.compsig; cp047041.exe

-

Important Note!

HPE recommends the firmware provided in Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.5.0 or later, for use with this driver.

-

Enhancements

This product is updated to maintain compatibility with updated Windows installation library NicInE1R.dll and e1rmq.dll.

-

Supported Devices and Features

This driver supports the following HPE Intel Powerville network adapters:

- **HPE Ethernet 1Gb 4-port BaseT I350-T4 Adapter**
- **HPE Ethernet 1Gb 4-port BaseT I350-T4 OCP3 Adapter**
- **Intel(R) I350 Gigabit Network Connection**

-

Intel i350 Driver for Windows Server 2019

Version: 12.18.12.1 (Recommended)

Filename: cp047042.compsig; cp047042.exe

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Important Note!

HPE recommends the firmware provided in Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.5.0 or later, for use with this driver.

-

Enhancements

This product is updated to maintain compatibility with updated Windows installation library NicInE1R.dll and e1msg.dll.

-

Supported Devices and Features

This driver supports the following HPE Intel E1R network adapters:

- **HPE Ethernet 1Gb 4-port BaseT I350-T4 Adapter**
- **HPE Ethernet 1Gb 4-port BaseT I350-T4 OCP3 Adapter**
- **Intel(R) I350 Gigabit Network Connection**

-

Intel i350 Driver for Windows Server 2022

Version: 13.0.9.0 (Recommended)

Filename: cp049614.compsig; cp049614.exe

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Important Note!

HPE recommends the firmware provided in Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.6.0 or later, for use with this driver.

-

Enhancements

Initial version

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Supported Devices and Features

This driver supports the following HPE Intel E1R network adapters:

- **HPE Ethernet 1Gb 4-port BaseT I350-T4 Adapter**
- **HPE Ethernet 1Gb 4-port BaseT I350-T4 OCP3 Adapter**
- **Intel(R) I350 Gigabit Network Connection**

-

Intel i40ea Driver for Windows Server 2016

Version: 1.16.62.0 (Recommended)

Filename: cp047039.compsig; cp047039.exe

-

Important Note!

HPE recommends the firmware provided in Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.5.50 or later, for use with this driver.

-

Enhancements

This product is updated to maintain compatibility with updated Windows installation library i40eamsq.dll.

-

Supported Devices and Features

This driver supports the following HPE Intel I40EA network adapters:

- **HPE Ethernet 10Gb 2-port SFP+ X710-DA2 OCP3 Adapter**
- **HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter**

-

Intel i40ea Driver for Windows Server 2019

Version: 1.16.62.0 (Recommended)

Filename: cp047040.compsig; cp047040.exe

-

Important Note!

HPE recommends the firmware provided in Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.5.50 or later, for use with this driver.

-

Enhancements

This product is updated to maintain compatibility with updated Windows installation library i40eamsq.dll.

-

Supported Devices and Features

This driver supports the following HPE Intel I40EA network adapters:

- Intel X710-DA2 Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE
- Intel X710-DA2 Ethernet 10Gb 2-port SFP+ Adapter for HPE

-

Intel i40ea Driver for Windows Server 2022

Version: 1.16.139.0 (Recommended)

Filename: cp049618.compsig; cp049618.exe

-

Important Note!

HPE recommends the firmware provided in Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.6.0 or later, for use with this driver.

-

Enhancements

Initial version

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Supported Devices and Features

This driver supports the following HPE Intel I40EA network adapters:

- Intel X710-DA2 Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE
- Intel X710-DA2 Ethernet 10Gb 2-port SFP+ Adapter for HPE

-

Intel iavf Driver for Windows Server 2016

Version: 1.12.9.0 (C) (Recommended)

Filename: cp048046.compsig; cp048046.exe

-

Important Note!

HPE recommends the firmware provided in Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.5.0 or later, for use with this driver.

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Prerequisites

This driver requires host driver version the following:

- **Intel i40ea Driver version 1.16.62.0 or later.**
- **Intel icea Driver version 1.9.65.0 or later.**

-

Enhancements

This product now supports the following network adapters:

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

-

Supported Devices and Features

This product supports the following Intel VF network adapters:

- **HPE Ethernet 10Gb 2-port SFP+ OCP3 X710-DA2 Adapter**
 - **HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter**
 - **Intel E810-2CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE**
 - **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-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-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE**
 - **Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE**
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Intel iavf Driver for Windows Server 2019

Version: 1.12.9.0 (C) (Recommended)

Filename: cp048047.compsig; cp048047.exe

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Important Note!

HPE recommends the firmware provided in Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.5.0 or later, for use with this driver.

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Prerequisites

This driver requires host driver version the following:

- **Intel i40ea Driver version 1.16.62.0 or later.**
- **Intel icea Driver version 1.9.65.0 or later.**

-

Enhancements

This product now supports the following network adapters:

- **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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Supported Devices and Features

This product supports the following Intel VFnetwork adapters:

- **HPE Ethernet 10Gb 2-port SFP+ OCP3 X710-DA2 Adapter**
- **HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter**
- **Intel E810-2CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE**
- **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-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-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE
- Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE

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Intel iavf Driver for Windows Server 2022

Version: 1.13.8.0 (Recommended)

Filename: cp049615.compsig; cp049615.exe

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Important Note!

HPE recommends the firmware provided in Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.6.0 or later, for use with this driver.

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Prerequisites

This driver requires host driver version the following:

- Intel i40ea Driver version 1.16.139.0 or later.
- Intel icea Driver version 1.10.51.0 or later.

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Enhancements

Initial version

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Supported Devices and Features

This product supports the following Intel VFnetwork adapters:

- HPE Ethernet 10Gb 2-port SFP+ OCP3 X710-DA2 Adapter
- HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter

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

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Intel ice Drivers for Red Hat Enterprise Linux 7 x86_64

Version: 1.6.4-1 (Recommended)

Filename: kmod-ice-1.6.4-1.rhel7u8.x86_64.compsig; kmod-ice-1.6.4-1.rhel7u8.x86_64.rpm; kmod-ice-1.6.4-1.rhel7u9.x86_64.compsig; kmod-ice-1.6.4-1.rhel7u9.x86_64.rpm; README

-

Important Note!

HPE recommends the firmware provided in Intel Firmware Package For E810 Ethernet Adapter, version 3.00 or later, for use with these drivers.

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Enhancements

Initial release.

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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

Intel ice Drivers for Red Hat Enterprise Linux 8

Version: 1.6.4-1 (Recommended)

Filename: kmod-ice-1.6.4-1.rhel8u3.x86_64.compsig; kmod-ice-1.6.4-1.rhel8u3.x86_64.rpm; kmod-ice-1.6.4-1.rhel8u4.x86_64.compsig; kmod-ice-1.6.4-1.rhel8u4.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in Intel Firmware Package For E810 Ethernet Adapter, version 3.00 or later, for use with these drivers.

Enhancements

Initial release.

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**

Intel ice Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 1.6.4-1 (Recommended)

Filename: ice-kmp-default-1.6.4 k4.12.14 120-1.sles12sp5.x86 64.compsig; ice-kmp-default-1.6.4 k4.12.14 120-1.sles12sp5.x86 64.rpm; README

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Important Note!

HPE recommends the firmware provided in Intel Firmware Package For E810 Ethernet Adapter, version 3.00 or later, for use with these drivers.

-

Enhancements

Initial release.

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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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Intel ice Drivers for SUSE Linux Enterprise Server 15

Version: 1.6.4-1 (Recommended)

Filename: ice-kmp-default-1.6.4 k5.3.18 22-1.sles15sp2.x86 64.compsig; ice-kmp-default-1.6.4 k5.3.18 22-1.sles15sp2.x86 64.rpm; ice-kmp-default-1.6.4 k5.3.18 57-1.sles15sp3.x86 64.compsig; ice-kmp-default-1.6.4 k5.3.18 57-1.sles15sp3.x86 64.rpm; README

-

Important Note!

HPE recommends the firmware provided in Intel Firmware Package For E810 Ethernet Adapter, version 3.00 or later, for use with these drivers.

-

Enhancements

Initial release.

-

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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Intel icea Driver for Microsoft Windows Server 2022

Version: 1.10.51.0 (Recommended)

Filename: cp049269.compsig; cp049269.exe

-

Important Note!

HPE recommends the firmware provided in Intel Firmware Package for Columbiaville (FWPKG), version 3.10 or later, for use with this driver.

-

Enhancements

Initial version

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Supported Devices and Features

This driver supports the following HPE Intel ICEA network adapters:

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

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Intel icea Driver for Windows Server 2016

Version: 1.9.65.0 (Recommended)

Filename: cp048044.compsig; cp048044.exe

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Important Note!

HPE recommends the firmware provided in Intel Firmware Package for Columbiaville (FWPKG), version 3.0 or later, for use with this driver.

-

Enhancements

This product now supports the following network adapters:

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

-

Supported Devices and Features

This driver supports the following HPE Intel ICEA network adapters:

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

-

Intel icea Driver for Windows Server 2019

Version: 1.9.65.0 (Recommended)

Filename: cp048045.compsig; cp048045.exe

-

Important Note!

HPE recommends the firmware provided in Intel Firmware Package for Columbiaville (FWPKG), version 3.0 or later, for use with this driver.

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Enhancements

This product now supports the following network adapters:

- 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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Supported Devices and Features

This driver supports the following HPE Intel ICEA network adapters:

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

Intel icen Driver for VMware vSphere 6.5

Version: 2022.03.23 (Recommended)

Filename: cp050786.compsig; cp050786.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 vibsddepot.hp.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

These drivers support 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**

Intel icen Driver for VMware vSphere 6.7

Version: 2022.03.23 (Recommended)

Filename: cp050787.compsig; cp050787.zip

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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 vibsddepot.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.

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Enhancements

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

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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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Intel icen Driver for VMware vSphere 7.0

Version: 2022.03.23 (Recommended)

Filename: cp050788.compsig; cp050788.zip

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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 vibsddepot.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.

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Enhancements

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

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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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Linux Intel Drivers build bundle for Red Hat Enterprise Linux

Version: 1.0.5.0 (Optional)

Filename: hp-i40e-2.16.11-1.all.src.rpm; hp-iavf-4.2.7-1.all.src.rpm; hp-igb-6.7.2-2.all.src.rpm; hp-ixgbe-5.12.5-1.all.src.rpm; hp-ixgbevf-4.12.4-1.all.src.rpm; i40e-README; ia vf-README; ice-1.6.4-1.all.src.rpm; ice-README; igb-README; irdma-1.6.28-1.all.src.rpm; irdma-README; ixgbe-README; ixgbevf-README; kmod-hp-i40e-2.16.11-1.rhel7u8.x86_64.rpm; kmod-hp-i40e-2.16.11-1.rhel7u9.x86_64.rpm; kmod-hp-i40e-2.16.11-1.rhel8u3.x86_64.rpm; kmod-hp-i40e-2.16.11-1.rhel8u4.x86_64.rpm; kmod-hp-iavf-4.2.7-1.rhel7u8.x86_64.rpm; kmod-hp-iavf-4.2.7-1.rhel7u9.x86_64.rpm; kmod-hp-iavf-4.2.7-1.rhel8u3.x86_64.rpm; kmod-hp-iavf-4.2.7-1.rhel8u4.x86_64.rpm; kmod-hp-igb-6.7.2-2.rhel7u8.x86_64.rpm; kmod-hp-igb-6.7.2-2.rhel7u9.x86_64.rpm; kmod-hp-igb-6.7.2-2.rhel8u3.x86_64.rpm; kmod-hp-igb-6.7.2-2.rhel8u4.x86_64.rpm; kmod-hp-ixgbe-5.12.5-1.rhel7u8.x86_64.rpm; kmod-hp-ixgbe-5.12.5-1.rhel7u9.x86_64.rpm; kmod-hp-ixgbe-5.12.5-1.rhel8u3.x86_64.rpm; kmod-hp-ixgbe-5.12.5-1.rhel8u4.x86_64.rpm; kmod-hp-ixgbevf-4.12.4-1.rhel7u8.x86_64.rpm; kmod-hp-ixgbevf-4.12.4-1.rhel7u9.x86_64.rpm; kmod-hp-ixgbevf-4.12.4-1.rhel8u3.x86_64.rpm; kmod-hp-ixgbevf-4.12.4-1.rhel8u4.x86_64.rpm; kmod-ice-1.6.4-1.rhel7u8.x86_64.rpm; kmod-ice-1.6.4-1.rhel7u9.x86_64.rpm;

kmod-ice-1.6.4-1.rhel8u3.x86_64.rpm; kmod-ice-1.6.4-1.rhel8u4.x86_64.rpm; kmod-irdma-1.6.28-1.rhel7u8.x86_64.rpm; kmod-irdma-1.6.28-1.rhel7u9.x86_64.rpm; kmod-irdma-1.6.28-1.rhel8u3.x86_64.rpm; kmod-irdma-1.6.28-1.rhel8u4.x86_64.rpm

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Enhancements

Gen10PlusSnap5

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Linux Intel Drivers build bundle for Red Hat Enterprise Linux

Version: 1.0.5.5 (Recommended)

Filename: hp-i40e-2.17.4-1.all.src.rpm; hp-igb-6.8.5-2.all.src.rpm; hp-ixgbe-5.13.4-1.all.src.rpm; hp-ixgbevf-4.13.3-1.all.src.rpm; i40e-README; iavf-README; ice-1.6.7-1.all.src.rpm; ice-README; igb-README; irdma-1.6.28-1.all.src.rpm; irdma-README; ixgbe-README; ixgbevf-README; kmod-hp-i40e-2.17.4-1.rhel7u8.x86_64.rpm; kmod-hp-i40e-2.17.4-1.rhel7u9.x86_64.rpm; kmod-hp-i40e-2.17.4-1.rhel8u3.x86_64.rpm; kmod-hp-i40e-2.17.4-1.rhel8u4.x86_64.rpm; kmod-hp-igb-6.8.5-2.rhel7u8.x86_64.rpm; kmod-hp-igb-6.8.5-2.rhel7u9.x86_64.rpm; kmod-hp-igb-6.8.5-2.rhel8u3.x86_64.rpm; kmod-hp-igb-6.8.5-2.rhel8u4.x86_64.rpm; kmod-hp-ixgbe-5.13.4-1.rhel7u8.x86_64.rpm; kmod-hp-ixgbe-5.13.4-1.rhel7u9.x86_64.rpm; kmod-hp-ixgbe-5.13.4-1.rhel8u3.x86_64.rpm; kmod-hp-ixgbe-5.13.4-1.rhel8u4.x86_64.rpm; kmod-hp-ixgbevf-4.13.3-1.rhel7u8.x86_64.rpm; kmod-hp-ixgbevf-4.13.3-1.rhel7u9.x86_64.rpm; kmod-hp-ixgbevf-4.13.3-1.rhel8u3.x86_64.rpm; kmod-hp-ixgbevf-4.13.3-1.rhel8u4.x86_64.rpm; kmod-ice-1.6.7-1.rhel7u8.x86_64.rpm; kmod-ice-1.6.7-1.rhel7u9.x86_64.rpm; kmod-ice-1.6.7-1.rhel8u3.x86_64.rpm; kmod-ice-1.6.7-1.rhel8u4.x86_64.rpm; kmod-irdma-1.6.28-1.rhel7u8.x86_64.rpm; kmod-irdma-1.6.28-1.rhel7u9.x86_64.rpm; kmod-irdma-1.6.28-1.rhel8u3.x86_64.rpm; kmod-irdma-1.6.28-1.rhel8u4.x86_64.rpm

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Enhancements

Gen10PlusSnap5Post

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Linux Intel Drivers build bundle for SUSE Linux Enterprise Server

Version: 1.0.5.0 (Optional)

Filename: hp-i40e-2.16.11-1.all.src.rpm; hp-i40e-kmp-default-2.16.11_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-i40e-kmp-default-2.16.11_k5.3.18_22-1.sles15sp2.x86_64.rpm; hp-i40e-kmp-default-2.16.11_k5.3.18_57-1.sles15sp3.x86_64.rpm; hp-iavf-4.2.7-1.all.src.rpm; hp-iavf-kmp-default-4.2.7_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-iavf-kmp-default-4.2.7_k5.3.18_22-1.sles15sp2.x86_64.rpm; hp-iavf-kmp-default-4.2.7_k5.3.18_57-1.sles15sp3.x86_64.rpm; hp-igb-6.7.2-2.all.src.rpm; hp-igb-kmp-default-6.7.2_k4.12.14_120-2.sles12sp5.x86_64.rpm; hp-igb-kmp-

default-6.7.2 k5.3.18 22-2.sles15sp2.x86 64.rpm; hp-igb-kmp-default-6.7.2 k5.3.18 57-2.sles15sp3.x86 64.rpm; hp-ixgbe-5.12.5-1.all.src.rpm; hp-ixgbe-kmp-default-5.12.5 k4.12.14 120-1.sles12sp5.x86 64.rpm; hp-ixgbe-kmp-default-5.12.5 k5.3.18 22-1.sles15sp2.x86 64.rpm; hp-ixgbe-kmp-default-5.12.5 k5.3.18 57-1.sles15sp3.x86 64.rpm; hp-ixgbevf-4.12.4-1.all.src.rpm; hp-ixgbevf-kmp-default-4.12.4 k4.12.14 120-1.sles12sp5.x86 64.rpm; hp-ixgbevf-kmp-default-4.12.4 k5.3.18 22-1.sles15sp2.x86 64.rpm; hp-ixgbevf-kmp-default-4.12.4 k5.3.18 57-1.sles15sp3.x86 64.rpm; i40e-README; iavf-README; ice-1.6.4-1.all.src.rpm; ice-kmp-default-1.6.4 k4.12.14 120-1.sles12sp5.x86 64.rpm; ice-kmp-default-1.6.4 k5.3.18 22-1.sles15sp2.x86 64.rpm; ice-kmp-default-1.6.4 k5.3.18 57-1.sles15sp3.x86 64.rpm; ice-README; igb-README; irdma-1.6.28-1.all.src.rpm; irdma-kmp-default-1.6.28 k4.12.14 120-1.sles12sp5.x86 64.rpm; irdma-kmp-default-1.6.28 k5.3.18 22-1.sles15sp2.x86 64.rpm; irdma-kmp-default-1.6.28 k5.3.18 57-1.sles15sp3.x86 64.rpm; irdma-README; ixgbe-README; ixgbevf-README

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Enhancements

Gen10PlusSnap5

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Linux Intel Drivers build bundle for SUSE Linux Enterprise Server

Version: 1.0.5.5 (Optional)

Filename: hp-i40e-2.17.4-1.all.src.rpm; hp-i40e-kmp-default-2.17.4 k4.12.14 120-1.sles12sp5.x86 64.rpm; hp-i40e-kmp-default-2.17.4 k5.3.18 22-1.sles15sp2.x86 64.rpm; hp-i40e-kmp-default-2.17.4 k5.3.18 57-1.sles15sp3.x86 64.rpm; hp-igb-6.8.5-2.all.src.rpm; hp-igb-kmp-default-6.8.5 k4.12.14 120-2.sles12sp5.x86 64.rpm; hp-igb-kmp-default-6.8.5 k5.3.18 22-2.sles15sp2.x86 64.rpm; hp-igb-kmp-default-6.8.5 k5.3.18 57-2.sles15sp3.x86 64.rpm; hp-ixgbe-5.13.4-1.all.src.rpm; hp-ixgbe-kmp-default-5.13.4 k4.12.14 120-1.sles12sp5.x86 64.rpm; hp-ixgbe-kmp-default-5.13.4 k5.3.18 22-1.sles15sp2.x86 64.rpm; hp-ixgbe-kmp-default-5.13.4 k5.3.18 57-1.sles15sp3.x86 64.rpm; hp-ixgbevf-4.13.3-1.all.src.rpm; hp-ixgbevf-kmp-default-4.13.3 k4.12.14 120-1.sles12sp5.x86 64.rpm; hp-ixgbevf-kmp-default-4.13.3 k5.3.18 22-1.sles15sp2.x86 64.rpm; hp-ixgbevf-kmp-default-4.13.3 k5.3.18 57-1.sles15sp3.x86 64.rpm; i40e-README; iavf-README; ice-1.6.7-1.all.src.rpm; ice-kmp-default-1.6.7 k4.12.14 120-1.sles12sp5.x86 64.rpm; ice-kmp-default-1.6.7 k5.3.18 22-1.sles15sp2.x86 64.rpm; ice-kmp-default-1.6.7 k5.3.18 57-1.sles15sp3.x86 64.rpm; ice-README; igb-README; irdma-1.6.28-1.all.src.rpm; irdma-kmp-default-1.6.28 k4.12.14 120-1.sles12sp5.x86 64.rpm; irdma-kmp-default-1.6.28 k5.3.18 22-1.sles15sp2.x86 64.rpm; irdma-kmp-default-1.6.28 k5.3.18 57-1.sles15sp3.x86 64.rpm; irdma-README; ixgbe-README; ixgbevf-README

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Enhancements

Gen10PlusSnap5Post or MSB?

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Marvell FastLinQ 10/25/50 GbE Drivers for Windows Server x64 Editions

Version: 8.58.20.0 (Recommended)

Filename: cp049988.compsig; cp049988.exe

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Important Note!

HPE recommends the firmware provided in Marvell FastLinQ Firmware Package for Arrowhead adapters, version 8.55.14 or later, for use with these drivers.

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Fixes

This product correct an issue that the system potentially occurred Bugcheck 0xE4 in genda network driver.

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Supported Devices and Features

This product supports the following network adapters:

- **HPE Ethernet 10/25Gb 2-port SFP28 QL41232HOCU OCP3 Adapter**
- **HPE Ethernet 10/25Gb 2-port SFP28 QL41232HLCU Adapter**
- **HPE Ethernet 10Gb 4-port SFP+ QL41134HLCU Adapter**
- **HPE Ethernet 10Gb 2-port BaseT QL41132HLRJ Adapter**
- **HPE Ethernet 10Gb 2-port BaseT QL41132HQRJ OCP3 Adapter**
- **HPE Ethernet 10Gb 2-port SFP+ QL41132HOCU OCP3 Adapter**
- **HPE Ethernet 10Gb 2-port SFP+ QL41132HLCU Adapter**

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Mellanox ConnectX-4, ConnectX-5 and ConnectX-6 "nmlx5_en" Driver Component for VMware ESXi 6.5

Version: 2021.04.15 (B) (Recommended)

Filename: cp053807.compsig; cp053807.zip

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Important Note!

Known Issues with driver version 4.16.71.1:

- **Although the max_vfs module parameter range is "0-128", due to firmware limitations, the following are the supported VFs per single port devices: ConnectX-4 / ConnectX-5: up to 127**
- **ECN tunable parameter initialAlphaValue for the Reaction Point protocol cannot be modified.**
- **ECN statistic counters accumulatorsPeriod and ecnMarkedRocePackets display wrong values and cannot be cleared.**
- **The hardware can offload only up to 256B of headers.**
- **There is no traffic between PV and SR-IOV VF connected to different ports on the same NIC. This issue is applicable to ESXi 6.5 & ESXi 6.5 UP1. The issue is solved in ESXi 6.5 UP2.**
- **Setting the "Allow Guest MTU Change" option in vSphere Client is currently not functional. Although guest MTU changes in SR-IOV are allowed, they do not affect the port's MTU and the guest's MTU remains the same as the PF MTU.**
- **Geneve options length support is limited to 56B. Received packets with options length bigger than 56B are dropped.**
- **Running with ConnectX-4/ConnectX-4 Lx older firmware versions, might result in the following internal firmware errors:**
 - **Device health compromised**
 - **synd 0x1: firmware internal error**
 - **extSync 0x94ee**
- **The 'esxcli mellanox uplink link info -u <vmnic_name>' command reports the 'Auto negotiation' capability always as 'true'.**
- **Wake-on-LAN does not notify when invalid parameters are provided.**
- **Nested ESXi might not function properly.**
- **Device RSS fails to hash traffic to sufficient RX rings with Broadcast traffic.**
- **In stress condition 'Watchdog' may appear, leading to uplink going up and down.**

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Fixes

The following issues have been fixed in driver version in 4.16.71.1:

- **ConnectX-6 supported up to 100GbE speed link only.**
- **Live unload of the driver was not supported. Doing so may cause a PSOD if the max_vfs parameter was set.**
- **The maximum number of established active RDMA connections (QPs) was 5000.**
- **Setting ETS value to 0 caused WQE timeout.**

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Enhancements

Changes and New Features in smart component version 2021.04.15(B):

- **Removed support for the following servers:**

- **Blade servers BLxxxx Gen9/Gen10 series.**

New features and changes in version 4.16.71.1:

- **Added support for ConnectX-6 Lx devices.**
- **Scaled support for up to 10K connections over RDMA networks.**
- **Updated the module parameter "supported_num_ports" default value to 1 to lower memory constraints. Note: The user must set a value corresponding to the amount of ports installed in the system.**
- **Added "sriov_mc_isolation" module parameter to isolate multicast traffic to SR-IOV interfaces. Default value is OFF.**

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Supported Devices and Features

HPE Part Number	Device Name	PSID
P24837-B21	HPE Ethernet 10/25Gb 2-port 642SFP28 Adapter	HPE0000000054
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HP_1200111023
825110-B21	HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	HP_2180110032
825111-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	HP_2190110032
872726-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	HPE0000000009
879482-B21	HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	HPE0000000022
817749-B21	HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter	HP_2690110034
817753-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter	HP_2420110034
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417
P10112-B21	Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000241
P13188-B21	Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000416
P11341-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_0000000238

P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414
874253-B21	HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter	HPE0000000014
P25960-B21	Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	MT_0000000437
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	HPE0000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	HPE0000000035
P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter	HPE0000000036
P23664-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter	MT_0000000451
P23665-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter	MT_0000000452
P23666-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter	MT_0000000453
P10180-B21	Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	MT_0000000435
P31246-B21	HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter	MT_0000000591
P31323-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter	MT_0000000592
P31348-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter	MT_0000000593
P31324-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter	MT_0000000594
P42041-B21	Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000551
P42044-B21	Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000575

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Mellanox ConnectX-4, ConnectX-5 and ConnectX-6 "nmlx5_en" Driver Component for VMware ESXi 6.7

Version: 2021.04.15 (B) (Recommended)

Filename: cp053808.compsig; cp053808.zip

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Important Note!

Known Issues with driver version 4.17.71.1:

- Enabling sriov mc isolation module parameter may result in vmknics and emulated NICs multicast and IPv6 traffic loss.

Workaround: Unset or set the module parameter to 0.

- Setting the "Allow Guest MTU Change" option in vSphere Client is currently not functional. Although guest MTU changes in SR-IOV are allowed, they do not affect the port's MTU and the guest's MTU remains the same as the PF MTU.
- ECN statistic counters accumulatorsPeriod and ecnMarkedRocePackets display wrong values and cannot be cleared.
- ECN tunable parameter initialAlphaValue for the Reaction Point protocol cannot be modified.
- ConnectX-6 Dx speed remains zero after port goes down and reboot is performed.

Workaround: Turn the down and then up again

- When in ENS mode, changing the scheduler to HCLK, may cause traffic loss.
- A PSOD may occur during vMotion over ENS VMK. This issue is pending VMWare investigation.
- During ENS uplink detachment from the ENS DVS, the below error message regarding the queue still being allocated or that the requested queue is not in use may appear. "Driver covers for OS issue and the messages are for information only."
- Although the max vfs module parameter range is "0-128", due to firmware limitations, the following are the supported VFs per single port devices: ConnectX-4 / ConnectX-5: up to 127
- ECN tunable parameter initialAlphaValue for the Reaction Point protocol cannot be modified.
- ECN statistic counters accumulatorsPeriod and ecnMarkedRocePackets display wrong values and cannot be cleared.
- The hardware can offload only up to 256B of headers.
- Setting the "Allow Guest MTU Change" option in vSphere Client is currently not functional. Although guest MTU changes in SR-IOV are allowed, they do not affect the port's MTU and the guest's MTU remains the same as the PF MTU.
- The 'esxcli mellanox uplink link info -u <vmnic name>' command reports the 'Auto negotiation' capability always as 'true'.
- Wake-on-LAN does not notify when invalid parameters are provided.
- Nested ESXi might not function properly.
- Device RSS fails to hash traffic to sufficient RX rings with Broadcast traffic.
- In stress condition 'Watchdog' may appear, leading to uplink going up and down.

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Fixes

The following issues have been fixed in driver version in 4.17.71.1:

- SRI-OV was not supported while ENS was enabled.

- Live unload of the driver was not supported. Doing so caused a PSOD if the max_vfs parameter was set.
- The maximum number of established active RDMA connections (QPs) was 5000.
- ENS was not supported in ConnectX-6 Dx adapter cards.
- Setting ETS value to 0 caused WQE timeout.

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Enhancements

Changes and New Features in smart component version 2021.04.15(B):

- Removed support for the following servers:
 - Blade servers BLxxxx Gen9/Gen10 series.

New features and changes in driver version 4.17.71.1:

- Added support for ConnectX-6 Lx devices.
- Scaled support for up to 10K connections over RDMA networks.
- Updated the module parameter "supported_num_ports" default value to 1 to lower memory constraints. Note: The user must set a value corresponding to the amount of ports installed in the system.
- Added "sriov_mc_isolation" module parameter to isolate multicast traffic to SR-IOV interfaces. Default value is OFF.

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Supported Devices and Features

HPE Part Number	Device Name	PSID
P24837-B21	HPE Ethernet 10/25Gb 2-port 642SFP28 Adapter	HPE0000000054
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HP_1200111023
825110-B21	HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	HP_2180110032
825111-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	HP_2190110032
872726-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	HPE0000000009
879482-B21	HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	HPE0000000022

817749-B21	HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter	HP_2690110034
817753-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter	HP_2420110034
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417
P10112-B21	Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000241
P13188-B21	Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000416
P11341-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414
874253-B21	HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter	HPE0000000014
P25960-B21	Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	MT_0000000437
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	HPE0000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	HPE0000000035
P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter	HPE0000000036
P23664-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter	MT_0000000451
P23665-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter	MT_0000000452
P23666-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter	MT_0000000453
P10180-B21	Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	MT_0000000435
P31246-B21	HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter	MT_0000000591
P31323-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter	MT_0000000592
P31348-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter	MT_0000000593
P31324-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter	MT_0000000594

P42041-B21	Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000551
P42044-B21	Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000575

Mellanox ConnectX-4, ConnectX-5 and ConnectX-6 "nmlx5_en" Driver Component for VMware ESXi 7.0 Update 2 and Update 3

Version: 2021.04.21 (B) (Recommended)

Filename: cp053809.compsig; cp053809.zip

Important Note!

Important: Version 4.21.71.1 supports VMware ESXi 7.0 Update 2 and Update 3 only.

Known Issues with driver version 4.21.71.101:

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

Fixes

Fixes included in driver version 4.21.71.101:

- Fixed a compatibility issue with VMware Update Manager as it wouldn't accept a bundle with metadata xml with old versioning scheme. The metadata xml now contains the new versioning scheme.

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Enhancements

The following changes have been made in sub-version 2021.04.21(B):

- Removed support for the following servers:
 - Blade servers BLxxxx Gen9/Gen10 series.

New features and changes in driver version 4.21.71.101:

- Added support for the following features:
 - vSan over RDMA.
 - Receive Side Scaling (RSS) for ENS model 0.
 - ENS FPO Model 1 with Rx path flow lookup offloaded (ConnectX5 onwards)
 - ENS FPO Model 1 with Tx path partial action execution offloaded (ConnectX5 onwards)
 - ENS FPO Model 2 with SR-IOV as passthrough technology (ConnectX5 onwards)
 - 200GbE link speed.
 - ConnectX-6 Lx devices.
 - Data Center Bridging Capability Exchange (DCBX) protocol with hardware offload.
 - sriov mc isolation module parameter to isolate multicast traffic to SR-IOV interfaces. Default value is OFF.
 - ens fallback model to set the default fallback mode when the option to query ENS model from the OS is no supported. Default to Model 1.
- Scaled support for up to 10K connections over RDMA networks.
- Updated the kernel parameter "supported_num_ports" default value to 1 to lower memory constraints. Note: The user must set a value corresponding to the amount of ports installed in the system.

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Supported Devices and Features

HPE Part Number	Device Name	PSID
P24837-B21	HPE Ethernet 10/25Gb 2-port 642SFP28 Adapter	HPE0000000054

P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HP_1200111023
825110-B21	HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	HP_2180110032
825111-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	HP_2190110032
872726-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	HPE000000009
879482-B21	HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	HPE0000000022
817749-B21	HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter	HP_2690110034
817753-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter	HP_2420110034
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417
P10112-B21	Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000241
P13188-B21	Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000416
P11341-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414
874253-B21	HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter	HPE0000000014
P25960-B21	Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	MT_0000000437
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	HPE0000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	HPE0000000035
P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter	HPE0000000036
P23664-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter	MT_0000000451
P23665-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter	MT_0000000452
P23666-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter	MT_0000000453

P10180-B21	Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	MT_0000000435
P31246-B21	HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter	MT_0000000591
P31323-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter	MT_0000000592
P31348-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter	MT_0000000593
P31324-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter	MT_0000000594
P42041-B21	Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000551
P42044-B21	Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000575

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Mellanox CX5 and CX6DX Driver for Microsoft Windows Server 2016

Version: 2.80.25134.0 (Recommended)

Filename: cp050316.compsig; cp050316.exe

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Fixes

- **This product correct an issue which fixed a possible system crash when deleting vPort under Rx traffic.**
- **This product correct an issue which fixed an issue that allowed the installation process to be completed successfully even though one of the drivers was not updated.**
- **This product correct an issue which fixed an issue that caused traffic lose and connection closure when TCP Timestamp option (ts-val) is present and the MSB is set together with RSC.**

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Enhancements

This driver now allows the Event Viewer to overcome an OS limitation related to long names.

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Supported Devices and Features

This driver supports the following network adapters:

- HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter
- HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter
- HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter
- HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter
- HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter
- HPE Ethernet 10Gb/25Gb 2-port SFP28 MCX4621A-ACAB OCP3 Adapter
- Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE
- Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE
- Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE

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Mellanox CX5 and CX6DX Driver for Microsoft Windows Server 2019

Version: 2.80.25134.0 (Recommended)

Filename: cp050317.compsig; cp050317.exe

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Fixes

- This product correct an issue which fixed a possible system crash when deleting vPort under Rx traffic.
- This product correct an issue which fixed an issue that allowed the installation process to be completed successfully even though one of the drivers was not updated.
- This product correct an issue which fixed an issue that caused traffic lose and connection closure when TCP Timestamp option (ts-val) is present and the MSB is set together with RSC.

-

Enhancements

This driver now allows the Event Viewer to overcome an OS limitation related to long names.

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Supported Devices and Features

This driver supports the following network adapters:

- HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter
- HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter
- HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter
- HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter
- HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter
- HPE Ethernet 10Gb/25Gb 2-port SFP28 MCX4621A-ACAB OCP3 Adapter
- Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE
- Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE
- Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE

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Mellanox CX5 and CX6DX Driver for Microsoft Windows Server 2022

Version: 2.80.25134.0 (Recommended)

Filename: cp050318.compsig; cp050318.exe

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Fixes

- This product correct an issue which fixed a possible system crash when deleting vPort under Rx traffic.
- This product correct an issue which fixed an issue that allowed the installation process to be completed successfully even though one of the drivers was not updated.
- This product correct an issue which fixed an issue that caused traffic lose and connection closure when TCP Timestamp option (ts-val) is present and the MSB is set together with RSC.

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Enhancements

This driver now allows the Event Viewer to overcome an OS limitation related to long names.

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Supported Devices and Features

This driver supports the following network adapters:

- HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter
- HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter

- HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter
- HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter
- HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter
- HPE Ethernet 10Gb/25Gb 2-port SFP28 MCX4621A-ACAB OCP3 Adapter
- Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE
- Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE
- Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE

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net-mst kernel module driver component for VMware ESXi 6.5 and 6.7

Version: 2020.11.11 (C) (Recommended)

Filename: cp053806.compsig; cp053806.zip

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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 [HPE vibsdepot.hpe.com](http://HPE.vibsdepot.hpe.com) webpage, plus an HPE specific CPXXXX.xml file.

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Prerequisites

NA

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Enhancements

The following changes have been made in sub-version 2020.11.11(C):

- **Removed support for the following servers:**
 - **Blade servers BLxxxx Gen9/Gen10 series.**

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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
P24837-B21	HPE Ethernet 10/25Gb 2-port 642SFP28 Adapter	HPE0000000054
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HP_1200111023
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
825110-B21	HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	HP_2180110032
825111-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	HP_2190110032
872726-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	HPE0000000009
879482-B21	HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	HPE0000000022
868779-B21	HPE Synergy 6410C 25/50Gb Ethernet Adapter	HPE0000000006
779793-B21	HPE Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HPE Ethernet 10Gb 2-port 546FLR-SFP+ Adapter	HP_2240110004
817749-B21	HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter	HP_2690110034
817753-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter	HP_2420110034
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417
P10112-B21	Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000241
P13188-B21	Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000416

P11341-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414
874253-B21	HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter	HPE0000000014
P25960-B21	Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	MT_0000000437
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	HPE0000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	HPE0000000035
P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter	HPE0000000036
P23664-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter	MT_0000000451
P23665-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter	MT_0000000452
P23666-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter	MT_0000000453
P10180-B21	Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	MT_0000000435
P31246-B21	HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter	MT_0000000591
P31323-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter	MT_0000000592
P31348-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter	MT_0000000593
P31324-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter	MT_0000000594
P42041-B21	Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000551
P42044-B21	Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000575

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Version: 2020.11.11 (C) (Recommended)

Filename: cp053805.compsig; cp053805.zip

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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 [HPE vibsdepot.hpe.com](http://HPE.vibsdepot.hpe.com) webpage, plus an HPE specific CPXXXX.xml file.

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Prerequisites

NA

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Enhancements

The following changes have been made in sub-version 2020.11.11(C):

- **Removed support for the following servers:**
 - **Blade servers BLxxxx Gen9/Gen10 series.**

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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
P24837-B21	HPE Ethernet 10/25Gb 2-port 642SFP28 Adapter	HPE0000000054
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HP_1200111023

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
825110-B21	HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	HP_2180110032
825111-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	HP_2190110032
872726-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	HPE0000000009
879482-B21	HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	HPE0000000022
868779-B21	HPE Synergy 6410C 25/50Gb Ethernet Adapter	HPE0000000006
779793-B21	HPE Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HPE Ethernet 10Gb 2-port 546FLR-SFP+ Adapter	HP_2240110004
817749-B21	HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter	HP_2690110034
817753-B21	HPE Ethernet 25Gb 2-port 640SFP28 Adapter	HP_2420110034
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417
P10112-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter	MT_0000000241
P13188-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter	MT_0000000416
P11341-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014
P25960-B21	HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter	MT_0000000437
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port 940QSFP56 x16 Adapter	HPE0000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port 940QSFP56 x16 Adapter	HPE0000000035

P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port 940QSFP56 x16 Adapter	HPE0000000036
P23664-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port MCX653105A-HDAT QSFP56 x16 Adapter	MT_0000000451
P23665-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port MCX653105A-ECAT QSFP56 x16 Adapter	MT_0000000452
P23666-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port MCX653106A-ECAT QSFP56 x16 Adapter	MT_0000000453
P10180-B21	Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	MT_0000000435
P31246-B21	HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter	MT_0000000591
P31323-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter	MT_0000000592
P31348-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter	MT_0000000593
P31324-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter	MT_0000000594
P42041-B21	Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000551
P42044-B21	Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000575

-

nmlx4_en Driver Component for VMware 6.5

Version: 2020.11.11 (Recommended)

Filename: cp046261.compsig; cp046261.zip

-

Important Note!

Known Issues:

- **ConnectX-3 Pro 10G adapter cards incorrectly report support for 40G speed when running the "esxcli network nic get" command.**
- **When the port is DOWN, the management interface "port type" field indicates one of the port types supported by the device, in the following order: TP, FIBER, DA, NONE. If the port supports several cable types, the first type in the list mentioned above will be printed.**
- **When the port is UP, the management interface port type field (nmlx_en MgmtIFPortType) indicates which one of all possible supported types is currently connected.**

- **Managment interface port type field reports SFP-to-RJ45 cable as FIBER.**
- **Management interface auto negotiation field is equivalent to "esxcli network nic get -n vmnicX" field "Pause Autonegotiate".**

For further information on the release notes for ESXi 6.5 Driver Version 3.16.11.10 follow the below link:

https://www.mellanox.com/page/products_dyn?product_family=29&mtag=vmware_driver

-

Enhancements

Changes and New Features in version 3.16.70.2:

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

-

Supported Devices and Features

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

-

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

-

VMware ESXi 7.0 MST Drivers Offline Bundle for Mellanox Adapters

Version: 4.14.3.3 (Recommended)

Filename: Mellanox-NATIVE-NMST 4.14.3.3-1OEM.700.1.0.15525992 16211416.zip

-

Prerequisites

NA

-

Enhancements

VM70 nmst 4.14.3.3

-

-

Driver - Storage

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HPE Smart Array S100i SR Gen10 SW RAID Driver for Windows Server 2016 and Windows Server 2019

Version: 106.12.6.0 (B) **(Critical)**

Filename: cp048017.compsig; cp048017.exe

Fixes

Addressed an issue where the HPE Smart Array s100i Software RAID may experience potential data inconsistency during initial configuration or operation of a RAID volume configured in RAID 0/1/5/10 Fault Tolerant Modes.

This issue does not impact systems that have not enabled Smart Array s100i support.

- For additional information, reference [Customer Bulletin a00097789en_us](#).

IMPORTANT INFORMATION:

- An array configured with a single RAID 0 logical drive is NOT affected.
- An array configured with a single RAID 1 logical drive is NOT affected.

HPE Smart Array S100i SR Gen10 SW RAID Driver for Windows Server 2022

Version: 1010.14.0.0 **(Recommended)**

Filename: cp049244.compsig; cp049244.exe

Enhancements

Initial Release

HPE Smart Storage SR100i Gen10 Plus SW RAID Driver for Windows Server 2016 and Windows Server 2019

Version: 106.124.90.1233 **(Recommended)**

Filename: cp049976.compsig; cp049976.exe

Fixes

- Windows BSOD is observed when a NVMe drive configured with SR1R00i is broken and failed for communication.

HPE Smart Storage SR100i Gen10 Plus SW RAID Driver for Windows Server 2022

Version: 1010.124.90.1233 **(Recommended)**

Filename: cp049977.compsig; cp049977.exe

Fixes

- Windows BSOD is observed when a NVMe drive configured with SR1R00i is broken and failed for communication.

Driver - Storage Controller

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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_7.716.03.00-10EM.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 vibspot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Enhancements

- Added support for DL20 Gen10 Plus Server.

HPE MR416i-a, MR416i-p, MR216i-a, MR216i-p controller (64-bit) Driver for vSphere 7.0

Version: 7.716.03.00 (B) **(Recommended)**

Filename: Broadcom-lsi-mr3_7.716.03.00-10EM.700.1.0.15843807_17632848.zip

Enhancements

- Added support for DL20 Gen10 Plus Server.

HPE MR416i-a, MR416i-p, MR216i-a, MR216i-p controller (64-bit) Driver for vSphere 7.0 (Driver Component)

Version: 2021.04.01 (B) **(Recommended)**

Filename: cp049486.compsig; cp049486.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 vibspot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Enhancements

- Added support for DL20 Gen10 Plus Server.

HPE MR416i-a, MR416i-p, MR216i-a, MR216i-p controller Driver for 64-bit Red Hat Enterprise Linux 7

Version: 07.716.02.00 (B) **(Recommended)**

Filename: kmod-megaraid_sas-07.716.02.00-1.rhel7u8.x86_64.compsig; kmod-megaraid_sas-07.716.02.00-1.rhel7u8.x86_64.rpm; kmod-megaraid_sas-07.716.02.00-1.rhel7u9.x86_64.compsig; kmod-megaraid_sas-07.716.02.00-1.rhel7u9.x86_64.rpm

Enhancements

- Added support for DL20 Gen10 Plus Server.

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 7 (64-bit) supported by this binary rpm are:

3.10.0-1127.el7 - Red Hat Enterprise Linux 7 Update 8 (64-bit) and future errata kernels for update 8.
3.10.0-1160.el7- Red Hat Enterprise Linux 7 Update 9 (64-bit) and future errata kernels for update 9.

HPE MR416i-a, MR416i-p, MR216i-a, MR216i-p controller Driver for 64-bit Red Hat Enterprise Linux 8

Version: 07.719.04.00 **(Recommended)**

Filename: kmod-megaraid_sas-07.719.04.00_el8.4-1.x86_64.compsig; kmod-megaraid_sas-07.719.04.00_el8.4-1.x86_64.rpm

Enhancements

Support new OS RHEL8.4

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 8 (64-bit) supported by this binary rpm are:

4.18.0-193.el8- Red Hat Enterprise Linux 8 Update 2 (64-bit) and future errata kernels for update 2.

4.18.0-240.el8- Red Hat Enterprise Linux 8 Update 3 (64-bit) and future errata kernels for update 3.

HPE MR416i-a, MR416i-p, MR216i-a, MR216i-p controller Driver for 64-bit SUSE LINUX Enterprise Server 15

Version: 07.719.04.00 (Recommended)

Filename: lsi-megaraid_sas-kmp-default-07.719.04.00_sles15sp2-1.x86_64.compsig; lsi-megaraid_sas-kmp-default-07.719.04.00_sles15sp2-1.x86_64.rpm; lsi-megaraid_sas-kmp-default-07.719.04.00_sles15sp3-1.x86_64.compsig; lsi-megaraid_sas-kmp-default-07.719.04.00_sles15sp3-1.x86_64.rpm

Enhancements

Support new OS SLES15SP3

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 15 (64-bit) supported by this binary rpm are:

- 4.12.14-23 - SUSE LINUX Enterprise Server 15 (64-bit) SP0 plus future errata.
- 4.12.14-195 - SUSE LINUX Enterprise Server 15 (64-bit) SP1 plus future errata.
- 5.3.18-22 - SUSE LINUX Enterprise Server 15 (64-bit) SP2 plus future errata.
- 5.3.18-57 - SUSE LINUX Enterprise Server 15 (64-bit) SP3 plus future errata.

HPE MR416i-p MR416i-a MR216i-p MR216i-a 64-bit controller driver for Microsoft Windows 2019 edition.

Version: 7.716.3.0 (B) (Recommended)

Filename: cp049482.compsig; cp049482.exe

Enhancements

- Added support for DL20 Gen10 Plus Server.

HPE MR416i-p MR416i-a MR216i-p MR216i-a 64-bit controller driver for Microsoft Windows 2022 edition.

Version: 7.719.6.0 (Recommended)

Filename: cp050771.compsig; cp050771.exe

Enhancements

Support new OS Windows 2022

HPE MR416i-p, MR416i-a, MR216i-p, MR216i-a controller Driver for 64-bit SUSE LINUX Enterprise Server 12

Version: 07.716.02.00 (C) (Recommended)

Filename: lsi-megaraid_sas-kmp-default-07.716.02.00_sles12sp4-1.x86_64.compsig; lsi-megaraid_sas-kmp-default-07.716.02.00_sles12sp4-1.x86_64.rpm; lsi-megaraid_sas-kmp-default-07.716.02.00_sles12sp5-1.x86_64.compsig; lsi-megaraid_sas-kmp-default-07.716.02.00_sles12sp5-1.x86_64.rpm

Fixes

- Fixed issue with HPE ProLiant Gen10 Plus system with MR416/MR216 controller running SUSE Linux Enterprise Server 12 and 15 driver will fail to boot with Secure Boot Enabled. It can refer to SID8038 with detail info

Enhancements

- Added support for DL20 Gen10 Plus Server.

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 12 (64-bit) supported by this binary rpm are:

4.12.14-94.41 - SUSE LINUX Enterprise Server 12 (64-bit) SP4 plus future errata.

4.12.14-120 - SUSE LINUX Enterprise Server 12 (64-bit) SP5 plus future errata.

HPE MR416i-p,MR416i-a, MR216i-p, MR216i-a 64-bit controller driver for Microsoft Windows 2016 edition.

Version: 7.716.3.0 (B) (Recommended)

Filename: cp049479.compsig; cp049479.exe

Enhancements

- Added support for DL20 Gen10 Plus Server.

HPE ProLiant Gen10 and Gen10Plus Smart Array Controller (64-bit) Driver for Red Hat Enterprise Linux 7 (64-bit)

Version: 2.1.16-030 (B) (Recommended)

Filename: kmod-smartpqi-2.1.16-030.rhel7u8.x86_64.compsig; kmod-smartpqi-2.1.16-030.rhel7u8.x86_64.rpm; kmod-smartpqi-2.1.16-030.rhel7u9.x86_64.compsig; kmod-smartpqi-2.1.16-030.rhel7u9.x86_64.rpm

Enhancements

- Remove BL460 server
- Remove Device P204i-b, P408e-m, P408i-sb

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux7 (64-bit) supported by this binary rpm are:

3.10.0-957.el7- Red Hat Enterprise Linux 7 Update 6 (64-bit) and future errata kernels for update 6.

HPE ProLiant Gen10 and Gen10Plus Smart Array Controller (64-bit) Driver for Red Hat Enterprise Linux 8 (64-bit)

Version: 2.1.16-030 (B) (Recommended)

Filename: kmod-smartpqi-2.1.16-030.rhel8u4.x86_64.compsig; kmod-smartpqi-2.1.16-030.rhel8u4.x86_64.rpm; kmod-smartpqi-2.1.16-030.rhel8u5.x86_64.compsig; kmod-smartpqi-2.1.16-030.rhel8u5.x86_64.rpm

Enhancements

- Remove BL460 server
- Remove Device P204i-b, P408e-m, P408i-sb

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux8 (64-bit) supported by this binary rpm are:
-default- Red Hat Enterprise Linux 8 Update 0 (64-bit).

HP ProLiant Gen10 and Gen10Plus Smart Array Controller (64-bit) Driver for SUSE LINUX Enterprise Server 12 (64-bit)

Version: 2.1.16-030 (B) (Recommended)

Filename: smartpqi-kmp-default-2.1.16-030.sles12sp4.x86_64.compsig; smartpqi-kmp-default-2.1.16-030.sles12sp4.x86_64.rpm; smartpqi-kmp-default-2.1.16-030.sles12sp5.x86_64.compsig; smartpqi-kmp-default-2.1.16-030.sles12sp5.x86_64.rpm

Enhancements

- Remove BL460 server
- Remove Device P204i-b, P408e-m, P408i-sb

Supported Devices and Features

SUPPORTED KERNELS:

4.12.14-94.41.1 - SUSE LINUX Enterprise Server 12 (64-bit) SP4 plus future errata.

HPE ProLiant Gen10 and Gen10Plus Smart Array Controller (64-bit) Driver for SUSE LINUX Enterprise Server 15 (64-bit)

Version: 2.1.16-030 (B) (Recommended)

Filename: smartpqi-kmp-default-2.1.16-030.sles15sp2.x86_64.compsig; smartpqi-kmp-default-2.1.16-030.sles15sp2.x86_64.rpm; smartpqi-kmp-default-2.1.16-030.sles15sp3.x86_64.compsig; smartpqi-kmp-default-2.1.16-030.sles15sp3.x86_64.rpm

Enhancements

- Remove BL460 server
- Remove Device P204i-b, P408e-m, P408i-sb

Supported Devices and Features

The kernels of SUSE LINUX Enterprise Server 15 (64-bit) supported by this driver diskette are:
-default - SUSE LINUX Enterprise Server 15 (64-bit) and future errata kernels

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_67.4150.0.119-10EM.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 ProLiant Gen10 Smart Array and Gen10 Plus Smart RAID Controller Driver for VMware vSphere 7.0 (Bundle file)

Version: 70.4150.0.119 (Recommended)

Filename: Microchip-smartpqj_70.4150.0.119-1OEM.700.1.0.15843807_18380949.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 7.0 (Driver Component).

Version: 2021.09.01 (Recommended)

Filename: cp047416.compsig; cp047416.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 ProLiant Gen10 Smart Array Controller Driver for VMware ESXi 6.5 (Bundle file)

Version: 65.4150.0.119 (Recommended)

Filename: VMW-ESX-6.5.0-smartpqi-65.4150.0.119-offline_bundle-18379836.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.

HPE ProLiant Gen10 Smart Array Controller Driver for VMware vSphere 6.5 (Driver Component)

Version: 2021.09.01 (Recommended)

Filename: cp047414.compsig; cp047414.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 Gen10 and Gen10Plus Controller Driver for Windows Server 2016, Windows Server 2019 and Windows Server 2022

Version: 1010.24.0.1005 (B) (Recommended)

Filename: cp053763.compsig; cp053763.exe

Enhancements

Remove Blade server and devices

HPE Smart Array P824i-p MR 64-bit controller driver for Microsoft Windows 2016 edition.

Version: 6.714.18.0 (Recommended)

Filename: cp034411.compsig; cp034411.exe

Enhancements

- Added support for the Apollo 4510 system

HPE Smart Array P824i-p MR 64-bit controller driver for Microsoft Windows 2019 edition.

Version: 6.714.18.0 (Recommended)

Filename: cp038009.compsig; cp038009.exe

Enhancements

Initial Microsoft Windows Server 2019 release

HPE Smart Array P824i-p MR controller (64-bit) Driver for vSphere 6.5

Version: 7.706.09.00 (Recommended)

Filename: Release_Notes_Isi-mr3-7.706.09.00-1OEM_6.5.txt; VMW-ESX-6.5.0-Isi_mr3-7.706.09.00-12102431.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 6.5 (Driver Component)

Version: 2019.12.13 (Recommended)

Filename: cp042803.compsig; cp042803.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 vib depot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

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

Version: 7.706.09.00 (Recommended)

Filename: Release_Notes_Isi-mr3-7.706.09.00-10EM.txt; VMW-ESX-6.7.0-Isi_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 vibsddepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Fixes

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

HPE Smart Array P824i-p MR controller Driver for 64-bit Red Hat Enterprise Linux 7

Version: 07.706.05.00-14 (Recommended)

Filename: kmod-megaraid_sas-07.706.05.00-14.rhel7u5.x86_64.compsig; kmod-megaraid_sas-07.706.05.00-14.rhel7u5.x86_64.rpm; kmod-megaraid_sas-07.706.05.00-14.rhel7u6.x86_64.compsig; kmod-megaraid_sas-07.706.05.00-14.rhel7u6.x86_64.rpm

Enhancements

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

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 7 (64-bit) supported by this binary rpm are:

3.10.0-693.el7 - Red Hat Enterprise Linux 7 Update 4 (64-bit) and future errata kernels for update 4.

3.10.0-862.el7- Red Hat Enterprise Linux 7 Update 5 (64-bit) and future errata kernels for update 5.

HPE Smart Array P824i-p MR controller Driver for 64-bit SUSE LINUX Enterprise Server 12

Version: 07.706.05.00-14 (Recommended)

Filename: lsi-megaraid_sas-kmp-default-07.706.05.00-14.sles12sp3.x86_64.compsig; lsi-megaraid_sas-kmp-default-07.706.05.00-14.sles12sp3.x86_64.rpm; lsi-megaraid_sas-kmp-default-07.706.05.00-14.sles12sp4.x86_64.compsig; lsi-megaraid_sas-kmp-default-07.706.05.00-14.sles12sp4.x86_64.rpm

Enhancements

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

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 12 (64-bit) supported by this binary rpm are:

4.4.21-69-default - SUSE LINUX Enterprise Server 12 (64-bit) SP2 plus future errata.

4.4.73-5.1 - SUSE LINUX Enterprise Server 12 (64-bit) SP3 plus future errata.

HPE Smart Array P824i-p MR controller Driver for 64-bit SUSE LINUX Enterprise Server 15

Version: 07.706.05.00-14 (Recommended)

Filename: lsi-megaraid_sas-kmp-default-07.706.05.00-14.sles15sp0.x86_64.compsig; lsi-megaraid_sas-kmp-default-07.706.05.00-14.sles15sp0.x86_64.rpm

Enhancements

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

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 15 (64-bit) supported by this binary rpm are:

4.12.14-23 - SUSE LINUX Enterprise Server 15 (64-bit) SP0 plus future errata.

Driver - Storage Fibre Channel and Fibre Channel Over Ethernet

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HPE Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver for Microsoft Windows Server 2016

Version: 12.8.351.7 (c) **(Recommended)**

Filename: cp049962.compsig; cp049962.exe

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 12.8.351.7

The raw driver files can be obtained by extracting the Smart Component and then extracting the Emulex installer. Use this command:


```
elxdrv-rfc-version.exe /q2 extract=2
```

The extracted files are located:

C:\Users\Administrator\Documents\Emulex\Drivers\FC-version

Each kit folder has subsequent architecture folders with subsequent OS folders. For example,

C:\Users\Administrator\Documents\Emulex\Drivers\FC-version\x64\win2019

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

HPE Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver for Microsoft Windows Server 2019

Version: 12.8.351.7 (c) **(Recommended)**

Filename: cp049960.compsig; cp049960.exe

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 12.8.351.7

The raw driver files can be obtained by extracting the Smart Component and then extracting the Emulex installer. Use this command:

```
elxdrv-fc-version.exe /q2 extract=2
```

The extracted files are located:

C:\Users\Administrator\Documents\Emulex\Drivers\FC-version

Each kit folder has subsequent architecture folders with subsequent OS folders. For example,

C:\Users\Administrator\Documents\Emulex\Drivers\FC-version\x64\win2019

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter

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

64Gb FC Adapter:

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

HPE Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver for Microsoft Windows Server 2022

Version: 12.8.518.0 (c) **(Recommended)**

Filename: cp049961.compsig; cp049961.exe

Prerequisites

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

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

Enhancements

Added the following support:

- Added support for Windows 2022

Updated to driver version 12.8.518.0

The raw driver files can be obtained by extracting the Smart Component and then extracting the Emulex installer. Use this command:

```
elxdrv-fc-version.exe /q2 extract=2
```

The extracted files are located:

C:\Users\Administrator\Documents\Emulex\Drivers\FC-version

Each kit folder has subsequent architecture folders with subsequent OS folders. For example,

C:\Users\Administrator\Documents\Emulex\Drivers\FC-version\x64\win2019

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

HPE Storage Fibre Channel Adapter Kit for the x64 QLogic Storport Driver for Microsoft Windows Server 2016

Version: 9.4.5.20 **(Recommended)**

Filename: cp046828.compsig; cp046828.exe

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

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:

- Removed the "fwload" registry parameter.
- Fixed an unwanted behavior where Link up/down messages were not always logged in the Window System Event log.
- Fixed unwanted behavior with the reporting of Fabric Port Identification Number (FPIN) and Universal Storage Area Network (SAN) Congestion Mitigation (USCM) statistics.
- Fixed an unwanted behavior where connections to tape drives may fail to recover in the event of "SCSI Check Condition" commands or cable pulls.
- Fixed an unwanted behavior where the server may encounter a Blue Screen Of Death (BSOD) 0x0000009f message during shutdown as described in [Advisory: HPE Host Bus Adapters - HPE Platforms Running a Microsoft Windows Server 2016 / 2019 Hyper-V Environment, and Configured With Certain HPE HBAs With the QLogic Storport Driver v9.4.2.20, May Experience a Bug Check 0x9F Event](#)

Enhancements

Added the following:

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

Updated to version 9.4.5.20

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

HPE Storage Fibre Channel Adapter Kit for the x64 QLogic Storport Driver for Microsoft Windows Server 2019

Version: 9.4.5.20 **(Recommended)**

Filename: cp046829.compsig; cp046829.exe

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

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:

- Removed the "fwload" registry parameter.
- Fixed an unwanted behavior where Link up/down messages were not always logged in the Window System Event log.
- Fixed unwanted behavior with the reporting of Fabric Port Identification Number (FPIN) and Universal Storage Area Network (SAN) Congestion Mitigation (USCM) statistics.
- Fixed an unwanted behavior where connections to tape drives may fail to recover in the event of "SCSI Check Condition" commands or cable pulls.
- Fixed an unwanted behavior where the server may encounter a Blue Screen Of Death (BSOD) 0x0000009f message during shutdown as described in [Advisory: HPE Host Bus Adapters - HPE Platforms Running a Microsoft Windows Server 2016 / 2019 Hyper-V Environment, and Configured With Certain HPE HBAs With the QLogic Storport Driver v9.4.2.20, May Experience a Bug Check 0x9F Event](#)

Enhancements**Added the following:**

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

Updated to version 9.4.5.20

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

HPE Storage Fibre Channel Adapter Kit for the x64 QLogic Storport Driver for Microsoft Windows Server 2022

Version: 9.4.5.20 **(Recommended)**

Filename: cp047201.compsig; cp047201.exe

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:

- Removed the "fwload" registry parameter.
- Fixed an unwanted behavior where Link up/down messages were not always logged in the Window System Event log.
- Fixed unwanted behavior with the reporting of Fabric Port Identification Number (FPIN) and Universal Storage Area Network (SAN) Congestion Mitigation (USCM) statistics.
- Fixed an unwanted behavior where connections to tape drives may fail to recover in the event of "SCSI Check Condition" commands or cable pulls.

Enhancements

Added the following:

- Initial driver for Windows 2022
- Made improvements to the Fabric Port Identification Number (FPIN) and Universal Storage Area Network (SAN) Congestion Mitigation (USCM) Congestion Management algorithms

Updated to version 9.4.5.20

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

HPE Storage Fibre Channel Over Ethernet Adapter Kit for the x64 Emulex Storport Driver for Microsoft Windows Server 2016

Version: 12.0.1192.0 (f) **(Recommended)**

Filename: cp046770.compsig; cp046770.exe

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 12.0.1192.0

Removed the raw driver file folder. The raw driver files can be obtained by extracting the Smart Component and then extracting the Emulex installer. Use this command:

```
brcmdrvr-fcoe-version.exe /q2 extract=2
```

The extracted files are located:

C:\Users\Administrator\Documents\Broadcom\Drivers\FCoE-version

Each kit folder has subsequent architecture folders with subsequent OS folders. For example,

C:\Users\Administrator\Documents\Broadcom\Drivers\FCoE-version\x64\win2012

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 Storage Fibre Channel Over Ethernet Adapter Kit for the x64 Emulex Storport Driver for Microsoft Windows Server 2019

Version: 12.0.1192.0 (g) **(Recommended)**

Filename: cp046769.compsig; cp046769.exe

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 12.0.1192.0

Removed the raw driver file folder. The raw driver files can be obtained by extracting the Smart Component and then extracting the Emulex installer. Use this command:

```
brcmdrvr-fcoe-version.exe /q2 extract=2
```

The extracted files are located:

```
C:\Users\Administrator\Documents\Broadcom\Drivers\FCoE-version
```

Each kit folder has subsequent architecture folders with subsequent OS folders. For example,

```
C:\Users\Administrator\Documents\Broadcom\Drivers\FCoE-version\x64\win2012
```

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

Red Hat Enterprise Linux 7 Update 8 Server Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters

Version: 12.8.528.7 (c) **(Recommended)**

Filename: kmod-elx-lpfc-12.8.528.7-1.rhel7u8.x86_64.compsig; kmod-elx-lpfc-12.8.528.7-1.rhel7u8.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

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 12.8.528.7

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

Red Hat Enterprise Linux 7 Update 8 Server Fibre Channel Driver Kit for HPE QLogic Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 10.02.01.00.a14-k1 (b) **(Recommended)**

Filename: kmod-qlgc-qla2xxx-10.02.01.00.a14_k1-1.rhel7u8.x86_64.compsig; kmod-qlgc-qla2xxx-10.02.01.00.a14_k1-1.rhel7u8.x86_64.rpm

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

NOTE:

1. The rpm base-name for the QLogic driver has been changed to "qlgc". Upgrades from the earlier "hpqlgc" driver are supported.

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 10.02.01.00.a14-k1

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

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

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

Red Hat Enterprise Linux 7 Update 8 Server Fibre Channel over Ethernet (FCoE) Driver Kit for HPE Storage Emulex(BRCM) Converged Network Adapters and mezzanine Converged Network Adapters(CNAs)

Version: 12.0.1342.0 (b) **(Recommended)**

Filename: kmod-brcmfcoe-12.0.1342.0-1.rhel7u8.x86_64.compsig; kmod-brcmfcoe-12.0.1342.0-1.rhel7u8.x86_64.rpm

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 12.0.1342.0

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 FlexFabric 20Gb 2-port 650FLB Adapter

- HPE FlexFabric 20Gb 2-port 650M Adapter

Red Hat Enterprise Linux 7 Update 9 Server Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters

Version: 12.8.528.29 (b) **(Recommended)**

Filename: kmod-elx-lpfc-12.8.528.29_k3.10.0_1160.36.2-1.rhel7u9.x86_64.compsig; kmod-elx-lpfc-12.8.528.29_k3.10.0_1160.36.2-1.rhel7u9.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

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 12.8.528.29

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

Red Hat Enterprise Linux 7 Update 9 Server Fibre Channel Driver Kit for HPE QLogic Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 10.02.01.00.a14-k1 (b) **(Recommended)**

Filename: kmod-qlgc-qla2xxx-10.02.01.00.a14_k1-1.rhel7u9.x86_64.compsig; kmod-qlgc-qla2xxx-10.02.01.00.a14_k1-1.rhel7u9.x86_64.rpm

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

NOTE:

1. The rpm base-name for the QLogic driver has been changed to "qlgc". Upgrades from the earlier "hpqlgc" driver are supported.

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 10.02.01.00.a14-k1

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

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

Red Hat Enterprise Linux 7 Update 9 Server Fibre Channel over Ethernet (FCoE) Driver Kit for HPE Storage Emulex(BRCM) Converged Network Adapters and mezzanine Converged Network Adapters(CNAs)

Version: 12.0.1342.0 (b) **(Recommended)**

Filename: kmod-brcmfcoe-12.0.1342.0-1.rhel7u9.x86_64.compsig; kmod-brcmfcoe-12.0.1342.0-1.rhel7u9.x86_64.rpm

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 12.0.1342.0

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

Red Hat Enterprise Linux 8 Update 3 Server Fibre Channel over Ethernet (FCoE) Driver Kit for HPE Storage Emulex(BRCM) Converged Network Adapters and mezzanine Converged Network Adapters(CNAs)

Version: 12.0.1342.0 (b) **(Recommended)**

Filename: kmod-brcmfcoe-12.0.1342.0-1.rhel8u3.x86_64.compsig; kmod-brcmfcoe-12.0.1342.0-1.rhel8u3.x86_64.rpm

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 12.0.1342.0

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

Red Hat Enterprise Linux 8 Update 4 Server Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters

Version: 12.8.528.7 (d) **(Recommended)**

Filename: kmod-elx-lpfc-12.8.528.7-1.rhel8u4.x86_64.compsig; kmod-elx-lpfc-12.8.528.7-1.rhel8u4.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Prerequisites

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

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

Enhancements

Added the following support:

- Added support for RHEL 8.4

Updated to driver version 12.8.528.7

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

Red Hat Enterprise Linux 8 Update 4 Server Fibre Channel Driver Kit for HPE QLogic Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 10.02.01.01.a2-k1 **(Recommended)**

Filename: kmod-qlgc-qla2xxx-10.02.01.01.a2_k1-4.rhel8u4.x86_64.compsig; kmod-qlgc-qla2xxx-10.02.01.01.a2_k1-4.rhel8u4.x86_64.rpm

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

NOTE:

1. The rpm base-name for the QLogic driver has been changed to "qlgc". Upgrades from the earlier "hpqlgc" driver are supported.

Prerequisites

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

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

Enhancements

Added the following:-

- Initial driver for RHEL 8.4

Updated to driver version 10.02.01.01.a2-k1

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

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

Red Hat Enterprise Linux 8 Update 5 Server Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters

Version: 12.8.528.24 (b) **(Recommended)**

Filename: kmod-elx-lpfc-12.8.528.24-1.rhel8u5.x86_64.compsig; kmod-elx-lpfc-12.8.528.24-1.rhel8u5.x86_64.rpm

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 12.8.528.24

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

Red Hat Enterprise Linux 8 Update 5 Server Fibre Channel Driver Kit for HPE QLogic Host Bus Adapters

Version: 10.02.06.03-k1 (b) **(Recommended)**

Filename: kmod-qlgc-qla2xxx-10.02.06.03_k1-1.rhel8u5.x86_64.compsig; kmod-qlgc-qla2xxx-10.02.06.03_k1-1.rhel8u5.x86_64.rpm

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

NOTE:

1. The rpm base-name for the QLogic driver has been changed to "qlgc". Upgrades from the earlier "hpqlgc" driver are supported.

Prerequisites

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

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

Enhancements

Added the following:-

- Initial driver for RHEL 8.5

Updated to driver version 10.02.06.03-k1

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

SUSE Linux Enterprise Server 12 Service Pack 5 Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters

Version: 12.8.528.7 (d) **(Recommended)**

Filename: elx-lpfc-kmp-default-12.8.528.7_k4.12.14_120-1.sles12sp5.x86_64.compsig; elx-lpfc-kmp-default-12.8.528.7_k4.12.14_120-1.sles12sp5.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Rewrite of same Driver version has to be performed using –reinstall option

Example: rpm –Uvh elx-lpfc-kmp-default-<version>.<OSupdate>.x86_64.rpm –reinstall

For more information please refer to the Knowledge Base at: <https://www.suse.com/support/kb/doc/?id=000019640>

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 12.8.528.7

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

SUSE Linux Enterprise Server 12 Service Pack 5 Fibre Channel Driver Kit for HPE QLogic Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 10.02.01.00.a14-k1 (b) **(Recommended)**

Filename: qlgc-qla2xxx-kmp-default-10.02.01.00.a14_k1_k4.12.14_120-1.sles12sp5.x86_64.compsig; qlgc-qla2xxx-kmp-default-10.02.01.00.a14_k1_k4.12.14_120-1.sles12sp5.x86_64.rpm

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

NOTE:

1. The rpm base-name for the QLogic driver has been changed to "qlgc". Upgrades from the earlier "hpqlgc" driver are supported.
2. Rewrite of same Driver version has to be performed using `-force` or `--replacepkgs` with `--nodeps` option

Example: `rpm -Uvh kmod-qla2xxx-<version>.<OSupdate>.x86_64.rpm -force --nodeps`

`rpm -Uvh kmod-qla2xxx-<version>.<OSupdate>.x86_64.rpm --replacepkgs --nodeps`

For more information please refer to the Knowledge Base at: <https://www.suse.com/support/kb/doc/?id=000019640>

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 10.02.01.00.a14-k1

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

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

SUSE Linux Enterprise Server 12 service pack 5 Fibre Channel over Ethernet (FCoE) Driver Kit for HPE Storage Emulex(BRCM) Converged Network Adapters and mezzanine Converged Network Adapters(CNAs)

Version: 12.0.1342.0 (b) **(Recommended)**

Filename: brcmfcoe-kmp-default-12.0.1342.0_k4.12.14_120-1.sles12sp5.x86_64.compsig; brcmfcoe-kmp-default-12.0.1342.0_k4.12.14_120-1.sles12sp5.x86_64.rpm

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 12.0.1342.0

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

SUSE Linux Enterprise Server 15 Service Pack 2 Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 12.8.528.7 **(Recommended)**

Filename: elx-lpfc-kmp-default-12.8.528.7_k5.3.18_22-1.sles15sp2.x86_64.compsig; elx-lpfc-kmp-default-12.8.528.7_k5.3.18_22-1.sles15sp2.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Rewrite of same Driver version has to be performed using –reinstall option

Example: rpm –Uvh elx-lpfc-kmp-default-<version>.<OSupdate>.x86_64.rpm –reinstall

For more information please refer to the Knowledge Base at: <https://www.suse.com/support/kb/doc/?id=000019640>

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 12.8.528.7

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE Fibre Channel 16Gb LPe1605 Mezz

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

SUSE Linux Enterprise Server 15 Service Pack 2 Fibre Channel Driver Kit for HPE QLogic Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 10.02.01.00.a14-k1 (b) **(Recommended)**

Filename: qlgc-qla2xxx-kmp-default-10.02.01.00.a14_k1_k5.3.18_22-1.sles15sp2.x86_64.compsig; qlgc-qla2xxx-kmp-default-10.02.01.00.a14_k1_k5.3.18_22-1.sles15sp2.x86_64.rpm

Important Note!

NOTE:

1. Rewrite of same Driver version has to be performed using `-force` or `--replacepkgs` with `--nodeps` option

Example: `rpm -Uvh kmod-qla2xxx-<version>.<OSupdate>.x86_64.rpm -force --nodeps`

`rpm -Uvh kmod-qla2xxx-<version>.<OSupdate>.x86_64.rpm --replacepkgs --nodeps`

For more information please refer to the Knowledge Base at: <https://www.suse.com/support/kb/doc/?id=000019640>

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 10.02.01.00.a14-k1

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

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

SUSE Linux Enterprise Server 15 service pack 2 Fibre Channel over Ethernet (FCoE) Driver Kit for HPE Storage Emulex(BRCM) Converged Network Adapters and mezzanine Converged Network Adapters(CNAs)

Version: 12.0.1342.0 (b) **(Recommended)**

Filename: brcmfcoe-kmp-default-12.0.1342.0_k5.3.18_22-1.sles15sp2.x86_64.compsig; brcmfcoe-kmp-default-12.0.1342.0_k5.3.18_22-1.sles15sp2.x86_64.rpm

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 12.0.1342.0

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

SUSE Linux Enterprise Server 15 Service Pack 3 Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 12.8.528.7 **(Recommended)**

Filename: elx-lpfc-kmp-default-12.8.528.7_k5.3.18_57-1.sles15sp3.x86_64.compsig; elx-lpfc-kmp-default-12.8.528.7_k5.3.18_57-1.sles15sp3.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Rewrite of same Driver version has to be performed using –reinstall option

Example: rpm –Uvh elx-lpfc-kmp-default-<version>.<OSupdate>.x86_64.rpm –reinstall

For more information please refer to the Knowledge Base at: <https://www.suse.com/support/kb/doc/?id=000019640>

Prerequisites

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

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

Enhancements

Added the following support:

- Added support for SLES 15 SP3

Updated to driver version 12.8.528.7

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

- HPE Fibre Channel 16Gb LPe1605 Mezz

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

SUSE Linux Enterprise Server 15 Service Pack 3 Fibre Channel Driver Kit for HPE QLogic Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 10.02.01.00.a14-k1 (b) **(Recommended)**

Filename: qlgc-qla2xxx-kmp-default-10.02.01.00.a14_k1_k5.3.18_57-4.sles15sp3.x86_64.compsig; qlgc-qla2xxx-kmp-default-10.02.01.00.a14_k1_k5.3.18_57-4.sles15sp3.x86_64.rpm

Important Note!

NOTE:

1. Rewrite of same Driver version has to be performed using `-force` or `--replacepkgs` with `--nodeps` option

Example: `rpm -Uvh kmod-qla2xxx-<version>.<OSupdate>.x86_64.rpm -force --nodeps`

`rpm -Uvh kmod-qla2xxx-<version>.<OSupdate>.x86_64.rpm --replacepkgs --nodeps`

For more information please refer to the Knowledge Base at: <https://www.suse.com/support/kb/doc/?id=000019640>

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 10.02.01.00.a14-k1

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

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

Driver - System

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HPE Non-Volatile Memory Drivers for Microsoft Windows Server 2016

Version: 3.0.2.0 (B) **(Recommended)**

Filename: cp047945.compsig; cp047945.exe

Important Note!

This Smart Component version 3.0.2.0 contains the HPE NVM Bus Driver HpeNvmBus.sys version 3.0.2.0 and the HPE NVM Disk Driver HpeNvmDisk0101 version 3.0.2.0.

Enhancements

- Removed support for Windows Server 2012 R2
-

Driver - System Management

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HPE CRU Native Driver for ESXi 7.0

Version: 7.0.10 **(Recommended)**

Filename: cru_driver_700.10.16_1OEM.700.0.0.14828939_signed_component_15675715.zip

Enhancements

Support for VMware ESXi 7.0

iLO 5 Automatic Server Recovery Driver for Microsoft Windows Server 2016 and Microsoft Windows Server 2019

Version: 4.7.1.0 (B) **(Optional)**

Filename: cp047942.compsig; cp047942.exe

Important Note!

Installing the iLO 5 Channel Interface Driver, version 4.1.0.0 or earlier, will overwrite this driver. To avoid the overwrite, use version 4.1.0.0(B) or later of the iLO 5 Channel Interface Driver.

Enhancements

- Added support for Snap5 platforms

iLO 5 Automatic Server Recovery Driver for Microsoft Windows Server 2022

Version: 4.7.1.0 **(Optional)**

Filename: cp047544.compsig; cp047544.exe

Important Note!

Installing the iLO 5 Channel Interface Driver, version 4.1.0.0 or earlier, will overwrite this driver. To avoid the overwrite, use version 4.1.0.0(B) or later of the iLO 5 Channel Interface Driver.

Enhancements

Initial release.

iLO 5 Channel Interface Driver for Microsoft Windows Server 2016 and Microsoft Windows Server 2019

Version: 4.7.1.0 (B) **(Optional)**

Filename: cp047941.compsig; cp047941.exe

Enhancements

- Added support for Snap5 platforms

iLO 5 Channel Interface Driver for Microsoft Windows Server 2022

Version: 4.7.1.0 (B) **(Recommended)**

Filename: cp049467.compsig; cp049467.exe

Fixes

- Fixes driver destination folder

iLO 5 Channel Interface Driver for Windows Server 2012 R2

Version: 4.6.0.0 **(Optional)**

Filename: cp040013.compsig; cp040013.exe

Enhancements

Add support for iLO 5 version 2.x firmware.

iLO 5 Channel Interface Driver for Windows Server 2016 and Server 2019

Version: 4.6.0.0 (C) **(Optional)**

Filename: cp041932.compsig; cp041932.exe

Enhancements

TBD

Switchtec PCIe Switch Management Driver for Microsoft Windows Server 2022

Version: 15.52.13.445 **(Recommended)**

Filename: cp049472.compsig; cp049472.exe

Enhancements

Initial release

Supported Devices and Features

Supported devices:

- Switchtec PFX 100xG4 Management EP
- Switchtec PFX 52xG4 Management EP

Switchtec PCIe Switch Management Driver for Windows Server 2016 and Server 2019

Version: 12.52.0.676 **(Recommended)**

Filename: cp046195.compsig; cp046195.exe

Enhancements

- Support for Apollo 6500 Gen10 Plus XL675d and XL645d

Supported Devices and Features

Supported devices:

- Switchtec PFX 100xG4 Management EP
 - Switchtec PFX 52xG4 Management EP
-

Driver - Video

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Matrox G200eH3 Video Controller Driver for Microsoft Windows 64-bit

Version: 9.15.1.248 **(Optional)**

Filename: cp048496.compsig; cp048496.exe

Enhancements

- Added support for Microsoft Windows Server 2022
 - Added support for Edgeline platforms
-

Firmware - Lights-Out Management

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Online ROM Flash Component for Linux - HPE Integrated Lights-Out 5

Version: 1.48 (a) **(Optional)**

Filename: RPMS/x86_64/firmware-ilo5-1.48-1.1.x86_64.compsig; RPMS/x86_64/firmware-ilo5-1.48-1.1.x86_64.rpm

Important Note!

IPv6 network communications - Dedicated network connection only
Supported Networking Features

IPv6 Static Address Assignment
IPv6 SLAAC Address Assignment
IPv6 Static Route Assignment
IPv6 Static Default Gateway Entry
DHCPv6 Stateful Address Assignment
DHCPv6 Stateless DNS, Domain Name, and NTP Configuration
Integrated Remote Console
OA Single Sign-On
HP-SIM Single Sign-On
Web Server
SSH Server
SNTP Client
DDNS Client
RIBCL over IPv6
SNMP
AlertMail
Remote Syslog
WinDBG Support
HPONCFG/HPLOMIG over an IPv6 connection
Scriptable Virtual Media
CLI/RIBCL Key Import over IPv6
Authentication using LDAP and Kerberos over IPv6
iLO Federation
Networking Features not supported by IPv6 in this release
IPv6 Over Shared Network Port Connections
IPMI
NETBIOS-WINS
Enterprise Secure Key Manager (ESKM) Support
Embedded Remote Support (ERS)

Prerequisites

Hewlett Packard Enterprise recommends the following or greater versions of iLO utilities for best performance:

- RESTful Interface Tool (iLOREST) 2.3
- HPQLOCFG v5.2
- Lights-Out XML Scripting Sample bundle 5.10.0
- HPONCFG Windows 5.2.0
- HPONCFG Linux 5.3.0
- LOCFG v5.10.0
- HPLOMIG 5.2.0

NOTE: Updated utilities and system libraries are required to support the iLO HighSecurity, FIPS, and CNSA security states. The HPONCFG Windows utility does not currently support the CNSA security state.

Fixes

- Implemented the set server info command for all the DCi supporting options in previous versions of iLO 5 which may reset NIC settings during iLO 5 update.

Online ROM Flash Component for Linux - HPE Integrated Lights-Out 5

Version: 2.71 **(Critical)**

Filename: RPMS/x86_64/firmware-ilo5-2.71-1.1.x86_64.rpm; RPMS/x86_64/firmware-ilo5-2.71-1.1.x86_64_part1.compsig; RPMS/x86_64/firmware-ilo5-2.71-1.1.x86_64_part2.compsig

Important Note!

IPv6 network communications - Dedicated network connection only

Supported Networking Features

- IPv6 Static Address Assignment
- IPv6 SLAAC Address Assignment
- IPv6 Static Route Assignment
- IPv6 Static Default Gateway Entry
- DHCPv6 Stateful Address Assignment
- DHCPv6 Stateless DNS, Domain Name, and NTP Configuration
- Integrated Remote Console
- OA Single Sign-On
- HP-SIM Single Sign-On
- Web Server
- SSH Server
- SNTP Client
- DDNS Client
- RIBCL over IPv6
- SNMP
- AlertMail
- Remote Syslog
- WinDBG Support
- HPONCFG/HPLOMIG over an IPv6 connection

Scriptable Virtual Media
CLI/RIBCL Key Import over IPv6
Authentication using LDAP and Kerberos over IPv6
iLO Federation
Networking Features not supported by IPv6 in this release
IPv6 Over Shared Network Port Connections
IPMI
NETBIOS-WINS
Enterprise Secure Key Manager (ESKM) Support
Embedded Remote Support (ERS)

Prerequisites

Hewlett Packard Enterprise recommends the following or greater versions of iLO utilities for best performance:

- RESTful Interface Tool (iLOREST) 3.3.0
- HPQLOCFG v5.3.0
- Lights-Out XML Scripting Sample bundle 5.40.0
- HPONCFG Windows 5.5.0
- HPONCFG Linux 5.7.0
- LOCFG v5.40.0 or later
- HPLOMIG 5.3.0

NOTE: Updated utilities and system libraries are required to support the iLO HighSecurity, FIPS, and CNSA security states. The HPONCFG Windows utility does not currently support the CNSA security state.

Upgrading from a previous version of iLO

- It is highly recommended NOT to downgrade iLO firmware below iLO 5 2.41.
- Upgrading to iLO 5 version 2.71 is supported on servers with iLO 5 1.48 or later installed.
- On servers with an earlier version of iLO 5 installed, you must first install iLO 5 1.48 or later, and then install iLO 5 2.71.
- For example, if a server has iLO 5 1.10 installed, install iLO 5 1.48 or later, and then install iLO 5 2.71.
- Minimum supported iLO version for Gen10 plus Intel platform is iLO 5 2.42.

Fixes

- Fix for multiple security issues

Enhancements

- UBM6 Backplane Detection Support : New backplane basic support added without firmware update support (Only supported for HPE ProLiant Servers)

Online ROM Flash Component for Windows x64 - HPE Integrated Lights-Out 5

Version: 1.48 (a) **(Optional)**

Filename: cp044447.compsig; cp044447.exe

Important Note!

IPv6 network communications - Dedicated network connection only

Supported Networking Features

- IPv6 Static Address Assignment
- IPv6 SLAAC Address Assignment
- IPv6 Static Route Assignment
- IPv6 Static Default Gateway Entry
- DHCPv6 Stateful Address Assignment
- DHCPv6 Stateless DNS, Domain Name, and NTP Configuration
- Integrated Remote Console
- OA Single Sign-On
- HP-SIM Single Sign-On
- Web Server
- SSH Server
- SNTP Client
- DDNS Client
- RIBCL over IPv6
- SNMP
- AlertMail
- Remote Syslog
- WinDBG Support
- HPONCFG/HPLOMIG over an IPv6 connection
- Scriptable Virtual Media
- CLI/RIBCL Key Import over IPv6

Authentication using LDAP and Kerberos over IPv6
iLO Federation
Networking Features not supported by IPv6 in this release
IPv6 Over Shared Network Port Connections
IPMI
NETBIOS-WINS
Enterprise Secure Key Manager (ESKM) Support
Embedded Remote Support (ERS)

Prerequisites

Hewlett Packard Enterprise recommends the following or greater versions of iLO utilities for best performance:

- RESTful Interface Tool (iLOREST) 2.3
- HPQLOCFG v5.2
- Lights-Out XML Scripting Sample bundle 5.10.0
- HPONCFG Windows 5.2.0
- HPONCFG Linux 5.3.0
- LOCFG v5.10.0
- HPLOMIG 5.2.0

NOTE: Updated utilities and system libraries are required to support the iLO HighSecurity, FIPS, and CNSA security states. The HPONCFG Windows utility does not currently support the CNSA security state.

Fixes

- Implemented the set server info command for all the DCi supporting options in previous versions of iLO 5 which may reset NIC settings during iLO 5 update.

Online ROM Flash Component for Windows x64 - HPE Integrated Lights-Out 5

Version: 2.71 **(Critical)**

Filename: cp052505.exe; cp052505_part1.compsig; cp052505_part2.compsig

Important Note!

IPv6 network communications - Dedicated network connection only

Supported Networking Features

- IPv6 Static Address Assignment
- IPv6 SLAAC Address Assignment
- IPv6 Static Route Assignment
- IPv6 Static Default Gateway Entry
- DHCPv6 Stateful Address Assignment
- DHCPv6 Stateless DNS, Domain Name, and NTP Configuration
- Integrated Remote Console
- OA Single Sign-On
- HP-SIM Single Sign-On
- Web Server
- SSH Server
- SNTP Client
- DDNS Client
- RIBCL over IPv6
- SNMP
- AlertMail
- Remote Syslog
- WinDBG Support
- HPONCFG/HPLOMIG over an IPv6 connection
- Scriptable Virtual Media
- CLI/RIBCL Key Import over IPv6
- Authentication using LDAP and Kerberos over IPv6
- iLO Federation

Networking Features not supported by IPv6 in this release

- IPv6 Over Shared Network Port Connections
- IPMI
- NETBIOS-WINS
- Enterprise Secure Key Manager (ESKM) Support
- Embedded Remote Support (ERS)

Prerequisites

Hewlett Packard Enterprise recommends the following or greater versions of iLO utilities for best performance:

- RESTful Interface Tool (iLOREST) 3.3.0
- HPQLOCFG v5.3.0
- Lights-Out XML Scripting Sample bundle 5.40.0
- HPONCFG Windows 5.5.0

- HPONCFG Linux 5.7.0
- LOCFG v5.40.0 or later
- HPLOMIG 5.3.0

NOTE: Updated utilities and system libraries are required to support the iLO HighSecurity, FIPS, and CNSA security states. The HPONCFG Windows utility does not currently support the CNSA security state.

Upgrading from a previous version of iLO

- It is highly recommended NOT to downgrade iLO firmware below iLO 5 2.41.
- Upgrading to iLO 5 version 2.71 is supported on servers with iLO 5 1.48 or later installed.
- On servers with an earlier version of iLO 5 installed, you must first install iLO 5 1.48 or later, and then install iLO 5 2.71.
- For example, if a server has iLO 5 1.10 installed, install iLO 5 1.48 or later, and then install iLO 5 2.71.
- Minimum supported iLO version for Gen10 plus Intel platform is iLO 5 2.42.

Fixes

- Fix for multiple security issues

Enhancements

- UBM6 Backplane Detection Support : New backplane basic support added without firmware update support (Supported only for HPE ProLiant Gen 10 and Gen 10 Plus Servers)

Online ROM Flash Firmware Package - HPE Integrated Lights-Out 5

Version: 1.48 (a) **(Optional)**

Filename: ilo5_148.fwpkg

Important Note!

IPv6 network communications - Dedicated network connection only

Supported Networking Features

- IPv6 Static Address Assignment
- IPv6 SLAAC Address Assignment
- IPv6 Static Route Assignment
- IPv6 Static Default Gateway Entry
- DHCPv6 Stateful Address Assignment
- DHCPv6 Stateless DNS, Domain Name, and NTP Configuration
- Integrated Remote Console
- OA Single Sign-On
- HP-SIM Single Sign-On
- Web Server
- SSH Server
- SNTP Client
- DDNS Client
- RIBCL over IPv6
- SNMP
- AlertMail
- Remote Syslog
- WinDBG Support
- HPONCFG/HPLOMIG over an IPv6 connection
- Scriptable Virtual Media
- CLI/RIBCL Key Import over IPv6
- Authentication using LDAP and Kerberos over IPv6
- iLO Federation

Networking Features not supported by IPv6 in this release

- IPv6 Over Shared Network Port Connections
- IPMI
- NETBIOS-WINS
- Enterprise Secure Key Manager (ESKM) Support
- Embedded Remote Support (ERS)

Prerequisites

Hewlett Packard Enterprise recommends the following or greater versions of iLO utilities for best performance:

- RESTful Interface Tool (iLOREST) 2.3
- HPQLOCFG v5.2
- Lights-Out XML Scripting Sample bundle 5.10.0
- HPONCFG Windows 5.2.0
- HPONCFG Linux 5.3.0
- LOCFG v5.10.0

- HPLOMIG 5.2.0

NOTE: Updated utilities and system libraries are required to support the iLO HighSecurity, FIPS, and CNSA security states. The HPONCFG Windows utility does not currently support the CNSA security state.

Fixes

- Implemented the set server info command for all the DCi supporting options in previous versions of iLO 5 which may reset NIC settings during iLO 5 update.

Online ROM Flash Firmware Package - HPE Integrated Lights-Out 5

Version: 2.71 **(Critical)**

Filename: ilo5_271.fwpkg

Important Note!

IPv6 network communications - Dedicated network connection only

Supported Networking Features

- IPv6 Static Address Assignment
- IPv6 SLAAC Address Assignment
- IPv6 Static Route Assignment
- IPv6 Static Default Gateway Entry
- DHCPv6 Stateful Address Assignment
- DHCPv6 Stateless DNS, Domain Name, and NTP Configuration
- Integrated Remote Console
- OA Single Sign-On
- HP-SIM Single Sign-On
- Web Server
- SSH Server
- SNTP Client
- DDNS Client
- RIBCL over IPv6
- SNMP
- AlertMail
- Remote Syslog

WinDBG Support
HPONCFG/HPLOMIG over an IPv6 connection
Scriptable Virtual Media
CLI/RIBCL Key Import over IPv6
Authentication using LDAP and Kerberos over IPv6
iLO Federation
Networking Features not supported by IPv6 in this release
IPv6 Over Shared Network Port Connections
IPMI
NETBIOS-WINS
Enterprise Secure Key Manager (ESKM) Support
Embedded Remote Support (ERS)

Prerequisites

Hewlett Packard Enterprise recommends the following or greater versions of iLO utilities for best performance:

- RESTful Interface Tool (iLOREST) 3.3.0
- HPQLOCFG v5.3.0
- Lights-Out XML Scripting Sample bundle 5.40.0
- HPONCFG Windows 5.5.0
- HPONCFG Linux 5.7.0
- LOCFG v5.40.0 or later
- HPLOMIG 5.3.0

NOTE: Updated utilities and system libraries are required to support the iLO HighSecurity, FIPS, and CNSA security states. The HPONCFG Windows utility does not currently support the CNSA security state.

Upgrading from a previous version of iLO

- It is highly recommended NOT to downgrade iLO firmware below iLO 5 2.41.
- Upgrading to iLO 5 version 2.71 is supported on servers with iLO 5 1.48 or later installed.
- On servers with an earlier version of iLO 5 installed, you must first install iLO 5 1.48 or later, and then install iLO 5 2.71.
- For example, if a server has iLO 5 1.10 installed, install iLO 5 1.48 or later, and then install iLO 5 2.71.
- Minimum supported iLO version for Gen10 plus Intel platform is iLO 5 2.42.

Fixes

- Fix for multiple security issues

Enhancements

- UBM6 Backplane Detection Support : New backplane basic support added without firmware update support (Supported only for HPE ProLiant Gen 10 and Gen 10 Plus Servers)

Firmware - Network

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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 fragmentation.
- 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

Broadcom NX1 Online Firmware Upgrade Utility for Linux x86_64

Version: 2.28.50 (**Recommended**)

Filename: firmware-nic-bcm-open-2.28.50-1.1.x86_64.compsig; firmware-nic-bcm-open-2.28.50-1.1.x86_64.rpm

Important Note!

HPE recommends *HPE Broadcom tg3 Ethernet Drivers*, versions 3.139b or later, for use with this firmware.

Prerequisites

This package requires the appropriate driver for your network adapter to be installed and all Ethernet ports brought up before firmware can be updated.

- Follow the command line to bring up ethernet device:

ifup ethX or ifconfig ethX up or wicked ifup ethX

If local system doesn't configure any network interface for the adapter that are necessary then to create the network config file to bring up interface.

- For example in sles15sp1, To create ifcfg-ethX files under /etc/sysconfig/network/

Enhancements

This product addresssed minor adjustment on its UEFI driver structure.

Supported Devices and Features

This product supports the following network adapters:

- Broadcom BCM5720 Ethernet 1Gb 2-port BASE-T LOM Adapter for HPE

Broadcom NX1 Online Firmware Upgrade Utility for VMware

Version: 1.29.50 **(Recommended)**

Filename: CP049623.compsig; CP049623.zip

Important Note!

This software package contains combo image v20.19.31 with the following firmware versions:

NIC	Boot Code Version	PXE Version	NCSI Version	UEFI Version	CCM Version
BCM 5720 1GbE 2p BASE-T LOM Adptr	1.42	21.6.0	1.5.30	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.

Enhancements

This product addresssed minor adjustment on its UEFI driver structure.

Supported Devices and Features

This product supports the following network adapters:

- Broadcom BCM5720 Ethernet 1Gb 2-port BASE-T LOM Adapter for HPE

Broadcom NX1 Online Firmware Upgrade Utility for Windows Server x64 Editions

Version: 5.2.5.50 **(Recommended)**

Filename: cp049624.compsig; cp049624.exe

Important Note!

HPE recommends *Broadcom NX1 1Gb Driver for Windows Server x64 Editions*, version 219.0.1.0B or later, for use with this firmware.

This software package contains combo image v20.19.31 with the following firmware versions:

NIC	Boot Code Version	PXE Version	NCSI Version	UEFI Version	CCM Version
BCM 5720 1GbE 2p BASE-T LOM Adptr	1.42	21.6.0	1.5.30	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.

Enhancements

This product addressd minor adjustment on its UEFI driver structure.

Supported Devices and Features

This product supports the following network adapters:

- Broadcom BCM5720 Ethernet 1Gb 2-port BASE-T LOM Adapter for HPE

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 Linux x86_64

Version: 1.12.1 (**Recommended**)

Filename: firmware-nic-bcm-nxe-1.12.1-1.1.x86_64.compsig; firmware-nic-bcm-nxe-1.12.1-1.1.x86_64.rpm

Important Note!

HPE recommends the *HPE Broadcom NetXtreme-E Drivers for Linux*, versions 1.10.2-219.0.55.0 or later, for use with this firmware.

Prerequisites

This package requires the appropriate driver for your network adapter to be installed and all Ethernet ports brought up before firmware can be updated.

- Follow the command line to bring up ethernet device:

ifup ethX or ifconfig ethX up or wicked ifup ethX

If local system doesn't configure any network interface for the adapter that are necessary then to create the network config file to bring up interface.

- For example in sles15sp1, To create ifcfg-ethX files under /etc/sysconfig/network/

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

Version: 5.2.6.0 **(Recommended)**

Filename: cp050626.compsig; cp050626.exe

Important Note!

HPE recommends *HPE Broadcom NetXtreme-E Driver for Windows*, versions 219.0.44.0 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 Linux x86_64

Version: 2.29.0 (**Recommended**)

Filename: firmware-nic-broadcom-2.29.0-1.1.x86_64.compsig; firmware-nic-broadcom-2.29.0-1.1.x86_64.rpm

Important Note!

HPE recommends *HPE Broadcom tg3 Ethernet Drivers*, versions 3.139b or later, for use with this firmware.

Prerequisites

his package requires the appropriate driver for your network adapter to be installed and all Ethernet ports brought up before firmware can be updated.

- Follow the command line to bring up ethernet device:

ifup ethX or ifconfig ethX up or wicked ifup ethX

If local system doesn't configure any network interface for the adapter that are necessary then to create the network config file to bring up interface.

- For example in sles15sp1, To create ifcfg-ethX files under /etc/sysconfig/network/

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 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 Broadcom NX1 Online Firmware Upgrade Utility for Windows Server x64 Editions

Version: 5.2.6.0 **(Recommended)**

Filename: cp050426.compsig; cp050426.exe

Important Note!

HPE recommends *HPE Broadcom NX1 1Gb Driver for Windows Server x64 Editions*, version 219.0.1.0C or later, for use with this firmware.

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 Linux (x64)

Version: 2021.10.01 **(Recommended)**

Filename: RPMS/x86_64/firmware-cna-emulex-2021.10.01-1.8.x86_64.compsig; RPMS/x86_64/firmware-cna-emulex-2021.10.01-1.8.x86_64.rpm

Important Note!

This component is only supported on RHEL7u8, RHEL7u9, RHEL8u3, SLES12SP5, SLES15SP2 OS's.

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

Requirement: Install the Out of Box (OOB) Driver and ensure the driver is loaded and running, before attempting the Firmware update

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

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

The OOB NIC driver is available on the Service Pack for ProLiant (SPP) which is available at <http://www.hpe.com/servers/spp/download>.

Additional requirements:

The target environment must have the libsysfs or sysfsutils package installed prior to the installation of the firmware update kit. If not already present, the libsysfs or sysfsutils package can be obtained from the operating system installation media.

Environment must have 32-bit netlink library (libnl.so) installed for component to be able to discover Emulex HBAs/CNAs
Environment must be running the syslog daemon for the flash engine to run

Note: To enable the FCoE/iSCSI protocol on devices that support it, please install the appropriate Emulex FCoE/iSCSI driver. The FCoE protocol also requires the HPE Emulex FCoE Enablement Kit be installed. The drivers and enablement kit are also available on the Service Pack for ProLiant (SPP) which is available at <http://www.hpe.com/servers/spp/download>.

The Enablement Kit requires that the target environment have the libHBAAPI package installed from your OS installation media.

Install the FCoE Driver Kit, reboot, and then install the Enablement Kit.

Enhancements

This component is only supported on RHEL7u8, RHEL7u9, RHEL8u3, SLES12SP5, SLES15SP2 OS's.

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 Firmware Flash for Emulex Converged Network Adapters for Microsoft Windows Server 2016/2019(x64)

Version: 2021.10.01 **(Recommended)**

Filename: cp046768.compsig; cp046768.exe

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

Firmware updates may be accomplished using the inbox or Out of Box (OOB) drivers. Please consult SPOCK for a list of supported configurations available at the following link:

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

The HPE supplied Emulex NIC driver must be installed prior to this firmware component being identified by SUM for deployment. The latest driver is available on the HPE.com website at <http://www.hpe.com/>.

The FCoE/iSCSI OOB driver and FCoE enablement kit are 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 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 Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.5

Version: 2021.10.01 **(Recommended)**

Filename: CP046764.compsig; CP046764.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 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 Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 7.0

Version: 2021.10.01 **(Recommended)**

Filename: CP046766.compsig; CP046766.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 Linux x86_64

Version: 1.22.50 **(Recommended)**

Filename: firmware-nic-intel-1.22.50-1.1.x86_64.compsig; firmware-nic-intel-1.22.50-1.1.x86_64.rpm

Important Note!

HPE recommends at least one of the following drivers, as appropriate for your device, for use with this firmware:

- HPE Intel igb Drivers for Linux, versions 6.7.2 or later
- HPE Intel ixgbe Drivers for Linux , versions 5.13.4 or later

- HPE Intel i40e Drivers for Linux, versions 2.17.4 or later

Prerequisites

This package requires the appropriate driver for your network adapter to be installed and all Ethernet ports brought up before firmware can be updated.

- Follow the command line to bring up ethernet device:

```
# ifup ethX or ifconfig ethX up or wicked ifup ethX
```

If local system doesn't configure any network interface for the adapter that are necessary then to create the network config file to bring up interface.

- For example in sles15sp1, To create ifcfg-ethX files under /etc/sysconfig/network/

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 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 Intel Online Firmware Upgrade Utility for Windows Server x64 Editions

Version: 5.2.6.0 **(Recommended)**

Filename: cp050582.compsig; cp050582.exe

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.

Enhancements

This product is now supported Microsoft Windows Server 2022.

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 Linux x86_64

Version: 1.20.1 **(Recommended)**

Filename: firmware-nic-qlogic-flq-1.20.1-1.1.x86_64.compsig; firmware-nic-qlogic-flq-1.20.1-1.1.x86_64.rpm

Important Note!

HPE recommends *HPE QLogic FastLinQ 10/25/50GbE Drivers for Linux*, versions 8.55.15.0-1 or later, for use with the firmware in this product.

Prerequisites

This package requires the appropriate driver for your network adapter to be installed and all Ethernet ports brought up before firmware can be updated.

- Follow the command line to bring up ethernet device:

ifup ethX or ifconfig ethX up or wicked ifup ethX

If local system doesn't configure any network interface for the adapter that are necessary then to create the network config file to bring up interface.

- For example in sles15sp1, To create ifcfg-ethX files under /etc/sysconfig/network/

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 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

Version: 5.2.6.0 **(Recommended)**

Filename: cp050214.compsig; cp050214.exe

Important Note!

HPE recommends at least one of the following drivers, as appropriate for your device, for use with this firmware:

- *HPE QLogic FastLinQ 10/25/50GbE Driver for Windows Server x64 Editions, versions 8.58.20.0*

This 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 Linux x86_64

Version: 2.30.2 **(Recommended)**

Filename: firmware-nic-qlogic-nx2-2.30.2-1.1.x86_64.compsig; firmware-nic-qlogic-nx2-2.30.2-1.1.x86_64.rpm

Important Note!

HPE recommends *HPE QLogic NX2 10/20GbE Multifunction Drivers for Linux*, versions 7.15.02 or later, for use with the firmware in this package.

Prerequisites

This package requires the appropriate driver for your network adapter be installed and all Ethernet ports brought up (*ifup ethX or ifconfig ethX up or wicked ifup ethX*) before firmware can be updated.

If local system doesn't configure any network interface for the adapter that are necessary to create the network config file to bring up interface.
- For example in sles15sp1, To create ifcfg-ethX files under /etc/sysconfig/network/.

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

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

HPE QLogic NX2 Online Firmware Upgrade Utility for Windows Server x64 Editions

Version: 5.2.6.0 **(Recommended)**

Filename: cp050211.compsig; cp050211.exe

Important Note!

HPE recommends at least one of the following drivers, as appropriate for your device, for use with this firmware:

- *HPE QLogic NX2 10/20GbE Multifunction Drivers for Windows Server x64 Editions*, version 7.13.206.0 or later

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

The users will only see the combo image versions in the interactive mode firmware update or while using HPESUM/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 WOL failure on HPE Ethernet 10Gb 2-port 533FLR-T Adapter after shutting down from Windows.
- 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 upgrading 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 upgrading 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 upgrading 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 upgrading 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 upgrading 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 Linux x86_64

Version: 1.23.50 **(Recommended)**

Filename: firmware-nic-is-intel-1.23.50-1.1.x86_64.compsig; firmware-nic-is-intel-1.23.50-1.1.x86_64.rpm

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 Adapter
- HPE Ethernet 10Gb 2-port SFP+ X710-DA2 OCP3 Adapter

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

Intel Online Firmware Upgrade Utility for Windows Server x64 Editions

Version: 5.2.6.0 **(Recommended)**

Filename: cp050583.compsig; cp050583.exe

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.

Enhancements

This product is now supported Microsoft Windows Server 2022.

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 QL41232HVCU 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) - Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE

Version: 26.32.1010 (**Recommended**)

Filename: 26_32_1010-MCX631102AS-ADA_Ax.pldm.fwpkg

Important Note!

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

A list of known issues with this release is available at: <https://docs.nvidia.com/networking/display/ConnectX6LxFirmwarev26321010/Known+Issues>

Prerequisites

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

Fixes

The following issues have been fixed in version 26.32.1010:

- 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.
- System could not create more than 128K QPs.

- Using Phyless reset with level 4 (warm reboot with NIC phyless reset) occasionally resulted in hardware errors and link dropping.
- Synced reset was not supported when NVNe Emulation was enabled. Running mlxfwreset in synced mode (sync=1) when NVME EMU Was enabled resulted in the tool reporting the synced reset as supported, but the reset itself would fail.
- Changing the default host chaining buffer size or WQE size (HOST_CHAINING_DESCRIPTOR, HOST_CHAINING_TOTAL_BUFFER_SIZE) using NVconfig resulted in driver initialization failure.
- Incorrect RNR timeout when trying to set it during the rts2rts_qp transition.

Enhancements

New Features and Changes in Version 26.32.1010:

- Added support for OpenSNAPI Communication Channel which is used to enable communication between processes on different vHCAs regardless of their network connectivity state.
- 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 support for a new steering match definer format (format 33).
- Blocked the VF's ability to use both padding and signature in order to prevent the NIC from getting into an unresponsive state.
- Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.
- The new LAG mode (PORT_SELECT_FT LAG (hash LAG)) distributes the packets to ports according to the hash on the packet headers, instead of distributing the packets according to the QP (queue affinity – legacy LAG) to avoid cases where the slow/fast path packets are transmitted from different ports [Beta feature]. Due to changes in this feature, transmission timestamp in CQE is temporarily unsupported with multi eSwitch.
- Added support for QSHR access register to enable Set and Query rate limit per-host per-port.
- 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.
- Removed the "PPS out" dependency on the "PPS in" status.
- Limited the external loopback speed to the used module's capabilities.
- 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
P42044-B21	Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000575

Mellanox Firmware Package (FWPKG) - Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE

Version: 26.32.1010 (**Recommended**)

Filename: 26_32_1010-MCX631432AS-ADA_Ax.pldm.fwpkg

Important Note!

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

A list of known issues with this release is available

at: <https://docs.nvidia.com/networking/display/ConnectX6LxFirmwarev26321010/Known+Issues>

Prerequisites

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

Fixes

The following issues have been fixed in version 26.32.1010:

- 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.
- System could not create more than 128K QPs.
- Using Phyless reset with level 4 (warm reboot with NIC phyless reset) occasionally resulted in hardware errors and link dropping.
- Synced reset was not supported when NVNe Emulation was enabled. Running mlxfwreset in synced mode (sync=1) when NVME EMU Was enabled resulted in the tool reporting the synced reset as supported, but the reset itself would fail.
- Changing the default host chaining buffer size or WQE size (HOST_CHAINING_DESCRIPTOR, HOST_CHAINING_TOTAL_BUFFER_SIZE) using NVconfig resulted in driver initialization failure.
- Incorrect RNR timeout when trying to set it during the rts2rts_qp transition.

Enhancements

New Features and Changes in Version 26.32.1010:

- Added support for OpenSNAPI Communication Channel which is used to enable communication between processes on different vHCAs regardless of their network connectivity state.
- 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 support for a new steering match definer format (format 33).
- Blocked the VF's ability to use both padding and signature in order to prevent the NIC from getting into an unresponsive state.
- Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.
- The new LAG mode (PORT_SELECT_FT LAG (hash LAG)) distributes the packets to ports according to the hash on the packet headers, instead of distributing the packets according to the QP (queue affinity – legacy LAG) to avoid cases where the slow/fast path packets are transmitted from different ports [Beta feature]. Due to changes in this feature, transmission timestamp in CQE is temporarily unsupported with multi eSwitch.
- Added support for QSHR access register to enable Set and Query rate limit per-host per-port.
- 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.
- Removed the "PPS out" dependency on the "PPS in" status.
- Limited the external loopback speed to the used module's capabilities.
- 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
P42041-B21	Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000551

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>

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
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

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/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.
- 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 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.

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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
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

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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
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.
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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 Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE

Version: 22.32.1010 **(Recommended)**

Filename: 22_32_1010-MCX623105AS-VDA_Ax.pldm.fwpkg

Important Note!

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A list of known issues with this release is available

at: <https://docs.nvidia.com/networking/display/ConnectX6DxFirmwarev22321010/Known+Issues>

Prerequisites

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

Fixes

The following issues have been fixed in version 22.32.1010:

- 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.
- System could not create more than 128K QPs.
- A valid connection tracking flow triggered an unsupported connection tracking syndrome.
- ATS packets were mis-handled if hosts set RCB to 128B.
- Synced reset was not supported when NVMe Emulation was enabled. Running mlxfwreset in synced mode (sync=1) when NVME EMU Was enabled resulted in the tool reporting the synced reset as supported, but the reset itself would fail.
- Cache miss increased and performance was reduced due to the software querying the counters very frequently.
- An assert that occurred when mlxconfig LAG_RESOURCE_ALLOCATION was set due to setting multi-port-vhca which was not allowed.
- Configuring two identical FLEX Parser parse-graph-nodes on two different ports, caused one of them to not work.
- Incorrect RNR timeout when trying to set it during the rts2rts_qp transition.
- A BER issue on the Serdes by updating the mapping of logical to physical port configuration for Link-Maintenance flow.
- An issue that caused the virtio (vDPA and virtio full emulation) checksum offload not to work with packet head rewrite in steering mode.
- An issue that caused QP allocation with the QPN of the previously destroyed QP due to the fact that the CreateQP does not guarantee a monotonic grow of QPN.
- An issue that caused some commands to get into an unresponsive state or fail when configuring the HCA_CAP.cmdif_checksum to 0x3 and using firmware version lower than 22.31.1004.
- A rare case of a doorbell drop that caused the Rx side to get stuck that when running traffic on top of a virtio device.
- Unexpected and excessive interrupts caused by internal misconfigured EQs that took PCI bandwidth and introduced PCIe latency and as a result caused virtio Tx pps degradation.
- Unexpected and excessive interrupts received by the Host when running virtio emulation application traffic due to internal misconfigured EQ in NIC.

Enhancements

New features and changes included in version 22.32.1010:

- Added support for OpenSNAPI Communication Channel which is used to enable communication between processes on different vHCAs regardless of their network connectivity state.
- Exposed an additional steering register in the hardware (reg_c_6).
- 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 support for a new steering match definer format (format 33).
- The teardown of hotplugged emulated device (a.k.a unplug flow) is in the reverse order of the plug flow. However, certain legacy host software stack does not support surprise removal of the PCIe PF devices. To support such host software stack, emulation manager software will perform a graceful teardown.
- Enabled disk encryption services using the aes_xts protocol to allow inline data encryption and decryption towards a remote or a local disk/NVDIM.
- Blocked the VF's ability to use both padding and signature in order to prevent the NIC from hanging.
- Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.

- Added support for clock frequency synchronization based on Synchronous Ethernet protocol. Note: This capability is not supported with link speeds of 50G and higher, and cannot run in parallel with diagnostic counters.
- Added support for Flow Direct, LACP and GRE Offload.
- 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.
- 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.
- Enabled the option to dynamically modify the MSIX and the number of virtio VF device queues. Note: This modification must be done before loading the driver on the device. This new capability includes the following limitations:
 - Total queue/msix number can not exceed 2k
 - queue/msix per virtio vf device cannot exceed 64
 - The scale of virtio device is limit to below 127 from mlxconfig
- The new LAG mode (PORT_SELECT_FT LAG (hash LAG)) distributes the packets to ports according to the hash on the packet headers, instead of distributing the packets according to the QP (queue affinity – legacy LAG) to avoid cases where the slow/fast path packets are transmitted from different ports [Beta feature]. Due to changes in this feature, transmission timestamp in CQE is temporarily unsupported with multi eSwitch.
- Removed the "PPS out" dependency on the "PPS in" status.
- Changed the DPORT_OWNER configuration to ignore the zero value in order to configure an external host as the "owner" uses the "host index + 1" value.
- Limited the external loopback speed to the used module's capabilities.
- Modified the Rx flow to go directly to QP without going thru the RX steering flow to reflect correctly the statics for the Tx and Rx.
- Added rx_ts_over_crc to the PCMR access reg to control the default behavior of the FCS if that FCS is overwritten by the PTP on runtime.
- Added support for DSFP AOC (CMIS) v4 when error code is not reported by the module.
- Enabled the usage of inline actions in STEs instead of action list to avoid the hardware limitation of the maximum size of actions list (2^16).
- Enabled matching geneve_tlv_option_0_exist in the flow table entry as it is required when matching geneve_tlv_option_0_data parameter.
- Disabled the internal CQ doorbell recovery to avoid triggering the CQ doorbell recovery trigger and interrupt virtio traffic.
- Removed firmware dependency on credits reset during link reset flow.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID

P10180-B21	Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	MT_0000000435

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

Version: 22.32.1010 **(Recommended)**

Filename: 22_32_1010-MCX623106AS-CDA_Ax.pldm.fwpkg

Important Note!

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A list of known issues with this release is available at: <https://docs.nvidia.com/networking/display/ConnectX6DxFirmwarev22321010/Known+Issues>

Prerequisites

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

Fixes

The following issues have been fixed in version 22.32.1010:

- 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.
- System could not create more than 128K QPs.
- A valid connection tracking flow triggered an unsupported connection tracking syndrome.

- ATS packets were mis-handled if hosts set RCB to 128B.
- Synced reset was not supported when NVNe Emulation was enabled. Running mlxfwreset in synced mode (sync=1) when NVME EMU Was enabled resulted in the tool reporting the synced reset as supported, but the reset itself would fail.
- Cache miss increased and performance was reduced due to the software querying the counters very frequently.
- An assert that occurred when mlxconfig LAG_RESOURCE_ALLOCATION was set due to setting multi-port-vhca which was not allowed.
- Configuring two identical FLEX Parser parse-graph-nodes on two different ports, caused one of them to not work.
- Incorrect RNR timeout when trying to set it during the rts2rts_qp transition.
- A BER issue on the Serdes by updating the mapping of logical to physical port configuration for Link-Maintenance flow.
- An issue that caused the virtio (vDPA and virtio full emulation) checksum offload not to work with packet head rewrite in steering mode.
- An issue that caused QP allocation with the QPN of the previously destroyed QP due to the fact that the CreateQP does not guarantee a monotonic grow of QPN.
- An issue that caused some commands to get into an unresponsive state or fail when configuring the HCA_CAP.cmdif_checksum to 0x3 and using firmware version lower than 22.31.1004.
- A rare case of a doorbell drop that caused the Rx side to get stuck that when running traffic on top of a virtio device.
- Unexpected and excessive interrupts caused by internal misconfigured EQs that took PCI bandwidth and introduced PCIe latency and as a result caused virtio Tx pps degradation.
- Unexpected and excessive interrupts received by the Host when running virtio emulation application traffic due to internal misconfigured EQ in NIC.

Enhancements

New features and changes included in version 22.32.1010:

- Added support for OpenSNAPI Communication Channel which is used to enable communication between processes on different vHCAs regardless of their network connectivity state.
- Exposed an additional steering register in the hardware (reg_c_6).
- 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 support for a new steering match definer format (format 33).
- The teardown of hotplugged emulated device (a.k.a unplug flow) is in the reverse order of the plug flow. However, certain legacy host software stack does not support surprise removal of the PCIe PF devices. To support such host software stack, emulation manager software will perform a graceful teardown.
- Enabled disk encryption services using the aes_xts protocol to allow inline data encryption and decryption towards a remote or a local disk/NVDIM.
- Blocked the VF's ability to use both padding and signature in order to prevent the NIC from hanging.
- Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.
- Added support for clock frequency synchronization based on Synchronous Ethernet protocol. Note: This capability is not supported with link speeds of 50G and higher, and cannot run in parallel with diagnostic counters.
- Added support for Flow Direct, LACP and GRE Offload.
- 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.
- 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.
- Enabled the option to dynamically modify the MSIX and the number of virtio VF device queues. Note: This modification must be done before loading the driver on the device. This new capability includes the following limitations:
 - Total queue/msix number can not exceed 2k
 - queue/msix per virtio vf device cannot exceed 64
 - The scale of virtio device is limit to below 127 from mlxconfig
- The new LAG mode (PORT_SELECT_FT LAG (hash LAG)) distributes the packets to ports according to the hash on the packet headers, instead of distributing the packets according to the QP (queue affinity – legacy LAG) to avoid cases where the slow/fast path packets are transmitted from different ports [Beta feature]. Due to changes in this feature, transmission timestamp in CQE is temporarily unsupported with multi eSwitch.
- Removed the "PPS out" dependency on the "PPS in" status.
- Changed the DPORT_OWNER configuration to ignore the zero value in order to configure an external host as the "owner" uses the "host index + 1" value.
- Limited the external loopback speed to the used module's capabilities.
- Modified the Rx flow to go directly to QP without going thru the RX steering flow to reflect correctly the statics for the Tx and Rx.
- Added rx_ts_over_crc to the PCMR access reg to control the default behavior of the FCS if that FCS is overwritten by the PTP on runtime.
- Added support for DSFP AOC (CMIS) v4 when error code is not reported by the module.
- Enabled the usage of inline actions in STEs instead of action list to avoid the hardware limitation of the maximum size of actions list (2¹⁶).
- Enabled matching geneve_tlv_option_0_exist in the flow table entry as it is required when matching geneve_tlv_option_0_data parameter.
- Disabled the internal CQ doorbell recovery to avoid triggering the CQ doorbell recovery trigger and interrupt virtio traffic.
- Removed firmware dependency on credits reset during link reset flow.

Supported Devices and Features

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

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!

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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 6.5) for HPE Ethernet 10Gb 2-port 548SFP+ Adapter

Version: 1.0.6 **(Recommended)**

Filename: CP050391.compsig; CP050391.zip

Prerequisites

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

Fixes

The following issues have been fixed in version 14.32.1010:

- 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 system could not create more than 128K QPs.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Packet Pacing rate was used if asymmetric VFs was enabled.
- Incorrect RNR timeout when trying to set it during the rts2rts_qp transition.
- Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to l4_type in ConnectX-4 Lx adapter cards.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.

Enhancements

Firmware for the following device has been updated to 14.32.1010:

- P11338-B21 (HPE Ethernet 10Gb 2-port 548SFP+ Adapter)

New features and changes included in version 14.32.1010:

- Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.
- 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.
- 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 non-zero value.
- Limited the external loopback speed to the used module's capabilities.
- Improved linkup time when using the fast linkup capability.

- Added support for the slow_restart and slow_restart_idle parameters to enable Zero Touch RoCE capability.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HPE0000000038

Online Firmware Upgrade Utility (ESXi 6.5) for HPE Mellanox Ethernet only adapters

Version: 1.0.11 **(Recommended)**

Filename: CP050368.compsig; CP050368.zip

Important Note!

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

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx/ConnectX5 firmware version 14.32.1010/16.32.1010 respectively. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

Fixes

The following issues have been fixed in version 2.42.5044 :

- An issue that prevented the firmware from detecting a link_down event thus preventing the IB bond interface from going to a failover mode.

The following issues have been fixed in version 14.32.1010:

- 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 system could not create more than 128K QPs.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Packet Pacing rate was used if asymmetric VFs was enabled.
- Incorrect RNR timeout when trying to set it during the rts2rts_qp transition.
- Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to l4_type in ConnectX-4 Lx adapter cards.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.

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.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Incorrect 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.

Enhancements

Firmware for the following devices has been updated to 2.42.5044 :

- 779799-B21 (HPE Ethernet 10G 2-port 546FLR-SFP+ Adapter)
- 779793-B21 (HPE Ethernet 10G 2-port 546SFP+ Adapter)

Firmware for the following devices has been updated to 14.32.1010:

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

- 817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

Firmware for the following device has been updated to 16.32.1010:

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

New features and changes included in version 14.32.1010:

- Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.
- 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.
- 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 non-zero value.
- Limited the external loopback speed to the used module's capabilities.
- Improved linkup time when using the fast linkup capability.
- Added support for the slow_restart and slow_restart_idle parameters to enable Zero Touch RoCE capability.

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
779793-B21	HPE Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HPE Ethernet 10Gb 2-port 546FLR-SFP+ Adapter	HP_2240110004
817749-B21	HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter	HP_2690110034
817753-B21	HPE Ethernet 25Gb 2-port 640SFP28 Adapter	HP_2420110034
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014

Online Firmware Upgrade Utility (ESXi 6.5) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX4 and ConnectX5 devices on VMware ESXi 6.5

Version: 1.0.10 **(Recommended)**

Filename: CP050377.compsig; CP050377.zip

Fixes

Fixes in version 12.28.2006:

- Fixes an issue that caused the DCR to be destroyed before the retry option managed to work when the retry timeout is too big. In this case the DCR' time-to-live was increased, and the maximum retry timeout was decreased.
- Increased PHY power consumption limit to 1.5w.
- Fixed n issue that caused PortCounters.PortRcvErr / PPCNT.infiniband_counters.PortRcvErr not to report port icrc errors.

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 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

Firmware for the following devices has been updated to 12.28.2006:

- 825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)
- 825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

Firmware for the following devices has been updated to 16.32.1010:

- 879482-B21 (HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter)
- 872726-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter)

New Features and changes included in version 12.28.2006:

- Increased the maximum XRQ number to 512.

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	Device Name	PSID
825110-B21	HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	HP_2180110032
825111-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	HP_2190110032
872726-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	HPE0000000009
879482-B21	HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	HPE0000000022

Version: 1.0.3 **(Recommended)**

Filename: CP050419.compsig; CP050419.zip

Important Note!

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

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX6 firmware version 20.32.1010. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

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

Firmware for the following devices has been updated to 20.32.1010:

- HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter - P06154-B21
- HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter - P06250-B21
- HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter - P06251-B21

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 encapsulation 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	Device Name	PSID
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	HPE0000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	HPE0000000035
P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter	HPE0000000036

Online Firmware Upgrade Utility (ESXi 6.5) for HPE Mellanox VPI (Ethernet and Infiniband mode) devices on VMware ESXi 6.5

Version: 1.0.7 **(Recommended)**

Filename: CP045902.compsig; CP045902.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 RTX320-581, 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 0xffff).
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX-3 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
- RHEL6.3 Inbox driver causes kernel panic when SRIOV is enabled on VPI cards due to driver compatibility issue.
- **Workaround:** Set the "do_ - sense=false" parameter in the [IB_TAB] i.
- In advanced steering mode, side band management connectivity may be lost when having more than 8 QP per mcg.
- When SR-IOV is disabled in the system BIOS, a PCI issue is noticed in Ubuntu v12.04.3 with Linux kernel v3.8 which affects NICs of several manufacturers including Mellanox's, preventing them from operating.
Workaround: Enable SR-IOV in the BIOS.
- Mellanox Firmware Tools (MFT) might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
Workaround: Clear the semaphore using MFT command: 'flint -clear_semaphore'
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- 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

Online Firmware Upgrade Utility (ESXi 6.5) for Mellanox Open Ethernet cards

Version: 1.0.6 **(Recommended)**

Filename: CP050329.compsig; CP050329.zip

Important Note!

On Adapter Firmware rewrite scenario, SUM will always discover the Mellanox Open adapter firmware smart component as applicable and select it for deployment If the server iLO5 firmware version is older than 2.30.

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx/ConnectX5 firmware version 14.32.1010/16.32.1010 respectively. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

Fixes

The following issues have been fixed in version 14.32.1010:

- 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 system could not create more than 128K QPs.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Packet Pacing rate was used if asymmetric VFs was enabled.
- Incorrect RNR timeout when trying to set it during the rts2rts_qp transition.
- Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to l4_type in ConnectX-4 Lx adapter cards.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.

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.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Incorrect 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.

Enhancements

Firmware for the following devices has been updated to 14.32.1010:

- P21930-B21 (HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCAT Adapter)
- P11341-B21 (HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter)

Firmware for the following device has been updated to 16.32.1010:

- P21927-B21 (HPE Ethernet 100Gb 2-Port QSFP28 MCX516A-CCHT Adapter)

New features and changes included in version 14.32.1010:

- Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.
- 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.
- 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 non-zero value.
- Limited the external loopback speed to the used module's capabilities.
- Improved linkup time when using the fast linkup capability.

- Added support for the slow_restart and slow_restart_idle parameters to enable Zero Touch RoCE capability.

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 OSHR 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.**

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Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414
P11341-B21	HPE Ethernet 10Gb/25Gb 2-port SFP28 MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417

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Online Firmware Upgrade Utility (ESXi 6.7) for HPE Ethernet 10Gb 2-port 548SFP+ Adapter

Version: 1.0.6 (Recommended)

Filename: CP050392.compsig; CP050392.zip

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Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx firmware version 14.32.1010. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

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Fixes

The following issues have been fixed in version 14.32.1010:

- **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 system could not create more than 128K QPs.**
- **On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.**
- **Packet Pacing rate was used if asymmetric VFs was enabled.**
- **Incorrect RNR timeout when trying to set it during the rts2rts qp transition.**
- **Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to I4 type in ConnectX-4 Lx adapter cards.**
- **The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.**

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Enhancements

Firmware for the following device has been updated to 14.32.1010:

- **P11338-B21 (HPE Ethernet 10Gb 2-port 548SFP+ Adapter)**

New features and changes included in version 14.32.1010:

- **Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.**
- **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.**
- **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 non-zero value.**
- **Limited the external loopback speed to the used module's capabilities.**
- **Improved linkup time when using the fast linkup capability.**
- **Added support for the slow_restart and slow_restart_idle parameters to enable Zero Touch RoCE capability.**

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Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HPE0000000038

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Online Firmware Upgrade Utility (ESXi 6.7) for HPE Mellanox Ethernet only adapters

Version: 1.0.7 (Recommended)

Filename: CP050369.compsig; CP050369.zip

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Important Note!

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

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Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx/ConnectX5 firmware version 14.32.1010/16.32.1010 respectively. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

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Fixes

The following issues have been fixed in version 2.42.5044 :

- **An issue that prevented the firmware from detecting a link down event thus preventing the IB bond interface from going to a failover mode.**

The following issues have been fixed in version 14.32.1010:

- 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 system could not create more than 128K QPs.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Packet Pacing rate was used if asymmetric VFs was enabled.
- Incorrect RNR timeout when trying to set it during the rts2rts qp transition.
- Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to I4 type in ConnectX-4 Lx adapter cards.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.

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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.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Incorrect 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.

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Enhancements

Firmware for the following devices has been updated to 2.42.5044 :

- 779799-B21 (HPE Ethernet 10G 2-port 546FLR-SFP+ Adapter)
- 779793-B21 (HPE Ethernet 10G 2-port 546SFP+ Adapter)

Firmware for the following devices has been updated to 14.32.1010:

- 817749-B21 (HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter)
- 817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

Firmware for the following device has been updated to 16.32.1010:

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

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New features and changes included in version 14.32.1010:

- **Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.**
- **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.**
- **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 non-zero value.**
- **Limited the external loopback speed to the used module's capabilities.**
- **Improved linkup time when using the fast linkup capability.**
- **Added support for the slow restart and slow restart idle parameters to enable Zero Touch RoCE capability.**

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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.**

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Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
779793-B21	HPE Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023

779799-B21	HPE Ethernet 10Gb 2-port 546FLR-SFP+ Adapter	HP_2240110004
817749-B21	HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter	HP_2690110034
817753-B21	HPE Ethernet 25Gb 2-port 640SFP28 Adapter	HP_2420110034
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014

Online Firmware Upgrade Utility (ESXi 6.7) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX4 and ConnectX5 devices on VMware ESXi 6.7

Version: 1.0.6 (Recommended)

Filename: CP050378.compsiq; CP050378.zip

Fixes

Fixes in version 12.28.2006:

- **Fixes an issue that caused the DCR to be destroyed before the retry option managed to work when the retry timeout is too big. In this case the DCR' time-to-live was increased, and the maximum retry timeout was decreased.**
- **Increased PHY power consumption limit to 1.5w.**
- **Fixed n issue that caused PortCounters.PortRcvErr / PPCNT.infiniband counters.PortRcvErr not to report port icrc errors.**

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 OPs.**
- **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.

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Enhancements

Firmware for the following devices has been updated to 12.28.2006:

- 825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)
- 825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

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Firmware for the following devices has been updated to 16.32.1010:

- 879482-B21 (HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter)
- 872726-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter)

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New Features and changes included in version 12.28.2006:

- Increased the maximum XRQ number to 512.

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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.

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Supported Devices and Features

HPE Part Number	Device Name	PSID
825110-B21	HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	HP_2180110032
825111-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	HP_2190110032
872726-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	HPE0000000009
879482-B21	HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	HPE0000000022

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Online Firmware Upgrade Utility (ESXi 6.7) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX6 devices on VMware ESXi 6.7

Version: 1.0.3 (Recommended)

Filename: CP050420.compsig; CP050420.zip

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Important Note!

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

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

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Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX6 firmware version 20.32.1010. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

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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

Firmware for the following devices has been updated to 20.32.1010:

- HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter - P06154-B21
- HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter - P06250-B21
- HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter - P06251-B21

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 OP0 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	Device Name	PSID
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	HPE0000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	HPE0000000035
P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter	HPE0000000036

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 RTX320-581, 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 0xffff).
- **SBR should be asserted for a minimum of 50 milliseconds for the ConnectX-3 adapters.**
- **On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.**
- **RHEL6.3 Inbox driver causes kernel panic when SRIOV is enabled on VPI cards due to driver compatibility issue.**

- Workaround: Set the "do - sense=false" parameter in the [IB TAB] i.
- In advanced steering mode, side band management connectivity may be lost when having more than 8 QP per mcq.
- 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.

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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 "mlxftop -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.

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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.**

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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

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Online Firmware Upgrade Utility (ESXi 6.7) for Mellanox Open Ethernet cards

Version: 1.0.6 (Recommended)

Filename: CP050330.compsiq; CP050330.zip

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Important Note!

On Adapter Firmware rewrite scenario, SUM will always discover the Mellanox Open adapter firmware smart component as applicable and select it for deployment If the server iLO5 firmware version is older than 2.30.

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Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx/ConnectX5 firmware version 14.32.1010/16.32.1010 respectively. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

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Fixes

The following issues have been fixed in version 14.32.1010:

- 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 system could not create more than 128K QPs.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Packet Pacing rate was used if asymmetric VFs was enabled.
- Incorrect RNR timeout when trying to set it during the rts2rts qp transition.
- Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to I4 type in ConnectX-4 Lx adapter cards.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.

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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.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Incorrect 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.

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Enhancements

Firmware for the following devices has been updated to 14.32.1010:

- **P21930-B21 (HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCAT Adapter)**
- **P11341-B21 (HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter)**

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Firmware for the following device has been updated to 16.32.1010:

- **P21927-B21 (HPE Ethernet 100Gb 2-Port QSFP28 MCX516A-CCHT Adapter)**

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New features and changes included in version 14.32.1010:

- **Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.**
- **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.**
- **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 non-zero value.**
- **Limited the external loopback speed to the used module's capabilities.**
- **Improved linkup time when using the fast linkup capability.**
- **Added support for the slow restart and slow restart idle parameters to enable Zero Touch RoCE capability.**

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.

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Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414
P11341-B21	HPE Ethernet 10Gb/25Gb 2-port SFP28 MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417

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Online Firmware Upgrade Utility (ESXi 7.0) for HPE Ethernet 10Gb 2-port 548SFP+ Adapter

Version: 1.0.3 (Recommended)

Filename: CP050393.compsiq; CP050393.zip

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Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx firmware version 14.32.1010. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

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Fixes

The following issues have been fixed in version 14.32.1010:

- 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 system could not create more than 128K OPs.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Packet Pacing rate was used if asymmetric VFs was enabled.
- Incorrect RNR timeout when trying to set it during the rts2rts qp transition.

- Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to I4 type in ConnectX-4 Lx adapter cards.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.

Enhancements

Firmware for the following device has been updated to 14.32.1010:

- **P11338-B21 (HPE Ethernet 10Gb 2-port 548SFP+ Adapter)**

New features and changes included in version 14.32.1010:

- **Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.**
- **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.**
- **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 non-zero value.**
- **Limited the external loopback speed to the used module's capabilities.**
- **Improved linkup time when using the fast linkup capability.**
- **Added support for the slow restart and slow restart idle parameters to enable Zero Touch RoCE capability.**

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HPE0000000038

Online Firmware Upgrade Utility (ESXi 7.0) for HPE Mellanox Ethernet only adapters

Version: 1.0.3 (Recommended)

Filename: CP050370.compsig; CP050370.zip

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Important Note!

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

-

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx/ConnectX5 firmware version 14.32.1010/16.32.1010 respectively. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

-

Fixes

The following issues have been fixed in version 2.42.5044 :

- **An issue that prevented the firmware from detecting a link down event thus preventing the IB bond interface from going to a failover mode.**

The following issues have been fixed in version 14.32.1010:

- **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 system could not create more than 128K QPs.**
- **On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.**
- **Packet Pacing rate was used if asymmetric VFs was enabled.**
- **Incorrect RNR timeout when trying to set it during the rts2rts qp transition.**
- **Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to I4 type in ConnectX-4 Lx adapter cards.**
- **The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.**

-

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.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Incorrect 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.

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Enhancements

Firmware for the following devices has been updated to 2.42.5044 :

- 779799-B21 (HPE Ethernet 10G 2-port 546FLR-SFP+ Adapter)
- 779793-B21 (HPE Ethernet 10G 2-port 546SFP+ Adapter)

Firmware for the following devices has been updated to 14.32.1010:

- 817749-B21 (HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter)
- 817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

Firmware for the following device has been updated to 16.32.1010:

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

-

New features and changes included in version 14.32.1010:

- Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.
- 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.
- 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 non-zero value.
- Limited the external loopback speed to the used module's capabilities.
- Improved linkup time when using the fast linkup capability.

- Added support for the slow restart and slow restart idle parameters to enable Zero Touch RoCE capability.

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
779793-B21	HPE Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HPE Ethernet 10Gb 2-port 546FLR-SFP+ Adapter	HP_2240110004
817749-B21	HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter	HP_2690110034
817753-B21	HPE Ethernet 25Gb 2-port 640SFP28 Adapter	HP_2420110034
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014

Online Firmware Upgrade Utility (ESXi 7.0) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX4 and ConnectX5 devices on VMware ESXi 7.0

Version: 1.0.3 (Recommended)

Filename: CP050379.compsiq; CP050379.zip

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Fixes

Fixes in version 12.28.2006:

- **Fixes an issue that caused the DCR to be destroyed before the retry option managed to work when the retry timeout is too big. In this case the DCR' time-to-live was increased, and the maximum retry timeout was decreased.**
- **Increased PHY power consumption limit to 1.5w.**
- **Fixed n issue that caused PortCounters.PortRcvErr / PPCNT.infiniband counters.PortRcvErr not to report port icrc errors.**

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 OPs.**
- **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.**

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Enhancements

Firmware for the following devices has been updated to 12.28.2006:

- **825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)**
- **825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)**

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Firmware for the following devices has been updated to 16.32.1010:

- **879482-B21 (HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter)**
- **872726-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter)**

-

New Features and changes included in version 12.28.2006:

- **Increased the maximum XRO number to 512.**

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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 OSHR 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.**

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Supported Devices and Features

HPE Part Number	Device Name	PSID
825110-B21	HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	HP_2180110032
825111-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	HP_2190110032
872726-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	HPE0000000009
879482-B21	HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	HPE0000000022

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Online Firmware Upgrade Utility (ESXi 7.0) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX6 devices on VMware ESXi 7.0

Version: 1.0.3 (Recommended)

Filename: CP050421.compsig; CP050421.zip

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Important Note!

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

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

EDR	supported	supported	not supported	supported
FDR	not supported	not supported	not supported	not supported
QDR/SDR	supported	supported	not supported	supported

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Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX6 firmware version 20.32.1010. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

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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.**

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Enhancements

Firmware for the following devices has been updated to 20.32.1010:

- **HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter - P06154-B21**
- **HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter - P06250-B21**
- **HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter - P06251-B21**

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 OSHR 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	Device Name	PSID
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	HPE0000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	HPE0000000035
P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter	HPE0000000036

Online Firmware Upgrade Utility (ESXi 7.0) for HPE Mellanox VPI (Ethernet and Infiniband mode) devices on VMware ESXi 7.0

Version: 1.0.1 (Recommended)

Filename: CP045904.compsig; CP045904.zip

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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 RTX320-581, 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 0xffff).
- **SBR should be asserted for a minimum of 50 milliseconds for the ConnectX-3 adapters.**
- **On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.**
- **RHEL6.3 Inbox driver causes kernel panic when SRIOV is enabled on VPI cards due to driver compatibility issue.**
- **Workaround: Set the "do - sense=false" parameter in the [IB TAB] i.**
- **In advanced steering mode, side band management connectivity may be lost when having more than 8 QP per mcq.**
- **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.

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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.

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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.**

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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

-

Online Firmware Upgrade Utility (ESXi 7.0) for Mellanox Open Ethernet cards

Version: 1.0.3 (Recommended)

Filename: CP050331.compsig; CP050331.zip

-

Important Note!

On Adapter Firmware rewrite scenario, SUM will always discover the Mellanox Open adapter firmware smart component as applicable and select it for deployment If the server iLO5 firmware version is older than 2.30.

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Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx/ConnectX5 firmware version 14.32.1010/16.32.1010 respectively. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

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Fixes

The following issues have been fixed in version 14.32.1010:

- 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 system could not create more than 128K QPs.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Packet Pacing rate was used if asymmetric VFs was enabled.
- Incorrect RNR timeout when trying to set it during the rts2rts qp transition.
- Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to l4 type in ConnectX-4 Lx adapter cards.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.

-

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.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Incorrect 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.

-

Enhancements

Firmware for the following devices has been updated to 14.32.1010:

- P21930-B21 (HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCAT Adapter)
- P11341-B21 (HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter)

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Firmware for the following device has been updated to 16.32.1010:

- **P21927-B21 (HPE Ethernet 100Gb 2-Port QSFP28 MCX516A-CCHT Adapter)**

-

New features and changes included in version 14.32.1010:

- **Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.**
- **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.**
- **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 non-zero value.**
- **Limited the external loopback speed to the used module's capabilities.**
- **Improved linkup time when using the fast linkup capability.**
- **Added support for the slow restart and slow restart idle parameters to enable Zero Touch RoCE capability.**

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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.**

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Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414

P11341-B21	HPE Ethernet 10Gb/25Gb 2-port SFP28 MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417

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Online Firmware Upgrade Utility (Linux x86_64) for HPE Ethernet 10Gb 2-port 548SFP+ Adapter

Version: 1.0.6 (Recommended)

Filename: firmware-nic-mellanox-eth-only-mft-1.0.6-1.1.x86_64.compsig; firmware-nic-mellanox-eth-only-mft-1.0.6-1.1.x86_64.rpm

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Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx firmware version 14.32.1010. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

-

Fixes

The following issues have been fixed in version 14.32.1010:

- **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 system could not create more than 128K QPs.**
- **On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.**
- **Packet Pacing rate was used if asymmetric VFs was enabled.**
- **Incorrect RNR timeout when trying to set it during the rts2rts qp transition.**
- **Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to I4 type in ConnectX-4 Lx adapter cards.**
- **The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.**

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Enhancements

Firmware for the following device has been updated to 14.32.1010:

- **P11338-B21 (HPE Ethernet 10Gb 2-port 548SFP+ Adapter)**

New features and changes included in version 14.32.1010:

- **Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.**
- **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.**
- **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 non-zero value.**
- **Limited the external loopback speed to the used module's capabilities.**
- **Improved linkup time when using the fast linkup capability.**
- **Added support for the slow_restart and slow_restart_idle parameters to enable Zero Touch RoCE capability.**

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Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HPE0000000038

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Online Firmware Upgrade Utility (Linux x86_64) for HPE Mellanox Ethernet only adapters

Version: 1.0.16 (Recommended)

Filename: firmware-nic-mellanox-ethernet-only-1.0.16-1.1.x86_64.compsig; firmware-nic-mellanox-ethernet-only-1.0.16-1.1.x86_64.rpm

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Important Note!

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

-

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx/ConnectX5 firmware version 14.32.1010/16.32.1010 respectively. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

-

Fixes

The following issues have been fixed in version 2.42.5044 :

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

The following issues have been fixed in version 14.32.1010:

- 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 system could not create more than 128K QPs.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Packet Pacing rate was used if asymmetric VFs was enabled.
- Incorrect RNR timeout when trying to set it during the rts2rts qp transition.
- Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to l4 type in ConnectX-4 Lx adapter cards.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.

-

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.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Incorrect 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.

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Enhancements

Firmware for the following devices has been updated to 2.42.5044 :

- **779799-B21 (HPE Ethernet 10G 2-port 546FLR-SFP+ Adapter)**
- **779793-B21 (HPE Ethernet 10G 2-port 546SFP+ Adapter)**

Firmware for the following devices has been updated to 14.32.1010:

- **817749-B21 (HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter)**
- **817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)**

Firmware for the following device has been updated to 16.32.1010:

- **874253-B21 (HPE Ethernet 100Gb 1-port 842OSFP28 Adapter)**

-

New features and changes included in version 14.32.1010:

- **Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.**
- **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.**
- **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 non-zero value.**
- **Limited the external loopback speed to the used module's capabilities.**
- **Improved linkup time when using the fast linkup capability.**
- **Added support for the slow restart and slow restart idle parameters to enable Zero Touch RoCE capability.**

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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 OSHR 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
779793-B21	HPE Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HPE Ethernet 10Gb 2-port 546FLR-SFP+ Adapter	HP_2240110004
817749-B21	HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter	HP_2690110034
817753-B21	HPE Ethernet 25Gb 2-port 640SFP28 Adapter	HP_2420110034
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014

Online Firmware Upgrade Utility (Linux x86_64) for HPE Mellanox IB only ConnectX4 and ConnectX5 devices on Linux x86_64 platform

Version: 1.0.9 (Recommended)

Filename: firmware-nic-mellanox-ib-cx4-cx5-1.0.9-1.1.x86_64.compsig; firmware-nic-mellanox-ib-cx4-cx5-1.0.9-1.1.x86_64.rpm

Fixes

Fixes in version 12.28.2006:

- Fixed an issue that caused the DCR (DC Resources) to be destroyed before the retry option managed to work when the retry timeout is too big. In this case, the DCR' time-to-live was increased, and the maximum retry timeout was decreased.
- Increased PHY power consumption limit to 1.5w.
- Fixed an issue that caused PortCounters.PortRcvErr / PPCNT.infiniband_counters.PortRcvErr not to report port icrc errors.

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 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 OPs.
- 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.

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Enhancements

Firmware for the following devices has been updated to 12.28.2006:

- 843400-B21 (HPE Apollo A10 InfiniBand EDR (100Gb) 2-port Adapter)

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Firmware for the following devices has been updated to 16.32.1010:

- 872723-B21 (HPE Apollo InfiniBand EDR 100Gb 2-port 841z Mezzanine Adapter)
- 872725-B21 (HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter)

-

New features and changes included in version 12.28.2006:

- Increased the maximum XRO number to 512.

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 (OP, RO, SO...) 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 OP0 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.

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Supported Devices and Features

Supported Devices:

HPE Part Number	Device Name	PSID
843400-B21	HPE Apollo A10 InfiniBand EDR (100Gb) 2-port Adapter	HPE2920111032
872723-B21	HPE Apollo InfiniBand EDR 100Gb 2-port 841z Mezzanine Adapter	HPE0000000017
872725-B21	HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter	HPE0000000008

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Online Firmware Upgrade Utility (Linux x86_64) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX4 and ConnectX5 devices on Linux x86_64 platform

Version: 1.0.12 (Recommended)

Filename: firmware-hca-mellanox-vpi-connectx4-1.0.12-1.1.x86_64.compsig; firmware-hca-mellanox-vpi-connectx4-1.0.12-1.1.x86_64.rpm

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Fixes

Fixes in version 12.28.2006:

- **Fixes an issue that caused the DCR to be destroyed before the retry option managed to work when the retry timeout is too big. In this case the DCR' time-to-live was increased, and the maximum retry timeout was decreased.**
- **Increased PHY power consumption limit to 1.5w.**
- **Fixed n issue that caused PortCounters.PortRcvErr / PPCNT.infiniband_counters.PortRcvErr not to report port icrc errors.**

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 OPs.**
- **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

Firmware for the following devices has been updated to 12.28.2006:

- **825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)**

- 825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

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Firmware for the following devices has been updated to 16.32.1010:

- 879482-B21 (HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter)
- 872726-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter)

-

New Features and changes included in version 12.28.2006:

- Increased the maximum XRO number to 512.

-

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	Device Name	PSID
825110-B21	HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	HP_2180110032
825111-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	HP_2190110032
872726-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	HPE0000000009
879482-B21	HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	HPE0000000022

Online Firmware Upgrade Utility (Linux x86_64) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX6 devices on Linux x86_64 platform

Version: 1.0.8 (Recommended)

Filename: firmware-hca-mellanox-vpi-connectx6-mft-1.0.8-1.1.x86_64.compsig; firmware-hca-mellanox-vpi-connectx6-mft-1.0.8-1.1.x86_64.rpm

Important Note!

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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Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX6 firmware version 20.32.1010. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

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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.**

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Enhancements

Firmware for the following devices has been updated to 20.32.1010:

- **HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter - P06154-B21**
- **HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter - P06250-B21**
- **HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter - P06251-B21**

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 OP0 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.

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Supported Devices and Features

HPE Part Number	Device Name	PSID
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	HPE0000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	HPE0000000035
P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter	HPE0000000036

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Online Firmware Upgrade Utility (Linux x86_64) for HPE Mellanox VPI (Ethernet and Infiniband mode) devices on Linux x86_64 platform

Version: 1.0.12 (Recommended)

Filename: firmware-hca-mellanox-vpi-eth-ib-1.0.12-1.1.x86_64.compsig; firmware-hca-mellanox-vpi-eth-ib-1.0.12-1.1.x86_64.rpm

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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 RTX320-581, 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 0xffff).
- **SBR should be asserted for a minimum of 50 milliseconds for the ConnectX-3 adapters.**
- **On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.**
- **RHEL6.3 Inbox driver causes kernel panic when SRIOV is enabled on VPI cards due to driver compatibility issue.**
- **Workaround: Set the "do - sense=false" parameter in the [IB TAB] i.**
- **In advanced steering mode, side band management connectivity may be lost when having more than 8 QP per mcq.**
- **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.

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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.

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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.**

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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

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Online Firmware Upgrade Utility (Linux x86_64) for HPE OPA adapters

Version: 1.11.0 (Recommended)

Filename: `firmware-nic-intel-opa-hfi-1.11.0-1.1.x86_64.compsig`; `firmware-nic-intel-opa-hfi-1.11.0-1.1.x86_64.rpm`

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Prerequisites

The smart component requires Intel IFS or Basic software v10.11.0.1.2 to be installed as a prerequisite.

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Fixes

Fixes included in version 1.11.0:

- **The following issue has been fixed in Unified Extensible Firmware Interface (UEFI) ROM: On some platforms, the hfi1 device was not showing up in BIOS/UEFI boot menus and was not available as a PXE boot device. This was caused by the platform not loading the UEFI driver for the hfi1 adapter.**

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Enhancements

No changes and new features in version 1.11.0

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Supported Devices and Features

HP Part Number	OPA HFI Adapter Type	SSID
829334-B21	HPE 100Gb 1-Port OP101 QSFP28 x8 OPA Adapter	E7
829335-B21	HPE 100Gb 1-Port OP101 QSFP28 x16 OPA Adapter	E8
851226-B21	HPE Apollo 100Gb 1-port Intel Omni-Path Architecture 860z Mezzanine FIO Adapter	21C

-

Online Firmware Upgrade Utility (Linux x86_64) for Mellanox Open Ethernet cards

Version: 1.0.6 (Recommended)

Filename: firmware-nic-open-mellanox-eth-mft-1.0.6-1.1.x86_64.compsig; firmware-nic-open-mellanox-eth-mft-1.0.6-1.1.x86_64.rpm

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Important Note!

On Adapter Firmware rewrite scenario, SUM will always discover the Mellanox Open adapter firmware smart component as applicable and select it for deployment If the server iLO5 firmware version is older than 2.30.

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Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx/ConnectX5 firmware version 14.32.1010/16.32.1010 respectively. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

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Fixes

The following issues have been fixed in version 14.32.1010:

- 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 system could not create more than 128K QPs.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Packet Pacing rate was used if asymmetric VFs was enabled.
- Incorrect RNR timeout when trying to set it during the rts2rts qp transition.
- Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to l4 type in ConnectX-4 Lx adapter cards.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.

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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.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Incorrect 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.

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Enhancements

Firmware for the following devices has been updated to 14.32.1010:

- P21930-B21 (HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCAT Adapter)
- P11341-B21 (HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter)

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Firmware for the following device has been updated to 16.32.1010:

- **P21927-B21 (HPE Ethernet 100Gb 2-Port QSFP28 MCX516A-CCHT Adapter)**

New features and changes included in version 14.32.1010:

- **Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.**
- **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.**
- **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 non-zero value.**
- **Limited the external loopback speed to the used module's capabilities.**
- **Improved linkup time when using the fast linkup capability.**
- **Added support for the slow restart and slow restart idle parameters to enable Zero Touch RoCE capability.**

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
P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414

P11341-B21	HPE Ethernet 10Gb/25Gb 2-port SFP28 MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417

Online Firmware Upgrade Utility (Windows x64) for HPE Ethernet 10Gb 2-port 548SFP+ Adapter

Version: 1.0.0.6 (Recommended)

Filename: cp050390.compsig; cp050390.exe

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx firmware version 14.32.1010. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

Fixes

The following issues have been fixed in version 14.32.1010:

- **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 system could not create more than 128K QPs.**
- **On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.**
- **Packet Pacing rate was used if asymmetric VFs was enabled.**
- **Incorrect RNR timeout when trying to set it during the rts2rts qp transition.**
- **Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to I4 type in ConnectX-4 Lx adapter cards.**
- **The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.**

Enhancements

Firmware for the following device has been updated to 14.32.1010:

- **P11338-B21 (HPE Ethernet 10Gb 2-port 548SFP+ Adapter)**

New features and changes included in version 14.32.1010:

- **Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.**
- **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.**
- **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 non-zero value.**
- **Limited the external loopback speed to the used module's capabilities.**
- **Improved linkup time when using the fast linkup capability.**
- **Added support for the slow_restart and slow_restart_idle parameters to enable Zero Touch RoCE capability.**

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Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HPE0000000038

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Online Firmware Upgrade Utility (Windows x64) for HPE Mellanox Ethernet only adapters

Version: 1.0.0.16 (Recommended)

Filename: cp050367.compsig; cp050367.exe

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Important Note!

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

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Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx/ConnectX5 firmware version 14.32.1010/16.32.1010 respectively. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

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Fixes

The following issues have been fixed in version 2.42.5044 :

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

The following issues have been fixed in version 14.32.1010:

- 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 system could not create more than 128K QPs.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Packet Pacing rate was used if asymmetric VFs was enabled.
- Incorrect RNR timeout when trying to set it during the rts2rts qp transition.
- Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to l4 type in ConnectX-4 Lx adapter cards.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.

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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.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Incorrect 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.

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Enhancements

Firmware for the following devices has been updated to 2.42.5044 :

- **779799-B21 (HPE Ethernet 10G 2-port 546FLR-SFP+ Adapter)**
- **779793-B21 (HPE Ethernet 10G 2-port 546SFP+ Adapter)**

Firmware for the following devices has been updated to 14.32.1010:

- **817749-B21 (HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter)**
- **817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)**

Firmware for the following device has been updated to 16.32.1010:

- **874253-B21 (HPE Ethernet 100Gb 1-port 842OSFP28 Adapter)**

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New features and changes included in version 14.32.1010:

- **Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.**
- **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.**
- **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 non-zero value.**
- **Limited the external loopback speed to the used module's capabilities.**
- **Improved linkup time when using the fast linkup capability.**
- **Added support for the slow restart and slow restart idle parameters to enable Zero Touch RoCE capability.**

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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 OSHR 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
779793-B21	HPE Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HPE Ethernet 10Gb 2-port 546FLR-SFP+ Adapter	HP_2240110004
817749-B21	HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter	HP_2690110034
817753-B21	HPE Ethernet 25Gb 2-port 640SFP28 Adapter	HP_2420110034
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014

Online Firmware Upgrade Utility (Windows x64) for HPE Mellanox IB only ConnectX4 and ConnectX5 devices on Windows x86 64 platform

Version: 1.0.0.9 (Recommended)

Filename: cp050409.compsig; cp050409.exe

Fixes

Fixes in version 12.28.2006:

- Fixed an issue that caused the DCR (DC Resources) to be destroyed before the retry option managed to work when the retry timeout is too big. in this case, the DCR' time-to-live was increased, and the maximum retry timeout was decreased.
- Increased PHY power consumption limit to 1.5w.
- Fixed an issue that caused PortCounters.PortRcvErr / PPCNT.infiniband counters.PortRcvErr not to report port icrc errors.

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 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 OPs.
- 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.

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Enhancements

Firmware for the following devices has been updated to 12.28.2006:

- 843400-B21 (HPE Apollo A10 InfiniBand EDR (100Gb) 2-port Adapter)

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Firmware for the following devices has been updated to 16.32.1010:

- 872723-B21 (HPE Apollo InfiniBand EDR 100Gb 2-port 841z Mezzanine Adapter)
- 872725-B21 (HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter)

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New features and changes included in version 12.28.2006:

- Increased the maximum XRO number to 512.

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 (OP, RO, SO...) 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 OP0 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

Supported Devices:

HPE Part Number	Device Name	PSID
843400-B21	HPE Apollo A10 InfiniBand EDR (100Gb) 2-port Adapter	HPE2920111032
872723-B21	HPE Apollo InfiniBand EDR 100Gb 2-port 841z Mezzanine Adapter	HPE0000000017
872725-B21	HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter	HPE0000000008

-

Online Firmware Upgrade Utility (Windows x64) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX4 and ConnectX5 devices on Windows x86_64 platform

Version: 1.0.0.11 (Recommended)

Filename: cp050380.compsig; cp050380.exe

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Fixes

Fixes in version 12.28.2006:

- **Fixes an issue that caused the DCR to be destroyed before the retry option managed to work when the retry timeout is too big. In this case the DCR' time-to-live was increased, and the maximum retry timeout was decreased.**
- **Increased PHY power consumption limit to 1.5w.**
- **Fixed n issue that caused PortCounters.PortRcvErr / PPCNT.infiniband counters.PortRcvErr not to report port icrc errors.**

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.**

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Enhancements

Firmware for the following devices has been updated to 12.28.2006:

- **825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)**

- 825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

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Firmware for the following devices has been updated to 16.32.1010:

- 879482-B21 (HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter)
- 872726-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter)

-

New Features and changes included in version 12.28.2006:

- Increased the maximum XRO number to 512.

-

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	Device Name	PSID
825110-B21	HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	HP_2180110032
825111-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	HP_2190110032
872726-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	HPE0000000009
879482-B21	HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	HPE0000000022

Online Firmware Upgrade Utility (Windows x64) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX6 devices on Windows x86_64 platform

Version: 1.0.0.5 (Recommended)

Filename: cp050422.compsig; cp050422.exe

Important Note!

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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Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX6 firmware version 20.32.1010. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

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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

Firmware for the following devices has been updated to 20.32.1010:

- **HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter - P06154-B21**
- **HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter - P06250-B21**
- **HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter - P06251-B21**

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 OSHR 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	Device Name	PSID
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	HPE0000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	HPE0000000035
P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter	HPE0000000036

Online Firmware Upgrade Utility (Windows x64) for HPE Mellanox VPI (Ethernet and Infiniband mode) devices on Windows x86_64 platform

Version: 1.0.0.12 (Recommended)

Filename: cp045905.compsig; cp045905.exe

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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 RTX320-581, 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 0xffff).
- **SBR should be asserted for a minimum of 50 milliseconds for the ConnectX-3 adapters.**
- **On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.**
- **RHEL6.3 Inbox driver causes kernel panic when SRIOV is enabled on VPI cards due to driver compatibility issue.**
- **Workaround: Set the "do - sense=false" parameter in the [IB TAB] i.**
- **In advanced steering mode, side band management connectivity may be lost when having more than 8 QP per mcq.**
- **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.

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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.

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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.**

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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

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Online Firmware Upgrade Utility (Windows x64) for Mellanox Open Ethernet cards

Version: 1.0.0.6 (Recommended)

Filename: cp050332.compsig; cp050332.exe

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Important Note!

On Adapter Firmware rewrite scenario, SUM will always discover the Mellanox Open adapter firmware smart component as applicable and select it for deployment If the server iLO5 firmware version is older than 2.30.

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Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4-Lx/ConnectX5 firmware version 14.32.1010/16.32.1010 respectively. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

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Fixes

The following issues have been fixed in version 14.32.1010:

- 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 system could not create more than 128K QPs.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Packet Pacing rate was used if asymmetric VFs was enabled.
- Incorrect RNR timeout when trying to set it during the rts2rts qp transition.
- Issue with RSS on IPSec flows in ConnectX-4 Lx led to performance degradation. In this scenario, the SPI optimization caused packets from a given host to hash to the same CPU core. The fix was to ignore SPI optimization according to l4 type in ConnectX-4 Lx adapter cards.
- The GetInventory NC-SI command reported leading 0xf in firmware version when it started with 0.

-

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.
- On rare occasions, the system got into an unresponsive state when a peer port went down while using an Optical module.
- Incorrect 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.

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Enhancements

Firmware for the following devices has been updated to 14.32.1010:

- P21930-B21 (HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCAT Adapter)
- P11341-B21 (HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter)

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Firmware for the following device has been updated to 16.32.1010:

- **P21927-B21 (HPE Ethernet 100Gb 2-Port QSFP28 MCX516A-CCHT Adapter)**

New features and changes included in version 14.32.1010:

- **Added 3 new assert filters (Health buffer, NVlog, FW trace). The assert will be exposed now if its severity level is equal to or above the new filter.**
- **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.**
- **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 non-zero value.**
- **Limited the external loopback speed to the used module's capabilities.**
- **Improved linkup time when using the fast linkup capability.**
- **Added support for the slow restart and slow restart idle parameters to enable Zero Touch RoCE capability.**

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
P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414

P11341-B21	HPE Ethernet 10Gb/25Gb 2-port SFP28 MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417

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Firmware - NVDIMM

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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

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

Online Flash Component for Linux - 16GB NVDIMM-N DDR4-2666

Version: 1.04 (C) **(Optional)**

Filename: RPMS/x86_64/firmware-nvdim-16gb-1.04-3.1.x86_64.compsig; RPMS/x86_64/firmware-nvdim-16gb-1.04-3.1.x86_64.rpm

Enhancements

- Add RHEL8.4 support.
- Add SLES15 SP3 support.

- Add VMWare ESXi 7.0 U3 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

Online Flash Component for Linux - HPE Persistent Memory featuring Intel Optane DC Persistent Memory on HPE Gen10 Plus Servers

Version: 2.2.0.1553 (B) **(Recommended)**

Filename: RPMS/x86_64/firmware-dcpmm-2.2.0.1553-2.1.x86_64.compsig; RPMS/x86_64/firmware-dcpmm-2.2.0.1553-2.1.x86_64.rpm

Important Note!

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

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

Online Flash Component for Linux - HPE Persistent Memory featuring Intel Optane DC Persistent Memory on HPE Gen10 Servers

Version: 1.2.0.5446 **(Recommended)**

Filename: RPMS/x86_64/firmware-dcpmm-1.2.0.5446-1.1.x86_64.compsig; RPMS/x86_64/firmware-dcpmm-1.2.0.5446-1.1.x86_64.rpm

Important Note!

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Enhancements

- Add RHEL8.4 and SUSE15 SP3 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

Online Flash Component for Microsoft Windows x64 - 16GB NVDIMM-N DDR4-2666

Version: 1.04 (B) **(Optional)**

Filename: cp048495.compsig; cp048495.exe

Enhancements

- Add support for Microsoft Windows 2022

Online Flash Component for Microsoft Windows x64 - HPE Persistent Memory featuring Intel Optane DC Persistent Memory on HPE Gen10 Plus Servers

Version: 2.2.0.1553 (B) **(Recommended)**

Filename: cp047912.compsig; cp047912.exe

Important Note!

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

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

Online Flash Component for Microsoft Windows x64 - HPE Persistent Memory featuring Intel Optane DC Persistent Memory on HPE Gen10 Servers

Version: 1.2.0.5446 **(Recommended)**

Filename: cp047627.compsig; cp047627.exe

Important Note!

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

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Enhancements

- 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

Firmware - PCIe NVMe Storage Disk

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Online NVMe SSD Flash Component for Linux (x64) - MK000400KWDUK, VK000480KWDUE, MK000800KWDUL, VK000960KWDUF, MK001600KWDUN and VK001920KWDUH Drives

Version: HPK4 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-b45e49679c-HPK4-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b45e49679c-HPK4-6.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - MO0400KEFHN, MO0800KEFHP, MO1600KEFHQ, MO2000KEFHR, MT0800KEXUU and MT1600KEXUV Drives

Version: HPK4 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-2a5b65f157-HPK4-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-2a5b65f157-HPK4-6.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - VS000480KWDUP, VS000960KWDUQ, MS000400KWDUR and MS000800KWDUT Drives
Version: HPK4 (F) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-95a2e5abcb-HPK4-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-95a2e5abcb-HPK4-6.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - ET000750KWJTF, EO000750KWTXC and EO000375KWJUC Drives
Version: 4ICSHPK4 (C) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-c4355d15c4-4ICSHPK4-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-c4355d15c4-4ICSHPK4-3.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - KCD6XVUL800G, KCD6XVUL1T60, KCD6XVUL3T20, KCD6XVUL6T40, KCD6XVUL12T8, KCD6XLUL960G, KCD6XLUL1T92, KCD6XLUL3T84, KCD6XLUL7T68 and KCD6XLUL15T3 Drives
Version: GPK3 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-6fc985bd3b-GPK3-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-6fc985bd3b-GPK3-2.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - KCM6XVUL800G, KCM6XVUL1T60, KCM6XVUL3T20, KCM6XVUL6T40, KCM6XRUL960G, KCM6XRUL1T92, KCM6XRUL3T84 and KCM6XRUL7T68 Drives

Version: GPK3 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-3815d4b024-GPK3-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-3815d4b024-GPK3-2.1.x86_64.rpm

Important Note!

- .Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - LO0400KEFJQ, LO0800KEFJR, LO1600KEFJT, LO2000KEFJU, LT0800KEXVA, LT1600KEXVB and LT2000KEXVC Drives

Version: HPK4 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-d64642c780-HPK4-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-d64642c780-HPK4-6.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - MK000800KWWFE, MK001600KWWFF, MK003200KWWFH, MK006400KWWFK, VK000960KWWFL, VK001920KWWFN, VK003840KWWFP and VK007680KWWFQ Drives
Version: HPK3 (F) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-54addf5312-HPK3-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-54addf5312-HPK3-6.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This FW change resolves a MCTP VDM compliance issue seen by iLO version 2.30.
- For more information, refer to HPE Customer Advisory at the following URL:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00111061en_us

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - MO001600KWVNB, MO003200KWVNC, MO006400KWVND, MT001600KWSTB, MT003200KWSTC and MT006400KWSTD Drives
Version: HPK3 (C) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-cea219e4b1-HPK3-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-cea219e4b1-HPK3-3.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - MO001600KWZQP and MO003200KWZQQ Drives

Version: HPK5 (D) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-95b6ae2e85-HPK5-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-95b6ae2e85-HPK5-4.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Optimized T-offset setting.
- Change MQES setting to 8192.
- Fixed LED Behavior misaligned specs issue.
- Fixed performance drop issue when 4+ SSD are installed.
- The Idle Power Management fix to keep the drive from entering and exiting the Lower Power Idle mode too frequently.
- For more information, refer to HPE Customer Advisory at the following URL:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00112800en_us

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - MT001600KWHAC, MT003200KWHAD and MT006400KWHAE Drives

Version: HPK1 (C) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-8e8ddc5265-HPK1-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8e8ddc5265-HPK1-3.1.x86_64.rpm

Fixes

- Firmware corrects an issue where the drive will be in a failed state after an unexpected power loss. When this occurs the drive will not recover after subsequent power cycles and will not be accessible by the system configuration and Host applications.
- Refer Customer Bulletin for workarounds https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00042733en_us

Online NVMe SSD Flash Component for Linux (x64) - MZPLJ1T6HBJR-000H3, MZPLJ3T2HBJR-000H3 and MZPLJ6T4HALA-000H3 Drives

Version: EPK75H3Q (B) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-6628fce235-EPK75H3Q-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-6628fce235-EPK75H3Q-2.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Fixed False UECC issue at idle power mode.
- Old FW download Blocking (EPK70H3Q~EPK74H3Q).
- FW is changed off the option of TX data alignment for each lane.
- FW is changed to clear the interrupt after TLP Complete when PCIe config read operation.
- For more information, refer to HPE Customer Bulletin at the following
URL: https://support.hpe.com/hpsc/public/docDisplay?docId=emr_na-a00113342en_us

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - MZXL5800HBHQ-000H3, MZXL51T6HBJR-000H3, MZXL53T2HBLS-000H3, MZXL56T4HALA-000H3, MZXL512THALA-000H3, MZXL5960HBHQ-000H3, MZXL51T9HBJR-000H3, MZXL53T8HBLS-000H3, MZXL57T6HALA-000H3 and MZXL515THALA-000H3 Drive

Version: MPK75H5Q (C) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-e320db791d-MPK75H5Q-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-e320db791d-MPK75H5Q-3.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Fixed False UECC issue at idle power mode (12.8TB and 15.36TB only).
- Apply PCLK running PHY option, PLL clock disable can be avoided in lane 0 missing case.
- Old FW download Blocking.
- FW is changed off the option of TX data alignment for each lane.
- FW is changed to clear the interrupt after TLP Complete when PCIe config read operation.
- For more information, refer to HPE Customer Bulletin at the following URL: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00113342en_us

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - VO000960KXAVL, VO001920KXAVP, VO003840KXAVQ, VO007680KXAVR, MO000800KXAVN, MO001600KXAVT, MO003200KXAVU and MO006400KXAVV Drives
Version: HPK3 (B) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-035a863453-HPK3-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-035a863453-HPK3-2.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This Firmware release contains various drive interoperability enhancements and code fixes accumulated since the last firmware release, as well as a change to disable MCTP over PCIe VDM function per requested of HPE, and a PHY setting change for improved compatibility with Intel Ice Lake based Gen10 Plus DL360 platform.
- For more information, refer to HPE Customer Bulletin at the following URL: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00115201en_us

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - VO001000KWJSE, VO002000KWJSF, VO004000KWJSH, VT004000KWJSU, MO001600KWJSN and MO003200KWJSQ Drives
Version: 4ICDHPK1 (B) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-1656c1b14a-4ICDHPK1-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-1656c1b14a-4ICDHPK1-2.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This firmware corrects the potential for a drive to become disabled and nonfunctional during certain conditions or workloads.
- After the drive is upgraded to firmware version HPK1, it cannot be downgraded to firmware version HPK0.

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - VO001920KWVMT, VO003840KWVMU, and VO007680KWVMV Drives
Version: HPK3 (C) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-fe9c474847-HPK3-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-fe9c474847-HPK3-3.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - VO001920KWZQR and VO003840KWZQT Drives

Version: HPK5 (D) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-2af7385a1e-HPK5-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-2af7385a1e-HPK5-4.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Optimized T-offset setting.
- Change MQES setting to 8192.
- Fixed LED Behavior misaligned specs issue.
- Fixed performance drop issue when 4+ SSD are installed.
- The Idle Power Management fix to keep the drive from entering and exiting the Lower Power Idle mode too frequently.
- For more information, refer to HPE Customer Advisory at the following URL:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00112800en_us

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - VO002000KWVVC, VO004000KWVUR, MO001600KWVUU, MO003200KWVUV and MO006400KWVVA Drives

Version: 4ICRHPK3 (C) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-92d876cfea-4ICRHPK3-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-92d876cfea-4ICRHPK3-3.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to 4ICRHPK3 that may result in SSD failure starting at 4,700 hours of operation, neither the SSD nor the data can be recovered, after the SSD failure occurs.
- For more information, refer to HPE Customer Bulletin at the following URL: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00111900en_us

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - VO0400KEFJB, VO1200KEFJC and VO2000KEFJD Drives

Version: HPK4 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-9a826ccd8a-HPK4-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-9a826ccd8a-HPK4-6.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online NVMe SSD Flash Component for Linux (x64) - VS000480KXALB, VS003840KWXFQ, VS001920KWXFP and VS000960KWXFN Drives

Version: 85032G00 **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-805abb7e9c-85032G00-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-805abb7e9c-85032G00-1.1.x86_64.rpm

Fixes

- Implements FW-based VPD.
- ARP setting is changed from "Capable & Discoverable" to "Fixed & Discoverable".
- A minor tweak to the Foreground Media Scan (FMS) algorithm to ensure critical variables are initialized properly.

Online NVMe SSD Flash Component for VMware ESXi - MK000400KWDUK, VK000480KWDUE, MK000800KWDUL, VK000960KWDUF, MK001600KWDUN and VK001920KWDUH Drives
Version: HPK4 (G) **(Recommended)**
Filename: CP048486.compsig; CP048486.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - MO001600KWZQP and MO003200KWZQQ Drives
Version: HPK5 (C) **(Critical)**
Filename: CP048472.compsig; CP048472.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Optimized T-offset setting.
- Change MQES setting to 8192.
- Fixed LED Behavior misaligned specs issue.
- Fixed performance drop issue when 4+ SSD are installed.
- The Idle Power Management fix to keep the drive from entering and exiting the Lower Power Idle mode too frequently.

- For more information, refer to HPE Customer Advisory at the following URL:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00112800en_us

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - MO0400KEFHN, MO0800KEFHP, MO1600KEFHQ, MO2000KEFHR, MT0800KEXUU and MT1600KEXUV Drives
Version: HPK4 (E) **(Recommended)**
Filename: CP048489.compsig; CP048489.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - MT001600KWHAC, MT003200KWHAD and MT006400KWHAE Drives
Version: HPK1 **(Critical)**
Filename: CP050549.compsig; CP050549.zip

Fixes

- Firmware corrects an issue where the drive will be in a failed state after an unexpected power loss. When this occurs the drive will not recover after subsequent power cycles and will not be accessible by the system configuration and Host applications.
- Refer Customer Bulletin for workarounds https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00042733en_us

Online NVMe SSD Flash Component for VMware ESXi - VO001920KWVMT, VO003840KWVMU, and VO007680KWVMV Drives
Version: HPK3 (B) **(Recommended)**
Filename: CP048469.compsig; CP048469.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - VO001920KWZQR and VO003840KWZQT Drives

Version: HPK5 (C) **(Critical)**

Filename: CP048473.compsig; CP048473.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Optimized T-offset setting.
- Change MQES setting to 8192.
- Fixed LED Behavior misaligned specs issue.
- Fixed performance drop issue when 4+ SSD are installed.
- The Idle Power Management fix to keep the drive from entering and exiting the Lower Power Idle mode too frequently.
- For more information, refer to HPE Customer Advisory at the following URL:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00112800en_us

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - VS000480KWDUP, VS000960KWDUQ, MS000400KWDUR and MS000800KWDUT Drives

Version: HPK4 (E) **(Recommended)**

Filename: CP048484.compsig; CP048484.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - ET000750KWJTF, EO000750KWTXC and EO000375KWJUC Drives

Version: 4ICSHPK4 (B) **(Recommended)**

Filename: CP048513.compsig; CP048513.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - KCD6XVUL800G, KCD6XVUL1T60, KCD6XVUL3T20, KCD6XVUL6T40, KCD6XVUL12T8, KCD6XLUL960G, KCD6XLUL1T92, KCD6XLUL3T84, KCD6XLUL7T68 and KCD6XLUL15T3 Drives

Version: GPK3 (B) **(Recommended)**

Filename: CP049279.compsig; CP049279.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - KCM6XVUL800G, KCM6XVUL1T60, KCM6XVUL3T20, KCM6XVUL6T40, KCM6XRUL960G, KCM6XRUL1T92, KCM6XRUL3T84 and KCM6XRUL7T68 Drives
Version: GPK3 (B) **(Recommended)**
Filename: CP049284.compsig; CP049284.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - LO0400KEFJQ, LO0800KEFJR, LO1600KEFJT, LO2000KEFJU, LT0800KEXVA, LT1600KEXVB, and LT2000KEXVC Drives
Version: HPK4 (E) **(Recommended)**
Filename: CP045718.compsig; CP045718.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc.

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - MK000800KWWFE, MK001600KWWFF, MK003200KWWFH, MK006400KWWFK, VK000960KWWFL, VK001920KWWFN, VK003840KWWFP and VK007680KWWFQ Drives
Version: HPK3 (C) **(Critical)**
Filename: CP048467.compsig; CP048467.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This FW change resolves a MCTP VDM compliance issue seen by iLO version 2.30.
- For more information, refer to HPE Customer Advisory at the following URL:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00111061en_us

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - MO001600KWVNB, MO003200KWVNC, MO006400KWVND, MT001600KWSTB, MT003200KWSTC and MT006400KWSTD Drives
Version: HPK3 (B) **(Recommended)**
Filename: CP048478.compsig; CP048478.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - MZPLJ1T6HBJR-000H3, MZPLJ3T2HBJR-000H3 and MZPLJ6T4HALA-000H3 Drives
Version: EPK75H3Q (B) **(Critical)**
Filename: CP048458.compsig; CP048458.zip

Fixes

- Fixed False UECC issue at idle power mode.
- Old FW download Blocking (EPK70H3Q~EPK74H3Q).

- FW is changed off the option of TX data alignment for each lane.
- FW is changed to clear the interrupt after TLP Complete when PCIe config read operation.
- For more information, refer to HPE Customer Bulletin at the following
URL: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00113342en_us

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - MZXL5800HBHQ-000H3, MZXL51T6HBJR-000H3, MZXL53T2HBLS-000H3, MZXL56T4HALA-000H3, MZXL512THALA-000H3, MZXL5960HBHQ-000H3, MZXL51T9HBJR-000H3, MZXL53T8HBLS-000H3, MZXL57T6HALA-000H3 and MZXL515THALA-00H3 Drive
Version: MPK75H5Q (B) **(Critical)**
Filename: CP048456.compsig; CP048456.zip

Fixes

- Fixed False UECC issue at idle power mode (12.8TB and 15.36TB only).
- Apply PCLK running PHY option, PLL clock disable can be avoided in lane 0 missing case.
- Old FW download Blocking.
- FW is changed off the option of TX data alignment for each lane.
- FW is changed to clear the interrupt after TLP Complete when PCIe config read operation.
- For more information, refer to HPE Customer Bulletin at the following
URL: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00113342en_us

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - VO000960KXAVL, VO001920KXAVP, VO003840KXAVQ, VO007680KXAVR, MO000800KXAVN, MO001600KXAVT, MO003200KXAVU and MO006400KXAVV Drives
Version: HPK3 (B) **(Critical)**
Filename: CP049302.compsig; CP049302.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This Firmware release contains various drive interoperability enhancements and code fixes accumulated since the last firmware release, as well as a change to disable MCTP over PCIe VDM function per requested of HPE, and a PHY setting change for improved compatibility with Intel Ice Lake based Gen10 Plus DL360 platform.
- For more information, refer to HPE Customer Bulletin at the following URL:
https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00115201en_us

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - VO001000KWJSE, VO002000KWJSF, VO004000KWJSH, VT004000KWJSU, MO001600KWJSN and MO003200KWJSQ Drives
Version: 4ICDHPK1 (B) **(Recommended)**
Filename: CP048471.compsig; CP048471.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This firmware corrects the potential for a drive to become disabled and nonfunctional during certain conditions or workloads.
- After the drive is upgraded to firmware version HPK1, it cannot be downgraded to firmware version HPK0.

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - VO002000KWVVC, VO004000KWVUR, MO001600KWVUU, MO003200KWVUV and MO006400KWVVA Drives

Version: 4ICRHPK3 (B) **(Critical)**

Filename: CP048511.compsig; CP048511.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to 4ICRHPK3 that may result in SSD failure starting at 4,700 hours of operation, neither the SSD nor the data can be recovered, after the SSD failure occurs.
- For more information, refer to HPE Customer Bulletin at the following URL: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00111900en_us

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - VO0400KEFJB, VO1200KEFJC and VO2000KEFJD Drives

Version: HPK4 (E) **(Recommended)**

Filename: CP045719.compsig; CP045719.zip

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc.

Enhancements

- Added support for VMware 7.0 U3

Online NVMe SSD Flash Component for VMware ESXi - VS000480KXALB, VS000960KWXFN, VS001920KWXFP and VS003840KWXFQ Drives

Version: 85032G00 (**Recommended**)
Filename: CP049351.compsig; CP049351.zip

Fixes

- Implements FW-based VPD.
- ARP setting is changed from "Capable & Discoverable" to "Fixed & Discoverable".
- A minor tweak to the Foreground Media Scan (FMS) algorithm to ensure critical variables are initialized properly.

Online NVMe SSD Flash Component for Windows (x64) - MK000400KWDUK, VK000480KWDUE, MK000800KWDUL, VK000960KWDUF, MK001600KWDUN and VK001920KWDUH Drives

Version: HPK4 (D) (**Recommended**)
Filename: cp048479.compsig; cp048479.exe; cp048479.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online NVMe SSD Flash Component for Windows (x64) - MO0400KEFHN, MO0800KEFHP, MO1600KEFHQ, MO2000KEFHR, MT0800KEXUU and MT1600KEXUV Drives

Version: HPK4 (D) (**Recommended**)
Filename: cp048475.compsig; cp048475.exe; cp048475.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online NVMe SSD Flash Component for Windows (x64) - MT001600KWHAC, MT003200KWHAD and MT006400KWHAE Drives

Version: HPK1 **(Critical)**

Filename: cp050550.compsig; cp050550.exe; cp050550.md5

Fixes

- Firmware corrects an issue where the drive will be in a failed state after an unexpected power loss. When this occurs the drive will not recover after subsequent power cycles and will not be accessible by the system configuration and Host applications.
- Refer Customer Bulletin for workarounds https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00042733en_us

Online NVMe SSD Flash Component for Windows (x64) - VS000480KWDUP, VS000960KWDUQ, MS000400KWDUR and MS000800KWDUT Drives

Version: HPK4 (D) **(Recommended)**

Filename: cp048487.compsig; cp048487.exe; cp048487.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online NVMe SSD Flash Component for Windows (x64) - ET000750KWJTF, EO000750KWTXC and EO000375KWJUC Drives

Version: 4ICSHPK4 (B) **(Recommended)**

Filename: cp048692.compsig; cp048692.exe; cp048692.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online NVMe SSD Flash Component for Windows (x64) - KCD6XVUL800G, KCD6XVUL1T60, KCD6XVUL3T20, KCD6XVUL6T40, KCD6XVUL12T8, KCD6XLUL960G, KCD6XLUL1T92, KCD6XLUL3T84, KCD6XLUL7T68 and KCD6XLUL15T3 Drives
Version: GPK3 (B) **(Recommended)**
Filename: cp049282.compsig; cp049282.exe; cp049282.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online NVMe SSD Flash Component for Windows (x64) - KCM6XVUL800G, KCM6XVUL1T60, KCM6XVUL3T20, KCM6XVUL6T40, KCM6XRUL960G, KCM6XRUL1T92, KCM6XRUL3T84 and KCM6XRUL7T68 Drives
Version: GPK3 (B) **(Recommended)**
Filename: cp049285.compsig; cp049285.exe; cp049285.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online NVMe SSD Flash Component for Windows (x64) - LO0400KEFJQ, LO0800KEFJR, LO1600KEFJT, LO2000KEFJU, LT0800KEXVA, LT1600KEXVB, and LT2000KEXVC Drives
Version: HPK4 (D) **(Recommended)**
Filename: cp048428.compsig; cp048428.exe; cp048428.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online NVMe SSD Flash Component for Windows (x64) - MK000800KWWFE, MK001600KWWFF, MK003200KWWFH, MK006400KWWFK, VK000960KWWFL, VK001920KWWFN, VK003840KWWFP and VK007680KWWFQ Drives

Version: HPK3 (C) **(Critical)**

Filename: cp048463.compsig; cp048463.exe; cp048463.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This FW change resolves a MCTP VDM compliance issue seen by iLO version 2.30.
- For more information, refer to HPE Customer Advisory at the following URL:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00111061en_us

Enhancements

- Added support for Microsoft Server Windows 2022.

Online NVMe SSD Flash Component for Windows (x64) - MO001600KWVNB, MO003200KWVNC, MO006400KWVND, MT001600KWSTB, MT003200KWSTC and MT006400KWSTD Drives

Version: HPK3 (B) **(Recommended)**

Filename: cp048684.compsig; cp048684.exe; cp048684.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online NVMe SSD Flash Component for Windows (x64) - MO001600KWZQP and MO003200KWZQQ Drives
Version: HPK5 (C) **(Critical)**
Filename: cp048685.compsig; cp048685.exe; cp048685.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Optimized T-offset setting.
- Change MQES setting to 8192.
- Fixed LED Behavior misaligned specs issue.
- Fixed performance drop issue when 4+ SSD are installed.
- The Idle Power Management fix to keep the drive from entering and exiting the Lower Power Idle mode too frequently.
- For more information, refer to HPE Customer Advisory at the following URL:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00112800en_us

Enhancements

- Added support for Microsoft Server Windows 2022.

Online NVMe SSD Flash Component for Windows (x64) - MZPLJ1T6HBJR-000H3, MZPLJ3T2HBJR-000H3 and MZPLJ6T4HALA-000H3 Drives
Version: EPK75H3Q (B) **(Critical)**
Filename: cp048301.compsig; cp048301.exe; cp048301.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Fixed False UECC issue at idle power mode.
- Old FW download Blocking (EPK70H3Q~EPK74H3Q).
- FW is changed off the option of TX data alignment for each lane.
- FW is changed to clear the interrupt after TLP Complete when PCIe config read operation.
- For more information, refer to HPE Customer Bulletin at the following URL: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00113342en_us

Enhancements

- Added support for Microsoft Windows Server 2022.

Online NVMe SSD Flash Component for Windows (x64) - MZXL5800HBHQ-000H3, MZXL51T6HBJR-000H3, MZXL53T2HBLS-000H3, MZXL56T4HALA-000H3, MZXL512THALA-000H3, MZXL5960HBHQ-000H3, MZXL51T9HBJR-000H3, MZXL53T8HBLS-000H3, MZXL57T6HALA-000H3 and MZXL515THALA-0 Drives
Version: MPK75H5Q (B) **(Critical)**
Filename: cp048464.compsig; cp048464.exe; cp048464.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Fixed False UECC issue at idle power mode (12.8TB and 15.36TB only).
- Apply PCLK running PHY option, PLL clock disable can be avoided in lane 0 missing case.
- Old FW download Blocking.
- FW is changed off the option of TX data alignment for each lane.
- FW is changed to clear the interrupt after TLP Complete when PCIe config read operation.
- For more information, refer to HPE Customer Bulletin at the following URL: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00113342en_us

Enhancements

- Added support for Microsoft Server Windows 2022.

Online NVMe SSD Flash Component for Windows (x64) - VO000960KXAVL, VO001920KXAVP, VO003840KXAVQ, VO007680KXAVR, MO000800KXAVN, MO001600KXAVT, MO003200KXAVU and MO006400KXAVV Drives
Version: HPK3 (B) **(Critical)**
Filename: cp049303.compsig; cp049303.exe; cp049303.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This Firmware release contains various drive interoperability enhancements and code fixes accumulated since the last firmware release, as well as a change to disable MCTP over PCIe VDM function per requested of HPE, and a PHY setting change for improved compatibility with Intel Ice Lake based Gen10 Plus DL360 platform.
- For more information, refer to HPE Customer Bulletin at the following URL:
https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00115201en_us

Enhancements

- Added support for Microsoft Windows Sever 2022.

Online NVMe SSD Flash Component for Windows (x64) - VO001000KWJSE, VO002000KWJSF, VO004000KWJSH, VT004000KWJSU, MO001600KWJSN and MO003200KWJSQ Drives
Version: 4ICDHPK1 (B) **(Critical)**
Filename: cp048438.compsig; cp048438.exe; cp048438.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This firmware corrects the potential for a drive to become disabled and nonfunctional during certain conditions or workloads.
- After the drive is upgraded to firmware version HPK1, it cannot be downgraded to firmware version HPK0.

Enhancements

- Added support for Microsoft Server Windows 2022

Online NVMe SSD Flash Component for Windows (x64) - VO001920KWVMT, VO003840KWVMU, and VO007680KWVMV Drives
Version: HPK3 (B) **(Recommended)**
Filename: cp048462.compsig; cp048462.exe; cp048462.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online NVMe SSD Flash Component for Windows (x64) - VO001920KWZQR and VO003840KWZQT Drives
Version: HPK5 (C) **(Critical)**
Filename: cp048687.compsig; cp048687.exe; cp048687.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Optimized T-offset setting.
- Change MQES setting to 8192.

- Fixed LED Behavior misaligned specs issue.
- Fixed performance drop issue when 4+ SSD are installed.
- The Idle Power Management fix to keep the drive from entering and exiting the Lower Power Idle mode too frequently.
- For more information, refer to HPE Customer Advisory at the following URL:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00112800en_us

Enhancements

- Added support for Microsoft Server Windows 2022.

Online NVMe SSD Flash Component for Windows (x64) - VO002000KWVVC, VO004000KWVUR, MO001600KWVUU, MO003200KWVUV and MO006400KWVVA Drives
Version: 4ICRHPK3 (B) **(Critical)**
Filename: cp048693.compsig; cp048693.exe; cp048693.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to 4ICRHPK3 that may result in SSD failure starting at 4,700 hours of operation, neither the SSD nor the data can be recovered, after the SSD failure occurs.
- For more information, refer to HPE Customer Bulletin at the following URL: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00111900en_us

Enhancements

- Added support for Microsoft Server Windows 2022.

Online NVMe SSD Flash Component for Windows (x64) - VO0400KEFJB, VO1200KEFJC and VO2000KEFJD Drives
Version: HPK4 (D) **(Recommended)**
Filename: cp048476.compsig; cp048476.exe; cp048476.md5

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online NVMe SSD Flash Component for Windows (x64) - VS000480KXALB, VS003840KWXFQ, VS001920KWXFP and VS000960KWXFN drives
Version: 85032G00 (B) **(Recommended)**
Filename: cp050167.compsig; cp050167.exe; cp050167.md5

Fixes

- Implements FW-based VPD.
- ARP setting is changed from "Capable & Discoverable" to "Fixed & Discoverable".
- A minor tweak to the Foreground Media Scan (FMS) algorithm to ensure critical variables are initialized properly.

Firmware - Power Management

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Online ROM Flash for Linux - Advanced Power Capping Microcontroller Firmware for HPE Gen10 and Gen10 Plus Servers

Version: 1.0.8 **(Optional)**

Filename: RPMS/x86_64/firmware-powerpic-gen10-1.0.8-1.1.x86_64.compsig; RPMS/x86_64/firmware-powerpic-gen10-1.0.8-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

Advanced Power Capping Microcontroller Firmware for HPE Gen10 and Gen10 Plus Servers

Release Version:

1.0.8

Last Recommended or Critical Revision:

1.0.4

Previous Revision:

1.0.7

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Fixed an issue of inaccurate temperature readings when the actual temperature exceeds 100 °C on Proliant Gen10 Plus servers.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Integrated Lights-Out 5 (iLO 5) Firmware version 1.40 and System ROM version 1.20 or later are required for HPE Gen10 servers.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Fixed an issue of inaccurate temperature readings when the actual temperature exceeds 100 °C on Proliant Gen10 Plus servers.

Known Issues:

None

Online ROM Flash for Windows x64 - Advanced Power Capping Microcontroller Firmware for HPE Gen10 and Gen10 Plus Servers

Version: 1.0.8 **(Optional)**

Filename: cp049266.compsig; cp049266.exe

Important Note!**Important Notes:**

None

Deliverable Name:

Advanced Power Capping Microcontroller Firmware for HPE Gen10 and Gen10 Plus Servers

Release Version:

1.0.8

Last Recommended or Critical Revision:

1.0.4

Previous Revision:

1.0.7

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Fixed an issue of inaccurate temperature readings when the actual temperature exceeds 100 °C on ProLiant Gen10 Plus servers.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Integrated Lights-Out 5 (iLO 5) Firmware version 1.40 and System ROM version 1.20 or later are required for HPE Gen10 servers.

Enhancements**Important Notes:**

None

Firmware Dependencies:

None

Problems Fixed:

Fixed an issue of inaccurate temperature readings when the actual temperature exceeds 100 °C on ProLiant Gen10 Plus servers.

Known Issues:

None

ROM Flash Firmware Package - Advanced Power Capping Microcontroller Firmware for HPE Gen10 and Gen10 Plus Servers

Version: 1.0.8 **(Optional)**

Filename: PICGen10-1.0.8-1.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

Advanced Power Capping Microcontroller Firmware for HPE Gen10 and Gen10 Plus Servers

Release Version:

1.0.8

Last Recommended or Critical Revision:

1.0.4

Previous Revision:

1.0.7

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Fixed an issue of inaccurate temperature readings when the actual temperature exceeds 100 °C on Proliant Gen10 Plus servers.

Known Issues:

None

Prerequisites

Integrated Lights-Out 5 (iLO 5) Firmware version 1.40 and System ROM version 1.20 or later are required for HPE Gen10 servers.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Fixed an issue of inaccurate temperature readings when the actual temperature exceeds 100 °C on Proliant Gen10 Plus servers.

Known Issues:

None

Firmware - SAS Storage Disk

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Online HDD/SSD Flash Component for Linux (x64) - EG000300JWBHR Drive

Version: HPD5 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-2e4c61fc63-HPD5-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-2e4c61fc63-HPD5-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EG000300JWFVB Drive

Version: HPD3 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-c5cd837c29-HPD3-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-c5cd837c29-HPD3-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EG000600JWEBH and EG000300JWEBF Drives

Version: HPD5 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-aa9e289524-HPD5-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-aa9e289524-HPD5-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EG000600JWFUV and EG001200JWFVA Drives

Version: HPD4 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-f0c91d2fe3-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-f0c91d2fe3-HPD4-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EG000600JWJNP and EG001200JWJNQ Drives

Version: HPD4 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-bdfb8e99d9-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-bdfb8e99d9-HPD4-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EG001800JWJNR and EG002400JWJNT Drives

Version: HPD6 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-b1c9eaf74c-HPD6-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b1c9eaf74c-HPD6-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EG0600JETKA, EG0900JETKB and EG1200JETKC Drives

Version: HPD8 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-7505dfb5ae-HPD8-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-7505dfb5ae-HPD8-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EK0800JVYPN, EO1600JVYPP, MK0800JVYPQ and MO1600JVYPR Drives

Version: HPD7 (D) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-481c8ea9a7-HPD7-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-481c8ea9a7-HPD7-4.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to HPD7 that results in SSD failure at 40,000 hours of operation (i.e., 4 years, 205 days 16 hours), neither the SSD nor the data can be recovered, after the SSD failure occurs.
- In addition, SSDs which were put into service at the same time will likely fail nearly simultaneously.
- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00097382en_us.

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.
-

Online HDD/SSD Flash Component for Linux (x64) - EO000400JWDKP, EO000800JWDKQ, EO001600JWDKR, MO000400JWDKU, MO000800JWDKV, MO001600JWDLA and MO003200JWDLB Drives

Version: HPD2 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-5dcf26fa42-HPD2-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-5dcf26fa42-HPD2-6.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB002000JWFVN and MB004000JWFVP Drives

Version: HPD4 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-d7af557f47-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-d7af557f47-HPD4-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB004000JWFK and MB006000JWFL Drives

Version: HPD4 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-f6d00bd17e-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-f6d00bd17e-HPD4-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB6000JVYZD and MB4000JVYZC Drives

Version: HPD4 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-e800e8d3b9-HPD4-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-e800e8d3b9-HPD4-6.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MM1000JEFRB and MM2000JEFRC Drives

Version: HPD9 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-b04257b77b-HPD9-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b04257b77b-HPD9-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MO000400JWUFT, MO000800JWUFU, MO001600JWUFV, MO003200JWUGA, MO006400JWUGB, EO000400JWUGC, EO000800JWUGD and EO001600JWUGE Drives

Version: HPD3 (C) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-ef93133161-HPD3-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-ef93133161-HPD3-3.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - VO000960JWTKB, VO001920JWTKL, VO003840JWTKN, VO007680JWTKP, MO000400JWTKQ, MO000800JWTKR, MO001600JWTKT, MO003200JWTKU, MO006400JWTKD, EO000400JWTKV, EO000800JWTKA and EO001600JWTKC Drives

Version: HPD9 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-9ad359dac1-HPD9-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-9ad359dac1-HPD9-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EG000300JWSJP, EG000600JWJNH and EG001200JWJNK Drives

Version: HPD5 **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-24fe569b72-HPD5-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-24fe569b72-HPD5-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- This firmware mitigates a potential reliability concern.

- The firmware applied the new seek recovery mechanism to improve the level-down condition and highly reduce the media errors from occurring.

Online HDD/SSD Flash Component for Linux (x64) - EG001800JWFVC Drive

Version: HPD4 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-693b9a2853-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-693b9a2853-HPD4-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EG001800JWJNL and EG002400JWJNN Drives

Version: HPD5 **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-852266afdf-HPD5-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-852266afdf-HPD5-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- This firmware mitigates a potential reliability concern.
- The firmware applied the new seek recovery mechanism to improve the level-down condition and highly reduce the media errors from occurring.

Online HDD/SSD Flash Component for Linux (x64) - EG0300FCSPH, EG0450FCSPK, EG0600FCSPL and EG0900FCSPN Drives

Version: HPD2 (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-7c1a1734f9-HPD2-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-7c1a1734f9-HPD2-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EG0300JEHLV, EG0600JEHMA, EG0900JEHMB and EG1200JEHMC Drives

Version: HPD5 (I) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-31f91b8622-HPD5-9.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-31f91b8622-HPD5-9.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EG0300JFCKA, EG0600JEMCV, EG0900JFCKB and EG1200JEMDA Drives

Version: HPD6 (I) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-ac3fda26eb-HPD6-9.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-ac3fda26eb-HPD6-9.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EG1800JEHMD Drive

Version: HPD6 (I) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-8a2c06af48-HPD6-9.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8a2c06af48-HPD6-9.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EG1800JEMDB Drive

Version: HPD5 (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-0a38b25661-HPD5-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-0a38b25661-HPD5-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EG1800JFHMH Drive

Version: HPD8 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-7fc5497116-HPD8-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-7fc5497116-HPD8-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EH000300JWCPK, EH000600JWCPL and EH000900JWCPN Drives

Version: HPD7 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-3d97759111-HPD7-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-3d97759111-HPD7-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EH000600JWCPF and EH000900JWCPH Drives

Version: HPD9 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-a05f29cef3-HPD9-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-a05f29cef3-HPD9-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EH000900JWHPK and EH000600JWHPH Drives

Version: HPD7 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-c7df7ceedb-HPD7-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-c7df7ceedb-HPD7-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EH000900JWHPH, EH000600JWHPN and EH000300JWHPL Drives

Version: HPD7 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-8d68452816-HPD7-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8d68452816-HPD7-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EH0300JDXBA, EH0450JDXBB and EH0600JDXBC Drives

Version: HPD5 (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-1cbab97ff0-HPD5-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-1cbab97ff0-HPD5-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EH0300JDYTH, EH0450JDYTK and EH0600JDYTL Drives

Version: HPD6 (I) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-b9340d29be-HPD6-9.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b9340d29be-HPD6-9.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EH0300JEDHC, EH0450JEDHD and EH0600JEDHE Drives

Version: HPD4 (I) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-8c4a212ff9-HPD4-9.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8c4a212ff9-HPD4-9.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EH0600JDYTN Drive

Version: HPD7 (H) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-f3faa195ff-HPD7-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-f3faa195ff-HPD7-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Fixes a data integrity risk where stale data is mistakenly used from cache.
- Fixes a data integrity risk where stale data is returned on an unaligned overlapped write-read operation.
- Fixes a data integrity risk during a sequential read and write workload when a recovered error is encountered, which could cause incomplete data to be read.

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - EO000400PXDDBQ, EO000800PXDCK, EO001600PXDCH, MO000800PXDBP, MO001600PXDCC, MO003200PXDCD, MO006400PXDCE, VO000960PXDBN, VO001920PXDBR, VO003840PXDBT, VO007680PXDBU and VO015300PXDBV Drives

Version: HPD2 **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-42aff4675b-HPD2-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-42aff4675b-HPD2-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- Fix command timeout and uncorrectable error improvement.
- Added features for SAS4 auto power swtiching and thermal requirement.

Online HDD/SSD Flash Component for Linux (x64) - MB004000JWKGU Drive

Version: HPD2 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-2c27a7a9a4-HPD2-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-2c27a7a9a4-HPD2-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB004000JWWQB, MB002000JWWQA and MB001000JWWPV Drives

Version: HPD6 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-adb3ab8147-HPD6-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-adb3ab8147-HPD6-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB006000JWKGN Drive

Version: HPD2 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-a886842a99-HPD2-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-a886842a99-HPD2-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB008000JWJRQ and MB006000JWJRP Drives

Version: HPD9 (B) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-faf39e0ff7-HPD9-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-faf39e0ff7-HPD9-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This firmware release provides additional protection against command timeouts.
- For more information, refer to HPE Customer Bulletin at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00117258en_us

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB008000JWRTD Drive

Version: HPD2 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-8b26d1ef02-HPD2-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8b26d1ef02-HPD2-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc.

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB008000JWWQP and MB006000JWWQN Drives

Version: HPD6 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-ae6b41e855-HPD6-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-ae6b41e855-HPD6-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB010000JWAYK and MB008000JWAYH Drives

Version: HPD6 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-6ec35faf90-HPD6-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-6ec35faf90-HPD6-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB010000JWZHA, MB012000JWZHB, MB014000JWZHC and MB016000JWZHE Drives

Version: HPD2 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-cf0b6cabe1-HPD2-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-cf0b6cabe1-HPD2-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB012000JWDFD Drive

Version: HPD3 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-aaf1014ede-HPD3-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-aaf1014ede-HPD3-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB014000JWRTH, MB012000JWRTF and MB010000JWRTE Drives

Version: HPD2 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-10385ef3e6-HPD2-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-10385ef3e6-HPD2-6.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB014000JWTFD and MB012000JWTFD Drives

Version: HPD8 (B) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-4ba9615f90-HPD8-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-4ba9615f90-HPD8-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This firmware release provides additional protection against command timeouts.
- For more information, refer to HPE Customer Bulletin at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00117258en_us

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB014000JWUDB Drive

Version: HPD3 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-cfd7436fcc-HPD3-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-cfd7436fcc-HPD3-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB016000JWXKH Drive

Version: HPD9 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-8a0371a425-HPD9-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8a0371a425-HPD9-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB016000JXLBA and MB018000JXLAU Drives

Version: HPD2 **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-d550523365-HPD2-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-d550523365-HPD2-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- VENDOR IDENTIFICATION field changed from “HP” to “HPE” and Reliability improvements.

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB1000JVYZL, MB2000JVYZN, MB3000JVYZP and MB4000JVYZQ Drives

Version: HPD3 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-b85516c7d2-HPD3-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b85516c7d2-HPD3-6.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB2000JFDSL and MB4000JFDSN Drives

Version: HPD4 (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-46fc43ab26-HPD4-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-46fc43ab26-HPD4-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB2000JFEML and MB4000JFEMN Drives

Version: HPD6 (H) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-624b75c7e2-HPD6-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-624b75c7e2-HPD6-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Corrects a potential data integrity issue caused by an in process write retry incorrectly starting at the wrong location. This issue was found during supplier ongoing reliability testing.
- The firmware also includes emergency power off improvements.

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB2000JFEPA and MB4000JFEPB Drives

Version: HPD5 (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-326de7c0f2-HPD5-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-326de7c0f2-HPD5-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB4000JEFNC and MB6000JEFND Drives

Version: HPD9 (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-af802bb412-HPD9-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-af802bb412-HPD9-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB4000JEQNL and MB6000JEQNN Drives

Version: HPDB (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-2cfaac41db-HPDB-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-2cfaac41db-HPDB-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB4000JEXYA and MB6000JEXYB Drives

Version: HPD9 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-0f923833e9-HPD9-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-0f923833e9-HPD9-6.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB6000JEQUV and MB8000JEQVA Drives

Version: HPDB (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-df22f7effd-HPDB-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-df22f7effd-HPDB-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB6000JVYYV Drive

Version: HPD2 (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-0595c2a887-HPD2-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-0595c2a887-HPD2-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB8000JFECQ Drive

Version: HPD7 (G) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-252770cdda-HPD7-7.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-252770cdda-HPD7-7.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MM1000JFJTH and MM002000JWCNF Drives

Version: HPD4 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-fa46c607d6-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-fa46c607d6-HPD4-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MO000400JWFVN, MO000800JWFVP, MO001600JFWQ, MO003200JFWR, MO000960JFWT, MO001920JFWU and MO003840JFWV Drives

Version: HPD5 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-b8a60fbe9a-HPD5-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b8a60fbe9a-HPD5-5.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MO000800JXBEV, MO001600JXBFP, MO003200JXBFQ, MO006400JXBFR, MO000960JXBFA, MO001920JXBFT, MO003840JXBFU, MO007680JXBGA, MO015360JXBFB, EO000400JXBEU, EO000800JXBFL and EO001600JXBFN Drives

Version: HPD1 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-24384980ec-HPD1-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-24384980ec-HPD1-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MO0200JEFNV, MO0400JEFPA, MO0800JEFPB, MO1600JEFPC, EO0200JEFPD, EO0400JEFPE and EO0800JEFPF Drives

Version: HPD3 (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-71af849f3b-HPD3-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-71af849f3b-HPD3-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MO0400JFFCF, MO0800JFFCH, MO1600JFFCK and MO3200JFFCL Drives

Version: HPD9 (D) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-edf6dcd906-HPD9-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-edf6dcd906-HPD9-4.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - VK000960JWSSQ, VK001920JWSSR, VK003840JWSST, VK007680JWSSU and VO015300JWSSV Drives

Version: HPD8 (E) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-1e51a57347-HPD8-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-1e51a57347-HPD8-5.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to HPD8 that results in SSD failure at 32,768 hours of operation (i.e., 3 years, 270 days 8 hours), neither the SSD nor the data can be recovered, after the SSD failure occurs.
- In addition, SSDs which were put into service at the same time will likely fail nearly simultaneously.
- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00092491en_us

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - VK0400JEABD, VK0800JEABE, and VO1600JEABF Drives

Version: HPD4 (B) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-8a7ecf7465-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8a7ecf7465-HPD4-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- If Power On Hours exceeds 70,000hrs, PM2R will report Hardware error (04/4C/A8) after the next Power Cycle and will not accept read/write commands. This fix will update storage location reporting when the maximum number of registrations in the Work Load Log read process reaches 70,000; the last registered 70,000th storage location will be modified to be read as the next (70,001st) storage location.
- For more information, refer to HPE Customer Advisory at the following URL:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00111296en_us

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - VO000480JWDAR, VO000960JWDAT, VO001920JWDAU and VO003840JWDAV Drives
Version: HPD8 (D) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-2eb810cdd7-HPD8-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-2eb810cdd7-HPD8-4.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to HPD8 that results in SSD failure at 32,768 hours of operation (i.e., 3 years, 270 days 8 hours), neither the SSD nor the data can be recovered, after the SSD failure occurs.
- In addition, SSDs which were put into service at the same time will likely fail nearly simultaneously.
- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00092491en_us

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - VO000800JWZJP, VO001600JWZJQ, VO003200JWZJR and VO006400JWZJT Drives

Version: HPD4 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-a07a420ed1-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-a07a420ed1-HPD4-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - VO000960JWZJF, VO001920JWZJH, VO003840JWZJK, VO007680JWZJL and VO015360JWZJN Drives

Version: HPD4 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-35fd24601f-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-35fd24601f-HPD4-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - VO000960RWUEV, VO001920RWUFA, VO003840RWUFB, VO007680RWUFC, VO000960RWUFD, VO001920RWUFE and VO003840RWUFF Drives

Version: HPD6 **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-8fafc9efb2-HPD6-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8fafc9efb2-HPD6-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- Reduced the occurrence probability of PMIC busy issue.
- Fixed the system data error at the drive power on issue.
- When the PLP operation starts, the waiting Unmap request to the 4KB not-aligned host write area is canceled to be able to complete PLP correctly.

Online HDD/SSD Flash Component for Linux (x64) - VO003840XZCLT, VO007680XZCMB, MO000800XZCLQ and MO001600XZCLV Drives

Version: HPD1 **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-8f501d6cf1-HPD1-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8f501d6cf1-HPD1-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- Fix command timeout and uncorrectable error improvement.
- Added features for SAS4 auto power switching and thermal requirement.

Online HDD/SSD Flash Component for Linux (x64) - VO007680JWCNK and VO015300JWCNL Drives

Version: HPD8 (D) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-4c048aaeb0-HPD8-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-4c048aaeb0-HPD8-4.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to HPD8 that results in SSD failure at 32,768 hours of operation (i.e., 3 years, 270 days 8 hours), neither the SSD nor the data can be recovered, after the SSD failure occurs.
- In addition, SSDs which were put into service at the same time will likely fail nearly simultaneously.

- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00092491en_us

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - VO0480JFDGT, VO0960JFDGU, VO1920JFDGV and VO3840JFDHA Drives

Version: HPD9 (D) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-8ed8893abd-HPD9-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8ed8893abd-HPD9-4.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - VO1920JEUQQ Drive

Version: HPD3 (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-5d9e841607-HPD3-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-5d9e841607-HPD3-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for VMware ESXi - EG000300JWBHR Drive

Version: HPD5 (B) **(Recommended)**

Filename: CP048248.compsig; CP048248.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EG000300JWFVB Drive

Version: HPD3 (B) **(Recommended)**

Filename: CP048245.compsig; CP048245.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EG000600JWEBH and EG000300JWEBF Drives

Version: HPD5 (B) **(Recommended)**

Filename: CP049345.compsig; CP049345.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EG000600JWFUV and EG001200JWFVA Drives

Version: HPD4 (B) **(Recommended)**

Filename: CP048250.compsig; CP048250.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EG000600JWJNP and EG001200JWJNQ Drives

Version: HPD4 (B) **(Recommended)**

Filename: CP048251.compsig; CP048251.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EG001800JWJNR and EG002400JWJNT Drives

Version: HPD6 (B) **(Recommended)**

Filename: CP048254.compsig; CP048254.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EG0600JETKA, EG0900JETKB and EG1200JETKC Drives

Version: HPD8 (B) **(Recommended)**

Filename: CP048264.compsig; CP048264.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EH000900JWHPK and EH000600JWHPH Drives

Version: HPD7 (B) **(Recommended)**

Filename: CP049135.compsig; CP049135.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EH000900JWHPP, EH000600JWHPN and EH000300JWHPL Drives

Version: HPD7 (B) **(Recommended)**

Filename: CP049136.compsig; CP049136.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EH0600JDYTN Drive

Version: HPD7 (H) **(Critical)**

Filename: CP048294.compsig; CP048294.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Fixes a data integrity risk where stale data is mistakenly used from cache.
- Fixes a data integrity risk where stale data is returned on an unaligned overlapped write-read operation.
- Fixes a data integrity risk during a sequential read and write workload when a recovered error is encountered, which could cause incomplete data to be read.Ä□Ä

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EO000400JWDKP, EO000800JWDKQ, EO001600JWDKR, MO000400JWDKU, MO000800JWDKV, MO001600JWDLA and MO003200JWDLB Drives
 Version: HPD2 (F) **(Recommended)**
 Filename: CP048297.compsig; CP048297.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3
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Online HDD/SSD Flash Component for VMware ESXi - EO000400PXDBQ, EO000800PXDCK, EO001600PXDCH, MO000800PXDBP, MO001600PXDCC, MO003200PXDCC, MO006400PXDCE, VO000960PXDBN, VO001920PXDDBR, VO003840PXDDBT, VO007680PXDDBU and VO015300PXDDBV Drives

Version: HPD2 (**Recommended**)

Filename: CP050382.compsig; CP050382.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- Fix command timeout and uncorrectable error improvement.
- Added features for SAS4 auto power switching and thermal requirement.

Online HDD/SSD Flash Component for VMware ESXi - MB002000JWFVN and MB004000JWFVP Drives

Version: HPD4 (B) (**Recommended**)

Filename: CP048318.compsig; CP048318.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB004000JWFK and MB006000JWFL Drives

Version: HPD4 (B) **(Recommended)**

Filename: CP048320.compsig; CP048320.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB010000JWZHA, MB012000JWZHB, MB014000JWZHC and MB016000JWZHE Drives

Version: HPD2 (B) **(Recommended)**

Filename: CP049051.compsig; CP049051.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB012000JWDFD Drive

Version: HPD3 (B) **(Recommended)**

Filename: CP048404.compsig; CP048404.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB2000JFEML and MB4000JFEMN Drives

Version: HPD6 (I) **(Critical)**

Filename: CP048361.compsig; CP048361.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Corrects a potential data integrity issue caused by an in process write retry incorrectly starting at the wrong location. This issue was found during supplier ongoing reliability testing.

- The firmware also includes emergency power off improvements.

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB4000JEQNL and MB6000JEQNN Drives

Version: HPDB (I) **(Recommended)**

Filename: CP048368.compsig; CP048368.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB6000JEQUV and MB8000JEQVA Drives

Version: HPDB (I) **(Recommended)**

Filename: CP048378.compsig; CP048378.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB6000JVYZD and MB4000JVYZC Drives

Version: HPD4 (G) **(Recommended)**

Filename: CP048380.compsig; CP048380.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MM1000JEFRB and MM2000JEFRB Drives

Version: HPD9 (B) **(Recommended)**

Filename: CP048391.compsig; CP048391.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MM1000JFJTH and MM002000JWCNF Drives

Version: HPD4 (B) **(Recommended)**

Filename: CP048392.compsig; CP048392.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MO000400JWUFT, MO000800JWUFU, MO001600JWUFV, MO003200JWUGA,

MO006400JWUGB, EO000400JWUGC, EO000800JWUGD and EO001600JWUGE Drives

Version: HPD3 (C) **(Recommended)**

Filename: CP048397.compsig; CP048397.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - VO000960JWBK, VO001920JWTL, VO003840JWBN, VO007680JWBP, MO000400JWBQ, MO000800JWBR, MO001600JWBT, MO003200JWBU, MO006400JWTC, EO000400JWTV, EO000800JWTC, EO001600JWTCB Drives
 Version: HPD9 (B) **(Recommended)**
 Filename: CP049147.compsig; CP049147.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - VO003840XZCLT, VO007680XZCMB, MO000800XZCLQ and MO001600XZCLV Drives
 Version: HPD1 **(Recommended)**
 Filename: CP050453.compsig; CP050453.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- Fix command timeout and uncorrectable error improvement.
- Added features for SAS4 auto power switching and thermal requirement.

Online HDD/SSD Flash Component for VMware ESXi - EG000300JWSJP, EG000600JWJNH and EG001200JWJNK Drives

Version: HPD5 **(Recommended)**

Filename: CP050179.compsig; CP050179.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- This firmware mitigates a potential reliability concern.
- The firmware applied the new seek recovery mechanism to improve the level-down condition and highly reduce the media errors from occurring.

Online HDD/SSD Flash Component for VMware ESXi - EG001800JWFVC Drive

Version: HPD4 (B) **(Recommended)**

Filename: CP048253.compsig; CP048253.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EG001800JWJNL and EG002400JWJNN Drives

Version: HPD5 **(Recommended)**

Filename: CP050184.compsig; CP050184.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- This firmware mitigates a potential reliability concern.
- The firmware applied the new seek recovery mechanism to improve the level-down condition and highly reduce the media errors from occurring.

Online HDD/SSD Flash Component for VMware ESXi - EG0300FCSPH, EG0450FCSPK, EG0600FCSPL and EG0900FCSPN Drives

Version: HPD2 (I) **(Recommended)**

Filename: CP048255.compsig; CP048255.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EG0300JEHLV, EG0600JEHMA, EG0900JEHMB, and EG1200JEHMC Drives

Version: HPD5 (J) **(Recommended)**

Filename: CP048261.compsig; CP048261.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EG0300JFCKA, EG0600JEMCV, EG0900JFCKB and EG1200JEMDA Drives

Version: HPD6 (I) **(Recommended)**

Filename: CP048263.compsig; CP048263.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EG1800JEHMD Drive

Version: HPD6 (J) **(Recommended)**

Filename: CP048265.compsig; CP048265.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EG1800JEMDB Drive

Version: HPD5 (I) **(Recommended)**

Filename: CP048266.compsig; CP048266.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EG1800JFHMH Drive

Version: HPD8 (B) **(Recommended)**

Filename: CP048270.compsig; CP048270.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EH000300JWCPK, EH000600JWCPL and EH000900JWCPN Drives

Version: HPD7 (B) **(Recommended)**

Filename: CP048286.compsig; CP048286.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EH000600JWCPF and EH000900JWCPH Drives

Version: HPD9 (B) **(Recommended)**

Filename: CP048272.compsig; CP048272.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EH0300JDXBA, EH0450JDXBB and EH0600JDXBC Drives

Version: HPD5 (I) **(Recommended)**

Filename: CP048291.compsig; CP048291.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EH0300JDYTH, EH0450JDYTK and EH0600JDYTL Drives

Version: HPD6 (J) **(Recommended)**

Filename: CP048292.compsig; CP048292.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EH0300JEDHC, EH0450JEDHD and EH0600JEDHE Drives

Version: HPD4 (J) **(Recommended)**

Filename: CP048293.compsig; CP048293.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - EK0800JVYPN, EO1600JVYPP, MK0800JVYPQ and MO1600JVYPR Drives

Version: HPD7 (D) **(Critical)**

Filename: CP048429.compsig; CP048429.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to HPD7 that results in SSD failure at 40,000 hours of operation (i.e., 4 years, 205 days 16 hours), neither the SSD nor the data can be recovered, after the SSD failure occurs.
- In addition, SSDs which were put into service at the same time will likely fail nearly simultaneously.
- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00097382en_us.

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB004000JWKGU Drive

Version: HPD2 (B) **(Recommended)**

Filename: CP048321.compsig; CP048321.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB004000JWWQB, MB002000JWWQA and MB001000JWWPV Drives

Version: HPD6 (B) **(Recommended)**

Filename: CP048431.compsig; CP048431.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB006000JWKGN Drive

Version: HPD2 (B) **(Recommended)**

Filename: CP048330.compsig; CP048330.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB008000JWJRQ and MB006000JWJRP Drives

Version: HPD9 (B) **(Critical)**

Filename: CP049132.compsig; CP049132.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This firmware release provides additional protection against command timeouts.
- For more information, refer to HPE Customer Bulletin at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00117258en_us

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB008000JWRTD Drive

Version: HPD2 (B) **(Recommended)**

Filename: CP048332.compsig; CP048332.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB008000JWWQP and MB006000JWWQN Drives

Version: HPD6 (B) **(Recommended)**

Filename: CP048426.compsig; CP048426.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB010000JWAYK and MB008000JWAYH Drives

Version: HPD6 (B) **(Recommended)**

Filename: CP048334.compsig; CP048334.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB014000JWTFD and MB012000JWTFD Drives

Version: HPD8 (B) **(Critical)**

Filename: CP049120.compsig; CP049120.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This firmware release provides additional protection against command timeouts.
- For more information, refer to HPE Customer Bulletin at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00117258en_us

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB014000JWUDB Drive
 Version: HPD3 (B) **(Recommended)**
 Filename: CP048341.compsig; CP048341.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB016000JWXXH Drive

Version: HPD9 (B) **(Recommended)**

Filename: CP049124.compsig; CP049124.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3.

Online HDD/SSD Flash Component for VMware ESXi - MB016000JXLBA and MB018000JXLAU Drives

Version: HPD2 **(Recommended)**

Filename: CP049256.compsig; CP049256.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- VENDOR IDENTIFICATION field changed from "HP" to "HPE" and Reliability improvements.

Enhancements

- Added support for VMware 7.0 U3.

Online HDD/SSD Flash Component for VMware ESXi - MB1000JVYZL, MB2000JVYZN, MB3000JVYZP and MB4000JVYZQ Drives

Version: HPD3 (F) **(Recommended)**

Filename: CP048344.compsig; CP048344.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB2000JFDSL and MB4000JFDSN Drives

Version: HPD4 (I) **(Recommended)**

Filename: CP048347.compsig; CP048347.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB2000JFEPA and MB4000JFEPB Drives

Version: HPD5 (I) **(Recommended)**

Filename: CP048362.compsig; CP048362.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB4000JEFNC and MB6000JEFND Drives

Version: HPD9 (I) **(Recommended)**

Filename: CP048367.compsig; CP048367.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB4000JEXYA and MB6000JEXYB Drives

Version: HPD9 (F) **(Recommended)**

Filename: CP048369.compsig; CP048369.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB6000JVYYV Drive

Version: HPD2 (I) **(Recommended)**

Filename: CP048379.compsig; CP048379.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MB8000JFECQ Drive

Version: HPD7 (H) **(Recommended)**

Filename: CP048382.compsig; CP048382.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MO000400JWFWN, MO000800JWFWP, MO001600JFWQ, MO003200JFWR, MO000960JFWT, MO001920JFWU and MO003840JFWV Drives

Version: HPD5 (F) **(Recommended)**

Filename: CP048393.compsig; CP048393.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MO000800JXBEV, MO001600JXBFP, MO003200JXBFQ, MO006400JXBFR, MO000960JXBFA, MO001920JXBFT, MO003840JXBFU, MO007680JXBGA, MO015360JXBFV, EO000400JXBEU, EO000800JXBFL and EO001600JXBFN Drives

Version: HPD1 (B) **(Recommended)**

Filename: CP049157.compsig; CP049157.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MO0200JEFNV, MO0400JEFPA, MO0800JEFPB, MO1600JEFPC, EO0200JEFPD, EO0400JEFPE and EO0800JEFPF Drives

Version: HPD3 (I) **(Recommended)**

Filename: CP048401.compsig; CP048401.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - MO0400JFFCF, MO0800JFFCH, MO1600JFFCK and MO3200JFFCL Drives
Version: HPD9 (D) **(Recommended)**
Filename: CP048439.compsig; CP048439.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - VK000960JWSSQ, VK001920JWSSR, VK003840JWSST, VK007680JWSSU and VO015300JWSSV Drives
Version: HPD8 (E) **(Critical)**
Filename: CP048446.compsig; CP048446.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to HPD8 that results in SSD failure at 32,768 hours of operation (i.e., 3 years, 270 days 8 hours), neither the SSD nor the data can be recovered, after the SSD failure occurs.
- In addition, SSDs which were put into service at the same time will likely fail nearly simultaneously.
- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00092491en_us

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - VK0400JEABD, VK0800JEABE, and VO1600JEABF Drives
Version: HPD4 (B) **(Critical)**
Filename: CP049410.compsig; CP049410.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- If Power On Hours exceeds 70,000hrs, PM2R will report Hardware error (04/4C/A8) after the next Power Cycle and will not accept read/write commands. This fix will update storage location reporting when the maximum number of registrations in the Work Load Log read process reaches 70,000; the last registered 70,000th storage location will be modified to be read as the next (70,001st) storage location.

- For more information, refer to HPE Customer Advisory at the following URL:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00111296en_us

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - VO000480JWDAR, VO000960JWDAT, VO001920JWDAU and VO003840JWDAV Drives
Version: HPD8 (G) **(Critical)**
Filename: CP048445.compsig; CP048445.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to HPD8 that results in SSD failure at 32,768 hours of operation (i.e., 3 years, 270 days 8 hours), neither the SSD nor the data can be recovered, after the SSD failure occurs.
- In addition, SSDs which were put into service at the same time will likely fail nearly simultaneously.
- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00092491en_us

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - VO000800JWZJP, VO001600JWZJQ, VO003200JWZJR and VO006400JWZJT Drives
Version: HPD4 (B) **(Recommended)**

Filename: CP048454.compsig; CP048454.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - VO000960JWZJF, VO001920JWZJH, VO003840JWZJK, VO007680JWZJL and VO015360JWZJN Drives

Version: HPD4 (B) (**Recommended**)

Filename: CP048455.compsig; CP048455.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3
-

Online HDD/SSD Flash Component for VMware ESXi - VO000960RWUEV, VO001920RWUFA, VO003840RWUFB, VO007680RWUFC, VO000960RWUFD, VO001920RWUFE and VO003840RWUFF Drives

Version: HPD6 (**Critical**)

Filename: CP049363.compsig; CP049363.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- Reduced the occurrence probability of PMIC busy issue.
- Fixed the system data error at the drive power on issue.
- When the PLP operation starts, the waiting Unmap request to the 4KB not-aligned host write area is canceled to be able to complete PLP correctly.

Online HDD/SSD Flash Component for VMware ESXi - VO007680JWCNK and VO015300JWCNL Drives

Version: HPD8 (E) (**Critical**)

Filename: CP048415.compsig; CP048415.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to HPD8 that results in SSD failure at 32,768 hours of operation (i.e., 3 years, 270 days 8 hours), neither the SSD nor the data can be recovered, after the SSD failure occurs.

- In addition, SSDs which were put into service at the same time will likely fail nearly simultaneously.
- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00092491en_us

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - VO0480JFDGT, VO0960JFDGU, VO1920JFDGV and VO3840JFDHA Drives
Version: HPD9 (D) **(Recommended)**
Filename: CP048437.compsig; CP048437.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi - VO1920JEUQQ Drive
Version: HPD3 (I) **(Recommended)**
Filename: CP048419.compsig; CP048419.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for VMware ESXi -MB014000JWRTH, MB012000JWRTF and MB010000JWRTE Drives

Version: HPD2 (F) **(Recommended)**

Filename: CP048340.compsig; CP048340.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for VMware 7.0 U3

Online HDD/SSD Flash Component for Windows (x64) - EG000300JWBHR Drive

Version: HPD5 (B) **(Recommended)**

Filename: cp048436.compsig; cp048436.exe; cp048436.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EG000300JWFVB Drive

Version: HPD3 (B) **(Recommended)**

Filename: cp048433.compsig; cp048433.exe; cp048433.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EG000300JWSJP, EG000600JWJNH and EG001200JWJNK Drives

Version: HPD5 **(Recommended)**

Filename: cp050181.compsig; cp050181.exe; cp050181.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- This firmware mitigates a potential reliability concern.
- The firmware applied the new seek recovery mechanism to improve the level-down condition and highly reduce the media errors from occurring.

Online HDD/SSD Flash Component for Windows (x64) - EG000600JWEBH and EG000300JWEBF Drives

Version: HPD5 (B) **(Recommended)**

Filename: cp049346.compsig; cp049346.exe; cp049346.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc.

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EG000600JWFUV and EG001200JWFVA Drives

Version: HPD4 (B) **(Recommended)**

Filename: cp048452.compsig; cp048452.exe; cp048452.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EG000600JWJNP and EG001200JWJNQ Drives

Version: HPD4 (B) **(Recommended)**

Filename: cp048457.compsig; cp048457.exe; cp048457.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EG001800JWFVC Drive

Version: HPD4 (B) **(Recommended)**

Filename: cp048459.compsig; cp048459.exe; cp048459.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EG001800JWJNL and EG002400JWJNN Drives

Version: HPD5 (**Recommended**)

Filename: cp050186.compsig; cp050186.exe; cp050186.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- This firmware mitigates a potential reliability concern.
- The firmware applied the new seek recovery mechanism to improve the level-down condition and highly reduce the media errors from occurring.

Online HDD/SSD Flash Component for Windows (x64) - EG001800JWJNR and EG002400JWJNT Drives

Version: HPD6 (B) (**Recommended**)

Filename: cp048242.compsig; cp048242.exe; cp048242.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EG0300FCSPH, EG0450FCSPK, EG0600FCSPH and EG0900FCSPN Drives

Version: HPD2 (G) **(Recommended)**

Filename: cp048481.compsig; cp048481.exe; cp048481.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EG0300JEHLV, EG0600JEHMA, EG0900JEHMB and EG1200JEHMC Drives

Version: HPD5 (H) **(Recommended)**

Filename: cp048482.compsig; cp048482.exe; cp048482.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EG0300JFCKA, EG0600JEMCV, EG0900JFCKB and EG1200JEMDA Drives

Version: HPD6 (G) **(Recommended)**

Filename: cp048483.compsig; cp048483.exe; cp048483.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EG0600JETKA, EG0900JETKB and EG1200JETKC Drives

Version: HPD8 (B) **(Recommended)**

Filename: cp048485.compsig; cp048485.exe; cp048485.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EG1800JEHMD Drive

Version: HPD6 (H) **(Recommended)**

Filename: cp048507.compsig; cp048507.exe; cp048507.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - EG1800JEMDB Drive

Version: HPD5 (G) **(Recommended)**

Filename: cp048508.compsig; cp048508.exe; cp048508.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - EG1800JFHH Drive

Version: HPD8 (B) **(Recommended)**

Filename: cp048509.compsig; cp048509.exe; cp048509.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - EH000300JWCPK, EH000600JWCPL and EH000900JWCPN Drives

Version: HPD7 (B) **(Recommended)**

Filename: cp048510.compsig; cp048510.exe; cp048510.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - EH000600JWCPF and EH000900JWCPH Drives

Version: HPD9 (B) **(Recommended)**

Filename: cp048516.compsig; cp048516.exe; cp048516.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - EH000900JWHPK and EH000600JWHPH Drives

Version: HPD7 (B) **(Recommended)**

Filename: cp049134.compsig; cp049134.exe; cp049134.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added supported for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EH000900JWHPP, EH000600JWHPN and EH000300JWHPL Drives

Version: HPD7 (B) **(Recommended)**

Filename: cp049138.compsig; cp049138.exe; cp049138.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EH0300JDXBA, EH0450JDXBB and EH0600JDXBC Drives

Version: HPD5 (G) **(Recommended)**

Filename: cp048517.compsig; cp048517.exe; cp048517.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EH0300JDYTH, EH0450JDYTK and EH0600JDYTL Drives

Version: HPD6 (H) **(Recommended)**

Filename: cp048515.compsig; cp048515.exe; cp048515.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EH0300JEDHC, EH0450JEDHD and EH0600JEDHE Drives

Version: HPD4 (I) **(Recommended)**

Filename: cp048520.compsig; cp048520.exe; cp048520.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EH0600JDYTN Drive

Version: HPD7 (F) **(Critical)**

Filename: cp048553.compsig; cp048553.exe; cp048553.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Fixes a data integrity risk where stale data is mistakenly used from cache.
- Fixes a data integrity risk where stale data is returned on an unaligned overlapped write-read operation.
- Fixes a data integrity risk during a sequential read and write workload when a recovered error is encountered, which could cause incomplete data to be read.

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EK0800JVYPN, EO1600JVYPP, MK0800JVYPQ and MO1600JVYPR Drives

Version: HPD7 (D) **(Critical)**

Filename: cp048651.compsig; cp048651.exe; cp048651.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to HPD7 that results in SSD failure at 40,000 hours of operation (i.e., 4 years, 205 days 16 hours), neither the SSD nor the data can be recovered, after the SSD failure occurs.
- In addition, SSDs which were put into service at the same time will likely fail nearly simultaneously.
- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00097382en_us.

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - EO000400JWDKP, EO000800JWDKQ, EO001600JWDKR, MO000400JWDKU, MO000800JWDKV, MO001600JWDLA and MO003200JWDLB Drives

Version: HPD2 (E) **(Recommended)**

Filename: cp048555.compsig; cp048555.exe; cp048555.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - EO000400PXDBQ, EO000800PXDCK, EO001600PXDCH, MO000800PXDBP, MO001600PXDCC, MO003200PXDCE, MO006400PXDCE, VO000960PXDDB, VO001920PXDDB, VO003840PXDDBT, VO007680PXDDBU and VO015300PXDDBV Drives

Version: HPD2 **(Recommended)**

Filename: cp050385.compsig; cp050385.exe; cp050385.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- Fix command timeout and uncorrectable error improvement.
- Added features for SAS4 auto power switching and thermal requirement.

Online HDD/SSD Flash Component for Windows (x64) - MB002000JWFVN and MB004000JWFVP Drives

Version: HPD4 (B) **(Recommended)**

Filename: cp048560.compsig; cp048560.exe; cp048560.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB004000JWFVK and MB006000JWFVL Drives

Version: HPD4 (B) **(Recommended)**

Filename: cp048562.compsig; cp048562.exe; cp048562.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB004000JWKGU Drive

Version: HPD2 (B) **(Recommended)**

Filename: cp048666.compsig; cp048666.exe; cp048666.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB004000JWWQB, MB002000JWWQA and MB001000JWWPV Drives

Version: HPD6 (B) **(Recommended)**

Filename: cp048653.compsig; cp048653.exe; cp048653.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB006000JWKGN Drive

Version: HPD2 (B) **(Recommended)**

Filename: cp048677.compsig; cp048677.exe; cp048677.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB008000JWJRQ and MB006000JWJRP Drives

Version: HPD9 (B) **(Critical)**

Filename: cp049130.compsig; cp049130.exe; cp049130.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This firmware release provides additional protection against command timeouts.
- For more information, refer to HPE Customer Bulletin at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00117258en_us

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB008000JWRTD Drive

Version: HPD2 (B) **(Recommended)**

Filename: cp048670.compsig; cp048670.exe; cp048670.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB008000JWWQP and MB006000JWWQN Drives

Version: HPD6 (B) **(Recommended)**

Filename: cp048649.compsig; cp048649.exe; cp048649.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB010000JWAYK and MB008000JWAYH Drives

Version: HPD6 (B) **(Recommended)**

Filename: cp048672.compsig; cp048672.exe; cp048672.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB010000JWZHA, MB012000JWZHB, MB014000JWZHC and MB016000JWZHE Drives
Version: HPD2 (B) **(Recommended)**
Filename: cp049052.compsig; cp049052.exe; cp049052.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB012000JWDFF Drive
Version: HPD3 (B) **(Recommended)**
Filename: cp048634.compsig; cp048634.exe; cp048634.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB014000JWRTH, MB012000JWRTE and MB010000JWRTE Drives

Version: HPD2 (E) **(Recommended)**

Filename: cp048547.compsig; cp048547.exe; cp048547.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB014000JWTFD and MB012000JWTFD Drives

Version: HPD8 (B) **(Critical)**

Filename: cp049123.compsig; cp049123.exe; cp049123.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This firmware release provides additional protection against command timeouts.
- For more information, refer to HPE Customer Bulletin at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00117258en_us

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB014000JWUDB Drive
Version: HPD3 (B) **(Recommended)**
Filename: cp048563.compsig; cp048563.exe; cp048563.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB016000JWXKH Drive
Version: HPD9 (B) **(Recommended)**
Filename: cp049126.compsig; cp049126.exe; cp049126.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB016000JXLBA and MB018000JXLAU Drives

Version: HPD2 **(Recommended)**

Filename: cp049254.compsig; cp049254.exe; cp049254.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- VENDOR IDENTIFICATION field changed from "HP" to "HPE" and Reliability improvements.

Enhancements

- Added support for Microsoft Windows Server 2022.
-

Online HDD/SSD Flash Component for Windows (x64) - MB1000JVYZL, MB2000JVYZN, MB3000JVYZP and MB4000JVYZQ Drives

Version: HPD3 (E) **(Recommended)**

Filename: cp048569.compsig; cp048569.exe; cp048569.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB2000JFDSL and MB4000JFDSN Drives

Version: HPD4 (G) **(Recommended)**

Filename: cp048589.compsig; cp048589.exe; cp048589.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB2000JFEML and MB4000JFEMN Drives

Version: HPD6 (G) **(Critical)**

Filename: cp048590.compsig; cp048590.exe; cp048590.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Corrects a potential data integrity issue caused by an in process write retry incorrectly starting at the wrong location. This issue was found during supplier ongoing reliability testing.
- The firmware also includes emergency power off improvements.

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB2000JFEPA and MB4000JFEPB Drives

Version: HPD5 (G) **(Recommended)**

Filename: cp048591.compsig; cp048591.exe; cp048591.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB4000JEFNC and MB6000JEFND Drives

Version: HPD9 (G) **(Recommended)**

Filename: cp048607.compsig; cp048607.exe; cp048607.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB4000JEQNL and MB6000JEQNN Drives

Version: HPDB (G) **(Recommended)**

Filename: cp048608.compsig; cp048608.exe; cp048608.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB4000JEXYA and MB6000JEXYB Drives

Version: HPD9 (E) **(Recommended)**

Filename: cp048609.compsig; cp048609.exe; cp048609.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB6000JEQUV and MB8000JEQVA Drives

Version: HPDB (G) **(Recommended)**

Filename: cp048614.compsig; cp048614.exe; cp048614.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB6000JVYYV Drive

Version: HPD2 (G) **(Recommended)**

Filename: cp048615.compsig; cp048615.exe; cp048615.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB6000JVYZD and MB4000JVYZC Drives

Version: HPD4 (E) **(Recommended)**

Filename: cp048617.compsig; cp048617.exe; cp048617.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MB8000JFECQ Drive

Version: HPD7 (F) **(Recommended)**

Filename: cp048619.compsig; cp048619.exe; cp048619.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MM1000JEFRB and MM2000JEFRC Drives

Version: HPD9 (B) **(Recommended)**

Filename: cp048625.compsig; cp048625.exe; cp048625.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MM1000JFJTH and MM002000JWCNF Drives

Version: HPD4 (B) **(Recommended)**

Filename: cp048626.compsig; cp048626.exe; cp048626.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc.

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MO000400JWFVN, MO000800JWFVP, MO001600JFWQ, MO003200JFWR, MO000960JFWT, MO001920JFWU and MO003840JFWV Drives

Version: HPD5 (E) **(Recommended)**

Filename: cp048627.compsig; cp048627.exe; cp048627.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MO000400JWUFT, MO000800JWUFU, MO001600JWUFV, MO003200JWUGA, MO006400JWUGB, EO000400JWUGC, EO000800JWUGD and EO001600JWUGE Drives

Version: HPD3 (C) **(Recommended)**

Filename: cp048628.compsig; cp048628.exe; cp048628.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MO000800JXBEV, MO001600JXBFP, MO003200JXBFQ, MO006400JXBFR, MO000960JXBFA, MO001920JXBFT, MO003840JXBFU, MO007680JXBGA, MO015360JXBFV, EO000400JXBEU, EO000800JXBFL and EO001600JXBFN Drives

Version: HPD1 (B) **(Recommended)**

Filename: cp049152.compsig; cp049152.exe; cp049152.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - MO0200JEFNV, MO0400JEFPA, MO0800JEFPB, MO1600JEFPC, EO0200JEFPD, EO0400JEFPE and EO0800JEFPF Drives

Version: HPD3 (G) **(Recommended)**

Filename: cp048630.compsig; cp048630.exe; cp048630.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - MO0400JFFCF, MO0800JFFCH, MO1600JFFCK and MO3200JFFCL Drives

Version: HPD9 (D) **(Recommended)**

Filename: cp048661.compsig; cp048661.exe; cp048661.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - VK000960JWSSQ, VK001920JWSSR, VK003840JWSST, VK007680JWSSU and VO015300JWSSV Drives

Version: HPD8 (D) **(Critical)**

Filename: cp048665.compsig; cp048665.exe; cp048665.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to HPD8 that results in SSD failure at 32,768 hours of operation (i.e., 3 years, 270 days 8 hours), neither the SSD nor the data can be recovered, after the SSD failure occurs.
- In addition, SSDs which were put into service at the same time will likely fail nearly simultaneously.
- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00092491en_us

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - VK0400JEABD, VK0800JEABE, and VO1600JEABF Drives

Version: HPD4 (B) **(Critical)**

Filename: cp049412.compsig; cp049412.exe; cp049412.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- If Power On Hours exceeds 70,000hrs, PM2R will report Hardware error (04/4C/A8) after the next Power Cycle and will not accept read/write commands. This fix will update storage location reporting when the maximum number of registrations in the Work Load Log read process reaches 70,000; the last registered 70,000th storage location will be modified to be read as the next (70,001st) storage location.
- For more information, refer to HPE Customer Advisory at the following URL:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00111296en_us

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - VO000480JWDAR, VO000960JWDAT, VO001920JWDAU and VO003840JWDAV Drives
Version: HPD8 (D) **(Critical)**
Filename: cp044739.compsig; cp044739.exe; cp044739.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- The issue affects SSDs with an HPE firmware version prior to HPD8 that results in SSD failure at 32,768 hours of operation (i.e., 3 years, 270 days 8 hours), neither the SSD nor the data can be recovered, after the SSD failure occurs.
- In addition, SSDs which were put into service at the same time will likely fail nearly simultaneously.
- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00092491en_us

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - VO000800JWZJP, VO001600JWZJQ, VO003200JWZJR and VO006400JWZJT Drives
 Version: HPD4 (B) **(Recommended)**
 Filename: cp048468.compsig; cp048468.exe; cp048468.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - VO000960JWTBK, VO001920JWTL, VO003840JWTCN, VO007680JWTCB, MO000400JWTCQ, MO000800JWTCR, MO001600JWTCB, MO003200JWTCU, MO006400JWTCB, EO000400JWTCB, EO000800JWTCB and EO001600JWTCB Drives
 Version: HPD9 (B) **(Recommended)**
 Filename: cp049146.compsig; cp049146.exe; cp049146.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Windows Server 2022.

Online HDD/SSD Flash Component for Windows (x64) - VO000960JWZJF, VO001920JWZJH, VO003840JWZJK, VO007680JWZJL and VO015360JWZJN Drives
 Version: HPD4 (B) **(Recommended)**
 Filename: cp048466.compsig; cp048466.exe; cp048466.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - VO000960RWUEV, VO001920RWUFA, VO003840RWUFB, VO007680RWUFC, VO000960RWUFD, VO001920RWUFE and VO003840RWUFF Drives
 Version: HPD6 **(Critical)**
 Filename: cp049365.compsig; cp049365.exe; cp049365.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- Reduced the occurrence probability of PMIC busy issue.
- Fixed the system data error at the drive power on issue.
- When the PLP operation starts, the waiting Unmap request to the 4KB not-aligned host write area is canceled to be able to complete PLP correctly.

Online HDD/SSD Flash Component for Windows (x64) - VO003840XZCLT, VO007680XZCMB, MO000800XZCLQ and MO001600XZCLV Drives
 Version: HPD1 **(Recommended)**
 Filename: cp050457.compsig; cp050457.exe; cp050457.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- Fix command timeout and uncorrectable error improvement.
- Added features for SAS4 auto power switching and thermal requirement.

Online HDD/SSD Flash Component for Windows (x64) - VO007680JWCNK and VO015300JWCNL Drives
 Version: HPD8 (D) **(Critical)**
 Filename: cp048644.compsig; cp048644.exe; cp048644.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc.

Fixes

- The issue affects SSDs with an HPE firmware version prior to HPD8 that results in SSD failure at 32,768 hours of operation (i.e., 3 years, 270 days 8 hours), neither the SSD nor the data can be recovered, after the SSD failure occurs.
- In addition, SSDs which were put into service at the same time will likely fail nearly simultaneously.
- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00092491en_us

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - VO0480JFDGT, VO0960JFDGU, VO1920JFDGV and VO3840JFDHA Drives
Version: HPD9 (D) **(Recommended)**
Filename: cp048660.compsig; cp048660.exe; cp048660.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Windows (x64) - VO1920JEUQQ Drive
Version: HPD3 (G) **(Recommended)**
Filename: cp048645.compsig; cp048645.exe; cp048645.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for Microsoft Server Windows 2022.

Firmware - SATA Storage Disk

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REMOVED Online HDD/SSD Flash Component for Windows (x64) - MB014000GWUDA Drive
Version: HPG3 (E) **(Recommended)**
Filename: cp048545.compsig; cp048545.exe; cp048545.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

REMOVED - Version HPG3(E) is NO LONGER AVAILABLE for download, it is the wrong package version built and published, removing to avoid misleading the customer. Customers need to wait for HPG2(F) in SepMSB SPP release.

Enhancements

- Added support for Microsoft Server Windows 2022.

Online HDD/SSD Flash Component for Linux (x64) - EK000200GWE PD, EK000400GWE PE, EK000800GWE PF and EK001600GWE PH Drives

Version: HPG3 (G) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-5bf9355926-HPG3-7.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-5bf9355926-HPG3-7.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB001000GWCBC and MB002000GWCBD Drives

Version: HPG6 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-68b12e54d2-HPG6-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-68b12e54d2-HPG6-6.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB001000GFWFK and MB002000GFWFL Drives

Version: HPG6 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-bfc4af697b-HPG6-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-bfc4af697b-HPG6-5.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB001000GWJAN, MB002000GFWFA and MB004000GFWFB Drives

Version: HPG1 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-d39e7a7e75-HPG1-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-d39e7a7e75-HPG1-6.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc...

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB002000GWFGH and MB001000GWFGF Drives

Version: HPG3 (H) **(Optional)**

Filename: rpm/RPMS/x86_64/firmware-hdd-0b575b5895-HPG3-8.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-0b575b5895-HPG3-8.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB004000GWKGV Drive

Version: HPG1 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-ca21e169e2-HPG1-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-ca21e169e2-HPG1-5.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB004000GWWQH, MB002000GWWQF and MB001000GWWQE Drives

Version: HPG3 (C) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-12304c1aca-HPG3-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-12304c1aca-HPG3-3.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB006000GWBXQ and MB008000GWBYL Drives

Version: HPG8 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-a1fd19f9ca-HPG8-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-a1fd19f9ca-HPG8-6.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc...

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB006000GWJRR and MB008000GWJRT Drives

Version: HPG4 (D) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-c993b31232-HPG4-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-c993b31232-HPG4-4.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB006000GWKGR Drive

Version: HPG1 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-7f2a26e6d0-HPG1-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-7f2a26e6d0-HPG1-5.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB008000GWRTC Drive

Version: HPG1 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-82894b9e0a-HPG1-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-82894b9e0a-HPG1-5.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB008000GWWQU and MB006000GWWQT Drives

Version: HPG2 (D) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-18e328f036-HPG2-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-18e328f036-HPG2-4.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB010000GWAYN and MB008000GWAYL Drives

Version: HPG5 (G) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-cc819d4bff-HPG5-7.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-cc819d4bff-HPG5-7.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This code corrects a potential data integrity issue related to unaligned write commands. This issue was only found in supplier ongoing lab testing.

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB012000GWDFE Drive

Version: HPG3 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-059b8654a6-HPG3-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-059b8654a6-HPG3-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB012000GWTFE and MB014000GWTFE Drives

Version: HPG7 (C) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-b78255e146-HPG7-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b78255e146-HPG7-3.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB014000GWRTN, MB012000GWRTL and MB010000GWRTE Drives

Version: HPG2 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-6b7ce3da0e-HPG2-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-6b7ce3da0e-HPG2-6.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB014000GWUDA Drive

Version: HPG2 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-41cdb1c9da-HPG2-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-41cdb1c9da-HPG2-5.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

Online HDD/SSD Flash Component for Linux (x64) - MB016000GWXKK Drive

Version: HPG3 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-e4f147cdd2-HPG3-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-e4f147cdd2-HPG3-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL 8.4 and SLES15SP3.

gine to run

Environment must have 32-bit netlink library (libnl.so) installed for component to be able to discover Emulex Host Bus Adapters(HBAs)

Enhancements

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.2
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.2
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.2
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.2

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters for Microsoft Windows Server 2016/2019/2022 x64

Version: 2022.03.01 (Recommended)

Filename: cp049957.compsig; cp049957.exe

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.21	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/>

The HPE supplied Emulex 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	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.21	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 SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

Version: 2021.10.01 (Recommended)

Filename: CP046801.compsig; CP046801.zip

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.12	12.8.528.1
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.12	12.8.528.1
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.12	12.8.528.1
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.12	12.8.528.1
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.12	12.8.528.1
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.12	12.8.528.1

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
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.12	12.8.528.1
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.12	12.8.528.1
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.12	12.8.528.1
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.12	12.8.528.1
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.12	12.8.528.1
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.12	12.8.528.1

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter

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

HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters for VMware vSphere 6.7
Version: 2022.03.01 (Recommended)
Filename: CP049954.compsig; CP049954.zip

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.2
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.2
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.2
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.2

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
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.2
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.2
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.2

HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.21	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 SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

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

Version: 2022.03.01 (Recommended)

Filename: CP049955.compsig; CP049955.zip

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.2
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.2
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2

HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.21	12.8.528.10	12.8.502.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.21	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
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.2
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	12.8.528.21	12.8.528.2
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	12.8.528.21	12.8.528.2
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.2
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	12.8.528.21	12.8.528.2

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

HPE Firmware Flash for QLogic Fibre Channel Host Bus Adapters - Linux (x86_64)

Version: 2021.10.01 (Recommended)

Filename: RPMS/x86_64/firmware-fc-qlogic-2021.10.01-1.10.x86_64.compsig; RPMS/x86_64/firmware-fc-qlogic-2021.10.01-1.10.x86_64.rpm

Important Note!

The target environment must have the libHBAAPI Package installed prior to the installation of the firmware as the discovery of adapters might not complete without the library. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Fi
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.

Prerequisites

Firmware updates may be accomplished using the inbox or Out of Box (OOB) drivers. Please consult SPOCK for a list of supported configurations available at the following link:

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

The target environment must have the libHBAAPI Package installed prior to the installation of the firmware as the discovery of adapters might not complete without the library. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

The HPE supplied enablement kit must be installed prior to this firmware component being identified by SUM for deployment.

The OOB driver and enablement kit are available on the Service Pack for ProLiant (SPP) which is available at <http://www.hpe.com/servers/spp/download>.

- It is advised to provide read-write permissions on /var/tmp folder. Firmware deployment via Service Pack for ProLiant(SPP) might be unsuccessful in some cases , if read-write(rw) permissions are not enable on /tmp or /var/tmp directories.

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 Fibre Channel Host Bus Adapters - Microsoft Windows Server 2016/2019/2022 (x86_64)

Version: 2021.10.01 (Recommended)

Filename: cp046938.compsig; cp046938.exe

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Fi
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.

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 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 Fibre Channel Host Bus Adapters for VMware vSphere 6.5

Version: 2021.10.01 (Recommended)

Filename: CP046820.compsig; CP046820.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	Fi
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.

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

HP 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	Fi
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.

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	Fi
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.

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 Fibre Channel Host Bus Adapters for VMware vSphere 7.0
Version: 2021.10.01 (Recommended)
Filename: CP046822.compsig; CP046822.zip

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Fi
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.

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	Fi
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.07	9.
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.07	9.
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.05.03	09.

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

Firmware - Storage Controller

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Firmware Package - HPE MR216i-a Gen10 Plus Tri Mode Controller

Version: 52.16.3-4455 (B) **(Recommended)**

Filename: HPE_MR216i-a_Gen10P_52.16.3-4455.fwpkg

Important Note!

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

Enhancements

Support UBM6 and rebuild with SHA384

Firmware Package - HPE MR216i-p Gen10 Plus Tri Mode Controller with Gen10 and Gen10 Plus servers

Version: 52.16.3-4455 (B) **(Recommended)**

Filename: HPE_MR216i-p_Gen10P_52.16.3-4455.fwpkg

Important Note!

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

Enhancements

Support UBM6 and rebuild with SHA384

Firmware Package - HPE MR416i-a Gen10 Plus Tri Mode Controller
Version: 52.16.3-4455 (B) **(Recommended)**
Filename: HPE_MR416i-a_Gen10P_52.16.3-4455.fwpkg

Important Note!

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

Enhancements

Support UBM6

Firmware Package - HPE MR416i-p Gen10 Plus Tri Mode Controller with Gen10 and Gen10 Plus servers
Version: 52.16.3-4455 (B) **(Recommended)**
Filename: HPE_MR416i-p_Gen10P_52.16.3-4455.fwpkg

Important Note!

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

Enhancements

Support UBM6 and rebuild with SHA384

Firmware Package - HPE SR932i-p Gen10 Plus /SR416i-a Gen10 Plus Controllers
Version: 03.01.14.062 **(Recommended)**
Filename: HPE_SR416_SR932_Gen10P_03.01.14.062.fwpkg

Fixes

- Fixed a performance issue with a RAID 5 volume writing sequential IOs that resulted in IOs taking a long time and LUN resets.
- Fixed an issue where UBM3 backplanes fail to flash.
- Fixed a Predictive Failure drive LED blinking issue.
- Fixed an issue where a re-enabled encrypted single drive RAID 0 volume was reported with state Offline after system reboot.
- Fixed long SATA SSD TRIM causing hang.
- Fixed an issue where events are sent continuously if the host does not respond to PlatformEventMessage.
- Fixed an issue where Redfish Volume Create fails when using 4Kn data drives.
- Updated Redfish Drive.Identifiers.DurableName to conform to the standard.
- Updated Redfish Volume.Identifiers.DurableName to conform to the standard.
- Updated Redfish to the 2021.4 schema bundle.

Enhancements

- Added UBM6 backplane support.
- Improved single RAID volume performance for multiple streams of sequential IO.
- Added support to send SCSI timestamp to drives to sync host system time (RTC).
- Added a new HII menu that will attempt to re-enable a previously failed volume whose physical drives are back online.
- Added an Unlock Controller option in the HII menu when controller password is set for Controller Based Encryption (CBE).
- Added a new HII menu option to setup and configure Controller Based Encryption (CBE).
- Added support for the following Redfish ACTION requests:
 - Drive.SecureErase
 - Drive.Reset
 - Storage.ResetToDefaults
- Added support for Redfish PATCH requests for the following properties:
 - Volume.DisplayName
 - Volume.Links.DedicatedSpareDrives
 - Volume.IOPerfModeEnabled
 - Volume.ReadCachePolicy
 - Volume.WriteCachePolicy
 - Drive.LocationIndicatorActive
 - Drive.WriteCacheEnabled
- StorageController.ControllerRates.ConsistencyCheckRatePercent
- StorageController.ControllerRates.RebuildRatePercent
- StorageController.ControllerRates.TransformationRatePercent
- Added the following Redfish alerts:
 - DriveOffline
 - DriveMissing
 - DriveOfflineCleared
 - VolumeOffline

- VolumeOfflineCleared
- BatteryMissing
- BatteryFailure
- BatteryCharging

- BatteryOK
- ControllerDegraded
- ControllerFailure
- ControllerPreviousFailure
- ControllerPasswordRequired
- ControllerPasswordEntered (changing to ControllerPasswordAccepted in the future)

- o Added MaxMembers to Redfish VolumeCollection
- o Added 'NativeDriveEncryption' (SED) to Redfish Volume.EncryptionTypes.

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** **is** supported by HPE NS204i-p, NS204i-d, NS204i-t and NS204i-r Gen10+ Boot Controller

VMware 7.0 is NOT 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 Firmware Flash for Linux(x64) - HPE NS204i-p, NS204i-d, NS204i-t, NS204i-r Gen10+ Boot Controller
Version: 1.0.14.1055 **(Critical)**
Filename: CP047953.md5; CP047953.scexe; deb/firmware-9041739931_1.0.14.1055-1.1_amd64.deb; rpm/RPMS/x86_64/firmware-9041739931-1.0.14.1055-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-9041739931-1.0.14.1055-1.1.x86_64.rpm

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 Firmware Flash for Windows - HPE NS204i-p, NS204i-d, NS204i-t, NS204i-r Gen10+ Boot Controller
Version: 1.0.14.1055 (B) **(Critical)**
Filename: cp049340.compsig; cp049340.exe; cp049340.md5

Important Note!

Please refer to SID7544 with the reason that why upgrade requirement need to be set to Critical

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. Please refer to SID7544 with detail info.

Enhancements

- Added Windows2022 OS support.

Online ROM Flash Component for ESXi (x86) - HPE Smart Array P824i-p MR Gen10
Version: 24.23.0-0048 **(Recommended)**
Filename: CP052319.compsig; CP052319.zip

Fixes

- Fixed an issue that previous configuration may be completely missing at boot. The issue may happen when there is one or more malfunction drive in timeout-recovered loop, and power cycling the system while controller FW initialization.
- Fixed an issue that FW may report Error Code 0x000000d.
- Fixed an issue that Foreign Import from Multi Span/LD drives with other drives, FW crash and import failure.
- Fixed a FW exception and controller is not detected issue. It may occur during system reboot or FW upgrade in expander environment with multiple drives.
- Fixed an issue that sanitize operation is completed before actual completion from drive.
- Fixed a Machine Check event if drive timeout is triggered when StartStopUnit command is about to finish.

Enhancements

- Change the order of DDF (Disk Data Format) header updates when there are errors existing in DDF headers currently on the drive. This is to avoid potential DDF corruption when there are malfunctioned drives in an array.
- Change spinupdrivecount from 2 to 4 by default. This is to improve the large capacity HDD discovery in system bootup.

Online ROM Flash Component for Linux (x64) – HPE Apollo 2000 Gen10 Backplane Expander Firmware

Version: 1.00 (C) **(Optional)**

Filename: rpm/RPMS/x86_64/firmware-smartarray-9f082dffb4-1.00-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-9f082dffb4-1.00-3.1.x86_64.rpm

Enhancements

- Update build environment with SHA384

Online ROM Flash Component for Linux (x64) – HPE Apollo 2000 Gen10 Plus Backplane Expander FW

Version: 1.27 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-smartarray-7b5e8400dd-1.27-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-7b5e8400dd-1.27-2.1.x86_64.rpm

Enhancements

- Update build environment with SHA384

Online ROM Flash Component for Linux (x64) – HPE Apollo 4200 Backplane Expander Firmware

Version: 1.79 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-smartarray-f18fdefd0b-1.79-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-f18fdefd0b-1.79-2.1.x86_64.rpm

Important Note!

- Please update **Smart Array FW to 4.11 or later**, before any new upgrade for HPE Apollo 4200 Gen10 Server Backplane Expander firmware.
- Power cycle / cold reboot is required if firmware is upgraded from version 1.03 or earlier.

Fixes

Drive may show up missing after a system reboot.

Please reference Customer Advisory a00098241en_us

Enhancements

- Update build environment with SHA384
- Update OS

Online ROM Flash Component for Linux (x64) – HPE Apollo 4200 Gen10 Plus Backplane Expander Firmware

Version: 0.39 (C) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-smartarray-f36d4ef431-0.39-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-f36d4ef431-0.39-3.1.x86_64.rpm

Prerequisites

- Before upgrading to 0.39(C), 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-6a237b8f0ea248dcae938df67b>

Enhancements

- Update build environment with SHA384
- Update OS

Online ROM Flash Component for Linux (x64) - HPE Smart Array P408i-p, P408e-p, P408i-a, E208i-p, E208e-p, E208i-a, P816i-a SR Gen10

Version: 5.32 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-smartarray-f7c07bdbbd-5.32-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-f7c07bdbbd-5.32-2.1.x86_64.rpm

Fixes

- Fixed an issue where the encrypted data is not accessible for a RAID 50/60 volume when it was failed and healed using "Heal Array".
- Fixed an issue where pointers in PLDM commands were accessed before initialized.
- Fixed an issue where UBM3 backplanes fail to flash.
- Fixed a Predictive Failure drive LED blinking issue.
- Fixed an issue where a re-enabled encrypted single drive RAID 0 logical drive was reported with state Offline after system reboot.
- Fixed long SATA SSD TRIM causing hang.

- Fixed an issue where the product ID of an enclosure was not showing correctly.
- Fixed an issue where the drive bay number for a failed drive is wrong.
- Fixed an issue where the Real Time Clock (RTC) timestamp was not sent to the SES based storage enclosure SEPs attached to internal connectors of the controller.
- Fixed an issue where events are sent continuously if the host does not respond to PlatformEventMessage.
- Fixed an issue where Redfish Volume Create fails when using 4Kn data drives.
- Update Redfish Drive.Identifiers.DurableName to conform to the standard.
- Update Redfish Volume.Identifiers.DurableName to conform to the standard.
- Updated Redfish to the 2021.4 schema bundle.

Enhancements

- Added UBM6 backplane support.
- Added support for SED Local Key Management.
- Added a new HII menu that will attempt to re-enable a previously failed volume whose physical drives are back.
- Added an Unlock Controller option in the HII menu when controller password is set for Controller Based Encryption (CBE).
- Added new HII menu options to configure Controller Based Encryption (CBE).
- Added new HII options to enable and configure SED Local Key Management.
- Added support for the following Redfish ACTION requests:
 - Drive.SecureErase
 - Drive.Reset
 - Storage.ResetToDefaults
- Added support for Redfish PATCH requests for the following properties:
 - Volume.DisplayName
 - Volume.Links.DedicatedSpareDrives
 - Volume.IOPerfModeEnabled
 - Volume.ReadCachePolicy
 - Volume.WriteCachePolicy
 - Drive.LocationIndicatorActive
 - Drive.WriteCacheEnabled
- StorageController.ControllerRates.ConsistencyCheckRatePercent
- StorageController.ControllerRates.RebuildRatePercent
- StorageController.ControllerRates.TransformationRatePercent
- Added the following Redfish alerts:
 - DriveOffline
 - DriveMissing
 - DriveOfflineCleared
 - VolumeOffline
 - VolumeOfflineCleared
 - BatteryMissing

- BatteryFailure
- BatteryCharging

- BatteryOK
- ControllerDegraded
- ControllerFailure
- ControllerPreviousFailure
- ControllerPasswordRequired
- ControllerPasswordEntered (changing to ControllerPasswordAccepted in the future)

- o Added MaxMembers to Redfish VolumeCollection
- o Added 'Reverting' to Redfish Drive.Operations.OperationName used for SED.
- o Added 'NativeDriveEncryption' (SED) to Redfish Volume.EncryptionTypes.
- o Added support for Redfish Drive.EncryptionStatus for SED.
- o Redfish Drive.Status.State will be set to StandbyOffline in the following conditions:
 - SED is Foreign
 - SED is Locked (only for controller owned SEDs)
 - SED is controller owned and controller is waiting on SED adapter password
- o Added support for Redfish Volume.Encrypted for SED.

Online ROM Flash Component for Linux (x64) - HPE Smart Array P824i-p MR Gen10

Version: 24.23.0-0048 **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-cafee9b6e4-24.23.0_0048-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-cafee9b6e4-24.23.0_0048-1.1.x86_64.rpm

Fixes

- o Fixed an issue that previous configuration may be completely missing at boot. The issue may happen when there is one or more malfunction drive in timeout-recovered loop, and power cycling the system while controller FW initialization.
- o Fixed an issue that FW may report Error Code 0x000000d.
- o Fixed an issue that Foreign Import from Mutli Span/LD drives with other drives, FW crash and import failure.
- o Fixed a FW exception and controller is not detected issue. It may occur during system reboot or FW upgrade in expander environment with multiple drives.
- o Fixed an issue that sanitize operation is completed before acutal completion from drive.
- o Fixed a Machine Check event if drive timeout is triggered when StartStopUnit command is about to finish.

Enhancements

- o Change the order of DDF (Disk Data Format) header updates when there are errors existing in DDF headers currently on the drive. This is to avoid potential DDF corruption when there are malfunctioned drives in an array.

- Change spinupdrivecount from 2 to 4 by default. This is to improve the large capacity HDD discovery in system bootup.

Online ROM Flash Component for VMware ESXi - HPE 12Gb/s SAS Expander Firmware for HPE Smart Array Controllers and HPE HBA Controllers
Version: 5.14 (B) **(Recommended)**
Filename: CP053178.compsig; CP053178.zip

Important Note!

- **Do NOT downgrade FW to previous version if your current expander is 5.10; please upgrade to 5.12 immediately.**

Enhancements

Support SHA384

Online ROM Flash Component for VMware ESXi - HPE Apollo 2000 Gen10 Backplane Expander Firmware
Version: 1.00 (F) **(Recommended)**
Filename: CP052254.compsig; CP052254.zip

Enhancements

- Update build environment with SHA384
- Update OS

Online ROM Flash Component for VMware ESXi - HPE Apollo 2000 Gen10 Plus Backplane Expander FW
Version: 1.27 (B) **(Recommended)**
Filename: CP052251.compsig; CP052251.zip

Enhancements

- Update build environment with SHA384
- Update OS

Online ROM Flash Component for VMware ESXi - HPE Apollo 4200 Backplane Expander Firmware
Version: 1.79 (D) **(Recommended)**

Filename: CP052258.zip; CP052258_part1.compsig; CP052258_part2.compsig

Important Note!

- Please update **Smart Array FW to 4.11 or later**, before any new upgrade for *HPE Apollo 4200 Gen10 Server Backplane Expander* firmware.
- Power cycle / cold reboot is required if firmware is upgraded from version 1.03 or earlier.

Enhancements

- Update build environment with SHA384
- Update OS

Online ROM Flash Component for VMware ESXi - HPE Apollo 4200 Gen10 Plus Backplane Expander Firmware

Version: 0.39 (C) **(Recommended)**

Filename: CP052260.compsig; CP052260.zip

Prerequisites

- Before upgrading to 0.39(C), 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>

Enhancements

- Update build environment with SHA384
- Update OS

Online ROM Flash Component for VMware ESXi - HPE Apollo 45xx Gen10 Backplane Expander Firmware

Version: 1.56 (G) **(Recommended)**

Filename: CP052262.compsig; CP052262.zip

Enhancements

- Update build environment with SHA384

- Update OS

Online ROM Flash Component for VMware ESXi - HPE Smart Array P408i-p, P408e-p, P408i-a, E208i-p, E208e-p, E208i-a, P816i-a SR Gen10
Version: 5.32 (B) **(Recommended)**
Filename: CP053855.compsig; CP053855.zip

Fixes

- Fixed an issue where the encrypted data is not accessible for a RAID 50/60 volume when it was failed and healed using "Heal Array".
- Fixed an issue where pointers in PLDM commands were accessed before initialized.
- Fixed an issue where UBM3 backplanes fail to flash.
- Fixed a Predictive Failure drive LED blinking issue.
- Fixed an issue where a re-enabled encrypted single drive RAID 0 logical drive was reported with state Offline after system reboot.
- Fixed long SATA SSD TRIM causing hang.
- Fixed an issue where the product ID of an enclosure was not showing correctly.
- Fixed an issue where the drive bay number for a failed drive is wrong.
- Fixed an issue where the Real Time Clock (RTC) timestamp was not sent to the SES based storage enclosure SEPs attached to internal connectors of the controller.
- Fixed an issue where events are sent continuously if the host does not respond to PlatformEventMessage.
- Fixed an issue where Redfish Volume Create fails when using 4Kn data drives.
- Update Redfish Drive.Identifiers.DurableName to conform to the standard.
- Update Redfish Volume.Identifiers.DurableName to conform to the standard.
- Updated Redfish to the 2021.4 schema bundle.

Enhancements

- Added UBM6 backplane support.
- Added support for SED Local Key Management.
- Added a new HII menu that will attempt to re-enable a previously failed volume whose physical drives are back.
- Added an Unlock Controller option in the HII menu when controller password is set for Controller Based Encryption (CBE).
- Added new HII menu options to configure Controller Based Encryption (CBE).
- Added new HII options to enable and configure SED Local Key Management.
- Added support for the following Redfish ACTION requests:
 - Drive.SecureErase
 - Drive.Reset
 - Storage.ResetToDefaults
- Added support for Redfish PATCH requests for the following properties:
 - Volume.DisplayName

- Volume.Links.DedicatedSpareDrives
- Volume.IOPerfModeEnabled
- Volume.ReadCachePolicy
- Volume.WriteCachePolicy
- Drive.LocationIndicatorActive
- Drive.WriteCacheEnabled

- StorageController.ControllerRates.ConsistencyCheckRatePercent
- StorageController.ControllerRates.RebuildRatePercent
- StorageController.ControllerRates.TransformationRatePercent

- Added the following Redfish alerts:
 - DriveOffline
 - DriveMissing
 - DriveOfflineCleared
 - VolumeOffline
 - VolumeOfflineCleared
 - BatteryMissing
 - BatteryFailure
 - BatteryCharging

 - BatteryOK
 - ControllerDegraded
 - ControllerFailure
 - ControllerPreviousFailure
 - ControllerPasswordRequired
 - ControllerPasswordEntered (changing to ControllerPasswordAccepted in the future)

- Added MaxMembers to Redfish VolumeCollection
- Added 'Reverting' to Redfish Drive.Operations.OperationName used for SED.
- Added 'NativeDriveEncryption' (SED) to Redfish Volume.EncryptionTypes.
- Added support for Redfish Drive.EncryptionStatus for SED.
- Redfish Drive.Status.State will be set to StandbyOffline in the following conditions:
 - SED is Foreign
 - SED is Locked (only for controller owned SEDs)
 - SED is controller owned and controller is waiting on SED adapter password
- Added support for Redfish Volume.Encrypted for SED.

Important Note!

- **Do NOT downgrade FW to previous version if your current expander is 5.10; please upgrade to 5.12 immediately.**

Enhancements

Support SHA384

Online ROM Flash Component for Windows (x64) - HPE Apollo 2000 Gen10 Backplane Expander Firmware
Version: 1.00 (D) **(Recommended)**
Filename: cp052255.compsig; cp052255.exe; cp052255.md5

Enhancements

- Update build environment with SHA384
- Update OS

Online ROM Flash Component for Windows (x64) - HPE Apollo 2000 Gen10 Plus Backplane Expander FW
Version: 1.27 (C) **(Recommended)**
Filename: cp052252.compsig; cp052252.exe; cp052252.md5

Enhancements

- Update build environment with SHA384

Online ROM Flash Component for Windows (x64) - HPE Apollo 4200 Backplane Expander Firmware
Version: 1.79 (C) **(Recommended)**
Filename: cp052256.compsig; cp052256.exe; cp052256.md5

Important Note!

- Please update **Smart Array FW to 4.11 or later**, before any new upgrade for HPE Apollo 4200 Gen10 Server Backplane Expander firmware.
- Power cycle / cold reboot is required if firmware is upgraded from version 1.03 or earlier.

Enhancements

- Update build environment with SHA384
- Update OS

Online ROM Flash Component for Windows (x64) - HPE Apollo 4200 Gen10 Plus Backplane Expander Firmware

Version: 0.39 (C) **(Recommended)**

Filename: cp052259.compsig; cp052259.exe; cp052259.md5

Prerequisites

- Before upgrading to 0.39(C), 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-7c4fafc26bfd4fcda15b73bd44>

Enhancements

- Update build environment with SHA384

Online ROM Flash Component for Windows (x64) - HPE Apollo 45xx Gen10 Backplane Expander Firmware

Version: 1.56 (D) **(Recommended)**

Filename: cp052264.compsig; cp052264.exe; cp052264.md5

Enhancements

- Update build environment with SHA384
- Update OS

Online ROM Flash Component for Windows (x64) - HPE Smart Array P408i-p, P408e-p, P408i-a, E208i-p, E208e-p, E208i-a, P816i-a SR Gen10

Version: 5.32 (B) **(Recommended)**

Filename: cp053854.compsig; cp053854.exe; cp053854.md5

Fixes

- Fixed an issue where the encrypted data is not accessible for a RAID 50/60 volume when it was failed and healed using "Heal Array".
- Fixed an issue where pointers in PLDM commands were accessed before initialized.
- Fixed an issue where UBM3 backplanes fail to flash.
- Fixed a Predictive Failure drive LED blinking issue.
- Fixed an issue where a re-enabled encrypted single drive RAID 0 logical drive was reported with state Offline after system reboot.
- Fixed long SATA SSD TRIM causing hang.
- Fixed an issue where the product ID of an enclosure was not showing correctly.
- Fixed an issue where the drive bay number for a failed drive is wrong.
- Fixed an issue where the Real Time Clock (RTC) timestamp was not sent to the SES based storage enclosure SEPs attached to internal connectors of the controller.
- Fixed an issue where events are sent continuously if the host does not respond to PlatformEventMessage.
- Fixed an issue where Redfish Volume Create fails when using 4Kn data drives.
- Update Redfish Drive.Identifiers.DurableName to conform to the standard.
- Update Redfish Volume.Identifiers.DurableName to conform to the standard.
- Updated Redfish to the 2021.4 schema bundle.

Enhancements

- Added UBM6 backplane support.
- Added support for SED Local Key Management.
- Added a new HII menu that will attempt to re-enable a previously failed volume whose physical drives are back.
- Added an Unlock Controller option in the HII menu when controller password is set for Controller Based Encryption (CBE).
- Added new HII menu options to configure Controller Based Encryption (CBE).
- Added new HII options to enable and configure SED Local Key Management.
- Added support for the following Redfish ACTION requests:
 - Drive.SecureErase
 - Drive.Reset
 - Storage.ResetToDefaults
- Added support for Redfish PATCH requests for the following properties:
 - Volume.DisplayName
 - Volume.Links.DedicatedSpareDrives
 - Volume.IOPerfModeEnabled
 - Volume.ReadCachePolicy
 - Volume.WriteCachePolicy
 - Drive.LocationIndicatorActive
 - Drive.WriteCacheEnabled

- StorageController.ControllerRates.ConsistencyCheckRatePercent
- StorageController.ControllerRates.RebuildRatePercent
- StorageController.ControllerRates.TransformationRatePercent
- Added the following Redfish alerts:
 - DriveOffline
 - DriveMissing
 - DriveOfflineCleared
 - VolumeOffline
 - VolumeOfflineCleared
 - BatteryMissing
 - BatteryFailure
 - BatteryCharging
 - BatteryOK
 - ControllerDegraded
 - ControllerFailure
 - ControllerPreviousFailure
 - ControllerPasswordRequired
 - ControllerPasswordEntered (changing to ControllerPasswordAccepted in the future)
- Added MaxMembers to Redfish VolumeCollection
- Added 'Reverting' to Redfish Drive.Operations.OperationName used for SED.
- Added 'NativeDriveEncryption' (SED) to Redfish Volume.EncryptionTypes.
- Added support for Redfish Drive.EncryptionStatus for SED.
- Redfish Drive.Status.State will be set to StandbyOffline in the following conditions:
 - SED is Foreign
 - SED is Locked (only for controller owned SEDs)
 - SED is controller owned and controller is waiting on SED adapter password
- Added support for Redfish Volume.Encrypted for SED.

Online ROM Flash Component for Windows (x64) - HPE Smart Array P824i-p MR Gen10

Version: 24.23.0-0048 (**Recommended**)

Filename: cp052321.compsig; cp052321.exe; cp052321.md5

Fixes

- Fixed an issue that previous configuration may be completely missing at boot. The issue may happen when there is one or more malfunction drive in timeout-recovered loop, and power cycling the system while controller FW initialization.
- Fixed an issue that FW may report Error Code 0x000000d.
- Fixed an issue that Foreign Import from Mutli Span/LD drives with other drives, FW crash and import failure.

- Fixed a FW exception and controller is not detected issue. It may occur during system reboot or FW upgrade in expander environment with multiple drives.
- Fixed an issue that sanitize operation is completed before actual completion from drive.
- Fixed a Machine Check event if drive timeout is triggered when StartStopUnit command is about to finish.

Enhancements

- Change the order of DDF (Disk Data Format) header updates when there are errors existing in DDF headers currently on the drive. This is to avoid potential DDF corruption when there are malfunctioned drives in an array.
- Change spinupdrivecount from 2 to 4 by default. This is to improve the large capacity HDD discovery in system bootup.

Supplemental Update / Online ROM Flash Component for Linux (x64) – HPE 12Gb/s SAS Expander Firmware for HPE Smart Array Controllers and HPE HBA Controllers

Version: 5.14 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-smartarray-1f19a4a64d-5.14-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-1f19a4a64d-5.14-2.1.x86_64.rpm

Important Note!

- **Do NOT downgrade FW to previous version if your current expander is 5.10; please upgrade to 5.12 immediately.**

Enhancements

Support SHA384

Supplemental Update / Online ROM Flash Component for Linux (x64) - HPE Apollo 45xx Gen10 Backplane Expander Firmware

Version: 1.56 (D) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-smartarray-815b1ae26d-1.56-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-815b1ae26d-1.56-4.1.x86_64.rpm

Enhancements

- Update build environment with SHA384
 - Update OS
-

Universal Firmware Package for HPE Gen10 Plus Boot Controller NS204i-p, NS204i-d, NS204i-t, NS204i-r
Version: 1.0.14.1063 (C) **(Recommended)**
Filename: HPE_NS204i_Gen10P_1.0.14.1063.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

Fixes

- Issue fixed for RDE dictionary reflash error during booting up

Enhancements

Update build environment from SHA512 to SHA384

Firmware - Storage Fibre Channel

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HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters for Linux (x64)

Version: 2022.09.01 **(Recommended)**

Filename: RPMS/x86_64/firmware-fc-emulex-2022.09.01-1.20.x86_64.compsig; RPMS/x86_64/firmware-fc-emulex-2022.09.01-1.20.x86_64.rpm

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0

Prerequisites

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

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

The target environment must have the libHBAAPI Package installed prior to the installation of the firmware as the discovery of adapters might not complete without the library. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Additional requirements:

Environment must be running the syslog daemon for the flash engine to run

Environment must have 32-bit netlink library (libnl.so) installed for component to be able to discover Emulex Host Bus Adapters(HBAs)

Enhancements

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters for Microsoft Windows Server 2016/2019/2022 x64

Version: 2022.09.01 **(Recommended)**

Filename: cp050100.compsig; cp050100.exe

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0

HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0

Prerequisites

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

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

Enhancements

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

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

Version: 2022.09.01 **(Recommended)**

Filename: CP050098.compsig; CP050098.zip

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0

Prerequisites

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

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

Enhancements

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.21	14.0.499.21	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.20	14.0.499.20	14.0.499.2	14.0.490.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

Version: 2022.09.01 **(Recommended)**

Filename: RPMS/x86_64/firmware-fc-qlogic-2022.09.01-1.15.x86_64.compsig; RPMS/x86_64/firmware-fc-qlogic-2022.09.01-1.15.x86_64.rpm

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	1.77.12	9.09.00	7.19	3.64
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.06.27	09.09.00	7.28	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.06.27	09.09.00	7.28	0.0

Prerequisites

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

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

The target environment must have the libHBAAPI Package installed prior to the installation of the firmware as the discovery of adapters might not complete without the library. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

The HPE supplied enablement kit must be installed prior to this firmware component being identified by SUM for deployment.

- It is advised to provide read-write permissions on /var/tmp folder. Firmware deployment via Service Pack for ProLiant(SPP) might be unsuccessful in some cases , if read-write(rw) permissions are not enable on /tmp or /var/tmp directories.

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	1.77.12	9.09.00	7.19	3.64

HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.06.27	09.09.00	7.28	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.06.27	09.09.00	7.28	0.0

Supported Devices and Features

This component is supported on following Qlogic Fibre Channel Host Bus 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 Fibre Channel Host Bus Adapters - Microsoft Windows Server 2016/2019/2022 (x86_64)

Version: 2022.09.01 **(Recommended)**

Filename: cp050129.compsig; cp050129.exe

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	1.77.12	9.09.00	7.19	3.64
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.77.12	9.09.00	7.19	3.64

HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.06.27	09.09.00	7.28	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.06.27	09.09.00	7.28	0.0

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	MBI	Firmware	UEFI	Boot Bios
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.06.27	09.09.00	7.28	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.06.27	09.09.00	7.28	0.0

Supported Devices and Features

This component is supported on following Qlogic Fibre Channel Host Bus 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 Fibre Channel Host Bus Adapters for VMware vSphere 7.0
Version: 2022.09.01 **(Recommended)**
Filename: CP050127.compsig; CP050127.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	1.77.12	9.09.00	7.19	3.64
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.06.27	09.09.00	7.28	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.06.27	09.09.00	7.28	0.0

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	MBI	Firmware	UEFI	Boot Bios
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.77.12	9.09.00	7.19	3.64

HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.77.12	9.09.00	7.19	3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.06.27	09.09.00	7.28	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.06.27	09.09.00	7.28	0.0

Supported Devices and Features

This component is supported on following Qlogic Fibre Channel Host Bus 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

Firmware - System

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Server Platform Services (SPS) Firmware

Version: 04.04.04.062 **(Recommended)**

Filename: cp050885.compsig; cp050885.zip

Fixes

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

Enhancements

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

Firmware Package - Gen10 NVMe Backplane PIC Firmware

Version: 1.24 (C) **(Recommended)**

Filename: ISS_NVMe_BP_PIC_flashV1B24.fwpkg

Prerequisites

iLO 5 version 1.10 or later is required.

Enhancements

- Support HPE ProLiant DL325 Gen10 Plus Server

Firmware Package - Gen10 Plus UBM1 Backplane PIC Firmware

Version: 1.46 **(Recommended)**

Filename: UBM1_V1.46.fwpkg

Important Note!

- **Flashing UBM1 FW when direct attached requires the use of the FWPKG firmware component**
- **Please use Linux/Windows/VMware FW component to install UBM1 firmware when attached to HPE SR100i Gen10 Plus controllers and HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408i-sb, P408e-m, P204i-c, P204i-b, P816i-a and P416ie-m SR Gen10 controllers**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65.**

Fixes

Fixed command report mistake value.

Firmware Package - Gen10Plus UBM2 Backplane PIC Firmware

Version: 1.20 **(Recommended)**

Filename: UBM2_V1.20.fwpkg

Important Note!

- **Flashing UBM2 FW when direct attached requires the use of the FWPKG firmware component**
- **Please use Linux/Windows/VMware FW component to install UBM2 firmware when attached to HPE SR100i,SR416i-p/SR932i-p Gen10 Plus controllers and HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408i-sb, P408e-m, P204i-c, P204i-b, P816i-a and P416ie-m SR Gen10 controllers**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65.**

Fixes

Fixed command report mistake value.

Firmware Package - Gen10Plus UBM3 Backplane PIC Firmware

Version: 1.24 **(Recommended)**

Filename: UBM3_V1.24.fwpkg

Important Note!

- **Flashing UBM3 FW when direct attached requires the use of the FWPKG firmware component**
- **Please use Linux/Windows/VMware FW component to install UBM3 firmware when attached to HPE SR100i,SR416i-p/SR932i-p Gen10 Plus controllers and HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408i-sb, P408e-m, P204i-c, P204i-b, P816i-a and P416ie-m SR Gen10 controllers**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65.**

Fixes

Fixed command report mistake value.

Firmware Package - Gen10Plus UBM4 Backplane PIC Firmware

Version: 1.24 **(Recommended)**

Filename: UBM4_V1.24.fwpkg

Important Note!

- **Flashing UBM4 FW when direct attached requires the use of the FWPKG firmware component**

- **Please use Linux/Windows/VMware FW component to install UBM4 firmware when attached to HPE SR100i and SR416i-p/SR932i-p controllers**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65.**

Fixes

Fixed command report mistake value.

Innovation Engine (IE) Firmware

Version: 1.0.0.20 **(Optional)**

Filename: cp040071.compsig; cp040071.zip

Enhancements

See release doc

Online Flash Component for Linux - Gen10Plus UBM1 Backplane PIC Firmware

Version: 1.46 **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-b303c4dfec-1.46-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-b303c4dfec-1.46-1.1.x86_64.rpm

Important Note!

- **Windows/Linux/ESXi FW component only supports installation of UBM1 firmware when attached to HPE SR100i Gen10 Plus controllers and HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408i-sb, P408e-m, P204i-c, P204i-b, P816i-a and P416ie-m SR Gen10 controllers**
- **Flashing UBM1 FW when direct attached requires the use of the FWPKG firmware component**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65.**

Fixes

Fixed command report mistake value.

Online Flash Component for Linux - Gen10Plus UBM2 Backplane PIC Firmware

Version: 1.20 **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-smartarray-40023de47f-1.20-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-40023de47f-1.20-1.1.x86_64.rpm

Important Note!

- **Windows/Linux/ESXi FW component only supports installation of UBM2 firmware when attached to HPE SR100i,SR416i-p/SR932i-p Gen10 Plus controllers and HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408i-sb, P408e-m, P204i-c, P204i-b, P816i-a and P416ie-m SR Gen10 controllers**
- **Flashing UBM2 FW when direct attached requires the use of the FWPKG firmware component**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65**

Fixes

Fixed command report mistake value.

Online Flash Component for Linux - Gen10Plus UBM3 Backplane PIC Firmware

Version: 1.24 **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-ff3fa73ca1-1.24-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-ff3fa73ca1-1.24-1.1.x86_64.rpm

Important Note!

- **Windows/Linux/ESXi FW component only supports installation of UBM3 firmware when attached to HPE SR100i,SR416i-p/SR932i-p Gen10 Plus controllers and HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408i-sb, P408e-m, P204i-c, P204i-b, P816i-a and P416ie-m SR Gen10 controllers**
- **Flashing UBM3 FW when direct attached requires the use of the FWPKG firmware component**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65**

Fixes

Fixed command report mistake value.

Online Flash Component for Linux - Gen10Plus UBM4 Backplane PIC Firmware

Version: 1.24 **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-8586fe2547-1.24-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-8586fe2547-1.24-1.1.x86_64.rpm

Important Note!

- **Windows/Linux/VMware FW component only supports installation of UBM4 firmware when attached to HPE SR100i and SR416i-p/SR932i-p controllers**
- **Flashing UBM4 FW when direct attached requires the use of the FWPKG firmware component**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65.**

Fixes

Fixed command report mistake value.

Online Flash Component for VMware Esxi - Gen10Plus UBM1 Backplane PIC Firmware

Version: 1.46 **(Recommended)**

Filename: CP050721.compsig; CP050721.zip

Important Note!

- **Windows/Linux/ESXi FW component only supports installation of UBM1 firmware when attached to HPE SR100i Gen10 Plus controllers and HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408i-sb, P408e-m, P204i-c, P204i-b, P816i-a and P416ie-m SR Gen10 controllers**

- **Flashing UBM1 FW when direct attached requires the use of the FWPKG firmware component**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65**

Fixes

Fixed command report mistake value.

Online Flash Component for VMware Esxi - Gen10Plus UBM2 Backplane PIC Firmware

Version: 1.20 **(Recommended)**

Filename: CP051209.compsig; CP051209.zip

Important Note!

- **Windows/Linux/ESXi FW component only supports installation of UBM2 firmware when attached to HPE SR100i,SR416i-p/SR932i-p Gen10 Plus controllers and HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408i-sb, P408e-m, P204i-c, P204i-b, P816i-a and P416ie-m SR Gen10 controllers**
- **Flashing UBM2 FW when direct attached requires the use of the FWPKG firmware component**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65**

Fixes

Fixed command report mistake value.

Online Flash Component for VMware Esxi - Gen10Plus UBM3 Backplane PIC Firmware

Version: 1.24 **(Recommended)**

Filename: CP050751.compsig; CP050751.zip

Important Note!

- **Windows/Linux/ESXi FW component only supports installation of UBM3 firmware when attached to HPE SR100i,SR416i-p/SR932i-p Gen10 Plus controllers and HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408i-sb, P408e-m, P204i-c, P204i-b, P816i-a and P416ie-m SR Gen10 controllers**
- **Flashing UBM3 FW when direct attached requires the use of the FWPKG firmware component**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65.**

Fixes

Fixed command report mistake value.

Online Flash Component for VMware Esxi - Gen10Plus UBM4 Backplane PIC Firmware

Version: 1.24 **(Recommended)**

Filename: CP050755.compsig; CP050755.zip

Important Note!

- **Windows/Linux/VMware FW component only supports installation of UBM4 firmware when attached to HPE SR100i and SR416i-p/SR932i-p controllers**
- **Flashing UBM4 FW when direct attached requires the use of the FWPKG firmware component**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65.**

Fixes

Fixed command report mistake value.

Online Flash Component for Windows x64 - Gen10Plus UBM1 Backplane PIC Firmware

Version: 1.46 **(Recommended)**

Filename: cp050719.compsig; cp050719.exe; cp050719.md5

Important Note!

- **Windows/Linux/ESXi FW component only supports installation of UBM1 firmware when attached to HPE SR100i Gen10 Plus controllers and HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408i-sb, P408e-m, P204i-c, P204i-b, P816i-a and P416ie-m SR Gen10 controllers**
- **Flashing UBM1 FW when direct attached requires the use of the FWPKG firmware component**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65**

Fixes

Fixed command report mistake value.

Online Flash Component for Windows x64 - Gen10Plus UBM2 Backplane PIC Firmware

Version: 1.20 **(Recommended)**

Filename: cp051208.compsig; cp051208.exe; cp051208.md5

Important Note!

- **Windows/Linux/ESXi FW component only supports installation of UBM2 firmware when attached to HPE SR100i,SR416i-p/SR932i-p Gen10 Plus controllers and HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408i-sb, P408e-m, P204i-c, P204i-b, P816i-a and P416ie-m SR Gen10 controllers**
- **Flashing UBM2 FW when direct attached requires the use of the FWPKG firmware component**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65.**

Fixes

Fixed command report mistake value.

Online Flash Component for Windows x64 - Gen10Plus UBM3 Backplane PIC Firmware

Version: 1.24 **(Recommended)**

Filename: cp050753.compsig; cp050753.exe; cp050753.md5

Important Note!

- **Windows/Linux/ESXi FW component only supports installation of UBM3 firmware when attached to HPE SR100i,SR416i-p/SR932i-p Gen10 Plus controllers and HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408i-sb, P408e-m, P204i-c, P204i-b, P816i-a and P416ie-m SR Gen10 controllers**
- **Flashing UBM3 FW when direct attached requires the use of the FWPKG firmware component**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65**

Fixes

Fixed command report mistake value.

Online Flash Component for Windows x64 - Gen10Plus UBM4 Backplane PIC Firmware

Version: 1.24 **(Recommended)**

Filename: cp050757.compsig; cp050757.exe; cp050757.md5

Important Note!

- **Windows/Linux/VMware FW component only supports installation of UBM4 firmware when attached to HPE SR100i and SR416i-p/SR932i-p controllers**
- **Flashing UBM4 FW when direct attached requires the use of the FWPKG firmware component**

Prerequisites

- **Upgrades to UBM SC/FWPKG components will work properly when the installed iLO version is less than 2.65.**

Fixes

Fixed command report mistake value.

Online ROM Flash Component for Windows x64 - Server Platform Services (SPS) Firmware for HPE Gen10 Plus Servers

Version: 04.04.04.062 **(Optional)**

Filename: cp050886.compsig; cp050886.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Plus Server Platform Services (SPS) Firmware

Release Version:

04.04.04.062

Last Recommended or Critical Revision:

04.04.04.058

Previous Revision:

04.04.04.058

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the INTEL Whitley BKC WW52.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the INTEL Whitley BKC WW52.

Known Issues:

None

Online ROM Flash Component for Windows x64 - Server Platform Services (SPS) Firmware for HPE Gen10 Servers

Version: 04.01.04.601 **(Optional)**

Filename: cp050869.compsig; cp050869.exe

Important Note!

Important Notes:

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE Gen10 Server Platform Services (SPS) Firmware

Release Version:

04.01.04.601

Last Recommended or Critical Revision:

04.01.04.505

Previous Revision:

04.01.04.505

Firmware Dependencies:

None

Enhancements/New Features:

This version is in compliance with IPU.2021.2 guidance.

Problems Fixed:

None

Known Issues:

None

Prerequisites

HPE Gen10 system ROM version 1.26 or later

HPE Gen10 Innovation Engine (IE) Firmware version 0.1.5.2 or later

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Enhancements

Important Notes:

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Enhancements/New Features:

This version is in compliance with IPU.2021.2 guidance.

Known Issues:

None

Online ROM Flash Component for Windows x64 - Server Platform Services (SPS) Firmware for HPE MicroServer Gen10 Plus

Version: 05.01.04.400 **(Recommended)**

Filename: cp050857.compsig; cp050857.exe

Important Note!

Important Notes:

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

Server Platform Services (SPS) Firmware for HPE ProLiant MicroServer Gen10 Plus (U48) Servers

Release Version:

05.01.04.400

Last Recommended or Critical Revision:

05.01.04.400

Previous Revision:

05.01.04.303

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services (SPS) Firmware provides mitigations for SPS security vulnerabilities documented as CVE-2021-0060. This issue is not unique to HPE servers.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes**Important Notes:**

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services (SPS) Firmware provides mitigations for SPS security vulnerabilities documented as CVE-2021-0060. This issue is not unique to HPE servers.

Known Issues:

None

Online ROM Flash Component for Windows x64 - Server Platform Services (SPS) Firmware for HPE ProLiant DL20 Gen10 Plus

Version: 06.00.03.039 **(Recommended)**

Filename: cp050815.compsig; cp050815.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE DL20 Gen10 Plus Server Platform Services (SPS) Firmware

Release Version:

06.00.03.039

Last Recommended or Critical Revision:

06.00.03.039

Previous Revision:

06.00.03.035

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the Tatlow PLR2 BKC WW50.

Problems Fixed:

None

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Enhancements**Important Notes:**

None

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the Tatlow PLR2 BKC WW50.

Known Issues:

None

Online ROM Flash Component for Windows x64 - Server Platform Services (SPS) Firmware for HPE ProLiant DL20/ML30 Gen10

Version: 05.01.04.400 **(Recommended)**

Filename: cp050854.compsig; cp050854.exe

Important Note!

Important Notes:

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE DL20ML30Gen10SPS Server Platform Services (SPS) Firmware

Release Version:

05.01.04.400

Last Recommended or Critical Revision:

05.01.04.400

Previous Revision:

05.01.04.303

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services (SPS) Firmware provides mitigations for SPS security vulnerabilities documented as CVE-2021-0060. This issue is not unique to HPE servers.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes**Important Notes:**

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services (SPS) Firmware provides mitigations for SPS security vulnerabilities documented as CVE-2021-0060. This issue is not unique to HPE servers.

Known Issues:

None

Online ROM Flash Component for Windows x64 - Server Platform Services (SPS) Firmware for HPE ProLiant ML30 Gen10 Plus

Version: 06.00.03.039 (B) **(Recommended)**

Filename: cp051223.compsig; cp051223.exe

Important Note!**Important Notes:**

Ver. 06.00.03.039(B) contains updates to the firmware packaging and is functionally equivalent to ver. 06.00.03.039. It is not necessary to upgrade with Revision B if a previous component revision was used to upgrade the firmware to version 06.00.03.039.

Deliverable Name:

HPE ML30 Gen10 Plus Server Platform Services (SPS) Firmware

Release Version:

06.00.03.039

Last Recommended or Critical Revision:

06.00.03.039

Previous Revision:

06.00.03.035

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the Tatlow PLR2 BKC WW50.

Problems Fixed:

None

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Enhancements

Important Notes:

Ver. 06.00.03.039(B) contains updates to the firmware packaging and is functionally equivalent to ver. 06.00.03.039. It is not necessary to upgrade with Revision B if a previous component revision was used to upgrade the firmware to version 06.00.03.039.

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the Tatlow PLR2 BKC WW50.

Known Issues:

None

Online ROM Flash for Linux - HPE Gen10 Innovation Engine Firmware for HPE Gen10 Servers

Version: 0.2.3.0 **(Recommended)**

Filename: RPMS/x86_64/firmware-iegen10-0.2.3.0-1.1.x86_64.compsig; RPMS/x86_64/firmware-iegen10-0.2.3.0-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Innovation Engine (IE) Firmware

Release Version:

0.2.3.0

Last Recommended or Critical Revision:

0.2.3.0

Previous Revision:

0.2.2.3

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Innovation Engine (IE) may improperly reset every 24 hours. On some systems this could result in a brief drop in CPU utilization or network traffic lasting less than a second.

Known Issues:

None

Prerequisites

System ROM V1.26 or later

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Innovation Engine (IE) may improperly reset every 24 hours. On some systems this could result in a brief drop in CPU utilization or network traffic lasting less than a second.

Known Issues:

None

Online ROM Flash for Linux - HPE Gen10 Plus Innovation Engine Firmware for HPE Gen10 Plus Servers

Version: 1.0.0.20 **(Recommended)**

Filename: RPMS/x86_64/firmware-iegen10plus-1.0.0.20-1.1.x86_64.compsig; RPMS/x86_64/firmware-iegen10plus-1.0.0.20-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Plus Innovation Engine Firmware for HPE Gen10 Plus Servers

Release Version:

1.0.0.20

Last Recommended or Critical Revision:

This is the initial version of the firmware.

Previous Revision:

This is the initial version of the firmware.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Known Issues:

None

Online ROM Flash for Linux - Server Platform Services (SPS) Firmware for HPE Gen10 Plus Servers

Version: 04.04.04.062 **(Optional)**

Filename: RPMS/x86_64/firmware-spsgen10plus-04.04.04.062-1.1.x86_64.compsig; RPMS/x86_64/firmware-spsgen10plus-04.04.04.062-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Plus Server Platform Services (SPS) Firmware

Release Version:

04.04.04.062

Last Recommended or Critical Revision:

04.04.04.058

Previous Revision:

04.04.04.058

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the INTEL Whitley BKC WW52.

Problems Fixed:

None

Known Issues:

None

Enhancements**Important Notes:**

None

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the INTEL Whitley BKC WW52.

Known Issues:

None

Online ROM Flash for Linux - Server Platform Services (SPS) Firmware for HPE Gen10 Servers

Version: 04.01.04.601 **(Optional)**

Filename: RPMS/x86_64/firmware-spsgen10-04.01.04.601-1.1.x86_64.compsig; RPMS/x86_64/firmware-spsgen10-04.01.04.601-1.1.x86_64.rpm

Important Note!

Important Notes:

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE Gen10 Server Platform Services (SPS) Firmware

Release Version:

04.01.04.601

Last Recommended or Critical Revision:

04.01.04.505

Previous Revision:

04.01.04.505

Firmware Dependencies:

None

Enhancements/New Features:

This version is in compliance with IPU.2021.2 guidance.

Problems Fixed:

None

Known Issues:

None

Prerequisites

HPE Gen10 system ROM version 1.26 or later

HPE Gen10 Innovation Engine (IE) Firmware version 0.1.5.2 or later

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Enhancements

Important Notes:

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Enhancements/New Features:

This version is in compliance with IPU.2021.2 guidance.

Known Issues:

None

Online ROM Flash for Linux - Server Platform Services (SPS) Firmware for HPE MicroServer Gen10 Plus

Version: 05.01.04.400 **(Recommended)**

Filename: RPMS/x86_64/firmware-microservergen10plussps-05.01.04.400-1.1.x86_64.compsig; RPMS/x86_64/firmware-microservergen10plussps-05.01.04.400-1.1.x86_64.rpm

Important Note!**Important Notes:**

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

Server Platform Services (SPS) Firmware for HPE ProLiant MicroServer Gen10 Plus (U48) Servers

Release Version:

05.01.04.400

Last Recommended or Critical Revision:

05.01.04.400

Previous Revision:

05.01.04.303

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services (SPS) Firmware provides mitigations for SPS security vulnerabilities documented as CVE-2021-0060. This issue is not unique to HPE servers.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes**Important Notes:**

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services (SPS) Firmware provides mitigations for SPS security vulnerabilities documented as CVE-2021-0060. This issue is not unique to HPE servers.

Known Issues:

None

Online ROM Flash for Linux - Server Platform Services (SPS) Firmware for HPE ProLiant DL20 Gen10 Plus

Version: 06.00.03.039 **(Recommended)**

Filename: RPMS/x86_64/firmware-dl20gen10plus_me-06.00.03.039-1.1.x86_64.compsig; RPMS/x86_64/firmware-dl20gen10plus_me-06.00.03.039-1.1.x86_64.rpm

Important Note!**Important Notes:**

None

Deliverable Name:

HPE DL20 Gen10 Plus Server Platform Services (SPS) Firmware

Release Version:

06.00.03.039

Last Recommended or Critical Revision:

06.00.03.039

Previous Revision:

06.00.03.035

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the Tatlow PLR2 BKC WW50.

Problems Fixed:

None

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the Tatlow PLR2 BKC WW50.

Known Issues:

None

Online ROM Flash for Linux - Server Platform Services (SPS) Firmware for HPE ProLiant DL20/ML30 Gen10

Version: 05.01.04.400 **(Recommended)**

Filename: RPMS/x86_64/firmware-dl20ml30gen10sps-05.01.04.400-1.1.x86_64.compsig; RPMS/x86_64/firmware-dl20ml30gen10sps-05.01.04.400-1.1.x86_64.rpm

Important Note!**Important Notes:**

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE DL20ML30Gen10SPS Server Platform Services (SPS) Firmware

Release Version:

05.01.04.400

Last Recommended or Critical Revision:

05.01.04.400

Previous Revision:

05.01.04.303

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services (SPS) Firmware provides mitigations for SPS security vulnerabilities documented as CVE-2021-0060. This issue is not unique to HPE servers.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes

Important Notes:

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services (SPS) Firmware provides mitigations for SPS security vulnerabilities documented as CVE-2021-0060. This issue is not unique to HPE servers.

Known Issues:

None

Online ROM Flash for Linux - Server Platform Services (SPS) Firmware for HPE ProLiant ML30 Gen10 Plus

Version: 06.00.03.039 **(Recommended)**

Filename: RPMS/x86_64/firmware-ml30gen10plus_me-06.00.03.039-1.1.x86_64.compsig; RPMS/x86_64/firmware-ml30gen10plus_me-06.00.03.039-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ML30 Gen10 Plus Server Platform Services (SPS) Firmware

Release Version:

06.00.03.039

Last Recommended or Critical Revision:

06.00.03.039

Previous Revision:

06.00.03.035

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the Tatlow PLR2 BKC WW50.

Problems Fixed:

None

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Enhancements**Important Notes:**

None

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the Tatlow PLR2 BKC WW50.

Known Issues:

None

Online ROM Flash for Windows x64 - HPE Gen10 Innovation Engine Firmware for HPE Gen10 Servers

Version: 0.2.3.0 (**Recommended**)

Filename: cp051158.compsig; cp051158.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Innovation Engine (IE) Firmware

Release Version:

0.2.3.0

Last Recommended or Critical Revision:

0.2.3.0

Previous Revision:

0.2.2.3

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Innovation Engine (IE) may improperly reset every 24 hours. On some systems this could result in a brief drop in CPU utilization or network traffic lasting less than a second.

Known Issues:

None

Prerequisites

System ROM V1.26 or later

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Innovation Engine (IE) may improperly reset every 24 hours. On some systems this could result in a brief drop in CPU utilization or network traffic lasting less than a second.

Known Issues:

None

Online ROM Flash for Windows x64 - HPE Gen10 Plus Innovation Engine Firmware for HPE Gen10 Plus Servers

Version: 1.0.0.20 **(Recommended)**

Filename: cp040070.compsig; cp040070.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Plus Innovation Engine Firmware for HPE Gen10 Plus Servers

Release Version:

1.0.0.20

Last Recommended or Critical Revision:

This is the initial version of the firmware.

Previous Revision:

This is the initial version of the firmware.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Known Issues:

None

ROM Flash Firmware Package - HPE Gen10 Innovation Engine Firmware for HPE Gen10 Servers

Version: 0.2.3.0 **(Recommended)**

Filename: IEGen10_0.2.3.0.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Innovation Engine (IE) Firmware

Release Version:

0.2.3.0

Last Recommended or Critical Revision:

0.2.3.0

Previous Revision:

0.2.2.3

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Innovation Engine (IE) may improperly reset every 24 hours. On some systems this could result in a brief drop in CPU utilization or network traffic lasting less than a second.

Known Issues:

None

Prerequisites

System ROM V1.26 or later

iLO 5 v1.20 or later

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Innovation Engine (IE) may improperly reset every 24 hours. On some systems this could result in a brief drop in CPU utilization or network traffic lasting less than a second.

Known Issues:

None

ROM Flash Firmware Package - HPE Gen10 Plus Innovation Engine Firmware for HPE Gen10 Plus Servers

Version: 1.0.0.20 **(Recommended)**

Filename: IEGen10Plus_1.0.0.20.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Plus Innovation Engine Firmware for HPE Gen10 Plus Servers

Release Version:

1.0.0.20

Last Recommended or Critical Revision:

This is the initial version of the firmware.

Previous Revision:

This is the initial version of the firmware.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Known Issues:

None

ROM Flash Firmware Package - Server Platform Services (SPS) Firmware for HPE Gen10 Plus Servers

Version: 04.04.04.062 **(Optional)**

Filename: SPSGen10Plus_04.04.04.062.fwpkg

Important Note!**Important Notes:**

None

Deliverable Name:

HPE Gen10 Plus Server Platform Services (SPS) Firmware

Release Version:

04.04.04.062

Last Recommended or Critical Revision:

04.04.04.058

Previous Revision:

04.04.04.058

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the INTEL Whitley BKC WW52.

Problems Fixed:

None

Known Issues:

None

Prerequisites

HPE Gen10 system ROM version 1.26 or later

HPE Gen10 Innovation Engine (IE) Firmware version 0.1.5.2 or later

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the INTEL Whitley BKC WW52.

Known Issues:

None

ROM Flash Firmware Package - Server Platform Services (SPS) Firmware for HPE Gen10 Servers

Version: 05.01.04.400 **(Recommended)**

Filename: DL20ML30Gen10SPS_05.01.04.400.fwpkg

Important Note!**Important Notes:**

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE DL20ML30Gen10SPS Server Platform Services (SPS) Firmware

Release Version:

05.01.04.400

Last Recommended or Critical Revision:

05.01.04.400

Previous Revision:

05.01.04.303

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services (SPS) Firmware provides mitigations for SPS security vulnerabilities documented as CVE-2021-0060. This issue is not unique to HPE servers.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes**Important Notes:**

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services (SPS) Firmware provides mitigations for SPS security vulnerabilities documented as CVE-2021-0060. This issue is not unique to HPE servers.

Known Issues:

None

ROM Flash Firmware Package - Server Platform Services (SPS) Firmware for HPE MicroServer Gen10 Plus

Version: 05.01.04.400 **(Recommended)**

Filename: MicroserverGen10PlusSPS_05.01.04.400.fwpkg

Important Note!

Important Notes:

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

Server Platform Services (SPS) Firmware for HPE ProLiant MicroServer Gen10 Plus (U48) Servers

Release Version:

05.01.04.400

Last Recommended or Critical Revision:

05.01.04.400

Previous Revision:

05.01.04.303

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services (SPS) Firmware provides mitigations for SPS security vulnerabilities documented as CVE-2021-0060. This issue is not unique to HPE servers.

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes

Important Notes:

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services (SPS) Firmware provides mitigations for SPS security vulnerabilities documented as CVE-2021-0060. This issue is not unique to HPE servers.

Known Issues:

None

Enhancements

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

ROM Flash Firmware Package - Server Platform Services (SPS) Firmware for HPE Gen10 Servers

Version: 04.01.04.601 **(Optional)**

Filename: SPSGen10_04.01.04.601.fwpkg

Important Note!

Important Notes:

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Deliverable Name:

HPE Gen10 Server Platform Services (SPS) Firmware

Release Version:

04.01.04.601

Last Recommended or Critical Revision:

04.01.04.505

Previous Revision:

04.01.04.505

Firmware Dependencies:

None

Enhancements/New Features:

This version is in compliance with IPU.2021.2 guidance.

Problems Fixed:

None

Known Issues:

None

Prerequisites

HPE Gen10 system ROM version 1.26 or later

HPE Gen10 Innovation Engine (IE) Firmware version 0.1.5.2 or later

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Enhancements

Important Notes:

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2021.2 guidance.

Firmware Dependencies:

None

Enhancements/New Features:

This version is in compliance with IPU.2021.2 guidance.

Known Issues:

None

ROM Flash Firmware Package - Server Platform Services (SPS) Firmware for HPE ProLiant DL20 Gen10 Plus Servers

Version: 06.00.03.039 **(Recommended)**

Filename: SC_DL20GEN10Plus_ME_06.00.03.039.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE DL20 Gen10 Plus Server Platform Services (SPS) Firmware

Release Version:

06.00.03.039

Last Recommended or Critical Revision:

06.00.03.039

Previous Revision:

06.00.03.035

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the Tatlow PLR2 BKC WW50.

Problems Fixed:

None

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the Tatlow PLR2 BKC WW50.

Known Issues:

None

ROM Flash Firmware Package - Server Platform Services (SPS) Firmware for HPE ProLiant ML30 Gen10 Plus Servers

Version: 06.00.03.039 **(Recommended)**

Filename: SC_ML30GEN10Plus_ME_06.00.03.039.fwpkg

Important Note!**Important Notes:**

None

Deliverable Name:

HPE ML30 Gen10 Plus Server Platform Services (SPS) Firmware

Release Version:

06.00.03.039

Last Recommended or Critical Revision:

06.00.03.039

Previous Revision:

06.00.03.035

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the Tatlow PLR2 BKC WW50.

Problems Fixed:

None

Known Issues:

None

Prerequisites

The "iLO 5 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

This version of the System ROM contains updates aligned with the Tatlow PLR2 BKC WW50.

Known Issues:

None

Server Platform Services (SPS) Firmware

Version: 05.01.04.400 **(Recommended)**

Filename: cp050853.compsig; cp050853.zip

Fixes

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

Enhancements

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

Server Platform Services (SPS) Firmware for Intel C242 and C246 PCH based systems

Version: 05.01.04.400 **(Recommended)**

Filename: cp050852.compsig; cp050852.zip

Fixes

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

Enhancements

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

Server Platform Services Manageability Engine Firmware

Version: 06.00.03.039 **(Recommended)**

Filename: cp050806.compsig; cp050806.zip

Fixes

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

Enhancements

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

Server Platform Services Manageability Engine Firmware for the Intel C256 PCH based systems

Version: 06.00.03.039 **(Recommended)**

Filename: cp050814.compsig; cp050814.zip

Fixes

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

Enhancements

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

Operating System - Enhancements

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AMD PSUED Plug-in service for Microsoft Windows

Version: 1.0.0.41 **(Recommended)**

Filename: cp049984.compsig; cp049984.exe

Enhancements

Initial release

Software - Lights-Out Management

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HPE Lights-Out Online Configuration Utility for Linux (AMD64/EM64T)

Version: 5.6.0-0 **(Optional)**

Filename: hponcfg-5.6.0-0.x86_64.compsig; hponcfg-5.6.0-0.x86_64.rpm

Prerequisites

This utility requires the following minimum firmware revisions:

- Integrated Lights-Out 3 firmware v1.00 or later

- Integrated Lights-Out 4 firmware v1.00 or later
- Integrated Lights-Out 5 firmware v1.20 or later

The management interface driver and management agents must be installed on the server.

For iLO 5, openssl v1.0.x or later is required in addition to above packages. Customers who manually compile and install openssl or intentionally relocate /usr/bin/openssl, need to set PATH environment variable to direct HPONCFG to the right/intended openssl.

Fixes

Fixed an issue where HPONCFG was not able to detect openssl library when multiple 64-bit openssl installed.

Enhancements

Updated product name to HPE Lights-Out Online Configuration Utility for Linux (AMD64/EM64T).

HPE Lights-Out Online Configuration Utility for Windows x64 Editions

Version: 5.5.0.0 (C) **(Optional)**

Filename: cp048230.compsig; cp048230.exe

Prerequisites

This utility requires the following minimum firmware revisions:

- Integrated Lights-Out 3 firmware v1.00 or later
- Integrated Lights-Out 4 firmware v1.00 or later
- Integrated Lights-Out 5 firmware v1.30 or later

The management interface driver must be installed on the server.

Microsoft .Net Framework 2.0 or later is required to launch HPONCFG GUI.

Enhancements

Introduced support for Microsoft Windows Server 2022.

Software - Management

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HPE Agentless Management Bundle Smart Component on ESXi 7.0 for Gen10 and Gen10 Plus Servers

Version: 2021.10.01 **(Recommended)**

Filename: cp047520.compsig; cp047520.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

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
-

HPE CRU Driver Bundle Smart Component for ESXi 7.0

Version: 2020.04.01 (A) **(Recommended)**

Filename: cp044598.compsig; cp044598.zip

Enhancements

Add new supported servers

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

Version: 2021.10.01 **(Recommended)**

Filename: cp047521.compsig; cp047521.zip

Enhancements

Supports VMware ESXi 7.0 U2 and ESXi 7.0 U3

HPE iLO Driver Bundle Smart Component for ESXi 7.0

Version: 2021.09.01 **(Recommended)**

Filename: cp047518.compsig; cp047518.zip

Fixes

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

HPE Management Bundle Smart Component for ESXi 6.5 for Gen10 and Gen10 Plus Servers

Version: 2021.10.01 **(Recommended)**

Filename: cp047523.compsig; cp047523.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.

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

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

Smart Storage Administrator (SSA) CLI Smart Component for ESXi 7.0

Version: 2022.03.01 **(Recommended)**

Filename: cp050291.compsig; cp050291.zip

Fixes

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

Software - Storage Controller

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HPE MegaRAID Storage Administrator StorCLI for VMware6.5

Version: 2021.04.00 **(Recommended)**

Filename: cp045835.compsig; cp045835.zip

Enhancements

- Added support for the Apollo 4510 system

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
-

HPE MegaRAID Storage Administrator StorCLI for VMware7.0

Version: 2021.04.00 **(Recommended)**

Filename: cp044633.compsig; cp044633.zip

Enhancements

initial release

HPE Smart Array SR Event Notification Service for Windows Server 64-bit Editions

Version: 1.2.1.66 **(Recommended)**

Filename: cp049025.compsig; cp049025.exe

Enhancements

- Added support for Windows 2022.
-

Software - Storage Fibre Channel

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HPE QLogic Fibre Channel driver component for VMware vSphere 6.5

Version: 2021.10.01 **(Recommended)**

Filename: cp046817.compsig; cp046817.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 2.1.101.0

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

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

Version: 2021.10.01 **(Recommended)**

Filename: cp046819.compsig; cp046819.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:

- Fixed an unwanted behavior where Get Port Speed Capabilities (GPSC) failures were leading to intelligent interleaved direct memory access (IIDMA) for target being set to 1GB/s. This is described in [Advisory: HPE Host Bus Adapters - HPE Platforms Running VMware ESXi 6.5 / 6.7 / 7.0 and Configured With Certain HPE Host Bus Adapters May Experience Severe Performance Degradation When Connected to Brocade FOS v8.0.1 \(or Prior\)](#)
- 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 4.1.34.0

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

HPE Storage Emulex Fibre Channel driver component for VMware vSphere 6.5

Version: 2021.10.01 **(Recommended)**

Filename: cp046811.compsig; cp046811.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 12.8.317.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb 1Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

HPE Storage Emulex Fibre Channel driver component for VMware vSphere 6.7

Version: 2022.03.01 **(Recommended)**

Filename: cp049965.compsig; cp049965.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 SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

HPE Storage Emulex Fibre Channel driver component for VMware vSphere 7.0

Version: 2022.03.01 **(Recommended)**

Filename: cp049966.compsig; cp049966.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.

This component is supported only on ESXI 7.0U2

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 12.8.528.13

This component is supported only on ESXI 7.0U2

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

HPE Storage Emulex Fibre Channel NVMe driver component for VMware vSphere 7.0

Version: 2022.03.01 **(Recommended)**

Filename: cp049953.compsig; cp049953.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.

This component is supported only on ESXi 7.0U2

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 12.8.528.7

This component is supported only on ESXi 7.0U2

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

Software - Storage Fibre Channel HBA

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Fibreutils for HPE Storage Fibre Channel Host Bus Adapters for Linux -Red Hat Enterprise Linux (RHEL)

Version: 4.2-1 (c) **(Optional)**

Filename: fibreutils-4.2-1_rhel.x86_64.compsig; fibreutils-4.2-1_rhel.x86_64.rpm

Prerequisites

- Requires the following packages to be installed: glibc libgcc libstdc++ bash perl

Enhancements

This package supports only Red Hat Enterprise Linux (RHEL) Distro

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port 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

64Gb FC Adapter:

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

Fibreutils for HPE Storage Fibre Channel Host Bus Adapters for Linux -SuSE Linux Enterprise Server(SLES)

Version: 4.2-1 (b) **(Optional)**

Filename: fibreutils-4.2-1_sles.x86_64.compsig; fibreutils-4.2-1_sles.x86_64.rpm

Prerequisites

- Requires the following packages to be installed: glibc libgcc libstdc++ bash perl

Enhancements

This package supports only SuSE Linux Enterprise Server(SLES) Distros

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb 1Single Port Fibre Channel Host Bus Adapter
- HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port 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

64Gb FC Adapter:

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

HPE Emulex Fibre Channel Enablement Kit for Host Bus Adapters and Mezzanine Host Bus Adapters for Red Hat Enterprise Linux 7 Server

Version: 12.8.526.0 (c) **(Recommended)**

Filename: HPE-CNA-FC-Emulex-Enablement-Kit-12.8.526.0-1.rhel7.x86_64.compsig; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.526.0-1.rhel7.x86_64.rpm

Important Note!

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Prerequisites

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Enhancements

Updated to version 12.8.526.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE LPe1605 16Gb Fibre Channel Mezzanine Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

HPE Emulex Fibre Channel Enablement Kit for Host Bus Adapters and Mezzanine Host Bus Adapters for Red Hat Enterprise Linux 8 Server

Version: 12.8.526.0 (c) **(Recommended)**

Filename: HPE-CNA-FC-Emulex-Enablement-Kit-12.8.526.0-1.rhel8.x86_64.compsig; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.526.0-1.rhel8.x86_64.rpm

Important Note!

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Prerequisites

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Enhancements

Added the following support:

- Added support for RHEL 8.5

Updated to version 12.8.526.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE LPe1605 16Gb Fibre Channel Mezzanine Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

HPE Emulex Fibre Channel Enablement Kit for Host Bus Adapters and Mezzanine Host Bus Adapters for SUSE Linux Enterprise Server 12

Version: 12.8.526.0 (c) **(Recommended)**

Filename: HPE-CNA-FC-Emulex-Enablement-Kit-12.8.526.0-1.sles12sp5.x86_64.compsig; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.526.0-1.sles12sp5.x86_64.rpm

Important Note!

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Rewrite of same Enablement kit version on SuSE Linux Enterprise Server 12 service pack 5 has to be performed using `--force` or `--replacepkgs` with `--nodeps` option

Example: `rpm -Uvh HPE-CNA-FC-Emulex-Enablement-Kit-<version>.<OS>.<architecture>.rpm --force --nodeps`

`rpm -Uvh HPE-CNA-FC-Emulex-Enablement-Kit-<version>.<OS>.<architecture>.rpm --replacepkgs --nodeps`

For more information please refer the Knowledge Base at: <https://www.suse.com/support/kb/doc/?id=000019640>

Prerequisites

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Enhancements

Updated to version 12.8.526.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE LPe1605 16Gb Fibre Channel Mezzanine Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

HPE Emulex Fibre Channel Enablement Kit for Host Bus Adapters and Mezzanine Host Bus Adapters for SUSE Linux Enterprise Server 15

Version: 12.8.526.0 (c) **(Recommended)**

Filename: HPE-CNA-FC-Emulex-Enablement-Kit-12.8.526.0-1.sles15sp2.x86_64.compsig; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.526.0-1.sles15sp2.x86_64.rpm; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.526.0-1.sles15sp3.x86_64.compsig; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.526.0-1.sles15sp3.x86_64.rpm

Important Note!

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Rewrite of same Enablement kit version on SuSE Linux Enterprise Server 15 service pack 2 and SuSE Linux Enterprise Server 15 service pack 3 has to be performed using --reinstall option

Example: `rpm -Uvh HPE-CNA-FC-Emulex-Enablement-Kit-<version>.<OS>.<architecture>.rpm --reinstall`

For more information please refer the Knowledge Base at: <https://www.suse.com/support/kb/doc/?id=000019640>

Prerequisites

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Enhancements

Added the following support:

- Added support for SLES 15 SP3

Updated to version 12.8.526.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE LPe1605 16Gb Fibre Channel Mezzanine Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

HPE Emulex Fibre Channel Smart SAN Enablement Kit for Host Bus Adapters for Microsoft Windows Server 2022 (x86_64)

Version: 1.0.0.1 **(Recommended)**

Filename: cp047508.compsig; cp047508.exe

Important Note!

The Smart SAN enablement kit will not execute when an operating system has only the inbox fibre channel driver installed. An out of box (OOB) fibre channel driver is needed to utilize Smart SAN functionality. If any OOB driver is installed, the enablement kit will pre-enable/disable Smart SAN functionality for future use. It can then be activated once a Smart SAN enabled OOB driver is installed (see Prerequisite Notes) and after a reboot has occurred.

Obtain Smart SAN User Guide for 3PAR at following link: [HPE Smart SAN for 3PAR 2.0 User Guide](#)

Prerequisites

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

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

The HPE supplied fibre channel driver must be installed prior to this enablement kit component if you want to enable Smart SAN functionality. The driver is available on the HPE.com website at www.hpe.com.

HPE Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver v12.8.518.0 cp047332.exe

However, if a Smart SAN enabled driver is not installed at execution time, the component will land the enablement kit files for future use after the driver has been installed.

Enhancements

Added the following support :

- Added support for Windows 2022

Updated to version 1.0.0.1

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

HPE Emulex Smart SAN Enablement Kit for Linux

Version: 1.0.0.0-4 (j) **(Optional)**

Filename: hpe-emulex-smartsan-enablement-kit-1.0.0.0-4.x86_64.compsig; hpe-emulex-smartsan-enablement-kit-1.0.0.0-4.x86_64.rpm

Important Note!

The Smart SAN enablement kit will not execute when an operating system has only the inbox fibre channel driver installed. An out of box (OOB) fibre channel driver is needed to utilize Smart SAN functionality. If any OOB driver is installed, the enablement kit will pre-enable/disable Smart SAN functionality for future use. It can then be activated once a Smart SAN enabled OOB driver is installed (see Prerequisite Notes) and after a reboot has occurred.

Obtain Smart SAN User Guide for 3PAR at following link: [HPE Smart SAN for 3PAR 2.0 User Guide](#)

Prerequisites

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

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

The HPE supplied fibre channel driver must be installed prior to this enablement kit component if you want to enable Smart SAN functionality. The driver is available on the HPE.com website at www.hpe.com.

Linux FC Driver Kit for HPE Emulex FC HBAs and mezz cards, version 12.8.xxx.x for RedHat 7, RedHat 8 and SUSE 12, SUSE 15.

However, if a Smart SAN enabled driver is not installed at execution time, the component will land the enablement kit files for future use after the driver has been installed.

Enhancements

Added support to SLES15SP3

Updated to version 1.0.0.0-4

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb 1Single Port Fibre Channel Host Bus Adapter
- HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

Version: 1.0.0.1 (k) **(Optional)**

Filename: cp047610.compsig; cp047610.exe

Important Note!

The Smart SAN enablement kit will not execute when an operating system has only the inbox fibre channel driver installed. An out of box (OOB) fibre channel driver is needed to utilize Smart SAN functionality. If any OOB driver is installed, the enablement kit will pre-enable/disable Smart SAN functionality for future use. It can then be activated once a Smart SAN enabled OOB driver is installed (see Prerequisite Notes) and after a reboot has occurred.

Obtain Smart SAN User Guide for 3PAR at following link: [HPE Smart SAN for 3PAR 2.0 User Guide](#)

Prerequisites

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

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

The HPE supplied fibre channel driver must be installed prior to this enablement kit component if you want to enable Smart SAN functionality. The latest Emulex FC driver 12.8.351.7 is available on the Service Pack for ProLiant (SPP) which is available at <http://www.hpe.com/servers/spp/download/>

However, if a Smart SAN enabled driver is not installed at execution time, the component will land the enablement kit files for future use after the driver has been installed.

Enhancements

Updated to version 1.0.0.1

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb 1Single Port Fibre Channel Host Bus Adapter
- HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

HPE Emulex(BRCM) Fibre Channel Over Ethernet Enablement Kit for Host Bus Adapters and Mezzanine Host Bus Adapters for Red Hat Enterprise Linux 7 Server

Version: 12.0.1339.0 (b) **(Recommended)**

Filename: HPE-CNA-FC-Broadcom-Enablement-Kit-12.0.1339.0-1.rhel7.x86_64.compsig; HPE-CNA-FC-Broadcom-Enablement-Kit-12.0.1339.0-1.rhel7.x86_64.rpm

Prerequisites

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Enhancements

Updated to version: 12.0.1339.0

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

HPE Emulex(BRCM) Fibre Channel Over Ethernet Enablement Kit for Host Bus Adapters and Mezzanine Host Bus Adapters for Red Hat Enterprise Linux 8 Server

Version: 12.0.1339.0 (b) **(Optional)**

Filename: HPE-CNA-FC-Broadcom-Enablement-Kit-12.0.1339.0-1.rhel8.x86_64.compsig; HPE-CNA-FC-Broadcom-Enablement-Kit-12.0.1339.0-1.rhel8.x86_64.rpm

Prerequisites

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Enhancements

Updated to version: 12.0.1339.0

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 FlexFabric 20Gb 2-port 650FLB Adapter

- HPE FlexFabric 20Gb 2-port 650M Adapter

HPE Emulex(BRCM) Fibre Channel Over Ethernet Enablement Kit for Host Bus Adapters and Mezzanine Host Bus Adapters for SUSE Linux Enterprise Server 12

Version: 12.0.1339.0 (b) **(Recommended)**

Filename: HPE-CNA-FC-Broadcom-Enablement-Kit-12.0.1339.0-1.sles12sp5.x86_64.compsig; HPE-CNA-FC-Broadcom-Enablement-Kit-12.0.1339.0-1.sles12sp5.x86_64.rpm

Prerequisites

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Enhancements

Updated to version: 12.0.1339.0

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

HPE Emulex(BRCM) Fibre Channel Over Ethernet Enablement Kit for Host Bus Adapters and Mezzanine Host Bus Adapters for SUSE Linux Enterprise Server 15

Version: 12.0.1339.0 (b) **(Optional)**

Filename: HPE-CNA-FC-Broadcom-Enablement-Kit-12.0.1339.0-1.sles15sp2.x86_64.compsig; HPE-CNA-FC-Broadcom-Enablement-Kit-12.0.1339.0-1.sles15sp2.x86_64.rpm

Prerequisites

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Enhancements

Updated to version: 12.0.1339.0

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

HPE NVMe Fibre Channel Enablement Kit for Emulex Host Bus Adapters for Linux Server

Version: 12.8.264.0 (c) **(Optional)**

Filename: nvmeFc-connect-12.8.264.0-1.rhel7u8.noarch.compsig; nvmeFc-connect-12.8.264.0-1.rhel7u8.noarch.rpm; nvmeFc-connect-12.8.264.0-1.rhel7u9.noarch.compsig; nvmeFc-connect-12.8.264.0-1.rhel7u9.noarch.rpm

Important Note!

This package is applicable only on the below Operating Systems

Red Hat Enterprise Linux Server 7 update 8

Red Hat Enterprise Linux Server 7 update 9

Prerequisites

To successfully deploy nvme-connect rpm on target systems based on a Linux operating system, "nvme-cli" package has to be available on the target system. This package is available as part of the OS-distro.

Enhancements

Updated to version 12.8.264.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE Fibre Channel 16Gb LPe1605 Mezzanine Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

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

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

HPE QLogic Fibre Channel Enablement Kit for Host Bus Adapter and Mezzanine Host Bus Adapter for Linux

Version: 6.0.0.0-16 (b) **(Recommended)**

Filename: HPE-CNA-FC-hpeqlgc-Enablement-Kit-6.0.0.0-16.noarch.compsig; HPE-CNA-FC-hpeqlgc-Enablement-Kit-6.0.0.0-16.noarch.rpm

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

The Enablement Kit requires that the target environment have the libHBAAPI package installed from your OS installation media.

The Linux Enablement kit has been changed from "HP-CNA-FC-hpqlgc-Enablement-Kit" to "HPE-CNA-FC-hpeqlgc-Enablement-Kit". Upgrade from the older released Enablement kit is supported. However downgrade to earlier version "HP-CNA-FC-hpqlgc-Enablement-Kit" may not be successful and may report conflicts.

Workaround : Please uninstall the Enablement kit and install the older versions

Rewrite of same Enablement kit version on SuSE Linux Enterprise Server 12 service pack 4 and SuSE Linux Enterprise Server 12 service pack 5 has to be performed using `--force` or `--replacepkgs` with `--nodeps` option

Example: `rpm -Uvh HPE-CNA-FC-hpeqlgc-Enablement-Kit-<version>.noarch.rpm --force --nodeps`

`rpm -Uvh HPE-CNA-FC-hpeqlgc-Enablement-Kit-<version>.noarch.rpm --replacepkgs --nodeps`

Rewrite of same Enablement kit version on SuSE Linux Enterprise Server 15 service pack 1 and SuSE Linux Enterprise Server 15 service pack 2 has to be performed using `--reinstall` option

Example: `rpm -Uvh HPE-CNA-FC-hpeqlgc-Enablement-Kit-<version>.noarch.rpm --force --nodeps`

For more information please refer the Knowledge Base at: <https://www.suse.com/support/kb/doc/?id=000019640>

Prerequisites

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

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

The Enablement Kit requires that the target environment have the libHBAAPI package installed from your OS installation media.

Enhancements

Updated the kit to version 6.0.0.0-16

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

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 QLogic Smart SAN Enablement Kit for Fibre Channel Host Bus Adapter for Microsoft Windows Server 2016/2019 (x86_64)

Version: 1.0.0.1 (j) **(Recommended)**

Filename: cp042521.compsig; cp042521.exe

Important Note!

The Smart SAN enablement kit will not execute when an operating system has only the inbox fibre channel driver installed. An out of box (OOB) fibre channel driver is needed to utilize Smart SAN functionality. If any OOB driver is installed, the enablement kit will pre-enable/disable Smart SAN functionality for future use. It can then be activated once a Smart SAN enabled OOB driver is installed (see Prerequisite Notes) and after a reboot has occurred.

Obtain Smart SAN User Guide for 3PAR at following link: [HPE Smart SAN for 3PAR 2.0 User Guide](#)

Prerequisites

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

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

The HPE supplied fibre channel driver must be installed prior to this enablement kit component if you want to enable Smart SAN functionality. The latest Qlogic FC driver 9.4.5.20 is available on the Service Pack for ProLiant (SPP) which is available at <http://www.hpe.com/servers/spp/download/>

However, if a Smart SAN enabled driver is not installed at execution time, the component will land the enablement kit files for future use after the driver has been installed.

Enhancements

Updated to version 1.0.0.1

Supported Devices and Features

This enablement kit is supported on the following HPE adapters:

Gen 6 Fibre Channel Host Bus Adapter:

- HPE SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE SN1100Q 16GB 1-port PCIe 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 QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

Gen 7 Fibre Channel Host Bus Adapter:

- HPE SN1610Q 32Gb 2P FC HBA
- HPE SN1610Q 32Gb 1P FC HBA

HPE QLogic Smart SAN Enablement Kit for Fibre Channel Host Bus Adapter for Microsoft Windows Server 2022 (x86_64)

Version: 1.0.0.1 **(Recommended)**

Filename: cp047511.compsig; cp047511.exe

Important Note!

The Smart SAN enablement kit will not execute when an operating system has only the inbox fibre channel driver installed. An out of box (OOB) fibre channel driver is needed to utilize Smart SAN functionality. If any OOB driver is installed, the enablement kit will pre-enable/disable Smart SAN functionality for future use. It can then be activated once a Smart SAN enabled OOB driver is installed (see Prerequisite Notes) and after a reboot has occurred.

Obtain Smart SAN User Guide for 3PAR at following link: [HPE Smart SAN for 3PAR 2.0 User Guide](#)

Prerequisites

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

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

The HPE supplied fibre channel driver must be installed prior to this enablement kit component if you want to enable Smart SAN functionality. The driver is available on the HPE.com website at www.hpe.com.

- HPE Storage Fibre Channel Adapter Kit for the QLogic Storport Driver for Windows Server 2019 version 9.4.5.20, cp047201.exe

However, if a Smart SAN enabled driver is not installed at execution time, the component will land the enablement kit files for future use after the driver has been installed.

Enhancements

Added support for the following:

- Added support for Windows 2022

Updated to version 1.0.0.1

Supported Devices and Features

This enablement kit is supported on 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 QLogic Smart SAN enablement kit for Linux

Version: 3.3-3 (i) **(Optional)**

Filename: hpe-qlogic-smartsan-enablement-kit-3.3-3.x86_64.compsig; hpe-qlogic-smartsan-enablement-kit-3.3-3.x86_64.rpm

Important Note!

Obtain Smart SAN User Guide for 3PAR at following link: [HPE Smart SAN for 3PAR 2.0 User Guide](http://www.hpe.com/storage/spock/)

Prerequisites

Please consult SPOCK for a list of supported configurations available at the following link: <http://www.hpe.com/storage/spock/>

The HPE supplied fibre channel driver must be installed prior to this enablement kit component if you want to enable Smart SAN functionality. The driver is available on the HPE.com website at www.hpe.com.

- Red Hat Enterprise Linux 7 Server (x86-64) FC Driver Kit for HPE Qlogic HBAs and mezzaine HBAs, version 10.02.01.00.a14-k1.
- Red Hat Enterprise Linux 8 Server FC Driver Kit for HPE QLogic HBAs and mezzaine HBAs, version 10.02.01.01.a2-k1.
- SUSE Linux Enterprise Server 12 FC Driver Kit for HPE Qlogic HBAs and mezzaine HBAs, version 10.02.01.00.a14-k1.
- SUSE Linux Enterprise Server 15 FC Driver Kit for HPE QLogic HBAs and mezzaine HBAs, version 10.02.01.00.a14-k1.

However, if a Smart SAN enabled driver is not installed at execution time, the component will land the enablement kit files for future use after the driver has been installed.

Enhancements

Updated to version 3.3-3

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
- 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

Software - System Management

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Agentless Management Service (iLO 5) for Red Hat Enterprise Linux 7 Server

Version: 2.6.0 **(Optional)**

Filename: amsd-2.6.0-1701.1.rhel7.x86_64.compsig; amsd-2.6.0-1701.1.rhel7.x86_64.rpm

Prerequisites

- **amsd only supported on HPE Gen10/Gen10 Plus Servers.**
- **amsd provides information to the iLO 5 service providing SNMP support.**

- **Requirements:**
 - Minimum iLO 5 Firmware Version = 1.1
 - Minimum supported OS Versions = Red Hat Enterprise Linux 7.3 Errata 3.10.0.514.6.1

Fixes

Fixed the following items:

- Users may see the OS logical disk usage percentage difference is much between OS level and AHS. The fix refines the result to minor the difference between OS level and AHS.
- Users may not find correct NIC port status or IML record when NIC port link status changes from "Unknown" to "OK". The SNMP Trap to make iLO/IML record that link port status changes has been updated.

Enhancements

The following enhancements are available:

- Align with cross OSES AMS NIC port status behavior. Marked NIC port link status as "Unknown" when no link was found upon AMS started.

Agentless Management Service (iLO 5) for Red Hat Enterprise Linux 8 Server

Version: 2.6.0 **(Optional)**

Filename: amsd-2.6.0-1701.1.rhel8.x86_64.compsig; amsd-2.6.0-1701.1.rhel8.x86_64.rpm

Prerequisites

- **amsd only supported on HPE Gen10/Gen10 Plus Servers.**
- **amsd provides information to the iLO 5 service providing SNMP support.**
- **Requirements:**
 - Minimum iLO 5 Firmware Version = 1.1
 - Minimum supported OS Versions = Red Hat Enterprise Linux 8

Fixes

Fixed the following items:

- Users may see the OS logical disk usage percentage difference is much between OS level and AHS. The fix refines the result to minor the difference between OS level and AHS.
- Users may not find correct NIC port status or IML record when NIC port link status changes from "Unknown" to "OK". The SNMP Trap to make iLO/IML record that link port status changes has been updated.

Enhancements

The following enhancements are available:

- Align with cross OSES AMS NIC port status behavior. Marked NIC port link status as "Unknown" when no link was found upon AMS started.

Agentless Management Service (iLO 5) for SUSE Linux Enterprise Server 12

Version: 2.6.0 **(Optional)**

Filename: amsd-2.6.0-1701.1.sles12.x86_64.compsig; amsd-2.6.0-1701.1.sles12.x86_64.rpm

Prerequisites

- **amsd only supported on HPE Gen10/Gen10 Plus Servers.**
- **amsd provides information to the iLO 5 service providing SNMP support.**
- **Requirements:**
 - Minimum iLO 5 Firmware Version = 1.1
 - Minimum supported OS Versions = SUSE Linux Enterprise Server 12 SP2

Fixes

Fixed the following items:

- Users may see the OS logical disk usage percentage difference is much between OS level and AHS. The fix refines the result to minor the difference between OS level and AHS.
- Users may not find correct NIC port status or IML record when NIC port link status changes from "Unknown" to "OK". The SNMP Trap to make iLO/IML record that link port status changes has been updated.

Enhancements

The following enhancements are available:

- Align with cross OSES AMS NIC port status behavior. Marked NIC port link status as "Unknown" when no link was found upon AMS started.

Agentless Management Service (iLO 5) for SUSE Linux Enterprise Server 15

Version: 2.6.0 **(Optional)**

Filename: amsd-2.6.0-1701.1.sles15.x86_64.compsig; amsd-2.6.0-1701.1.sles15.x86_64.rpm

Prerequisites

- **amsd only supported on HPE Gen10/Gen10 Plus Servers.**
- **amsd provides information to the iLO 5 service providing SNMP support.**
- **Requirements:**
 - Minimum iLO 5 Firmware Version = 1.1
 - Minimum supported OS Versions = SUSE Linux Enterprise Server 15

Fixes

Fixed the following items:

- Users may see the OS logical disk usage percentage difference is much between OS level and AHS. The fix refines the result to minor the difference between OS level and AHS.
- Users may not find correct NIC port status or IML record when NIC port link status changes from "Unknown" to "OK". The SNMP Trap to make iLO/IML record that link port status changes has been updated.

Enhancements

The following enhancements are available:

- Align with cross OSES AMS NIC port status behavior. Marked NIC port link status as "Unknown" when no link was found upon AMS started.

Agentless Management Service for Microsoft Windows x64

Version: 2.51.0.0 **(Optional)**

Filename: cp049914.compsig; cp049914.exe

Important Note!

About installation and enablement of SMA service:

- During AMS installation in interactive mode, there is pop up message to selectively install SMA.
 - If Yes is selected, SMA service will be installed and set to running state.
 - If No is selected, SMA service will be installed but the service is not enabled.
- During AMS installation in silent mode, SMA is installed but the service is not enabled.
- To enable SMA service at a later time, go to the following folder: %ProgramFiles%\OEM\AMS\Service\ (Typically c:\Program Files\OEM\AMS\Service) and execute "EnableSma.bat /f"
- IMPORTANT: The SNMP service community name and permission must also be setup. This is not done by "EnableSma.bat".
- To disable SMA after it has been enabled, go to the following folder: %ProgramFiles%\OEM\AMS\Service\ (Typically c:\Program Files\OEM\AMS\Service) and execute "DisableSma.bat /f"
- After installing Windows operating system, make sure all the latest Microsoft Updates are downloaded and installed (wuapp.exe can be launched to start the update process). If this is not done, a critical error may be reported in Windows Event Log, "The Agentless Management Service terminated unexpectedly."

AMS Control Panel Applet:

- The AMS control panel applet UI is best displayed on the system when screen resolution is 1280 x 1024 pixels or higher and text size 100%.
- Test trap generated from AMS Control Panel Applet requires iLO5 firmware version 2.10 and newer.
- When in iLO5 high security mode (e.g. FIPS mode), MD5 authentication protocol will not be shown.

Prerequisites

The *Channel Interface Driver for Windows X64* must be installed prior to this component.

Microsoft SNMP Service must be enabled, if SMA (System Management Assistant) is enabled.

Fixes

- Fine tune presenting capacity bytes in AHCI SATA.
- Fixed thread leaking issue.
- Fixed Windows will shut down caused by bogus temperature.

Enhancements

- Added support installer.dll version in system software information.
- Enhanced disk overheat detection.
- Removed unnecessary conditions for the status of P824i-p MR Gen10 controller report.
- Corrected the source of cpqIdeAtaDiskSSDPercntEndrnceUsed for iLo displayed.

Agentless Management Service Offline Bundle for VMware ESXi 6.5 for Gen10 and Gen10 Plus Servers

Version: gen10.11.8.0 **(Recommended)**

Filename: ams-esxi6.5-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.

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 version support:

- VMware ESXi 6.5 U2
- VMware ESXi 6.5 U3

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 Agentless Management Bundle for ESXi 7.0 Update 1 for HPE Gen10 and Gen10 Plus Servers

Version: 701.11.8.0 **(Recommended)**

Filename: amsdComponent_701.11.8.0.15-1_18612107.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

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

HPE Fiber Channel and Storage Enablement Component for ESXi 7.0

Version: 3.8.0 **(Recommended)**

Filename: fc-enablement-component_700.3.8.0.6-1_18506758.zip

Enhancements

Supports VMware ESXi 7.0 U2 and ESXi 7.0 U3

HPE MegaRAID Storage Administrator (HPE MRSA) for Linux 64-bit

Version: 7.016.16.0 (B) **(Recommended)**

Filename: HPE_Linux_64_readme.txt; MRStorageAdministrator-007.016.016.000-00.x86_64.rpm; MRStorageAdministrator-007.016.016.000-00.x86_64_part1.compsig; MRStorageAdministrator-007.016.016.000-00.x86_64_part2.compsig

Prerequisites

For SLES15 and above platforms, one of the dependent rpms - 'insserv-compat' is required during installation/uninstallation. This is needed because MRSA startup script is based on SysV/init script and insserv adds as a bridge between SysV/init script and systemctl.

Enhancements

- Added support for DL20 Gen10 Plus Server.

HPE MegaRAID Storage Administrator (HPE MRSA) for Windows 64-bit

Version: 7.16.16.0 (C) **(Recommended)**

Filename: cp050700.exe; cp050700_part1.compsig; cp050700_part2.compsig

Enhancements

Support new os Windows 2022

HPE MegaRAID Storage Administrator StorCLI for Linux 64-bit

Version: 1.25.12 **(Optional)**

Filename: LINUX_Readme.txt; storcli-1.25.12-1.noarch.compsig; storcli-1.25.12-1.noarch.rpm

Enhancements

- Added support for the Apollo 4510 system

HPE MegaRAID Storage Administrator StorCLI for Linux 64-bit

Version: 007.1616.0000.0000 (B) **(Optional)**

Filename: storcli-007.1616.0000.0000-1.x86_64.compsig; storcli-007.1616.0000.0000-1.x86_64.rpm

Enhancements

- Added support for DL20 Gen10 Plus server

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: BCM-vmware-storcli64_007.1616.0000.0000-01_17650073.zip

Enhancements

Supported on ESXi OS 7.0 64 bit

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)

HPE MegaRAID Storage Administrator StorCLI for VMware

Version: 1.25.16 **(Recommended)**

Filename: storcli-esxi6.5-bundle-1.25.16.zip

Enhancements

Initial release

HPE MegaRAID Storage Administrator StorCLI for Windows 64-bit

Version: 1.25.12.0 **(Optional)**

Filename: cp036918.compsig; cp036918.exe

Enhancements

- Added support for the Apollo 4510 system
-

HPE MegaRAID Storage Administrator StorCLI for Windows 64-bit

Version: 7.16.16.0 (B) **(Recommended)**

Filename: cp050701.compsig; cp050701.exe

Enhancements

Support new OS Windows 2022

HPE Utilities Offline Bundle for ESXi 6.5

Version: 10.8.0 **(Recommended)**

Filename: HPE-Utility-Component_10.8.0.650-26.zip

Important Note!

Refer to the HPE VMware Utilities Guide for VMware vSphere 6.5 which is located at www.hpe.com/info/vmware/proliant-docs.

Fixes

hpessacli

- Fixed an issue where the "Turn off" LED operation momentarily turns on all Identify LED.
- Fixed an issue where an NVME drive was failed after flashing drive firmware.
- Fixed an issue where an operation failure message was observed while deleting a volume with status "Not Available".
- Fixed an issue that SSAScripting reported incorrect size for some drives greater than 1TB. This did not affect SSACLI.

Enhancements

hpessacli

- Added initial passive SED support.
- Added new "unchanged" Drive Write Cache (DWC) policy to the applications.
- Added support for discovering and reporting failed drives that are not part of a RAID volume.

HPE Utilities Offline Bundle for ESXi 6.7

Version: 10.9.0 **(Recommended)**

Filename: HPE-Utility-Component_10.9.0.670-5.zip; relnotes.txt

Important Note!

Refer to the HPE VMware Utilities Guide for VMware vSphere 6.7 U1 for April 2019 which is located at www.hpe.com/info/vmware/proliant-docs.

Fixes

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

HPE Utilities Offline Component for ESXi 7.0

Version: 10.8.0 (**Recommended**)

Filename: HPE-Utility-Component_10.8.0.700-22_18497760.zip

Important Note!

Refer to the HPE VMware Utilities Guide for VMware vSphere/ESXi which is located at www.hpe.com/info/vmware/proliant-docs.

Fixes

Includes an updated the Smart Storage Administrator CLI and CONREP

Integrated Smart Update Tools for VMware ESXi 6.5

Version: 2.9.1.0 **(Recommended)**

Filename: sut-esxi6.5-offline-bundle-2.9.1.0-8.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

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

Integrated Smart Update Tools for VMware ESXi 7.0

Version: 701.2.9.1 **(Recommended)**

Filename: sutComponent_701.2.9.1.9-0-signed_component-19330218.zip

Important Note!

Integrated Smart Update Tools for ESXi 7.0 provides support for firmware and driver updates via iLO Repository

Fixes

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

Enhancements

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

NVMe Drive Eject NMI Fix for Intel Xeon Processor Scalable Family for Microsoft Windows 64-bit

Version: 1.1.0.0 (D) **(Optional)**

Filename: cp047948.compsig; cp047948.exe

Enhancements

- Removed support for Windows Server 2012 R2
 - Added support for Windows Server 2022
-

Smart Storage Administrator (SSA) CLI for Linux 64-bit

Version: 5.30.6.0 **(Recommended)**

Filename: ssaccli-5.30-6.0.x86_64.compsig; ssaccli-5.30-6.0.x86_64.rpm; ssaccli-5.30-6.0.x86_64.txt

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 "expresslocalencryptionula=?" command.

Smart Storage Administrator (SSA) CLI for VMware 6.5

Version: 5.20.8.0 **(Recommended)**

Filename: MIS_bootbank_ssaccli-5.20.8.0-6.5.0.4240417.oem.vib

Fixes

- Fixed an issue where the "Turn off" LED operation momentarily turns on all Identify LED.
- Fixed an issue where an NVME drive was failed after flashing drive firmware.
- Fixed an issue where an operation failure message was observed while deleting a volume with status "Not Available".
- Fixed an issue that SSAScripting reported incorrect size for some drives greater than 1TB. This did not affect SSACLI.

Enhancements

- Added initial passive SED support.
- Added new "unchanged" Drive Write Cache (DWC) policy to the applications.
- Added support for discovering and reporting failed drives that are not part of a RAID volume.

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 "expresslocalencryptionula=?" command.

Smart Storage Administrator (SSA) CLI for VMware 7.0

Version: 5.30.6.0 **(Recommended)**

Filename: ssacli-component_5.30.6.0-7.0.0_19263463.zip

Enhancements

Initial build

Smart Storage Administrator (SSA) CLI for VMware 7.0

Version: 5.30.6.0 **(Recommended)**

Filename: hpessacli-component_5.30.6.0-7.0.0_19303168.zip

Fixes

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

Smart Storage Administrator (SSA) CLI for Windows 64-bit

Version: 5.30.6.0 **(Recommended)**

Filename: cp049695.compsig; cp049695.exe

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 "expresslocalencryption eula=?" command.

Smart Storage Administrator (SSA) for Linux 64-bit

Version: 5.30.6.0 **(Recommended)**

Filename: ssa-5.30-6.0.x86_64.compsig; ssa-5.30-6.0.x86_64.rpm; ssa-5.30-6.0.x86_64.txt

Prerequisites

The Smart Storage Administrator for Linux requires the System Management Homepage software to be installed on the server. If the System Management Homepage software is not already installed on your server, please download it from HPE.com and install it before installing the Smart Storage Administrator for Linux.

IMPORTANT UPDATE: SSA (GUI) for Linux can now be run without requiring the System Management Homepage. SSA now supports a Local Application Mode for Linux. The System Management Homepage is still supported, but no longer required to run the SSA GUI.

To invoke, enter the following at the command prompt:

```
ssa -local
```

The command will start SSA in a new Firefox browser window. When the browser window is closed, SSA will automatically stop. This is only valid for the loopback interface, and not visible to external network connections.

Enhancements

- Update to the latest SOULAPI version.

Smart Storage Administrator (SSA) for Windows 64-bit

Version: 5.30.6.0 **(Recommended)**

Filename: cp049694.compsig; cp049694.exe

Enhancements

- Update to the latest SOULAPI version.

Smart Storage Administrator Diagnostic Utility (SSADU) CLI for Linux 64-bit

Version: 5.30.6.0 **(Recommended)**

Filename: ssaduccli-5.30-6.0.x86_64.compsig; ssaduccli-5.30-6.0.x86_64.rpm; ssaduccli-5.30-6.0.x86_64.txt

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 "expresslocalencryptionneula=?" command.

Smart Storage Administrator Diagnostic Utility (SSADU) CLI for Windows 64-bit

Version: 5.30.6.0 **(Recommended)**

Filename: cp049696.compsig; cp049696.exe

Important Note!

This stand alone version of the Smart Storage Administrator's Diagnostic feature is available only in CLI form. For the GUI version of Diagnostic reports, please use Smart Storage Administrator (SSA).

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 "expresslocalencryptionneula=?" command.