

Release Notes for Gen10 Service Pack for ProLiant, v2021.04.0

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BIOS (Login Required) - System ROM

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Online ROM Flash Component for Linux - HPE Apollo 2000 Gen10/HPE ProLiant XL170r/XL190r Gen10 (U38) Servers

Version: 2.42_01-23-2021 **(Recommended)**

Filename: RPMS/x86_64/firmware-system-u38-2.42_2021_01_23-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u38-2.42_2021_01_23-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.42_01-23-2021 (Recommended)

Filename: RPMS/x86_64/firmware-system-u39-2.42_2021_01_23-1.1.x86_64.compsig;
RPMS/x86_64/firmware-system-u39-2.42_2021_01_23-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may

result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Online ROM Flash Component for Linux - HPE Apollo 4510 Gen10/HPE ProLiant XL450 Gen10 (U40) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: RPMS/x86_64/firmware-system-u40-2.42_2021_01_23-1.1.x86_64.compsig;
RPMS/x86_64/firmware-system-u40-2.42_2021_01_23-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.40_02-24-2021 (Optional)

Filename: RPMS/x86_64/firmware-system-a48-2.40_2021_02_24-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-a48-2.40_2021_02_24-1.1.x86_64_part1.compsig; RPMS/x86_64/firmware-system-a48-2.40_2021_02_24-1.1.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:

2.40_02-24-2021

Last Recommended or Critical Revision:

1.38_12-23-2020

Previous Revision:

1.38_12-23-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added support for AMD EPYC 7003 processors.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. 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:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Known Issues:

None

Enhancements

Added support for AMD EPYC 7003 processors.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

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

Version: 2.40_02-23-2021 (Optional)

Filename: RPMS/x86_64/firmware-system-a47-2.40_2021_02_23-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-a47-2.40_2021_02_23-1.1.x86_64_part1.compsig; RPMS/x86_64/firmware-system-a47-2.40_2021_02_23-1.1.x86_64_part2.compsig

Important Note!

Important Notes:

None

Deliverable Name:

HPE Apollo 6500 Gen10 Plus/HPE ProLiant XL675d Gen10 Plus System ROM - A47

Release Version:

2.40_02-23-2021

Last Recommended or Critical Revision:

1.38_11-06-2020

Previous Revision:

1.38_11-06-2020

Firmware Dependencies:

HPE ProLiant XL675d Gen10Plus CPLD version 0F

HPE Apollo 6500 Gen10 Plus Chassis CPLD version 0909

Enhancements/New Features:

Added support for AMD EPYC 7003 processors.

Added support for Direct Liquid Cooling solution.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. 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:

None

Firmware Dependencies:

HPE ProLiant XL675d Gen10Plus CPLD version 0F

HPE Apollo 6500 Gen10 Plus Chassis CPLD version 0909

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Known Issues:

None

Enhancements

Added support for AMD EPYC 7003 processors.

Added support for Direct Liquid Cooling solution.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

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

Version: 2.42_01-23-2021 (Recommended)

Filename: RPMS/x86_64/firmware-system-u45-2.42_2021_01_23-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u45-2.42_2021_01_23-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE Apollo 6500 Gen10/HPE ProLiant XL270d Gen10 System ROM - U45

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

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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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Online ROM Flash Component for Linux - HPE ProLiant BL460c Gen10 (I41) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: RPMS/x86_64/firmware-system-i41-2.42_2021_01_23-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-i41-2.42_2021_01_23-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant BL460c Gen10 System ROM - I41

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

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Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.42_01-23-2021 (Recommended)

Filename: RPMS/x86_64/firmware-system-u31-2.42_2021_01_23-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u31-2.42_2021_01_23-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL160 Gen10/DL180 Gen10 System ROM - U31

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.20_10-27-2020 (Recommended)

Filename: RPMS/x86_64/firmware-system-u43-2.20_2020_10_27-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u43-2.20_2020_10_27-1.1.x86_64.rpm

Important Note!

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Deliverable Name:

HPE ProLiant DL20 Gen10 System ROM - U43

Release Version:

2.20_10-27-2020

Last Recommended or Critical Revision:

2.20_10-27-2020

Previous Revision:

2.18_06-24-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CPUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Addressed an issue where the "Minimum Processor Idle Power Package C-State" RBSU option was missing.

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.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Addressed an issue where the "Minimum Processor Idle Power Package C-State" RBSU option was missing.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

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

Version: 2.44_11-13-2020 (Recommended)

Filename: RPMS/x86_64/firmware-system-a41-2.44_2020_11_13-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-a41-2.44_2020_11_13-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL325 Gen10 System ROM - A41

Release Version:

2.44_11-13-2020

Last Recommended or Critical Revision:

2.44_11-13-2020

Previous Revision:

2.42_07-17-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) for dual bifurcation (quadfurcation) of PCIe Adapters to the Advanced PCIe Configuration Options. This option will allow a x16 PCIe device to be bifurcated into four x4 devices. This option would only be used for PCIe Adapters that support this level of bifurcation.

Added support to increase the maximum amount of system memory to 8TB.

Problems Fixed:

Addressed a rare issue where the system may fail to boot after a warm reset.

Addressed an issue where the Advanced Options for Secure Boot failed to export all keys.

Addressed an issue where One-Button Secure Erase was not completed when SmartRAID SW RAID support is enabled.

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 a rare issue where the system may fail to boot after a warm reset.

Addressed an issue where the Advanced Options for Secure Boot failed to export all keys.

Addressed an issue where One-Button Secure Erase was not completed when SmartRAID SW RAID support is enabled.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) for dual bifurcation (quadfurcation) of PCIe Adapters to the Advanced PCIe Configuration Options. This option will allow a x16 PCIe device to be bifurcated into four x4 devices. This option would only be used for PCIe Adapters that support his level of bifurcation.

Added support to increase the maximum amount of system memory to 8TB.

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

Version: 2.40_02-23-2021 (Optional)

Filename: RPMS/x86_64/firmware-system-a43-2.40_2021_02_23-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-a43-2.40_2021_02_23-1.1.x86_64_part1.compsig; RPMS/x86_64/firmware-system-a43-2.40_2021_02_23-1.1.x86_64_part2.compsig

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.40_02-23-2021

Last Recommended or Critical Revision:

1.38_10-30-2020

Previous Revision:

1.38_10-30-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Added driver and option to enable SmartRAID SW RAID support for direct attached SATA and NVMe drives.

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the fan runs at a higher than expected speed after upgrading the firmware of HPE Smart Array E208i or E408i to version 3.0.

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 extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the fan runs at a higher than expected speed after upgrading the firmware of HPE Smart Array E208i or E408i to version 3.0.

Known Issues:

None

Enhancements

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Added driver and option to enable SmartRAID SW RAID support for direct attached SATA and NVMe drives.

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

Version: 2.42_01-23-2021 (Recommended)

Filename: RPMS/x86_64/firmware-system-u32-2.42_2021_01_23-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u32-2.42_2021_01_23-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL360 Gen10 System ROM - U32

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

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Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.40_02-23-2021 (Optional)

Filename: RPMS/x86_64/firmware-system-a42-2.40_2021_02_23-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-a42-2.40_2021_02_23-1.1.x86_64_part1.compsig; RPMS/x86_64/firmware-system-a42-2.40_2021_02_23-1.1.x86_64_part2.compsig

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.40_02-23-2021

Last Recommended or Critical Revision:

1.38_10-30-2020

Previous Revision:

1.38_10-30-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Added driver and option to enable SmartRAID SW RAID support for direct attached SATA and NVMe drives.

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the fan runs at a higher than expected speed after upgrading the firmware of HPE Smart Array E208i or E408i to version 3.0.

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 extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the fan runs at a higher than expected speed after upgrading the firmware of HPE Smart Array E208i or E408i to version 3.0.

Known Issues:

None

Enhancements

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Added driver and option to enable SmartRAID SW RAID support for direct attached SATA and NVMe drives.

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

Version: 2.42_01-23-2021 (Recommended)

Filename: RPMS/x86_64/firmware-system-u30-2.42_2021_01_23-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u30-2.42_2021_01_23-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL380 Gen10 System ROM - U30

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID

50656) and 0x05003005 (CPUID 50567). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50567). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.44_10-29-2020 (Recommended)

Filename: RPMS/x86_64/firmware-system-a40-2.44_2020_10_29-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-a40-2.44_2020_10_29-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL385 Gen10 System ROM - A40

Release Version:

2.44_10-29-2020

Last Recommended or Critical Revision:

2.44_10-29-2020

Previous Revision:

2.42_07-17-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) for dual bifurcation (quadfurcation) of PCIe Adapters to the Advanced PCIe Configuration Options. This option will allow a x16 PCIe device to be bifurcated into four x4 devices. This option would only be used for PCIe Adapters that support his level of bifurcation.

Added support to increase the maximum amount of system memory to 8TB.

Problems Fixed:

Addressed a rare issue where the system may fail to boot after a warm reset.

Addressed an issue where the Advanced Options for Secure Boot failed to export all keys.

Addressed an issue where One-Button Secure Erase was not completed when SmartRAID SW RAID support is enabled.

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 system may hang during boot up after a warm reset from the OS.

Addressed an issue where the Advanced Options for Secure Boot failed to export all keys.

Addressed an issue where One-Button Secure Erase was not completed when SmartRAID SW RAID support is enabled.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) for dual bifurcation (quadfurcation) of PCIe Adapters to the Advanced PCIe Configuration Options. This option will allow a x16 PCIe device to be bifurcated into four x4 devices. This option would only be used for PCIe Adapters that support his level of bifurcation.

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

Version: 2.42_01-23-2021 (Recommended)

Filename: RPMS/x86_64/firmware-system-u34-2.42_2021_01_23-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u34-2.42_2021_01_23-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL560 Gen10/DL580 Gen10 System ROM - U34

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated

Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.20_10-27-2020 (Recommended)

Filename: RPMS/x86_64/firmware-system-u48-2.20_2020_10_27-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u48-2.20_2020_10_27-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant MicroServer Gen10 Plus System ROM - U48

Release Version:

2.20_10-27-2020

Last Recommended or Critical Revision:

2.20_10-27-2020

Previous Revision:

2.18_06-24-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are 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 System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CPUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

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

Version: 2.42_01-23-2021 (Recommended)

Filename: RPMS/x86_64/firmware-system-u33-2.42_2021_01_23-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u33-2.42_2021_01_23-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML110 Gen10 System ROM - U33

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.20_10-27-2020 (Recommended)

Filename: RPMS/x86_64/firmware-system-u44-2.20_2020_10_27-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u44-2.20_2020_10_27-1.1.x86_64.rpm

Important Note!

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Deliverable Name:

HPE ProLiant ML30 Gen10 System ROM - U44

Release Version:

2.20_10-27-2020

Last Recommended or Critical Revision:

2.20_10-27-2020

Previous Revision:

2.18_06-24-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low

Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Addressed an issue where the "Minimum Processor Idle Power Package C-State" RBSU option was missing.

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.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CPUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Addressed an issue where the "Minimum Processor Idle Power Package C-State" RBSU option was missing.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Online ROM Flash Component for Linux - HPE ProLiant ML350 Gen10 (U41) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: RPMS/x86_64/firmware-system-u41-2.42_2021_01_23-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u41-2.42_2021_01_23-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML350 Gen10 System ROM - U41

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.42_02-23-2021 (Optional)

Filename: RPMS/x86_64/firmware-system-a46-2.42_2021_02_23-1.1.x86_64.rpm; RPMS/x86_64/firmware-system-a46-2.42_2021_02_23-1.1.x86_64_part1.compsig; RPMS/x86_64/firmware-system-a46-2.42_2021_02_23-1.1.x86_64_part2.compsig

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL225n Gen10 Plus System ROM - A46

Release Version:

2.42_02-23-2021

Last Recommended or Critical Revision:

1.38_11-06-2020

Previous Revision:

2.40_01-21-2021

Firmware Dependencies:

System Programmable Logic CPLD version 34

Enhancements/New Features:

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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:

System Programmable Logic CPLD version 34

Enhancements/New Features:

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Known Issues:

None

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

Version: 2.42_01-23-2021 (Recommended)

Filename: RPMS/x86_64/firmware-system-u37-2.42_2021_01_23-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u37-2.42_2021_01_23-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL230k Gen10 System ROM - U37

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated

Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Online ROM Flash Component for Windows x64 - HPE Apollo 2000 Gen10/HPE ProLiant XL170r/XL190r Gen10 (U38) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: cp046684.compsig; cp046684.exe

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

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Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.42_01-23-2021 (Recommended)

Filename: cp046641.compsig; cp046641.exe

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

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Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Online ROM Flash Component for Windows x64 - HPE Apollo 4510 Gen10/HPE ProLiant XL450 Gen10 (U40) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: cp046644.compsig; cp046644.exe

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.40_02-24-2021 (Optional)

Filename: cp046362.exe; cp046362_part1.compsig; cp046362_part2.compsig

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.40_02-24-2021

Last Recommended or Critical Revision:

1.38_12-23-2020

Previous Revision:

1.38_12-23-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added support for AMD EPYC 7003 processors.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. 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:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Known Issues:

None

Enhancements

Added support for AMD EPYC 7003 processors.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

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

Version: 2.40_02-23-2021 (Optional)

Filename: cp046228.exe; cp046228_part1.compsig; cp046228_part2.compsig

Important Note!

Important Notes:

None

Deliverable Name:

HPE Apollo 6500 Gen10 Plus/HPE ProLiant XL675d Gen10 Plus System ROM - A47

Release Version:

2.40_02-23-2021

Last Recommended or Critical Revision:

1.38_11-06-2020

Previous Revision:

1.38_11-06-2020

Firmware Dependencies:

HPE ProLiant XL675d Gen10Plus CPLD version 0F

HPE Apollo 6500 Gen10 Plus Chassis CPLD version 0909

Enhancements/New Features:

Added support for AMD EPYC 7003 processors.

Added support for Direct Liquid Cooling solution.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. 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:

None

Firmware Dependencies:

HPE ProLiant XL675d Gen10Plus CPLD version 0F

HPE Apollo 6500 Gen10 Plus Chassis CPLD version 0909

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Known Issues:

None

Enhancements

Added support for AMD EPYC 7003 processors.

Added support for Direct Liquid Cooling solution.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Online ROM Flash Component for Windows x64 - HPE Apollo 6500 Gen10/HPE ProLiant XL270d Gen10 (U45) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: cp046690.compsig; cp046690.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE Apollo 6500 Gen10/HPE ProLiant XL270d Gen10 System ROM - U45

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in

a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

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Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Online ROM Flash Component for Windows x64 - HPE ProLiant BL460c Gen10 (I41) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: cp046668.compsig; cp046668.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant BL460c Gen10 System ROM - I41

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

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Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL160 Gen10/DL180 Gen10 (U31) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: cp046620.compsig; cp046620.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL160 Gen10/DL180 Gen10 System ROM - U31

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

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Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

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Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL20 Gen10 (U43) Servers

Version: 2.20_10-27-2020 (Recommended)

Filename: cp045749.compsig; cp045749.exe

Important Note!

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Deliverable Name:

HPE ProLiant DL20 Gen10 System ROM - U43

Release Version:

2.20_10-27-2020

Last Recommended or Critical Revision:

2.20_10-27-2020

Previous Revision:

2.18_06-24-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Addressed an issue where the "Minimum Processor Idle Power Package C-State" RBSU option was missing.

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.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CPUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Addressed an issue where the "Minimum Processor Idle Power Package C-State" RBSU option was missing.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

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

Version: 2.44_11-13-2020 (Recommended)

Filename: cp046096.compsig; cp046096.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL325 Gen10 System ROM - A41

Release Version:

2.44_11-13-2020

Last Recommended or Critical Revision:

2.44_11-13-2020

Previous Revision:

2.42_07-17-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) for dual bifurcation (quadfurcation) of PCIe Adapters to the Advanced PCIe Configuration Options. This option will allow a x16 PCIe device to be bifurcated into four x4 devices. This option would only be used for PCIe Adapters that support his level of bifurcation.

Added support to increase the maximum amount of system memory to 8TB.

Problems Fixed:

Addressed a rare issue where the system may fail to boot after a warm reset.

Addressed an issue where the Advanced Options for Secure Boot failed to export all keys.

Addressed an issue where One-Button Secure Erase was not completed when SmartRAID SW RAID support is enabled.

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 a rare issue where the system may fail to boot after a warm reset.

Addressed an issue where the Advanced Options for Secure Boot failed to export all keys.

Addressed an issue where One-Button Secure Erase was not completed when SmartRAID SW RAID support is enabled.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) for dual bifurcation (quadfurcation) of PCIe Adapters to the Advanced PCIe Configuration Options. This option will allow a x16 PCIe device to be bifurcated into four x4 devices. This option would only be used for PCIe Adapters that support his level of bifurcation.

Added support to increase the maximum amount of system memory to 8TB.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL325/DL325 v2/DL345 Gen10 Plus (A43) Servers

Version: 2.40_02-23-2021 (Optional)

Filename: cp044523.exe; cp044523_part1.compsig; cp044523_part2.compsig

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.40_02-23-2021

Last Recommended or Critical Revision:

1.38_10-30-2020

Previous Revision:

1.38_10-30-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Added driver and option to enable SmartRAID SW RAID support for direct attached SATA and NVMe drives.

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the fan runs at a higher than expected speed after upgrading the firmware of HPE Smart Array E208i or E408i to version 3.0.

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 extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the fan runs at a higher than expected speed after upgrading the firmware of HPE Smart Array E208i or E408i to version 3.0.

Known Issues:

None

Enhancements

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Added driver and option to enable SmartRAID SW RAID support for direct attached SATA and NVMe drives.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL360 Gen10 (U32) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: cp046626.compsig; cp046626.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL360 Gen10 System ROM - U32

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

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Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.40_02-23-2021 (Optional)

Filename: cp044529.exe; cp044529_part1.compsig; cp044529_part2.compsig

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.40_02-23-2021

Last Recommended or Critical Revision:

1.38_10-30-2020

Previous Revision:

1.38_10-30-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Added driver and option to enable SmartRAID SW RAID support for direct attached SATA and NVMe drives.

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the fan runs at a higher than expected speed after upgrading the firmware of HPE Smart Array E208i or E408i to version 3.0.

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 extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the fan runs at a higher than expected speed after upgrading the firmware of HPE Smart Array E208i or E408i to version 3.0.

Known Issues:

None

Enhancements

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Added driver and option to enable SmartRAID SW RAID support for direct attached SATA and NVMe drives.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL380 Gen10 (U30) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: cp046614.compsig; cp046614.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL380 Gen10 System ROM - U30

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50567). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50567). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.44_10-29-2020 (Recommended)

Filename: cp046090.compsig; cp046090.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL385 Gen10 System ROM - A40

Release Version:

2.44_10-29-2020

Last Recommended or Critical Revision:

2.44_10-29-2020

Previous Revision:

2.42_07-17-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) for dual bifurcation (quadfurcation) of PCIe Adapters to the Advanced PCIe Configuration Options. This option will allow a x16 PCIe device to be bifurcated into four x4 devices. This option would only be used for PCIe Adapters that support his level of bifurcation.

Added support to increase the maximum amount of system memory to 8TB.

Problems Fixed:

Addressed a rare issue where the system may fail to boot after a warm reset.

Addressed an issue where the Advanced Options for Secure Boot failed to export all keys.

Addressed an issue where One-Button Secure Erase was not completed when SmartRAID SW RAID support is enabled.

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 system may hang during boot up after a warm reset from the OS.

Addressed an issue where the Advanced Options for Secure Boot failed to export all keys.

Addressed an issue where One-Button Secure Erase was not completed when SmartRAID SW RAID support is enabled.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) for dual bifurcation (quadfurcation) of PCIe Adapters to the Advanced PCIe Configuration Options. This option will allow a x16 PCIe device to be bifurcated into four x4 devices. This option would only be used for PCIe Adapters that support his level of bifurcation.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL560 Gen10/DL580 Gen10 (U34) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: cp046635.compsig; cp046635.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL560 Gen10/DL580 Gen10 System ROM - U34

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.20_10-27-2020 (Recommended)

Filename: cp045740.compsig; cp045740.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant MicroServer Gen10 Plus System ROM - U48

Release Version:

2.20_10-27-2020

Last Recommended or Critical Revision:

2.20_10-27-2020

Previous Revision:

2.18_06-24-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CPUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are 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 System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CPUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Online ROM Flash Component for Windows x64 - HPE ProLiant ML110 Gen10 (U33) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: cp046632.compsig; cp046632.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML110 Gen10 System ROM - U33

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.20_10-27-2020 (Recommended)

Filename: cp045752.compsig; cp045752.exe

Important Note!

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Deliverable Name:

HPE ProLiant ML30 Gen10 System ROM - U44

Release Version:

2.20_10-27-2020

Last Recommended or Critical Revision:

2.20_10-27-2020

Previous Revision:

2.18_06-24-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CPUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Addressed an issue where the "Minimum Processor Idle Power Package C-State" RBSU option was missing.

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.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Addressed an issue where the "Minimum Processor Idle Power Package C-State" RBSU option was missing.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Online ROM Flash Component for Windows x64 - HPE ProLiant ML350 Gen10 (U41) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: cp046647.compsig; cp046647.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML350 Gen10 System ROM - U41

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Online ROM Flash Component for Windows x64 - HPE ProLiant XL225n Gen10 Plus (A46) Server

Version: 2.42_02-23-2021 (Optional)

Filename: cp046930.exe; cp046930_part1.compsig; cp046930_part2.compsig

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL225n Gen10 Plus System ROM - A46

Release Version:

2.42_02-23-2021

Last Recommended or Critical Revision:

1.38_11-06-2020

Previous Revision:

2.40_01-21-2021

Firmware Dependencies:

System Programmable Logic CPLD version 34

Enhancements/New Features:

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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:

System Programmable Logic CPLD version 34

Enhancements/New Features:

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Known Issues:

None

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

Version: 2.42_01-23-2021 (Recommended)

Filename: cp046681.compsig; cp046681.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL230k Gen10 System ROM - U37

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

ROM Flash Firmware Package - HPE Apollo 2000 Gen10/HPE ProLiant XL170r/XL190r Gen10 (U38) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: U38_2.42_01_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

ROM Flash Firmware Package - HPE Apollo 4200 Gen10/HPE ProLiant XL420 Gen10 (U39) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: U39_2.42_01_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.42_01-23-2021 (Recommended)

Filename: U40_2.42_01_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a

machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.42_01-23-2021 (Recommended)

Filename: U45_2.42_01_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE Apollo 6500 Gen10/HPE ProLiant XL270d Gen10 System ROM - U45

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

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Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

ROM Flash Firmware Package - HPE ProLiant BL460c Gen10 (I41) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: I41_2.42_01_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant BL460c Gen10 System ROM - I41

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

ROM Flash Firmware Package - HPE ProLiant DL160 Gen10/DL180 Gen10 (U31) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: U31_2.42_01_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL160 Gen10/DL180 Gen10 System ROM - U31

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

ROM Flash Firmware Package - HPE ProLiant DL20 Gen10 (U43) Servers

Version: 2.20_10-27-2020 (Recommended)

Filename: U43_2.20_10_27_2020.fwpkg

Important Note!

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Deliverable Name:

HPE ProLiant DL20 Gen10 System ROM - U43

Release Version:

2.20_10-27-2020

Last Recommended or Critical Revision:

2.20_10-27-2020

Previous Revision:

2.18_06-24-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CPUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Addressed an issue where the "Minimum Processor Idle Power Package C-State" RBSU option was missing.

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Addressed an issue where the "Minimum Processor Idle Power Package C-State" RBSU option was missing.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

ROM Flash Firmware Package - HPE ProLiant DL325 Gen10 (A41) Servers

Version: 2.44_11-13-2020 (Recommended)

Filename: A41_2.44_11_13_2020.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL325 Gen10 System ROM - A41

Release Version:

2.44_11-13-2020

Last Recommended or Critical Revision:

2.44_11-13-2020

Previous Revision:

2.42_07-17-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) for dual bifurcation (quadfurcation) of PCIe Adapters to the Advanced PCIe Configuration Options. This option will allow a x16 PCIe device to be bifurcated into four x4 devices. This option would only be used for PCIe Adapters that support his level of bifurcation.

Added support to increase the maximum amount of system memory to 8TB.

Problems Fixed:

Addressed a rare issue where the system may fail to boot after a warm reset.

Addressed an issue where the Advanced Options for Secure Boot failed to export all keys.

Addressed an issue where One-Button Secure Erase was not completed when SmartRAID SW RAID support is enabled.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed a rare issue where the system may fail to boot after a warm reset.

Addressed an issue where the Advanced Options for Secure Boot failed to export all keys.

Addressed an issue where One-Button Secure Erase was not completed when SmartRAID SW RAID support is enabled.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) for dual bifurcation (quadfurcation) of PCIe Adapters to the Advanced PCIe Configuration Options. This option will allow a x16 PCIe device to be bifurcated into four x4 devices. This option would only be used for PCIe Adapters that support his level of bifurcation.

Added support to increase the maximum amount of system memory to 8TB.

ROM Flash Firmware Package - HPE ProLiant DL360 Gen10 (U32) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: U32_2.42_01_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL360 Gen10 System ROM - U32

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

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Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.42_01-23-2021 (Recommended)

Filename: U30_2.42_01_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL380 Gen10 System ROM - U30

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50567). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50567). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

ROM Flash Firmware Package - HPE ProLiant DL385 Gen10 (A40) Servers

Version: 2.44_10-29-2020 (Recommended)

Filename: A40_2.44_10_29_2020.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL385 Gen10 System ROM - A40

Release Version:

2.44_10-29-2020

Last Recommended or Critical Revision:

2.44_10-29-2020

Previous Revision:

2.42_07-17-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) for dual bifurcation (quadfurcation) of PCIe Adapters to the Advanced PCIe Configuration Options. This option will allow a x16 PCIe device to be bifurcated into four x4 devices. This option would only be used for PCIe Adapters that support his level of bifurcation.

Added support to increase the maximum amount of system memory to 8TB.

Problems Fixed:

Addressed a rare issue where the system may fail to boot after a warm reset.

Addressed an issue where the Advanced Options for Secure Boot failed to export all keys.

Addressed an issue where One-Button Secure Erase was not completed when SmartRAID SW RAID support is enabled.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the system may hang during boot up after a warm reset from the OS.

Addressed an issue where the Advanced Options for Secure Boot failed to export all keys.

Addressed an issue where One-Button Secure Erase was not completed when SmartRAID SW RAID support is enabled.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) for dual bifurcation (quadfurcation) of PCIe Adapters to the Advanced PCIe Configuration Options. This option will allow a x16 PCIe device to be bifurcated into four x4 devices. This option would only be used for PCIe Adapters that support his level of bifurcation.

ROM Flash Firmware Package - HPE ProLiant DL560 Gen10/DL580 Gen10 (U34) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: U34_2.42_01_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL560 Gen10/DL580 Gen10 System ROM - U34

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

ROM Flash Firmware Package - HPE ProLiant MicroServer Gen10 Plus (U48) Servers

Version: 2.20_10-27-2020 (Recommended)

Filename: U48_2.20_10_27_2020.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant MicroServer Gen10 Plus System ROM - U48

Release Version:

2.20_10-27-2020

Last Recommended or Critical Revision:

2.20_10-27-2020

Previous Revision:

2.18_06-24-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CPUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CPUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

ROM Flash Firmware Package - HPE ProLiant ML110 Gen10 (U33) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: U33_2.42_01_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML110 Gen10 System ROM - U33

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

ROM Flash Firmware Package - HPE ProLiant ML30 Gen10 (U44) Servers

Version: 2.20_10-27-2020 (Recommended)

Filename: U44_2.20_10_27_2020.fwpkg

Important Note!

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Deliverable Name:

HPE ProLiant ML30 Gen10 System ROM - U44

Release Version:

2.20_10-27-2020

Last Recommended or Critical Revision:

2.20_10-27-2020

Previous Revision:

2.18_06-24-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CPUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Addressed an issue where the "Minimum Processor Idle Power Package C-State" RBSU option was missing.

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-8696, CVE-2020-8694 and CVE-2020-8695. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00381 and INTEL-SA-00389. The Intel microcode patches included in this release are version 0x000000DE (CUIDs 906ED, 906EC, 906EB and 906EA). These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code which provides mitigations for BIOS advisories and security vulnerabilities documented as CVE-2020-0593. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00358. These issues are not unique to HPE servers.

Addressed an issue where the "Minimum Processor Idle Power Package C-State" RBSU option was missing.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option to Memory Options called Refresh Watermarks. When selecting the Low Watermark setting, the memory controller will help reduce susceptibility to a DDR4 RowHammer attack. It is expected that a memory performance impact will be seen when enabling the Low Watermark setting. The default operation of the system has not changed and customers wanting to provide additional RowHammer protection should enable this setting.

Added support to BIOS/Platform Configuration (RBSU) to allow importing and exporting Secure Boot signature lists as a signed binary file. This is useful to import the Microsoft revocation list binary file into the Secure Boot DBX as found on the UEFI forum at <https://uefi.org/revocationlistfile>.

Updated the System ROM support for One Button Secure Erase functionality with the latest HPE option devices.

Updated the RESTful API HPE BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

ROM Flash Firmware Package - HPE ProLiant ML350 Gen10 (U41) Servers

Version: 2.42_01-23-2021 (Recommended)

Filename: U41_2.42_01_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML350 Gen10 System ROM - U41

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC 1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

ROM Flash Firmware Package - HPE ProLiant XL225n Gen10 Plus (A46) Servers

Version: 2.42_02-23-2021 (Optional)

Filename: A46_2.42_02_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL225n Gen10 Plus System ROM - A46

Release Version:

2.42_02-23-2021

Last Recommended or Critical Revision:

1.38_11-06-2020

Previous Revision:

2.40_01-21-2021

Firmware Dependencies:

System Programmable Logic CPLD version 34

Enhancements/New Features:

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

System Programmable Logic CPLD version 34

Enhancements/New Features:

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant XL230k Gen10 (U37) Server

Version: 2.42_01-23-2021 (Recommended)

Filename: U37_2.42_01_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL230k Gen10 System ROM - U37

Release Version:

2.42_01-23-2021

Last Recommended or Critical Revision:

2.42_01-23-2021

Previous Revision:

2.40_10-26-2020

Firmware Dependencies:

None

Enhancements/New Features:

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception under heavy stress with short loops of instructions. This may result in a machine check exception in Bank 3 with MSCOD = 0080 and MCACOD = 0400h, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). This issue only impacts 2nd generation Intel Xeon Scalable Performance processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides a fix for a potential machine check exception when high levels of posted interrupt traffic occurs on PCIe. This may result in a machine check exception in Bank 9, 10 or 11 with MSCOD = 000Ch, as logged in the Integrated Management Log (IML). The Intel microcode patches included in this release are versions 0x02006A09 (CPUID 50654), 0x04003005 (CPUID 50656) and 0x05003005 (CPUID 50657). As part of this change, a new BIOS/Platform Configuration (RBSU) option in Advanced Performance Options has been added to allow a customer to disable this mitigation. This issue is not unique to HPE servers.

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the Extended Memory Test is not run when configured in BIOS/Platform Configuration (RBSU) to Enabled. Note that this option is Disabled by default. This issue was introduced in the v2.40 revision of the System ROM.

Addressed an issue where the server system fans may run higher than anticipated when a server is configured with AHCI SATA drives.

Addressed an issue where a bad LRDIMM memory device could be mapped out but was not properly reported in the Integrated Memory Log (IML). This issue only impacted systems configured with LRDIMMs.

Known Issues:

None

Enhancements

Updated the support for Fast Fault Tolerant Memory Mode (ADDDC) to improve system uptime.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

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

Version: 2.40_02-24-2021 (Optional)

Filename: A48_2.40_02_24_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.40_02-24-2021

Last Recommended or Critical Revision:

1.38_12-23-2020

Previous Revision:

1.38_12-23-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added support for AMD EPYC 7003 processors.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Known Issues:

None

Enhancements

Added support for AMD EPYC 7003 processors.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

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

Version: 2.40_02-23-2021 (Optional)

Filename: A47_2.40_02_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE Apollo 6500 Gen10 Plus/HPE ProLiant XL675d Gen10 Plus System ROM - A47

Release Version:

2.40_02-23-2021

Last Recommended or Critical Revision:

1.38_11-06-2020

Previous Revision:

1.38_11-06-2020

Firmware Dependencies:

HPE ProLiant XL675d Gen10Plus CPLD version 0F

HPE Apollo 6500 Gen10 Plus Chassis CPLD version 0909

Enhancements/New Features:

Added support for AMD EPYC 7003 processors.

Added support for Direct Liquid Cooling solution.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

HPE ProLiant XL675d Gen10Plus CPLD version 0F

HPE Apollo 6500 Gen10 Plus Chassis CPLD version 0909

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Known Issues:

None

Enhancements

Added support for AMD EPYC 7003 processors.

Added support for Direct Liquid Cooling solution.

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

ROM Flash Universal Firmware Package - HPE ProLiant DL325/DL325 v2/DL345 Gen10 Plus (A43) Servers

Version: 2.40_02-23-2021 (Optional)

Filename: A43_2.40_02_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.40_02-23-2021

Last Recommended or Critical Revision:

1.38_10-30-2020

Previous Revision:

1.38_10-30-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Added driver and option to enable SmartRAID SW RAID support for direct attached SATA and NVMe drives.

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the fan runs at a higher than expected speed after upgrading the firmware of HPE Smart Array E208i or E408i to version 3.0.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the fan runs at a higher than expected speed after upgrading the firmware of HPE Smart Array E208i or E408i to version 3.0.

Known Issues:

None

Enhancements

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Added driver and option to enable SmartRAID SW RAID support for direct attached SATA and NVMe drives.

ROM Flash Universal Firmware Package - HPE ProLiant DL365/DL385/DL385 v2 Gen10 Plus (A42) Servers

Version: 2.40_02-23-2021 (Optional)

Filename: A42_2.40_02_23_2021.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.40_02-23-2021

Last Recommended or Critical Revision:

1.38_10-30-2020

Previous Revision:

1.38_10-30-2020

Firmware Dependencies:

None

Enhancements/New Features:

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Added driver and option to enable SmartRAID SW RAID support for direct attached SATA and NVMe drives.

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the fan runs at a higher than expected speed after upgrading the firmware of HPE Smart Array E208i or E408i to version 3.0.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where the Real Time Clock may become corrupted on a server boot. This was typically seen as an unexpected change to the RTC Year field but could impact other parts of the Date and Time. This issue is not unique to HPE servers.

Addressed an issue where the fan runs at a higher than expected speed after upgrading the firmware of HPE Smart Array E208i or E408i to version 3.0.

Known Issues:

None

Enhancements

Added support to the BIOS/Platform Configuration (RBSU) Time Zones to add Dublin/London (UTC+1). This support also requires the latest version of iLO Firmware, version 2.40 or later.

Added a new BIOS/Platform Configuration (RBSU) for Platform RAS Policy to control the Platform Resiliency and Serviceability (RAS) policy. This option controls whether platform firmware or the operating system has control of corrected error handling and reporting.

Added driver and option to enable SmartRAID SW RAID support for direct attached SATA and NVMe drives.

Driver - Chipset

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Identifiers for AMD EPYC Processors for Windows

Version: 3.1.0.0 (Recommended)

Filename: cp046033.compsig; cp046033.exe

Enhancements

Updated AMD IOMMU device

Added support for HPE ProLiant Gen10 Plus Snap4 Latent servers

Identifiers for Intel Xeon E-2xxx Processor for Windows

Version: 10.1.18015.8142 (Optional)

Filename: cp039323.compsig; cp039323.exe

Enhancements

Add support for the HPE ProLiant MicroServer Gen10 Plus Server.

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

Version: 10.1.18435.8224 (Optional)

Filename: cp044968.compsig; cp044968.exe

Enhancements

Add support for Intel devices 201A, 201C, and 206F

Add support for Superdome Flex 280

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

Version: 10.1.18661.8255 (Recommended)

Filename: cp047086.compsig; cp047086.exe

Enhancements

Removed device "VMD Registers – 28C0"

Driver – Network

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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 NetXtreme-E Driver for Windows Server 2019

Version: 218.0.32.0 (Optional)

Filename: cp045255.compsig; cp045255.exe

Important Note!

4PE 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 BSOD observed after updating the inbox driver on Windows 2019.

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

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

Version: 2020.03.09 (Optional)

Filename: cp042919.compsig; cp042919.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 2019.12.01 or later, for use with this driver.

Fixes

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

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

HPE Blade Emulex 10/20GbE Driver for VMware vSphere 6.7

Version: 2020.03.09 (Optional)

Filename: cp042920.compsig; cp042920.zip

Important Note!

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

HPE recommends the firmware provided in HPE Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.7, version 2019.12.01 or later, for use with this driver.

Fixes

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

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

HPE Blade Emulex 10/20GbE Driver for Windows Server 2012 R2

Version: 12.0.1195.0 (Optional)

Filename: cp039927.compsig; cp039927.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

Initial release.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

HPE Blade Emulex 10/20GbE Driver for Windows Server 2016

Version: 12.0.1195.0 (Optional)

Filename: cp039928.compsig; cp039928.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

Initial release.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

HPE Blade Emulex 10/20GbE Driver for Windows Server 2019

Version: 12.0.1195.0 (Optional)

Filename: cp039929.compsig; cp039929.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

Initial release.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

HPE Blade Emulex 10/20GbE Drivers for Red Hat Enterprise Linux 7

Version: 12.0.1342.0-1 (Optional)

Filename: kmod-be2net_bl-12.0.1342.0-1.rhel7u8.x86_64.compsig; kmod-be2net_bl-12.0.1342.0-1.rhel7u8.x86_64.rpm; kmod-be2net_bl-12.0.1342.0-1.rhel7u9.x86_64.compsig; kmod-be2net_bl-12.0.1342.0-1.rhel7u9.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for Linux (x64), version 2021.02.01 for use with these drivers.

Enhancements

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

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

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

Version: 12.0.1342.0-1 (Optional)

Filename: kmod-be2net_bl-12.0.1342.0-1.rhel8u2.x86_64.compsig; kmod-be2net_bl-12.0.1342.0-1.rhel8u2.x86_64.rpm; kmod-be2net_bl-12.0.1342.0-1.rhel8u3.x86_64.compsig; kmod-be2net_bl-12.0.1342.0-1.rhel8u3.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for Linux (x64), version 2021.02.01 for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 8, Updates 2 and 3.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

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

Version: 12.0.1342.0-1 (Optional)

Filename: be2net_bl-kmp-default-12.0.1342.0_k4.12.14_120-1.sles12sp5.x86_64.compsig; be2net_bl-kmp-default-12.0.1342.0_k4.12.14_120-1.sles12sp5.x86_64.rpm; be2net_bl-kmp-default-

12.0.1342.0_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; be2net_bl-kmp-default-12.0.1342.0_k4.12.14_94.41-1.sles12sp4.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for Linux (x64), version 2021.02.01 for use with these drivers.

Fixes

This product now supports SUSE Linux Enterprise Server 12 SP5.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

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

Version: 12.0.1342.0-1 (B) (Optional)

Filename: be2net_bl-kmp-default-12.0.1342.0_k4.12.14_195-1.sles15sp1.x86_64.compsig; be2net_bl-kmp-default-12.0.1342.0_k4.12.14_195-1.sles15sp1.x86_64.rpm; be2net_bl-kmp-default-12.0.1342.0_k5.3.18_22-1.sles15sp2.x86_64.compsig; be2net_bl-kmp-default-12.0.1342.0_k5.3.18_22-1.sles15sp2.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for Linux (x64), version 2021.02.01 for use with these drivers.

Enhancements

This product now supports SUSE Linux Enterprise Server 15 SP2.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

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

Version: 2019.12.20 (Optional)

Filename: cp039936.compsig; cp039936.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

Initial release.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

HPE Blade Emulex 10/20GbE iSCSI Driver for VMware vSphere 6.7

Version: 2019.12.20 (Optional)

Filename: cp039935.compsig; cp039935.zip

Important Note!

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

HPE recommends the firmware provided in HPE Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.7, version 2019.03.01 or later, for use with this driver.

Enhancements

Initial release.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

HPE Blade Emulex 10/20GbE iSCSI Driver for Windows Server 2012 R2

Version: 12.0.1171.0 (Optional)

Filename: cp039930.compsig; cp039930.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

Initial release.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

HPE Blade Emulex 10/20GbE iSCSI Driver for Windows Server 2016

Version: 12.0.1171.0 (Optional)

Filename: cp039931.compsig; cp039931.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

Initial release.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

HPE Blade Emulex 10/20GbE iSCSI Driver for Windows Server 2019

Version: 12.0.1171.0 (Optional)

Filename: cp039932.compsig; cp039932.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

Initial release.

Supported Devices and Features

This driver supports the following network adapters:

HP FlexFabric 20Gb 2-port 650FLB Adapter

HP FlexFabric 20Gb 2-port 650M Adapter

HPE Blade Emulex 10/20GbE iSCSI Drivers for Red Hat Enterprise Linux 7

Version: 12.0.1342.0-1 (Optional)

Filename: kmod-be2iscsi_bl-12.0.1342.0-1.rhel7u8.x86_64.compsig; kmod-be2iscsi_bl-12.0.1342.0-1.rhel7u8.x86_64.rpm; kmod-be2iscsi_bl-12.0.1342.0-1.rhel7u9.x86_64.compsig; kmod-be2iscsi_bl-12.0.1342.0-1.rhel7u9.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for Linux (x64), version 2021.02.01 for use with these drivers.

Enhancements

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

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

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

Version: 12.0.1342.0-1 (Optional)

Filename: kmod-be2iscsi_bl-12.0.1342.0-1.rhel8u2.x86_64.compsig; kmod-be2iscsi_bl-12.0.1342.0-1.rhel8u2.x86_64.rpm; kmod-be2iscsi_bl-12.0.1342.0-1.rhel8u3.x86_64.compsig; kmod-be2iscsi_bl-12.0.1342.0-1.rhel8u3.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for Linux (x64), version 2021.02.01 for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 8, Updates 2 and 3.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

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

Version: 12.0.1342.0-1 (Optional)

Filename: be2iscsi_bl-kmp-default-12.0.1342.0_k4.12.14_120-1.sles12sp5.x86_64.compsig; be2iscsi_bl-kmp-default-12.0.1342.0_k4.12.14_120-1.sles12sp5.x86_64.rpm; be2iscsi_bl-kmp-default-12.0.1342.0_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; be2iscsi_bl-kmp-default-12.0.1342.0_k4.12.14_94.41-1.sles12sp4.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for Linux (x64), version 2021.02.01 for use with these drivers.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 SP5.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

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

Version: 12.0.1342.0-1 (B) (Optional)

Filename: be2iscsi_bl-kmp-default-12.0.1342.0_k4.12.14_195-1.sles15sp1.x86_64.compsig; be2iscsi_bl-kmp-default-12.0.1342.0_k4.12.14_195-1.sles15sp1.x86_64.rpm; be2iscsi_bl-kmp-default-12.0.1342.0_k5.3.18_22-1.sles15sp2.x86_64.compsig; be2iscsi_bl-kmp-default-12.0.1342.0_k5.3.18_22-1.sles15sp2.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for Linux (x64), version 2021.02.01 for use with these drivers.

Enhancements

This product now supports SUSE Linux Enterprise Server 15 SP2.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

HPE Blade Intel ixgbe Drivers for Red Hat Enterprise Linux 7

Version: 5.9.4-1 (Optional)

Filename: kmod-hp-ixgbe_bl-5.9.4-1.rhel7u8.x86_64.compsig; kmod-hp-ixgbe_bl-5.9.4-1.rhel7u8.x86_64.rpm; kmod-hp-ixgbe_bl-5.9.4-1.rhel7u9.x86_64.compsig; kmod-hp-ixgbe_bl-5.9.4-1.rhel7u9.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Linux, version 1.2.3 or later, for use with these drivers.

Enhancements

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

Supported Devices and Features

These drivers support the following network adapters:

HP Ethernet 10Gb 2-port 560FLB Adapter

HP Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel ixgbe Drivers for Red Hat Enterprise Linux 8

Version: 5.9.4-1 (Optional)

Filename: kmod-hp-ixgbe_bl-5.9.4-1.rhel8u2.x86_64.compsig; kmod-hp-ixgbe_bl-5.9.4-1.rhel8u2.x86_64.rpm;
kmod-hp-ixgbe_bl-5.9.4-2.rhel8u3.x86_64.compsig; kmod-hp-ixgbe_bl-5.9.4-2.rhel8u3.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Linux, version 1.2.3 or later, for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 8, Updates 2 and 3.

Supported Devices and Features

These drivers support the following network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel ixgbe Drivers for SUSE Linux Enterprise Server 12

Version: 5.9.4-1 (Optional)

Filename: hp-ixgbe_bl-kmp-default-5.9.4_k4.12.14_120-1.sles12sp5.x86_64.compsig; hp-ixgbe_bl-kmp-default-5.9.4_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-ixgbe_bl-kmp-default-5.9.4_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; hp-ixgbe_bl-kmp-default-5.9.4_k4.12.14_94.41-1.sles12sp4.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Linux, version 1.2.3 or later, for use with these drivers.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 SP5.

Supported Devices and Features

These drivers support the following network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel ixgbe Drivers for SUSE Linux Enterprise Server 15

Version: 5.9.4-1 (B) (Optional)

Filename: hp-ixgbe_bl-kmp-default-5.9.4_k4.12.14_195-1.sles15sp1.x86_64.compsig; hp-ixgbe_bl-kmp-default-5.9.4_k4.12.14_195-1.sles15sp1.x86_64.rpm; hp-ixgbe_bl-kmp-default-5.9.4_k5.3.18_22-1.sles15sp2.x86_64.compsig; hp-ixgbe_bl-kmp-default-5.9.4_k5.3.18_22-1.sles15sp2.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Linux, version 1.2.3 or later, for use with these drivers.

Enhancements

This product now supports SUSE Linux Enterprise Server 15 SP2.

Supported Devices and Features

These drivers support the following network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel ixgben Driver for VMware vSphere 6.5

Version: 2019.12.20 (Optional)

Filename: cp039952.compsig; cp039952.zip

Important Note!

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

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for VMware, version 1.0.7 or later, for use with this driver.

Fixes

This product corrects a recursion termination condition so that recursion correctly ends in the case of PCIe link down.

This product addresses an issue where the ixgben driver has high CPU overhead when an SFP+ module is absent.

Enhancements

Initial release.

Supported Devices and Features

These drivers support the following network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel ixgben Driver for VMware vSphere 6.7

Version: 2019.12.20 (Optional)

Filename: cp039953.compsig; cp039953.zip

Important Note!

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

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for VMware, version 1.0.7 or later, for use with this driver.

Fixes

This product corrects a recursion termination condition so that recursion correctly ends in the case of PCIe link down.

This product addresses an issue where the ixgben driver has high CPU overhead when an SFP+ module is absent.

Enhancements

Initial release.

Supported Devices and Features

These drivers support the following network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel ixgben Driver for VMware vSphere 7.0

Version: 2020.06.01 (Optional)

Filename: cp041435.compsig; cp041435.zip

Important Note!

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

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

Enhancements

Initial release.

Supported Devices and Features

These drivers support the following network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel ixgbevf Drivers for Red Hat Enterprise Linux 7

Version: 4.9.3-1 (Optional)

Filename: kmod-hp-ixgbevf_bl-4.9.3-1.rhel7u8.x86_64.compsig; kmod-hp-ixgbevf_bl-4.9.3-1.rhel7u8.x86_64.rpm; kmod-hp-ixgbevf_bl-4.9.3-1.rhel7u9.x86_64.compsig; kmod-hp-ixgbevf_bl-4.9.3-1.rhel7u9.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Linux, version 1.2.3 or later, for use with these drivers.

Fixes

This product corrects an issue seen when enabling SRIOV, where the VFs have the same, duplicated MAC address.

Enhancements

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

Supported Devices and Features

These drivers support the following network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel ixgbevf Drivers for Red Hat Enterprise Linux 8

Version: 4.9.3-1 (Optional)

Filename: kmod-hp-ixgbevf_bl-4.9.3-1.rhel8u2.x86_64.compsig; kmod-hp-ixgbevf_bl-4.9.3-1.rhel8u2.x86_64.rpm; kmod-hp-ixgbevf_bl-4.9.3-2.rhel8u3.x86_64.compsig; kmod-hp-ixgbevf_bl-4.9.3-2.rhel8u3.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Linux, version 1.2.3 or later, for use with these drivers.

Fixes

This product corrects an issue seen when enabling SRIOV, where the VFs have the same, duplicated MAC address.

Enhancements

This product now supports Red Hat Enterprise Linux 8, Updates 2 and 3.

Supported Devices and Features

These drivers support the following network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel ixgbevf Drivers for SUSE Linux Enterprise Server 12

Version: 4.9.3-1 (Optional)

Filename: hp-ixgbevf_bl-kmp-default-4.9.3_k4.12.14_120-1.sles12sp5.x86_64.compsig; hp-ixgbevf_bl-kmp-default-4.9.3_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-ixgbevf_bl-kmp-default-4.9.3_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; hp-ixgbevf_bl-kmp-default-4.9.3_k4.12.14_94.41-1.sles12sp4.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Linux, version 1.2.3 or later, for use with these drivers.

Fixes

This product corrects an issue seen when enabling SRIOV, where the VFs have the same, duplicated MAC address.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 SP5.

Supported Devices and Features

These drivers support the following network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel ixgbevf Drivers for SUSE Linux Enterprise Server 15

Version: 4.9.3-1 (B) (Optional)

Filename: hp-ixgbevf_bl-kmp-default-4.9.3_k4.12.14_195-1.sles15sp1.x86_64.compsig; hp-ixgbevf_bl-kmp-default-4.9.3_k4.12.14_195-1.sles15sp1.x86_64.rpm; hp-ixgbevf_bl-kmp-default-4.9.3_k5.3.18_22-1.sles15sp2.x86_64.compsig; hp-ixgbevf_bl-kmp-default-4.9.3_k5.3.18_22-1.sles15sp2.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Linux, version 1.2.3 or later, for use with these drivers.

Fixes

This product corrects an issue seen when enabling SRIOV, where the VFs have the same, duplicated MAC address.

Enhancements

This product now supports SUSE Linux Enterprise Server 15 SP2.

Supported Devices and Features

These drivers support the following network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel ixn Driver for Windows Server 2012 R2

Version: 3.14.214.0 (Optional)

Filename: cp045175.compsig; cp045175.exe

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 1.0.2.3 or later, for use with this driver.

Fixes

This product is updated to maintain compatibility with updated Windows installation libraries, ixtmsg.dll, nicco5.dll, and nicinitx.dll.

Supported Devices and Features

This component supports the following HPE Intel ixn network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel ixn Driver for Windows Server 2016

Version: 4.1.199.0 (Optional)

Filename: cp045176.compsig; cp045176.exe

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 1.0.2.3 or later, for use with this driver.

Fixes

This product is updated to maintain compatibility with updated Windows installation libraries, ixtmsg.dll, nicco5.dll, and nicinitx.dll.

Supported Devices and Features

This component supports the following HPE Intel ixn network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel ixn Driver for Windows Server 2019

Version: 4.1.197.0 (Optional)

Filename: cp045177.compsig; cp045177.exe

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 1.0.2.3 or later, for use with this driver.

Fixes

This product is updated to maintain compatibility with updated Windows installation library ixtmsg.dll.

Supported Devices and Features

This component supports the following HPE Intel ixn network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel vxn Driver for Windows Server 2012 R2

Version: 1.2.199.0 (Optional)

Filename: cp045178.compsig; cp045178.exe

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 1.0.2.3 or later, for use with this driver.

Prerequisites

This driver requires host driver version 3.14.214.0 or later.

Fixes

This product is updated to maintain compatibility with updated Windows installation libraries, vxnmsg.dll, nicco5.dll, and nicinvxn.dll.

Supported Devices and Features

This component supports the following HPE Intel ixn network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel vxn Driver for Windows Server 2016

Version: 2.1.192.0 (Optional)

Filename: cp045179.compsig; cp045179.exe

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 1.0.2.3 or later, for use with this driver.

Prerequisites

This driver requires host driver version 4.1.199.0 or later.

Fixes

This product is updated to maintain compatibility with updated Windows installation libraries, vxnmsg.dll, nicco5.dll, and nicinvxn.dll.

Supported Devices and Features

This component supports the following HPE Intel ixn network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade Intel vxn Driver for Windows Server 2019

Version: 2.1.191.0 (Optional)

Filename: cp045180.compsig; cp045180.exe

Important Note!

HPE recommends the firmware provided in HPE Blade Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 1.0.2.3 or later, for use with this driver.

Prerequisites

This driver requires host driver version 4.1.197.0 or later.

Fixes

This product is updated to maintain compatibility with updated Windows installation library vxnmsg.dll.

Supported Devices and Features

This component supports the following HPE Intel ixn network adapters:

HPE Ethernet 10Gb 2-port 560FLB Adapter

HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 6.5

Version: 2021.04.19 (Optional)

Filename: cp045168.compsig; cp045168.zip

Important Note!

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

HPE recommends the firmware provided in HPE Blade QLogic NX2 Online Firmware Upgrade Utility for VMware, version 1.2.2 or later, for use with this driver.

Enhancements

This product now supports VMware vSphere 6.5 U3.

Supported Devices and Features

These drivers support the following network adapters:

HPE FlexFabric 10Gb 2-port 534M Adapter

HPE FlexFabric 10Gb 2-port 536FLB Adapter

HPE FlexFabric 20Gb 2-port 630FLB Adapter

HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Blade QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 6.7

Version: 2021.04.19 (Optional)

Filename: cp045167.compsig; cp045167.zip

Important Note!

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

HPE recommends the firmware provided in HPE Blade QLogic NX2 Online Firmware Upgrade Utility for VMware, version 1.2.2 or later, for use with this driver.

Fixes

This product addresses a PSOD involving an encapsulated header.

This product addresses a PSOD seen during traffic scheduling.

This product corrects an incorrect MTU value displayed by the ESXCLI tool.

This product addresses a PSOD issue seen during Storage vMotion operation.

This product addresses PSODs seen during discovery timeout, transmit scheduling, and LUN reset scenarios.

This product addresses a PSOD seen on systems operating in a complicated VLAN environment.

This product addresses a PSOD seen during critical packet drop scenarios.

Enhancements

This product now supports VMware vSphere 6.7 U3.

This product has improved handling of complex flooding and race condition issues.

Supported Devices and Features

These drivers support the following network adapters:

HPE FlexFabric 10Gb 2-port 534M Adapter

HPE FlexFabric 10Gb 2-port 536FLB Adapter

HPE FlexFabric 20Gb 2-port 630FLB Adapter

HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Blade QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 7.0

Version: 2021.04.19 (Optional)

Filename: cp045166.compsig; cp045166.zip

Important Note!

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

HPE recommends the firmware provided in HPE Blade QLogic NX2 Online Firmware Upgrade Utility for VMware, version 1.2.2 or later, for use with this driver.

Fixes

This product addresses a PSOD involving an encapsulated header.

This product addresses a PSOD seen during traffic scheduling.

This product corrects an incorrect MTU value displayed by the ESXCLI tool.

This product addresses a PSOD issue seen during Storage vMotion operation.

This product addresses PSODs seen during discovery timeout, transmit scheduling, and LUN reset scenarios.

This product addresses a PSOD seen on systems operating in a complicated VLAN environment.

This product addresses a PSOD seen during critical packet drop scenarios.

Enhancements

This product now supports VMware vSphere 7.0 U1.

Supported Devices and Features

These drivers support the following network adapters:

HPE FlexFabric 10Gb 2-port 534M Adapter

HPE FlexFabric 10Gb 2-port 536FLB Adapter

HPE FlexFabric 20Gb 2-port 630FLB Adapter

HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Blade QLogic NX2 10/20 GbE Multifunction Drivers for Red Hat Enterprise Linux 7

Version: 7.14.76-1 (Optional)

Filename: kmod-netxtreme2_bl-7.14.76-1.rhel7u8.x86_64.compsig; kmod-netxtreme2_bl-7.14.76-1.rhel7u8.x86_64.rpm; kmod-netxtreme2_bl-7.14.76-1.rhel7u9.x86_64.compsig; kmod-netxtreme2_bl-7.14.76-1.rhel7u9.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade QLogic NX2 Online Firmware Upgrade Utility for Linux, version 1.2.3 or later, for use with these drivers.

Fixes

This product corrects an issue where the driver fails to load in NPAR mode when RoCE Data Center Quantized Congestion Notification (DCQCN) is enabled.

This product addresses a system crash seen when unloading and reloading the RoCE driver only.

This product addresses a system crash seen during multiple reboots of virtual machines using VFs and RDMA.

This product addresses a system crash seen when injecting a fw_assert on a NIC PF.

This product corrects an issue where a system fails to shutdown after reboots in iSCSI BFS.

Enhancements

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

Supported Devices and Features

These drivers support the following network adapters:

HPE FlexFabric 10Gb 2-port 534M Adapter

HPE FlexFabric 10Gb 2-port 536FLB Adapter

HPE FlexFabric 20Gb 2-port 630FLB Adapter

HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Blade QLogic NX2 10/20 GbE Multifunction Drivers for Red Hat Enterprise Linux 8

Version: 7.14.76-1 (Optional)

Filename: kmod-netxtreme2_bl-7.14.76-1.rhel8u2.x86_64.compsig; kmod-netxtreme2_bl-7.14.76-1.rhel8u2.x86_64.rpm; kmod-netxtreme2_bl-7.14.76-2.rhel8u3.x86_64.compsig; kmod-netxtreme2_bl-7.14.76-2.rhel8u3.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade QLogic NX2 Online Firmware Upgrade Utility for Linux, version 1.2.3 or later, for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 8, Updates 2 and 3.

Supported Devices and Features

These drivers support the following network adapters:

HPE FlexFabric 10Gb 2-port 534M Adapter

HPE FlexFabric 10Gb 2-port 536FLB Adapter

HPE FlexFabric 20Gb 2-port 630FLB Adapter

HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Blade QLogic NX2 10/20 GbE Multifunction Drivers for SUSE Linux Enterprise Server 12

Version: 7.14.76-1 (Optional)

Filename: netxtreme2_bl-kmp-default-7.14.76_k4.12.14_120-1.sles12sp5.x86_64.compsig; netxtreme2_bl-kmp-default-7.14.76_k4.12.14_120-1.sles12sp5.x86_64.rpm; netxtreme2_bl-kmp-default-7.14.76_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; netxtreme2_bl-kmp-default-7.14.76_k4.12.14_94.41-1.sles12sp4.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade QLogic NX2 Online Firmware Upgrade Utility for Linux, version 1.2.3 or later, for use with these drivers.

Fixes

This product corrects an issue where the driver fails to load in NPAR mode when RoCE Data Center Quantized Congestion Notification (DCQCN) is enabled.

This product addresses a system crash seen when unloading and reloading the RoCE driver only.

This product addresses a system crash seen during multiple reboots of virtual machines using VFs and RDMA.

This product addresses a system crash seen when injecting a fw_assert on a NIC PF.

This product corrects an issue where a system fails to shutdown after reboots in iSCSI BFS.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 SP5.

Supported Devices and Features

These drivers support the following network adapters:

HPE FlexFabric 10Gb 2-port 534M Adapter

HPE FlexFabric 10Gb 2-port 536FLB Adapter

HPE FlexFabric 20Gb 2-port 630FLB Adapter

HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Blade QLogic NX2 10/20 GbE Multifunction Drivers for SUSE Linux Enterprise Server 15

Version: 7.14.76-1 (B) (Optional)

Filename: netxtreme2_bl-kmp-default-7.14.76_k4.12.14_195-1.sles15sp1.x86_64.compsig; netxtreme2_bl-kmp-default-7.14.76_k4.12.14_195-1.sles15sp1.x86_64.rpm; netxtreme2_bl-kmp-default-7.14.76_k5.3.18_22-1.sles15sp2.x86_64.compsig; netxtreme2_bl-kmp-default-7.14.76_k5.3.18_22-1.sles15sp2.x86_64.rpm

Important Note!

HPE recommends the firmware provided in HPE Blade QLogic NX2 Online Firmware Upgrade Utility for Linux, version 1.2.3 or later, for use with these drivers.

Fixes

This product corrects an issue where the driver fails to load in NPAR mode when RoCE Data Center Quantized Congestion Notification (DCQCN) is enabled.

This product addresses a system crash seen when unloading and reloading the RoCE driver only.

This product addresses a system crash seen during multiple reboots of virtual machines using VFs and RDMA.

This product addresses a system crash seen when injecting a fw_assert on a NIC PF.

This product corrects an issue where a system fails to shutdown after reboots in iSCSI BFS.

Enhancements

This product now supports SUSE Linux Enterprise Server 15 SP2.

Supported Devices and Features

These drivers support the following network adapters:

HP FlexFabric 10Gb 2-port 534M Adapter

HP FlexFabric 10Gb 2-port 536FLB Adapter

HP FlexFabric 20Gb 2-port 630FLB Adapter

HP FlexFabric 20Gb 2-port 630M Adapter

HP Blade QLogic NX2 10/20 GbE Multifunction Drivers for Windows Server x64 Editions

Version: 7.13.196.0 (Optional)

Filename: cp045208.compsig; cp045208.exe

Important Note!

HP recommends the firmware provided in HPE Blade QLogic NX2 Online Firmware Upgrade Utility for Windows Server x64 Editions, version 1.0.2.2 or later, for use with these drivers.

Fixes

This product corrects a Windows Stop Error (BSOD) seen when uninstalling the NDIS driver.

This product corrects a BSOD with error code 7E seen when a system is heavily loaded with network traffic.

Enhancements

This product now provides non-SRIOV NIC switch and UDP hash support for Windows Server 2016.

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 10Gb 2-port 534M Adapter

HPE FlexFabric 10Gb 2-port 536FLB Adapter

HPE FlexFabric 20Gb 2-port 630FLB Adapter

HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Blade QLogic NX2 iSCSI Offload IO Daemon for Red Hat Enterprise Linux 8 Update 0

Version: 2.11.5.13-3 (B) (Optional)

Filename: iscsiuiobl-2.11.5.13-3.rhel8u0.x86_64.compsig; iscsiuiobl-2.11.5.13-3.rhel8u0.x86_64.rpm

Fixes

This product has been recompiled with a build setting that allows SUM to identify them correctly for installation on systems they support.

Supported Devices and Features

These drivers support the following network adapters:

HPE FlexFabric 10Gb 2-port 534M Adapter

HPE FlexFabric 10Gb 2-port 536FLB Adapter

HPE FlexFabric 20Gb 2-port 630FLB Adapter

HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Blade QLogic NX2 iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 12 SP3

Version: 2.11.5.13-3 (B) (Optional)

Filename: iscsiuiobl-2.11.5.13-3.sles12sp3.x86_64.compsig; iscsiuiobl-2.11.5.13-3.sles12sp3.x86_64.rpm

Fixes

This product has been recompiled with a build setting that allows SUM to identify them correctly for installation on systems they support.

Supported Devices and Features

These drivers support the following network adapters:

HPE FlexFabric 10Gb 2-port 534M Adapter

HPE FlexFabric 10Gb 2-port 536FLB Adapter

HPE FlexFabric 20Gb 2-port 630FLB Adapter

HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Blade QLogic NX2 iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 12 SP4

Version: 2.11.5.13-3 (B) (Optional)

Filename: iscsiuiobl-2.11.5.13-3.sles12sp4.x86_64.compsig; iscsiuiobl-2.11.5.13-3.sles12sp4.x86_64.rpm

Fixes

This product has been recompiled with a build setting that allows SUM to identify them correctly for installation on systems they support.

Supported Devices and Features

These drivers support the following network adapters:

HPE FlexFabric 10Gb 2-port 534M Adapter

HPE FlexFabric 10Gb 2-port 536FLB Adapter

HPE FlexFabric 20Gb 2-port 630FLB Adapter

HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Blade QLogic NX2 iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 15 SP0

Version: 2.11.5.13-3 (B) (Optional)

Filename: iscsiuiobl-2.11.5.13-3.sles15sp0.x86_64.compsig; iscsiuiobl-2.11.5.13-3.sles15sp0.x86_64.rpm

Fixes

This product has been recompiled with a build setting that allows SUM to identify them correctly for installation on systems they support.

Supported Devices and Features

These drivers support the following network adapters:

HPE FlexFabric 10Gb 2-port 534M Adapter

HPE FlexFabric 10Gb 2-port 536FLB Adapter

HPE FlexFabric 20Gb 2-port 630FLB Adapter

HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Blade QLogic NX2 iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 15 SP1

Version: 2.11.5.13-3 (B) (Optional)

Filename: iscsiuiobl-2.11.5.13-3.sles15sp1.x86_64.compsig; iscsiuiobl-2.11.5.13-3.sles15sp1.x86_64.rpm

Fixes

This product has been recompiled with a build setting that allows SUM to identify them correctly for installation on systems they support.

Supported Devices and Features

These drivers support the following network adapters:

HPE FlexFabric 10Gb 2-port 534M Adapter

HPE FlexFabric 10Gb 2-port 536FLB Adapter

HPE FlexFabric 20Gb 2-port 630FLB Adapter

HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Broadcom NetXtreme-E Driver for Windows Server 2012 R2

Version: 214.0.247.1 (Optional)

Filename: cp041785.compsig; cp041785.exe

Important Note!

HPE recommends the firmware provided in HPE Broadcom NetXtreme-E Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.0.5 or later, for use with this driver.

Fixes

This product correct an issue which .max SRIOV VFs are not loading when Windows hypervisor and Windows VMs are used.

This product correct an issue which VF driver won't install on some devices.

This product correct an issue which FW hangs while allocating more PF-Vports

This product correct an issue which fail bono commands right away if HW is surprise removed

This product correct an issue which few VPORTS available in SF mode when SR-IOV is used.

Enhancements

This product now supports the following network adapters.

HPE Ethernet 10Gb 2-port 537SFP+ Adapter

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

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 2016

Version: 218.0.32.0 (Optional)

Filename: cp045020.compsig; cp045020.exe

Important Note!

HPE recommends the HPE Broadcom NetXtreme-E Firmware Version, 218.0.166000 or later, for use with this driver.

Fixes

This product correct an Wake-on-LAN (WoL) function unavailable.

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 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 2019

Version: 218.0.32.0 (Optional)

Filename: cp045021.compsig; cp045021.exe

Important Note!

HPE recommends the HPE Broadcom NetXtreme-E Firmware Version, 218.0.166000 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 BSOD observed after updating the inbox driver on Windows 2019.

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 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: 1.10.2-218.0.67.0 (Optional)

Filename: kmod-bnxt_en-1.10.2-218.0.67.0.rhel7u8.x86_64.compsig; kmod-bnxt_en-1.10.2-218.0.67.0.rhel7u8.x86_64.rpm; kmod-bnxt_en-1.10.2-218.0.67.0.rhel7u9.x86_64.compsig; kmod-bnxt_en-1.10.2-218.0.67.0.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the HPE Broadcom NetXtreme-E Firmware Version, 218.0.138000 or later, for use with this driver.

Fixes

This product addresses an issue where system crashed on doing driver unload load in loop when running broadcast traffic

This product addresses an issue where bnxt_en module crashes with NULL pointer deference before ifup(bring up network interface)

This product addresses an issue where kernel panic after PCIe AER(Advanced Error Reporting) device recovery successful

This product addresses an issue where bnxt_en crashes with NULL pointer dereference when enabling SRIOV

This product correct an error where ethtool -S tx_bytes and rx_bytes counter values far exceed actual values

This product correct an error message when querying hwmon temperature on VF via sysfs

Enhancements

This product now supports Red Hat Enterprise Linux 7 update 9

This product now supports PAM4 speeds information in ethtool tools

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: 1.10.2-218.0.67.0 (Optional)

Filename: kmod-bnxt_en-1.10.2-218.0.67.0.rhel8u2.x86_64.compsig; kmod-bnxt_en-1.10.2-218.0.67.0.rhel8u2.x86_64.rpm; kmod-bnxt_en-1.10.2-218.0.67.0.rhel8u3.x86_64.compsig; kmod-bnxt_en-1.10.2-218.0.67.0.rhel8u3.x86_64.rpm; README

Important Note!

HPE recommends the HPE Broadcom NetXtreme-E Firmware Version, 218.0.166000 or later, for use with this driver.

Fixes

This product addresses an issue where system crashed on doing driver unload load in loop when running broadcast traffic

This product addresses an issue where bnxt_en module crashes with NULL pointer deference before ifup(bring up network interface)

This product addresses an issue where kernel panic after PCIe AER(Advanced Error Reporting) device recovery successful

This product addresses an issue where bnxt_en crashes with NULL pointer dereference when enabling SRIOV

This product correct an error where ethtool -S tx_bytes and rx_bytes counter values far exceed actual values

This product correct an error message when querying hwmon temperature on VF via sysfs

Enhancements

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

This product now supports PAM4 speeds information in ethtool tools

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: 1.10.2-218.0.67.0 (Optional)

Filename: bnxt_en-kmp-default-1.10.2_k4.12.14_120-218.0.67.0.sles12sp5.x86_64.compsig; bnxt_en-kmp-default-1.10.2_k4.12.14_120-218.0.67.0.sles12sp5.x86_64.rpm; bnxt_en-kmp-default-1.10.2_k4.12.14_94.41-218.0.67.0.sles12sp4.x86_64.compsig; bnxt_en-kmp-default-1.10.2_k4.12.14_94.41-218.0.67.0.sles12sp4.x86_64.rpm; README

Important Note!

HPE recommends the HPE Broadcom NetXtreme-E Firmware Version, 218.0.166000 or later, for use with this driver.

Fixes

This product addresses an issue where system crashed on doing driver unload load in loop when running broadcast traffic

This product addresses an issue where bnxt_en module crashes with NULL pointer deference before ifup(bring up network interface)

This product addresses an issue where kernel panic after PCIe AER(Advanced Error Reporting) device recovery successful

This product addresses an issue where bnxt_en crashes with NULL pointer dereference when enabling SRIOV

This product correct an error where ethtool -S tx_bytes and rx_bytes counter values far exceed actual values

This product correct an error message when querying hwmon temperature on VF via sysfs

Enhancements

This product now supports PAM4 speeds information in ethtool tools

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: 1.10.2-218.0.67.0 (Optional)

Filename: bnxt_en-kmp-default-1.10.2_k4.12.14_195-218.0.67.0.sles15sp1.x86_64.compsig; bnxt_en-kmp-default-1.10.2_k4.12.14_195-218.0.67.0.sles15sp1.x86_64.rpm; bnxt_en-kmp-default-1.10.2_k5.3.18_22-218.0.67.0.sles15sp2.x86_64.compsig; bnxt_en-kmp-default-1.10.2_k5.3.18_22-218.0.67.0.sles15sp2.x86_64.rpm; README

Important Note!

HPE recommends the HPE Broadcom NetXtreme-E Firmware Version, 218.0.166000 or later, for use with this driver.

Fixes

This product addresses an issue where system crashed on doing driver unload load in loop when running broadcast traffic

This product addresses an issue where bnxt_en module crashes with NULL pointer deference before ifup(bring up network interface)

This product addresses an issue where kernel panic after PCIe AER(Advanced Error Reporting) device recovery successful

This product addresses an issue where bnxt_en crashes with NULL pointer dereference when enabling SRIOV

This product correct an error where ethtool -S tx_bytes and rx_bytes counter values far exceed actual values

This product correct an error message when querying hwmon temperature on VF via sysfs

Enhancements

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

This product now supports PAM4 speeds information in ethtool tools

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: 2021.04.05 (Optional)

Filename: cp045073.compsig; cp045073.zip

Important Note!

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

HPE recommends the HPE Broadcom NetXtreme-E Firmware Version, 218.0.166000 or later, for use with this driver.

Fixes

This product corrects an issue which Purple Screen Of Death (PSOD) while running Virtual SAN (vSAN) over Remote Direct Memory Access (RDMA) traffic due to invalid Completion Queue Element (CQEs)

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: 2021.04.05 (Optional)

Filename: cp045074.compsig; cp045074.zip

Important Note!

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

HPE recommends the HPE Broadcom NetXtreme-E Firmware Version, 218.0.166000 or later, for use with this driver.

Fixes

This product corrects an issue which Purple Screen Of Death (PSOD) while running Virtual SAN (vSAN) over Remote Direct Memory Access (RDMA) traffic due to invalid Completion Queue Element (CQEs)

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: 2021.04.05 (Optional)

Filename: cp045075.compsig; cp045075.zip

Important Note!

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

HPE recommends the HPE Broadcom NetXtreme-E Firmware Version, 218.0.166000 or later, for use with this driver.

Fixes

This product corrects an issue which Purple Screen Of Death (PSOD) while running Virtual SAN (vSAN) over Remote Direct Memory Access (RDMA) traffic due to invalid Completion Queue Element (CQEs)

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: 218.0.7.0 (Optional)

Filename: libbnxt_re-218.0.7.0-rhel7u8.x86_64.compsig; libbnxt_re-218.0.7.0-rhel7u8.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 7, 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 Red Hat Enterprise Linux 7 Update 9

Version: 218.0.7.0 (Optional)

Filename: libbnxt_re-218.0.7.0-rhel7u9.x86_64.compsig; libbnxt_re-218.0.7.0-rhel7u9.x86_64.rpm; README

Prerequisites

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

Version: 216.0.88.3 (Optional)

Filename: libbnxt_re-216.0.88.3-rhel8u0.x86_64.compsig; libbnxt_re-216.0.88.3-rhel8u0.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 8, version 1.10.1-216.0.169.4 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 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 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 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 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: 218.0.7.0 (Optional)

Filename: libbnxt_re-218.0.7.0-sles12sp5.x86_64.compsig; libbnxt_re-218.0.7.0-sles12sp5.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 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

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 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 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: 218.0.7.0 (Optional)

Filename: libbnxt_re-218.0.7.0-sles15sp2.x86_64.compsig; libbnxt_re-218.0.7.0-sles15sp2.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 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 NX1 1Gb Driver for Windows Server x64 Editions

Version: 214.0.0.6 (Optional)

Filename: cp045019.compsig; cp045019.exe

Important Note!

HPE recommends the firmware provided in HPE Broadcom NX1 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 which fixes Windows driver causes NMI/RSOD during OS shutdown.

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 (Optional)

Filename: kmod-tg3-3.139b-1.rhel8u2.x86_64.compsig; kmod-tg3-3.139b-1.rhel8u2.x86_64.rpm; kmod-tg3-3.139b-1.rhel8u3.x86_64.compsig; kmod-tg3-3.139b-1.rhel8u3.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 8 update 2 and Red Hat Enterprise Linux 8 update 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 Broadcom tg3 Ethernet Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 3.139b-2 (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; tg3-kmp-default-3.139b_k4.12.14_94.41-2.sles12sp4.x86_64.compsig; tg3-kmp-default-3.139b_k4.12.14_94.41-2.sles12sp4.x86_64.rpm

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

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 (Optional)

Filename: README; tg3-kmp-default-3.139b_k4.12.14_195-2.sles15sp1.x86_64.compsig; tg3-kmp-default-3.139b_k4.12.14_195-2.sles15sp1.x86_64.rpm; 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

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 Suse Linux Enterprise Server 15 Service Pack 2

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 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 10/20 GbE Driver for VMware vSphere 6.7

Version: 2020.09.14 (Optional)

Filename: cp044546.compsig; cp044546.zip

Important Note!

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

HPE recommends the firmware provided in HPE Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.7, version 2019.03.01 or later, for use with this driver.

Enhancements

This product now supports the following network adapters:

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

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

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 10Gb 2-port 556FLR-T Adapter

HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter

HPE CN1200E Dual Port Converged Network Adapter

HPE CN1200E-T Adapter

HPE Emulex 10/20 GbE Driver for Windows Server 2012 R2

Version: 12.0.1195.0 (C) (Optional)

Filename: cp044540.compsig; cp044540.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 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 2012 R2

Version: 12.0.1171.0 (C) (Optional)

Filename: cp044560.compsig; cp044560.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 vibsdepot.hpe.com webpages, plus an HPE specific CP0xxxxx.xml file.

HPE recommends the firmware provided in HPE Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.7, version 2019.03.01 or later, for use with this driver.

Enhancements

This product now supports the following network adapters:

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

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

Supported Devices and Features

This driver supports the following network adapters:

HPE FlexFabric 10Gb 2-port 556FLR-T Adapter

HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter

HPE CN1200E Dual Port Converged Network Adapter

HPE CN1200E-T Adapter

HPE Emulex 10/20GbE iSCSI 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 2012 R2

Version: 12.14.8.5 (Optional)

Filename: cp045119.compsig; cp045119.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.

Enhancements

This product contains Windows system update supported improvements.

Supported Devices and Features

This driver supports the following HPE Intel E1R network adapters:

HP Ethernet 1Gb 2-port 361i Adapter

HP 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

HP Ethernet 1Gb 4-port 366FLR Adapter

HPE Ethernet 1Gb 4-port 366T Adapter

HPE Intel E1R Driver for Windows Server 2016

Version: 12.16.3.1 (Optional)

Filename: cp045120.compsig; cp045120.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.

Enhancements

This product contains Windows system update supported improvements.

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: 12.18.11.1 (Optional)

Filename: cp045121.compsig; cp045121.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.

Enhancements

This product contains Windows system update supported improvements.

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: 2.13.10-1 (Optional)

Filename: kmod-hp-i40e-2.13.10-1.rhel7u8.x86_64.compsig; kmod-hp-i40e-2.13.10-1.rhel7u8.x86_64.rpm;
kmod-hp-i40e-2.13.10-1.rhel7u9.x86_64.compsig; kmod-hp-i40e-2.13.10-1.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, for use with these drivers.

Fixes

This product addresses an issue where server hungs after loading XDP(eXpress Data Path) program in case of LLDP(Link Layer Discovery Protocol) agent disabled

This product addresses an issue where it is not possible to change MAC(Media Access Control) address on VF(Virtual Function) from VM(Virtual Machine) when VF is in trusted mode

This product addresses an issue where it cannot create VF(Virtual Function) VLAN(Virtual Local Area Network) interface inside a namespace

This product addresses an issue where system crash during removing driver when VSI(Virtual Station Interface) is in reset recovery mode

This product addresses an issue where VF(Virtual Function) receives unicast packets from other VF

This product addresses an issue where using Intel nvupdate utility never ending update

This product addresses an issue where kernel crash in vf driver(iavf) reset when pf driver(i40e) is removing

Enhancements

This product now supports Red Hat Enterprise Linux 7 update 9

This product supports new feature called software DCB(Data Center Bridging) which allows using DCB without firmware LLDP(Link Layer Discovery Protocol) agent being turned on.

This product supports new feature which allows user to specify VLAN(Virtual Local Area Network) field and add it to flow director via ethtool

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: 2.13.10-1 (Optional)

Filename: kmod-hp-i40e-2.13.10-1.rhel8u2.x86_64.compsig; kmod-hp-i40e-2.13.10-1.rhel8u2.x86_64.rpm;
kmod-hp-i40e-2.13.10-1.rhel8u3.x86_64.compsig; kmod-hp-i40e-2.13.10-1.rhel8u3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, for use with these drivers.

Fixes

This product addresses an issue where server hungs after loading XDP(eXpress Data Path) program in case of LLDP(Link Layer Discovery Protocol) agent disabled

This product addresses an issue where it is not possible to change MAC(Media Access Control) address on VF(Virtual Function) from VM(Virtual Machine) when VF is in trusted mode

This product addresses an issue where it cannot create VF(Virtual Function) VLAN(Virtual Local Area Network) interface inside a namespace

This product addresses an issue where system crash during removing driver when VSI(Virtual Station Interface) is in reset recovery mode

This product addresses an issue where VF(Virtual Function) receives unicast packets from other VF

This product addresses an issue where using Intel nvupdate utility never ending update

This product addresses an issue where kernel crash in vf driver(iavf) reset when pf driver(i40e) is removing

Enhancements

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

This product supports new feature called software DCB(Data Center Bridging) which allows using DCB without firmware LLDP(Link Layer Discovery Protocol) agent being turned on.

This product supports new feature which allows user to specify VLAN(Virtual Local Area Network) field and add it to flow director via ethtool

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: 2.13.10-1 (Optional)

Filename: hp-i40e-kmp-default-2.13.10_k4.12.14_120-1.sles12sp5.x86_64.compsig; hp-i40e-kmp-default-2.13.10_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-i40e-kmp-default-2.13.10_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; hp-i40e-kmp-default-2.13.10_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, for use with these drivers.

Fixes

This product addresses an issue where server hangs after loading XDP(eXpress Data Path) program in case of LLDP(Link Layer Discovery Protocol) agent disabled

This product addresses an issue where it is not possible to change MAC(Media Access Control) address on VF(Virtual Function) from VM(Virtual Machine) when VF is in trusted mode

This product addresses an issue where it cannot create VF(Virtual Function) VLAN(Virtual Local Area Network) interface inside a namespace

This product addresses an issue where system crash during removing driver when VSI(Virtual Station Interface) is in reset recovery mode

This product addresses an issue where VF(Virtual Function) receives unicast packets from other VF

This product addresses an issue where using Intel nvupdate utility never ending update

This product addresses an issue where kernel crash in vf driver(iavf) reset when pf driver(i40e) is removing

Enhancements

This product supports new feature called software DCB(Data Center Bridging) which allows using DCB without firmware LLDP(Link Layer Discovery Protocol) agent being turned on.

This product supports new feature which allows user to specify VLAN(Virtual Local Area Network) field and add it to flow director via ethtool

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: 2.13.10-1 (Optional)

Filename: hp-i40e-kmp-default-2.13.10_k4.12.14_195-1.sles15sp1.x86_64.compsig; hp-i40e-kmp-default-2.13.10_k4.12.14_195-1.sles15sp1.x86_64.rpm; hp-i40e-kmp-default-2.13.10_k5.3.18_22-1.sles15sp2.x86_64.compsig; hp-i40e-kmp-default-2.13.10_k5.3.18_22-1.sles15sp2.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, for use with these drivers.

Fixes

This product addresses an issue where server hungs after loading XDP(eXpress Data Path) program in case of LLDP(Link Layer Discovery Protocol) agent disabled

This product addresses an issue where it is not possible to change MAC(Media Access Control) address on VF(Virtual Function) from VM(Virtual Machine) when VF is in trusted mode

This product addresses an issue where it cannot create VF(Virtual Function) VLAN(Virtual Local Area Network) interface inside a namespace

This product addresses an issue where system crash during removing driver when VSI(Virtual Station Interface) is in reset recovery mode

This product addresses an issue where VF(Virtual Function) receives unicast packets from other VF

This product addresses an issue where using Intel nvupdate utility never ending update

This product addresses an issue where kernel crash in vf driver(iavf) reset when pf driver(i40e) is removing

Enhancements

This product now supports Suse Linux Enterprise Server 15 Service Pack 2

This product supports new feature called software DCB(Data Center Bridging) which allows using DCB without firmware LLDP(Link Layer Discovery Protocol) agent being turned on.

This product supports new feature which allows user to specify VLAN(Virtual Local Area Network) field and add it to flow director via ethtool

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 2012 R2

Version: 1.13.104.0 (Optional)

Filename: cp045124.compsig; cp045124.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.

Fixes

This product corrects an traffic packets making cert failure seen when packets transferred to VLAN after RDMA function enabled.

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 2016

Version: 1.13.104.0 (Optional)

Filename: cp045125.compsig; cp045125.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.

Fixes

This product corrects an traffic packets making cert failure seen when packets transferred to VLAN after RDMA function enabled.

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: 1.13.104.0 (Optional)

Filename: cp045126.compsig; cp045126.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.

Fixes

This product corrects an traffic packets making cert failure seen when packets transferred to VLAN after RDMA function enabled.

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 2012 R2

Version: 1.13.104.0 (Optional)

Filename: cp045127.compsig; cp045127.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.

Fixes

This product corrects an traffic packets making cert failure seen when packets transferred to VLAN after RDMA function enabled.

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 2016

Version: 1.13.104.0 (Optional)

Filename: cp045128.compsig; cp045128.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.

Fixes

This product corrects an traffic packets making cert failure seen when packets transferred to VLAN after RDMA function enabled.

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: 1.13.104.0 (Optional)

Filename: cp045129.compsig; cp045129.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.

Fixes

This product corrects an traffic packets making cert failure seen when packets transferred to VLAN after RDMA function enabled.

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: 2020.09.14 (Optional)

Filename: cp042675.compsig; cp042675.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 3.13.0 or later, for use with this driver.

Fixes

This product corrects an issue which PCI device information passing to intnetcli Command-Line Interface (Intel® ESXCLI Plug-In Managing tool).

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: 2021.04.05 (Optional)

Filename: cp045743.compsig; cp045743.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 3.14.0 or later, for use with this driver.

Fixes

This product corrects an issue obtain PCI addresses information when execution intnet CLI tools.

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: 2020.05.29 (Optional)

Filename: cp041295.compsig; cp041295.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 3.12.50 or later, for use with this driver.

Enhancements

Initial release.

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 2012 R2

Version: 1.12.9.0 (Optional)

Filename: cp045116.compsig; cp045116.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 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 Drivers for Red Hat Enterprise Linux 7 x86_64

Version: 4.0.2-1 (Optional)

Filename: kmod-hp-iavf-4.0.2-1.rhel7u8.x86_64.compsig; kmod-hp-iavf-4.0.2-1.rhel7u8.x86_64.rpm; kmod-hp-iavf-4.0.2-1.rhel7u9.x86_64.compsig; kmod-hp-iavf-4.0.2-1.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 7 update 9

This product now supports the following servers:

HPE Superdome Flex 280

HPE Superdome Flex Server

HPE Superdome Flex 2

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: 4.0.2-1 (Optional)

Filename: kmod-hp-iavf-4.0.2-1.rhel8u2.x86_64.compsig; kmod-hp-iavf-4.0.2-1.rhel8u2.x86_64.rpm; kmod-hp-iavf-4.0.2-1.rhel8u3.x86_64.compsig; kmod-hp-iavf-4.0.2-1.rhel8u3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, 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 the following servers:

HPE Superdome Flex 280

HPE Superdome Flex Server

HPE Superdome Flex 2

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: 4.0.2-1 (Optional)

Filename: hp-iavf-kmp-default-4.0.2_k4.12.14_120-1.sles12sp5.x86_64.compsig; hp-iavf-kmp-default-4.0.2_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-iavf-kmp-default-4.0.2_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; hp-iavf-kmp-default-4.0.2_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, for use with these drivers.

Enhancements

This product now supports the following servers:

HPE Superdome Flex 280

HPE Superdome Flex Server

HPE Superdome Flex 2

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: 4.0.2-1 (Optional)

Filename: hp-iavf-kmp-default-4.0.2_k4.12.14_195-1.sles15sp1.x86_64.compsig; hp-iavf-kmp-default-4.0.2_k4.12.14_195-1.sles15sp1.x86_64.rpm; hp-iavf-kmp-default-4.0.2_k5.3.18_22-1.sles15sp2.x86_64.compsig; hp-iavf-kmp-default-4.0.2_k5.3.18_22-1.sles15sp2.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, for use with these drivers.

Enhancements

This product now supports Suse Linux Enterprise Server 15 Service Pack 2

This product now supports the following servers:

HPE Superdome Flex 280

HPE Superdome Flex Server

HPE Superdome Flex 2

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: 6.2.5-1 (Optional)

Filename: kmod-hp-igb-6.2.5-1.rhel7u8.x86_64.compsig; kmod-hp-igb-6.2.5-1.rhel7u8.x86_64.rpm; kmod-hp-igb-6.2.5-1.rhel7u9.x86_64.compsig; kmod-hp-igb-6.2.5-1.rhel7u9.x86_64.rpm; README

Enhancements

This product now support HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version (or later) to update firmware

This product now supports Red Hat Enterprise Linux 7 update 9

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: 6.2.5-1 (Optional)

Filename: kmod-hp-igb-6.2.5-1.rhel8u2.x86_64.compsig; kmod-hp-igb-6.2.5-1.rhel8u2.x86_64.rpm; kmod-hp-igb-6.2.5-1.rhel8u3.x86_64.compsig; kmod-hp-igb-6.2.5-1.rhel8u3.x86_64.rpm; README

Enhancements

This product now support HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version (or later) to update firmware

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

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: 6.2.5-1 (Optional)

Filename: hp-igb-kmp-default-6.2.5_k4.12.14_120-1.sles12sp5.x86_64.compsig; hp-igb-kmp-default-6.2.5_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-igb-kmp-default-6.2.5_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; hp-igb-kmp-default-6.2.5_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; README

Enhancements

This product now support HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version (or later) to update firmware

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: 6.2.5-1 (Optional)

Filename: hp-igb-kmp-default-6.2.5_k4.12.14_195-1.sles15sp1.x86_64.compsig; hp-igb-kmp-default-6.2.5_k4.12.14_195-1.sles15sp1.x86_64.rpm; hp-igb-kmp-default-6.2.5_k5.3.18_22-1.sles15sp2.x86_64.compsig; hp-igb-kmp-default-6.2.5_k5.3.18_22-1.sles15sp2.x86_64.rpm; README

Enhancements

This product now support HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version (or later) to update firmware

This product now supports Suse Linux Enterprise Server 15 Service Pack 2

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: 2021.04.05 (Optional)

Filename: cp042677.compsig; cp042677.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 3.14.0 or later, for use with this driver.

Fixes

This product corrects an issue which handling duplex value passed of ESXi command.

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: 2021.04.05 (Optional)

Filename: cp042678.compsig; cp042678.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 3.14.0 or later, for use with this driver.

Fixes

This product corrects an issue which handling duplex value passed of ESXi command.

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: 2021.04.05 (Optional)

Filename: cp045339.compsig; cp045339.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 3.14.0 or later, for use with this driver.

Fixes

This product corrects an issue which handling duplex value passed of ESXi command.

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: 5.9.4-1 (Optional)

Filename: kmod-hp-ixgbe-5.9.4-1.rhel7u8.x86_64.compsig; kmod-hp-ixgbe-5.9.4-1.rhel7u8.x86_64.rpm; kmod-hp-ixgbe-5.9.4-1.rhel7u9.x86_64.compsig; kmod-hp-ixgbe-5.9.4-1.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 7 update 9

This product enhances reliability via adding support for new mailbox communication between PF(Physical Function) and VF(Virtual Function) and remove its potential flaws that may lead to the undefined or faulty behavior

This product enhances compatibility where new mailbox api implementation is also compatible with old drivers

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: 5.9.4-1 (Optional)

Filename: kmod-hp-ixgbe-5.9.4-1.rhel8u2.x86_64.compsig; kmod-hp-ixgbe-5.9.4-1.rhel8u2.x86_64.rpm; kmod-hp-ixgbe-5.9.4-1.rhel8u3.x86_64.compsig; kmod-hp-ixgbe-5.9.4-1.rhel8u3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, 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 enhances reliability via adding support for new mailbox communication between PF(Physical Function) and VF(Virtual Function) and remove its potential flaws that may lead to the undefined or faulty behavior

This product enhances compatibility where new mailbox api implementation is also compatible with old drivers

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: 5.9.4-1 (Optional)

Filename: hp-ixgbe-kmp-default-5.9.4_k4.12.14_120-1.sles12sp5.x86_64.compsig; hp-ixgbe-kmp-default-5.9.4_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-ixgbe-kmp-default-5.9.4_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; hp-ixgbe-kmp-default-5.9.4_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, for use with these drivers.

Enhancements

This product enhances reliability via adding support for new mailbox communication between PF(Physical Function) and VF(Virtual Function) and remove its potential flaws that may lead to the undefined or faulty behavior

This product enhances compatibility where new mailbox api implementation is also compatible with old drivers

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: 5.9.4-1 (Optional)

Filename: hp-ixgbe-kmp-default-5.9.4_k4.12.14_195-1.sles15sp1.x86_64.compsig; hp-ixgbe-kmp-default-5.9.4_k4.12.14_195-1.sles15sp1.x86_64.rpm; hp-ixgbe-kmp-default-5.9.4_k5.3.18_22-1.sles15sp2.x86_64.compsig; hp-ixgbe-kmp-default-5.9.4_k5.3.18_22-1.sles15sp2.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, for use with these drivers.

Enhancements

This product now supports Suse Linux Enterprise Server 15 Service Pack 2

This product enhances reliability via adding support for new mailbox communication between PF(Physical Function) and VF(Virtual Function) and remove its potential flaws that may lead to the undefined or faulty behavior

This product enhances compatibility where new mailbox api implementation is also compatible with old drivers

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: 2020.09.14 (Optional)

Filename: cp042679.compsig; cp042679.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 3.13.0 or later, for use with this driver.

Fixes

This product corrects an issue which notification from Link Partner when executed Link Flow Control settings.

Supported Devices and Features

These drivers support the following network adapters:

HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter

HP Ethernet 10Gb 2-port 560SFP+ Adapter

HPE Ethernet 10Gb 2-port 562FLR-T Adapter

HPE Ethernet 10Gb 2-port 562T Adapter

HPE Intel ixgben Driver for VMware vSphere 6.7

Version: 2020.09.14 (Optional)

Filename: cp042680.compsig; cp042680.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 3.13.0 or later, for use with this driver.

Fixes

This product corrects an issue which notification from Link Partner when executed Link Flow Control settings.

Supported Devices and Features

These drivers support the following network adapters:

HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter

HP Ethernet 10Gb 2-port 560SFP+ Adapter

HPE Ethernet 10Gb 2-port 562FLR-T Adapter

HPE Ethernet 10Gb 2-port 562T Adapter

HPE Intel ixgben Driver for VMware vSphere 7.0

Version: 2020.05.29 (Optional)

Filename: cp041297.compsig; cp041297.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 3.12.50 or later, for use with this driver.

Enhancements

Initial release.

Supported Devices and Features

These drivers support the following network adapters:

HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter

HP 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 Red Hat Enterprise Linux 7 x86_64

Version: 4.9.3-1 (Optional)

Filename: kmod-hp-ixgbevf-4.9.3-1.rhel7u8.x86_64.compsig; kmod-hp-ixgbevf-4.9.3-1.rhel7u8.x86_64.rpm;
kmod-hp-ixgbevf-4.9.3-1.rhel7u9.x86_64.compsig; kmod-hp-ixgbevf-4.9.3-1.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 7 update 9

This product enhances reliability via adding support for new mailbox communication between PF(Physical Function) and VF(Virtual Function) and remove its potential flaws that may lead to the undefined or faulty behavior

This product enhances compatibility where new mailbox api implementation is also compatible with old drivers

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: 4.9.3-1 (Optional)

Filename: kmod-hp-ixgbevf-4.9.3-1.rhel8u2.x86_64.compsig; kmod-hp-ixgbevf-4.9.3-1.rhel8u2.x86_64.rpm; kmod-hp-ixgbevf-4.9.3-1.rhel8u3.x86_64.compsig; kmod-hp-ixgbevf-4.9.3-1.rhel8u3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, 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 enhances reliability via adding support for new mailbox communication between PF(Physical Function) and VF(Virtual Function) and remove its potential flaws that may lead to the undefined or faulty behavior

This product enhances compatibility where new mailbox api implementation is also compatible with old drivers

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: 4.9.3-1 (Optional)

Filename: hp-ixgbevf-kmp-default-4.9.3_k4.12.14_120-1.sles12sp5.x86_64.compsig; hp-ixgbevf-kmp-default-4.9.3_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-ixgbevf-kmp-default-4.9.3_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; hp-ixgbevf-kmp-default-4.9.3_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, for use with these drivers.

Enhancements

This product enhances reliability via adding support for new mailbox communication between PF(Physical Function) and VF(Virtual Function) and remove its potential flaws that may lead to the undefined or faulty behavior

This product enhances compatibility where new mailbox api implementation is also compatible with old drivers

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: 4.9.3-1 (Optional)

Filename: hp-ixgbevf-kmp-default-4.9.3_k4.12.14_195-1.sles15sp1.x86_64.compsig; hp-ixgbevf-kmp-default-4.9.3_k4.12.14_195-1.sles15sp1.x86_64.rpm; hp-ixgbevf-kmp-default-4.9.3_k5.3.18_22-1.sles15sp2.x86_64.compsig; hp-ixgbevf-kmp-default-4.9.3_k5.3.18_22-1.sles15sp2.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.21.0 or later, for use with these drivers.

Enhancements

This product now supports Suse Linux Enterprise Server 15 Service Pack 2

This product enhances reliability via adding support for new mailbox communication between PF(Physical Function) and VF(Virtual Function) and remove its potential flaws that may lead to the undefined or faulty behavior

This product enhances compatibility where new mailbox api implementation is also compatible with old drivers

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 2012 R2

Version: 3.14.214.0 (Optional)

Filename: cp042027.compsig; cp042027.exe

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.3.0 or later, for use with this driver.

Enhancements

This product contains Windows system update supported improvements.

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 2016

Version: 4.1.199.0 (Optional)

Filename: cp042028.compsig; cp042028.exe

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.3.0 or later, for use with this driver.

Enhancements

This product contains Windows system update supported improvements.

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: 4.1.197.0 (B) (Optional)

Filename: cp046115.compsig; cp046115.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.

Enhancements

This product is updated to maintain compatibility with updated .cat file.

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 2012 R2

Version: 3.14.222.0 (Optional)

Filename: cp046116.compsig; cp046116.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.

Enhancements

This product contains Windows system update supported improvements.

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 2016

Version: 4.1.219.0 (Optional)

Filename: cp046117.compsig; cp046117.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.

Enhancements

This product contains Windows system update supported improvements.

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: 4.1.219.0 (Optional)

Filename: cp046118.compsig; cp046118.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.

Enhancements

This product contains Windows system update supported improvements.

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 2012 R2

Version: 1.2.199.0 (B) (Optional)

Filename: cp045152.compsig; cp045152.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 3.14.214.0 or later.

Enhancements

This product now supports the following the network adapters:

HPE Ethernet 10Gb 2-port 561FLR-T Adapter

HPE Ethernet 10Gb 2-port 561T Adapter

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 2016

Version: 2.1.192.0 (B) (Optional)

Filename: cp045153.compsig; cp045153.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 4.1.199.0 or later.

Enhancements

This product now supports the following network adapters:

HPE Ethernet 10Gb 2-port 561FLR-T Adapter

HPE Ethernet 10Gb 2-port 561T Adapter

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: 2.1.191.0 (B) (Optional)

Filename: cp046080.compsig; cp046080.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 4.1.179.0 or later.

Enhancements

This product now supports the following the network adapters:

HPE Ethernet 10Gb 2-port 561FLR-T Adapter

HPE Ethernet 10Gb 2-port 561T Adapter

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 2012 R2

Version: 1.2.199.0 (Optional)

Filename: cp042036.compsig; cp042036.exe

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.3.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 3.14.214.0 or later.

Enhancements

This product contains Windows system update supported improvements.

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 2016

Version: 2.1.192.0 (Optional)

Filename: cp042037.compsig; cp042037.exe

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.3.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 4.1.199.0 or later.

Enhancements

This product contains Windows system update supported improvements.

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 2019

Version: 2.1.191.0 (Optional)

Filename: cp042038.compsig; cp042038.exe

Important Note!

HPE recommends the firmware provided in HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.3.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 4.1.179.0 or later.

Enhancements

This product contains Windows system update supported improvements.

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 2012 R2

Version: 2.60.23957.0 (Optional)

Filename: cp045130.compsig; cp045130.exe

Fixes

This product addresses a Windows Stop Error (BSOD) seen when running Mellanox NdStat Utility (mlx5cmd - ndstat) while ND connections was closing.

This product corrects driver loading failures seen due to incorrect INF file.

This product correct an issue where the vSwitch unavailable to assign on WS2012R2.

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 2016

Version: 2.60.23957.0 (Optional)

Filename: cp045131.compsig; cp045131.exe

Fixes

This product addresses a Windows Stop Error (BSOD) seen when running Mellanox NdStat Utility (mlx5cmd - ndstat) while ND connections was closing.

This product corrects driver loading failures seen due to incorrect INF file.

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

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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: 2.60.23957.0 (Optional)

Filename: cp045132.compsig; cp045132.exe

Fixes

This product addresses a Windows Stop Error (BSOD) seen when running Mellanox NdStat Utility (mlx5cmd - ndstat) while ND connections was closing.

This product corrects driver loading failures seen due to incorrect INF file.

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This driver supports the following network adapters:

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HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter

HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter

HPE Mellanox MFT Driver and Firmware Tools for Red Hat Enterprise Linux 7 Update 8 (x86_64)

Version: 4.16 (Recommended)

Filename: kmod-kernel-mft-mlnx-4.16.0-1.rhel7u8.x86_64.compsig; kmod-kernel-mft-mlnx-4.16.0-1.rhel7u8.x86_64.rpm; mft-4.16.0-105.rhel7u8.x86_64.compsig; mft-4.16.0-105.rhel7u8.x86_64.rpm

Fixes

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

Enhancements

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

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 Driver and Firmware Tools for Red Hat Enterprise Linux 7 Update 9 (x86_64)

Version: 4.16 (Recommended)

Filename: kmod-kernel-mft-mlnx-4.16.0-1.rhel7u9.x86_64.compsig; kmod-kernel-mft-mlnx-4.16.0-1.rhel7u9.x86_64.rpm; mft-4.16.0-105.rhel7u9.x86_64.compsig; mft-4.16.0-105.rhel7u9.x86_64.rpm

Fixes

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

Enhancements

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

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 Driver and Firmware Tools for Red Hat Enterprise Linux 8 Update 2 (x86_64)

Version: 4.16 (Recommended)

Filename: kmod-kernel-mft-mlnx-4.16.0-1.rhel8u2.x86_64.compsig; kmod-kernel-mft-mlnx-4.16.0-1.rhel8u2.x86_64.rpm; mft-4.16.0-105.rhel8u2.x86_64.compsig; mft-4.16.0-105.rhel8u2.x86_64.rpm

Fixes

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

Enhancements

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 8 update 2 (x86_64) supported by this binary rpm are:

4.18.0-147.el8 - (x86_64) and future update kernels.

HPE Mellanox MFT Driver and Firmware Tools for Red Hat Enterprise Linux 8 Update 3 (x86_64)

Version: 4.16 (Recommended)

Filename: kmod-kernel-mft-mlnx-4.16.0-1.rhel8u3.x86_64.compsig; kmod-kernel-mft-mlnx-4.16.0-1.rhel8u3.x86_64.rpm; mft-4.16.0-105.rhel8u3.x86_64.compsig; mft-4.16.0-105.rhel8u3.x86_64.rpm

Fixes

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

Enhancements

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 8 update 3 (x86_64) supported by this binary rpm are:

4.18.0-240.el8 - (x86_64) and future update kernels.

HPE Mellanox MFT Driver and Firmware Tools for SUSE Linux Enterprise Server 12 SP4 (AMD64/EM64T)

Version: 4.16 (Recommended)

Filename: kernel-mft-mlnx-kmp-default-4.16.0_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; kernel-mft-mlnx-kmp-default-4.16.0_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; mft-4.16.0-105.sles12sp4.x86_64.compsig; mft-4.16.0-105.sles12sp4.x86_64.rpm

Fixes

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

Enhancements

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

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 Driver and Firmware Tools for SUSE Linux Enterprise Server 12 SP5 (AMD64/EM64T)

Version: 4.16 (Recommended)

Filename: kernel-mft-mlnx-kmp-default-4.16.0_k4.12.14_120-1.sles12sp5.x86_64.compsig; kernel-mft-mlnx-kmp-default-4.16.0_k4.12.14_120-1.sles12sp5.x86_64.rpm; mft-4.16.0-105.sles12sp5.x86_64.compsig; mft-4.16.0-105.sles12sp5.x86_64.rpm

Fixes

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

Enhancements

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

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.

HPE Mellanox MFT Driver and Firmware Tools for SUSE Linux Enterprise Server 15 SP1 (AMD64/EM64T)

Version: 4.16 (Recommended)

Filename: kernel-mft-mlnx-kmp-default-4.16.0_k4.12.14_195-1.sles15sp1.x86_64.compsig; kernel-mft-mlnx-kmp-default-4.16.0_k4.12.14_195-1.sles15sp1.x86_64.rpm; mft-4.16.0-105.sles15sp1.x86_64.compsig; mft-4.16.0-105.sles15sp1.x86_64.rpm

Fixes

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

Enhancements

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 15 SP1 (AMD64/EM64T) supported by this binary rpm are:
4.12.14-195-default and future update kernels.

HPE Mellanox MFT Driver and Firmware Tools for SUSE Linux Enterprise Server 15 SP2 (AMD64/EM64T)

Version: 4.16 (Recommended)

Filename: kernel-mft-mlnx-kmp-default-4.16.0_k5.3.18_22-1.sles15sp2.x86_64.compsig; kernel-mft-mlnx-kmp-default-4.16.0_k5.3.18_22-1.sles15sp2.x86_64.rpm; mft-4.16.0-105.sles15sp2.x86_64.compsig; mft-4.16.0-105.sles15sp2.x86_64.rpm

Fixes

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

Enhancements

MFT prerequisite RPMs for Mellanox adapter firmware update in Secure Boot mode.

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 15 SP2 (AMD64/EM64T) supported by this binary rpm are:

4.12.14-195-default and future update kernels.

HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for Mellanox ConnectX-4, ConnectX-5 and ConnectX-6 Adapters for Red Hat Enterprise Linux 7 Update 8 (x86_64)

Version: 5.2 (Recommended)

Filename: kmod-mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel7u8.x86_64.compsig; kmod-mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel7u8.x86_64.rpm; mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel7u8.x86_64.compsig; mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel7u8.x86_64.rpm

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation for HPE Mellanox adapters. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from "Mellanox OFED VPI Drivers and Utilities" Linux Software Delivery Repository (http://downloads.linux.hpe.com/SDR/repo/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 issues have been fixed in version 5.2:

Clearing min_rate on all SR-IOV legacy VFs after setting min_rate to at least one of the VFs did not disable QoS min_rate.

An empty /usr/src/mlnx-ofa_kernel/default is now no longer created.

An issue where installing packages through a repository failed after generation of metapackages using --add-kernel-support. The failure occurred due to excessive and incorrect Obsolete headers in those metapackages. Enabled installation of mlnx-ofa_kernel package to /bin/python3 instead of /usr/bin/python3 on RHEL 8.x systems.

All IPoIB offload packets were wrongly counted as rx_csum_complete. These packets are now identified as rx_csum_unnecessary packets.

mlx5dv_dr_rule_destroy segmentation fault could happen in rare cases with multiple rules on the same matcher with a different number of actions. This could happen after reusing an already deleted rule memory with less actions.

An issue of moving to SwitchDev mode after configuring DSCP (Differentiated Service Code Point).

Global traffic class configuration did not take effect on DC QPs (Dynamically Connected Queue Pairs).

ib_send_bw traffic frequently dropped to zero when RDMA CM was used, because of incorrect min_rnr_timer setting on the responder side. The min_rnr_timer setting is now aligned with the setting in non-RDMA CM cases.

Traffic did not pass over VFs with VST QinQ feature is enabled.

When traffic was sent over Geneve VLAN with Tx VLAN offload enabled and TSO (TCP Segmentation Offload) or Tx csum enabled, traffic could be dropped and not sent to the wire.

An issue that caused the firmware to restart upon installing mlnxofed-dpdk-upstream-libs package manually.

Bad utility paths in rdma-core "dracut" hooks on SLES systems, which used to result in the following errors when running "dracut" with the "--add rdma" option. dracut-install:

```
ERROR: installing '/usr/libexec/mlx4-setup.sh' dracut: /usr/lib/dracut/dracut-install -D /var/tmp/dracut.UdCOSJ/
initramfs /usr/libexec/mlx4-setup.sh dracut-install: ERROR: installing '/usr/libexec/rdma-set-sriov-vf' dracut:
/usr/lib/dracut/dracut-install -D /var/tmp/dracut.UdCOSJ/ initramfs /usr/libexec/rdma-set-sriov-vf
```

Traffic class value was not updated in DCT when set via sysfs.

A doorbell loss issue on AMD platforms with Secure Memory Encryption (SME).

Registering memory using mlx5dv_devx_umem_reg while forking. Without this fix, applications which use fork() or similar syscalls while using a memory registered with umem_reg could hang due to incorrect physical page mapping. This fix requires setting the IBV_FORK_SAFE environment variable.

When unbinding the device resulted in the following message being printed to the dmesg: "failed to disable DC tracer"

Content of file /sys/class/net//statistics/ multicast might have been out of date and might have displayed values lower than the real values.

ERSPAN (Encapsulated Remote SPAN) protocol was available only when turning off Tx checksum offload.

A udev script issue which caused non-mellanox devices to be renamed.

Missing representor statistics when using ifconfig.

Fixed wrong value of skb mark of received packets on representors.

An issue which caused second port representors to be named as first port representors.

Enhancements

Changes and new features in HPE Mellanox RoCE driver version 5.2:

For ConnectX-5 Adapters and above:

Added support for the following features:

CQE compression support for Rx multi-strides packets.

Configuring QoS on a single QP or on a group of QPs.

Encap/decap hardware offload of IPv4 traffic over MPLS-over-UDP. This can be used in networks with MPLS routers to achieve more efficient routing.

Connection tracking rules on VFs to forward traffic from one VF to the other.

Offloading sFlow sampling rules.

For ConnectX-5 Adapters and ConnectX-6 Dx Adapters:

Added support for the following features:

A locking mechanism to enable parallel insertion of rules into the software steering using the mlx5dv_dr API. The parallel insertion improves the insertion rate and takes place when adding Rx and Tx rules via the FDB domain.

Option to match mlx5dv_dr API on Geneve tunnel using a dynamic flex parser. The option header consists of class, type, length and data. The parser should be configured using devx command, after which a rule can be created to match on parser ID and data.

Geneve tunneling offload, including matching on extension header.

Parallel insertion and deletion of offloaded rules using multiple OVS threads.

For ConnectX-6 Dx Adapters:

Added support for the following features:

[Beta] Modify GTP-U TEID. This support requires flex parser configuration.

[Beta] Improved performance of OVS Connection Tracking flows by enabling the merge of the multi-table flow matches and actions into one joint flow.

For ConnectX-6 Dx Adapters and above:

Added support for the following features:

Transmitted packet timestamping accuracy can be improved when using a timestamp generated at the port level instead of a timestamp generated upon CQE creation. Tx port time-stamping better reflects the actual time of a packet's transmission. This feature is disabled by default. The feature can be enabled or disabled using the following command. `ethtool --set-priv-flags tx_port_ts on / off`.

Offloading tunnel rules when the source interface is VF (in addition to uplink) in the Hypervisor.

Using Mirroring Offload with Connection Tracking.

ASO flow meter using the `mlx5dv_dr` API, which allows for monitoring the packet rate for specific flows. When a packet hits a flow that is connected to a flow meter, the rate of packets through this meter is evaluated, and the packet is marked with a color copied into one of the C registers, according to the current rate compared to the reference rate.

ASO first hit using the `mlx5dv_dr` API, which allows for tracking rule hits by packets. When a packet hits a rule with the ASO first hit action, a flag is set indicating this event, and the original value of the flag is copied to one of the C registers.

`mlx5dv_dr` API support for matching on a new field "gtpu_first_ext_dw_0". This field enables packet filtering based on the GTP-U first extension header (first dword only). To enable parsing of tunnel GTP-U extension header, run the following command. `./cloud_fw_reset.py FLEX_PARSER_PROFILE_ENABLE=3`.

For ConnectX-6 Lx Adapters and above:

Added support for the following features:

IPsec full offload support for extended sequence number, replay protection window and lifetime packet limit.

For All HCA's:

Added support for the following features:

New query GID API that allows for querying a single GID entry by its port and GID index, or querying for all GID tables of a specific device. This API works over `ioctl` instead of `sysfs`, which accelerates the querying process.

Performing multi-host firmware reset in order to upgrade the device firmware. Firmware reset loads the new firmware in case it was burnt on the flash and was pending activation, and reload.

[Alpha] Firmware live patching in the driver. Live patching updates the firmware without the need to perform firmware reset. However, it can only be applied in scenarios where the difference between the current and new firmware versions are minor, which is decided upon by the firmware itself.

`devlink` tool for performing firmware reset in order to upgrade the device firmware. Firmware reset loads the new firmware in case it was burnt on the flash and was pending activation, and reloads the current firmware image from the flash in case no new firmware was pending. For further information, please refer to the `devlink` man page.

A resiliency mechanism for the driver to manually poll the command event queue (EQ) in case of a command timeout. In case the resiliency mechanism finds unhandled event queue entry (EQE) due to a lost interrupt, the driver will handle it, after which the command interface returns to a healthy state.

Setting a sniffer private flag is deprecated and no longer required. In order to capture offloaded/RoCE traffic, `tcpdump` can now be run on the RDMA device.

Added per-port reporters to devlink health to manage per-port health activities. Users can now access the devlink port reporters by specifying the port index in addition to the device devlink name through the devlink health commands API. This update was first introduced in iproute2 v5.8. As part of this feature, mlx5e Tx and Rx reporters are now redefined as devlink port reporters. For examples, please see devlink-health manpage

Optimized memory consumption of memory registration in huge page systems. As an example, in a 2MB huge page system, 600 MB would be saved for 100 GB memory registration.

mlx5dv API to modify the configured UDP source port for RoCE packets of a given RC/UC QP when QP is in RTS state.

Accelerating Tx datapath by saving PCI bandwidth and CPU utilization. The savings are achieved by aggregating multiple packets into a single WQE. The feature is driven by xmit_more for certain traffic types, such as UDP.

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) Driver for Mellanox ConnectX-4, ConnectX-5 and ConnectX-6 Adapters for Red Hat Enterprise Linux 7 Update 9 (x86_64)

Version: 5.2 (Recommended)

Filename: kmod-mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel7u9.x86_64.compsig; kmod-mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel7u9.x86_64.rpm; mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel7u9.x86_64.compsig; mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel7u9.x86_64.rpm

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All IPoIB offload packets were wrongly counted as rx_csum_complete. These packets are now identified as rx_csum_unnecessary packets.

mlx5dv_dr_rule_destroy segmentation fault could happen in rare cases with multiple rules on the same matcher with a different number of actions. This could happen after reusing an already deleted rule memory with less actions.

An issue of moving to SwitchDev mode after configuring DSCP (Differentiated Service Code Point).

Global traffic class configuration did not take effect on DC QPs (Dynamically Connected Queue Pairs).

ib_send_bw traffic frequently dropped to zero when RDMA CM was used, because of incorrect min_rnr_timer setting on the responder side. The min_rnr_timer setting is now aligned with the setting in non-RDMA CM cases.

Traffic did not pass over VFs with VST QinQ feature is enabled.

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initramfs /usr/libexec/mlx4-setup.sh dracut-install: ERROR: installing '/usr/libexec/rdma-set-sriov-vf' dracut:
/usr/lib/dracut/dracut-install -D /var/tmp/dracut.UdCOSJ/ initramfs /usr/libexec/rdma-set-sriov-vf
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Option to match mlx5dv_dr API on Geneve tunnel using a dynamic flex parser. The option header consists of class, type, length and data. The parser should be configured using devx command, after which a rule can be created to match on parser ID and data.

Geneve tunneling offload, including matching on extension header.

Parallel insertion and deletion of offloaded rules using multiple OVS threads.

For ConnectX-6 Dx Adapters:

Added support for the following features:

[Beta] Modify GTP-U TEID. This support requires flex parser configuration.

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Added support for the following features:

Transmitted packet timestamping accuracy can be improved when using a timestamp generated at the port level instead of a timestamp generated upon CQE creation. Tx port time-stamping better reflects the actual time of a packet's transmission. This feature is disabled by default. The feature can be enabled or disabled using the following command. `ethtool --set-priv-flags tx_port_ts on / off`.

Offloading tunnel rules when the source interface is VF (in addition to uplink) in the Hypervisor.

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ASO flow meter using the `mlx5dv_dr` API, which allows for monitoring the packet rate for specific flows. When a packet hits a flow that is connected to a flow meter, the rate of packets through this meter is evaluated, and the packet is marked with a color copied into one of the C registers, according to the current rate compared to the reference rate.

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`mlx5dv_dr` API support for matching on a new field `"gtpu_first_ext_dw_0"`. This field enables packet filtering based on the GTP-U first extension header (first dword only). To enable parsing of tunnel GTP-U extension header, run the following command. `./cloud_fw_reset.py FLEX_PARSER_PROFILE_ENABLE=3`.

For ConnectX-6 Lx Adapters and above:

Added support for the following features:

IPsec full offload support for extended sequence number, replay protection window and lifetime packet limit.

For All HCA's:

Added support for the following features:

New query GID API that allows for querying a single GID entry by its port and GID index, or querying for all GID tables of a specific device. This API works over `ioctl` instead of `sysfs`, which accelerates the querying process.

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[Alpha] Firmware live patching in the driver. Live patching updates the firmware without the need to perform firmware reset. However, it can only be applied in scenarios where the difference between the current and new firmware versions are minor, which is decided upon by the firmware itself.

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Setting a sniffer private flag is deprecated and no longer required. In order to capture offloaded/RoCE traffic, `tcpdump` can now be run on the RDMA device.

Added per-port reporters to devlink health to manage per-port health activities. Users can now access the devlink port reporters by specifying the port index in addition to the device devlink name through the devlink health commands API. This update was first introduced in iproute2 v5.8. As part of this feature, mlx5e Tx and Rx reporters are now redefined as devlink port reporters. For examples, please see devlink-health manpage

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Accelerating Tx datapath by saving PCI bandwidth and CPU utilization. The savings are achieved by aggregating multiple packets into a single WQE. The feature is driven by xmit_more for certain traffic types, such as UDP.

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) Driver for Mellanox ConnectX-4, ConnectX-5 and ConnectX-6 Adapters for Red Hat Enterprise Linux 8 Update 2 (x86_64)

Version: 5.2 (Recommended)

Filename: kmod-mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel8u2.x86_64.compsig; kmod-mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel8u2.x86_64.rpm; mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel8u2.x86_64.compsig; mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel8u2.x86_64.rpm

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation for HPE Mellanox adapters. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from "Mellanox OFED VPI Drivers and Utilities" 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 issues have been fixed in version 5.2:

Clearing min_rate on all SR-IOV legacy VFs after setting min_rate to at least one of the VFs did not disable QoS min_rate.

An empty /usr/src/mlnx-ofa_kernel/default is now no longer created.

An issue where installing packages through a repository failed after generation of metapackages using --add-kernel-support. The failure occurred due to excessive and incorrect Obsolete headers in those metapackages. Enabled installation of mlnx-ofa_kernel package to /bin/python3 instead of /usr/bin/python3 on RHEL 8.x systems.

All IPoIB offload packets were wrongly counted as rx_csum_complete. These packets are now identified as rx_csum_unnecessary packets.

mlx5dv_dr_rule_destroy segmentation fault could happen in rare cases with multiple rules on the same matcher with a different number of actions. This could happen after reusing an already deleted rule memory with less actions.

An issue of moving to SwitchDev mode after configuring DSCP (Differentiated Service Code Point).

Global traffic class configuration did not take effect on DC QPs (Dynamically Connected Queue Pairs).

ib_send_bw traffic frequently dropped to zero when RDMA CM was used, because of incorrect min_rnr_timer setting on the responder side. The min_rnr_timer setting is now aligned with the setting in non-RDMA CM cases.

Traffic did not pass over VFs with VST QinQ feature is enabled.

When traffic was sent over Geneve VLAN with Tx VLAN offload enabled and TSO (TCP Segmentation Offload) or Tx csum enabled, traffic could be dropped and not sent to the wire.

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Bad utility paths in rdma-core "dracut" hooks on SLES systems, which used to result in the following errors when running "dracut" with the "--add rdma" option. dracut-install:

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Registering memory using mlx5dv_devx_umem_reg while forking. Without this fix, applications which use fork() or similar syscalls while using a memory registered with umem_reg could hang due to incorrect physical page mapping. This fix requires setting the IBV_FORK_SAFE environment variable.

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Enhancements

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Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 8 update 2(x86_64) supported by this binary rpm are:

4.18.0-193.el8 - (x86_64) and future update kernels.

HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for Mellanox ConnectX-4, ConnectX-5 and ConnectX-6 Adapters for Red Hat Enterprise Linux 8 Update 3 (x86_64)

Version: 5.2 (Recommended)

Filename: kmod-mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel8u3.x86_64.compsig; kmod-mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel8u3.x86_64.rpm; mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel8u3.x86_64.compsig; mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.rhel8u3.x86_64.rpm

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Accelerating Tx datapath by saving PCI bandwidth and CPU utilization. The savings are achieved by aggregating multiple packets into a single WQE. The feature is driven by xmit_more for certain traffic types, such as UDP.

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 8 update 3(x86_64) supported by this binary rpm are:

4.18.0-240.el8 - (x86_64) and future update kernels.

HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for Mellanox ConnectX-4, ConnectX-5 and ConnectX-6 Adapters for SUSE LINUX Enterprise Server 12 SP4 (AMD64/EM64T)

Version: 5.2 (Recommended)

Filename: mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.sles12sp4.x86_64.compsig; mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.sles12sp4.x86_64.rpm; mlnx-ofa_kernel-kmp-default-5.2_k4.12.14_94.41-OFED.5.2.1.0.4.1.sles12sp4.x86_64.compsig; mlnx-ofa_kernel-kmp-default-5.2_k4.12.14_94.41-OFED.5.2.1.0.4.1.sles12sp4.x86_64.rpm

Important Note!

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Connection tracking rules on VFs to forward traffic from one VF to the other.

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For ConnectX-5 Adapters and ConnectX-6 Dx Adapters:

Added support for the following features:

A locking mechanism to enable parallel insertion of rules into the software steering using the mlx5dv_dr API. The parallel insertion improves the insertion rate and takes place when adding Rx and Tx rules via the FDB domain.

Option to match mlx5dv_dr API on Geneve tunnel using a dynamic flex parser. The option header consists of class, type, length and data. The parser should be configured using devx command, after which a rule can be created to match on parser ID and data.

Geneve tunneling offload, including matching on extension header.

Parallel insertion and deletion of offloaded rules using multiple OVS threads.

For ConnectX-6 Dx Adapters:

Added support for the following features:

[Beta] Modify GTP-U TEID. This support requires flex parser configuration.

[Beta] Improved performance of OVS Connection Tracking flows by enabling the merge of the multi-table flow matches and actions into one joint flow.

For ConnectX-6 Dx Adapters and above:

Added support for the following features:

Transmitted packet timestamping accuracy can be improved when using a timestamp generated at the port level instead of a timestamp generated upon CQE creation. Tx port time-stamping better reflects the actual time of a packet's transmission. This feature is disabled by default. The feature can be enabled or disabled using the following command. `ethtool --set-priv-flags tx_port_ts on / off`.

Offloading tunnel rules when the source interface is VF (in addition to uplink) in the Hypervisor.

Using Mirroring Offload with Connection Tracking.

ASO flow meter using the `mlx5dv_dr` API, which allows for monitoring the packet rate for specific flows. When a packet hits a flow that is connected to a flow meter, the rate of packets through this meter is evaluated, and the packet is marked with a color copied into one of the C registers, according to the current rate compared to the reference rate.

ASO first hit using the `mlx5dv_dr` API, which allows for tracking rule hits by packets. When a packet hits a rule with the ASO first hit action, a flag is set indicating this event, and the original value of the flag is copied to one of the C registers.

`mlx5dv_dr` API support for matching on a new field `"gtpu_first_ext_dw_0"`. This field enables packet filtering based on the GTP-U first extension header (first dword only). To enable parsing of tunnel GTP-U extension header, run the following command. `./cloud_fw_reset.py FLEX_PARSER_PROFILE_ENABLE=3`.

For ConnectX-6 Lx Adapters and above:

Added support for the following features:

IPsec full offload support for extended sequence number, replay protection window and lifetime packet limit.

For All HCA's:

Added support for the following features:

New query GID API that allows for querying a single GID entry by its port and GID index, or querying for all GID tables of a specific device. This API works over `ioctl` instead of `sysfs`, which accelerates the querying process.

Performing multi-host firmware reset in order to upgrade the device firmware. Firmware reset loads the new firmware in case it was burnt on the flash and was pending activation, and reload.

[Alpha] Firmware live patching in the driver. Live patching updates the firmware without the need to perform firmware reset. However, it can only be applied in scenarios where the difference between the current and new firmware versions are minor, which is decided upon by the firmware itself.

`devlink` tool for performing firmware reset in order to upgrade the device firmware. Firmware reset loads the new firmware in case it was burnt on the flash and was pending activation, and reloads the current firmware image from the flash in case no new firmware was pending. For further information, please refer to the `devlink` man page.

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Setting a sniffer private flag is deprecated and no longer required. In order to capture offloaded/RoCE traffic, `tcpdump` can now be run on the RDMA device.

Added per-port reporters to devlink health to manage per-port health activities. Users can now access the devlink port reporters by specifying the port index in addition to the device devlink name through the devlink health commands API. This update was first introduced in iproute2 v5.8. As part of this feature, mlx5e Tx and Rx reporters are now redefined as devlink port reporters. For examples, please see devlink-health manpage

Optimized memory consumption of memory registration in huge page systems. As an example, in a 2MB huge page system, 600 MB would be saved for 100 GB memory registration.

mlx5dv API to modify the configured UDP source port for RoCE packets of a given RC/UC QP when QP is in RTS state.

Accelerating Tx datapath by saving PCI bandwidth and CPU utilization. The savings are achieved by aggregating multiple packets into a single WQE. The feature is driven by xmit_more for certain traffic types, such as UDP.

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) Driver for Mellanox ConnectX-4, ConnectX-5 and ConnectX-6 Adapters for SUSE LINUX Enterprise Server 12 SP5 (AMD64/EM64T)

Version: 5.2 (Recommended)

Filename: mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.sles12sp5.x86_64.compsig; mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.sles12sp5.x86_64.rpm; mlnx-ofa_kernel-kmp-default-5.2_k4.12.14_120-OFED.5.2.1.0.4.1.sles12sp5.x86_64.compsig; mlnx-ofa_kernel-kmp-default-5.2_k4.12.14_120-OFED.5.2.1.0.4.1.sles12sp5.x86_64.rpm

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation for HPE Mellanox adapters. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from "Mellanox OFED VPI Drivers and Utilities" Linux Software Delivery Repository (http://downloads.linux.hpe.com/SDR/repo/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 issues have been fixed in version 5.2:

Clearing min_rate on all SR-IOV legacy VFs after setting min_rate to at least one of the VFs did not disable QoS min_rate.

An empty /usr/src/mlnx-ofa_kernel/default is now no longer created.

An issue where installing packages through a repository failed after generation of metapackages using --add-kernel-support. The failure occurred due to excessive and incorrect Obsolete headers in those metapackages. Enabled installation of mlnx-ofa_kernel package to /bin/python3 instead of /usr/bin/python3 on RHEL 8.x systems.

All IPoIB offload packets were wrongly counted as rx_csum_complete. These packets are now identified as rx_csum_unnecessary packets.

mlx5dv_dr_rule_destroy segmentation fault could happen in rare cases with multiple rules on the same matcher with a different number of actions. This could happen after reusing an already deleted rule memory with less actions.

An issue of moving to SwitchDev mode after configuring DSCP (Differentiated Service Code Point).

Global traffic class configuration did not take effect on DC QPs (Dynamically Connected Queue Pairs).

ib_send_bw traffic frequently dropped to zero when RDMA CM was used, because of incorrect min_rnr_timer setting on the responder side. The min_rnr_timer setting is now aligned with the setting in non-RDMA CM cases.

Traffic did not pass over VFs with VST QinQ feature is enabled.

When traffic was sent over Geneve VLAN with Tx VLAN offload enabled and TSO (TCP Segmentation Offload) or Tx csum enabled, traffic could be dropped and not sent to the wire.

An issue that caused the firmware to restart upon installing mlnxfed-dpdk-upstream-libs package manually.

Bad utility paths in rdma-core "dracut" hooks on SLES systems, which used to result in the following errors when running "dracut" with the "--add rdma" option. dracut-install:

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ERROR: installing '/usr/libexec/mlx4-setup.sh' dracut: /usr/lib/dracut/dracut-install -D /var/tmp/dracut.UdCOSJ/
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Traffic class value was not updated in DCT when set via sysfs.

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Registering memory using mlx5dv_devx_umem_reg while forking. Without this fix, applications which use fork() or similar syscalls while using a memory registered with umem_reg could hang due to incorrect physical page mapping. This fix requires setting the IBV_FORK_SAFE environment variable.

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Missing representor statistics when using ifconfig.

Fixed wrong value of skb mark of received packets on representors.

An issue which caused second port representors to be named as first port representors.

Enhancements

Changes and new features in HPE Mellanox RoCE driver version 5.2:

For ConnectX-5 Adapters and above:

Added support for the following features:

CQE compression support for Rx multi-strides packets.

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A locking mechanism to enable parallel insertion of rules into the software steering using the mlx5dv_dr API. The parallel insertion improves the insertion rate and takes place when adding Rx and Tx rules via the FDB domain.

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[Beta] Modify GTP-U TEID. This support requires flex parser configuration.

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Added support for the following features:

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Added support for the following features:

IPsec full offload support for extended sequence number, replay protection window and lifetime packet limit.

For All HCA's:

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New query GID API that allows for querying a single GID entry by its port and GID index, or querying for all GID tables of a specific device. This API works over `ioctl` instead of `sysfs`, which accelerates the querying process.

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Setting a sniffer private flag is deprecated and no longer required. In order to capture offloaded/RoCE traffic, `tcpdump` can now be run on the RDMA device.

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mlx5dv API to modify the configured UDP source port for RoCE packets of a given RC/UC QP when QP is in RTS state.

Accelerating Tx datapath by saving PCI bandwidth and CPU utilization. The savings are achieved by aggregating multiple packets into a single WQE. The feature is driven by xmit_more for certain traffic types, such as UDP.

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) Driver for Mellanox ConnectX-4, ConnectX-5 and ConnectX-6 Adapters for SUSE LINUX Enterprise Server 15 SP1 (AMD64/EM64T)

Version: 5.2 (Recommended)

Filename: mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.sles15sp1.x86_64.compsig; mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.sles15sp1.x86_64.rpm; mlnx-ofa_kernel-kmp-default-5.2_k4.12.14_195-OFED.5.2.1.0.4.1.sles15sp1.x86_64.compsig; mlnx-ofa_kernel-kmp-default-5.2_k4.12.14_195-OFED.5.2.1.0.4.1.sles15sp1.x86_64.rpm

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation for HPE Mellanox adapters. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from "Mellanox OFED VPI Drivers and Utilities" Linux Software Delivery Repository (http://downloads.linux.hpe.com/SDR/repo/mlnx_ofed/).

Prerequisites

Following packages must be installed from the respective OS distributions prior to installing the driver component:

Python version 2.7

Please refer the following advisory for more details about the python dependency on SLES15SP1.

<https://si.houston.hpecorp.net/si/DocumentationRequests/details.aspx?DRId=SID5293&slim=yes&offset=0>

Fixes

The following issues have been fixed in version 5.2:

Clearing min_rate on all SR-IOV legacy VFs after setting min_rate to at least one of the VFs did not disable QoS min_rate.

An empty /usr/src/mlnx-ofa_kernel/default is now no longer created.

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Accelerating Tx datapath by saving PCI bandwidth and CPU utilization. The savings are achieved by aggregating multiple packets into a single WQE. The feature is driven by xmit_more for certain traffic types, such as UDP.

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 15 SP1 (AMD64/EM64T) supported by this binary rpm are:

4.12.14-195-default - (AMD64/EM64T) and future update kernels.

HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for Mellanox ConnectX-4, ConnectX-5 and ConnectX-6 Adapters for SUSE LINUX Enterprise Server 15 SP2 (AMD64/EM64T)

Version: 5.2 (Recommended)

Filename: mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.sles15sp2.x86_64.compsig; mlnx-ofa_kernel-5.2-OFED.5.2.1.0.4.1.sles15sp2.x86_64.rpm; mlnx-ofa_kernel-kmp-default-5.2_k5.3.18_22-OFED.5.2.1.0.4.1.sles15sp2.x86_64.compsig; mlnx-ofa_kernel-kmp-default-5.2_k5.3.18_22-OFED.5.2.1.0.4.1.sles15sp2.x86_64.rpm

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation for HPE Mellanox adapters. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from "Mellanox OFED VPI Drivers and Utilities" Linux Software Delivery Repository (https://downloads.linux.hpe.com/SDR/project/mlnx_ofed/).

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/usr/lib/dracut/dracut-install -D /var/tmp/dracut.UdCOSJ/ initramfs /usr/libexec/rdma-set-sriov-vf
```

Traffic class value was not updated in DCT when set via sysfs.

A doorbell loss issue on AMD platforms with Secure Memory Encryption (SME).

Registering memory using mlx5dv_devx_umem_reg while forking. Without this fix, applications which use fork() or similar syscalls while using a memory registered with umem_reg could hang due to incorrect physical page mapping. This fix requires setting the IBV_FORK_SAFE environment variable.

When unbinding the device resulted in the following message being printed to the dmesg: "failed to disable DC tracer"

Content of file `/sys/class/net//statistics/` multicast might have been out of date and might have displayed values lower than the real values.

ERSPAN (Encapsulated Remote SPAN) protocol was available only when turning off Tx checksum offload.

A udev script issue which caused non-mellanox devices to be renamed.

Missing representor statistics when using `ifconfig`.

Fixed wrong value of `skb` mark of received packets on representors.

An issue which caused second port representors to be named as first port representors.

Enhancements

Changes and new features in HPE Mellanox RoCE driver version 5.2:

For ConnectX-5 Adapters and above:

Added support for the following features:

CQE compression support for Rx multi-strides packets.

Configuring QoS on a single QP or on a group of QPs.

Encap/decap hardware offload of IPv4 traffic over MPLS-over-UDP. This can be used in networks with MPLS routers to achieve more efficient routing.

Connection tracking rules on VFs to forward traffic from one VF to the other.

Offloading sFlow sampling rules.

For ConnectX-5 Adapters and ConnectX-6 Dx Adapters:

Added support for the following features:

A locking mechanism to enable parallel insertion of rules into the software steering using the `mlx5dv_dr` API. The parallel insertion improves the insertion rate and takes place when adding Rx and Tx rules via the FDB domain.

Option to match `mlx5dv_dr` API on Geneve tunnel using a dynamic flex parser. The option header consists of class, type, length and data. The parser should be configured using `devx` command, after which a rule can be created to match on parser ID and data.

Geneve tunneling offload, including matching on extension header.

Parallel insertion and deletion of offloaded rules using multiple OVS threads.

For ConnectX-6 Dx Adapters:

Added support for the following features:

[Beta] Modify GTP-U TEID. This support requires flex parser configuration.

[Beta] Improved performance of OVS Connection Tracking flows by enabling the merge of the multi-table flow matches and actions into one joint flow.

For ConnectX-6 Dx Adapters and above:

Added support for the following features:

Transmitted packet timestamping accuracy can be improved when using a timestamp generated at the port level instead of a timestamp generated upon CQE creation. Tx port time-stamping better reflects the actual time of a packet's transmission. This feature is disabled by default. The feature can be enabled or disabled using the following command. `ethtool --set-priv-flags tx_port_ts on / off`.

Offloading tunnel rules when the source interface is VF (in addition to uplink) in the Hypervisor.

Using Mirroring Offload with Connection Tracking.

ASO flow meter using the `mlx5dv_dr` API, which allows for monitoring the packet rate for specific flows. When a packet hits a flow that is connected to a flow meter, the rate of packets through this meter is evaluated, and the packet is marked with a color copied into one of the C registers, according to the current rate compared to the reference rate.

ASO first hit using the `mlx5dv_dr` API, which allows for tracking rule hits by packets. When a packet hits a rule with the ASO first hit action, a flag is set indicating this event, and the original value of the flag is copied to one of the C registers.

`mlx5dv_dr` API support for matching on a new field "gtpu_first_ext_dw_0". This field enables packet filtering based on the GTP-U first extension header (first dword only). To enable parsing of tunnel GTP-U extension header, run the following command. `./cloud_fw_reset.py FLEX_PARSER_PROFILE_ENABLE=3`.

For ConnectX-6 Lx Adapters and above:

Added support for the following features:

IPsec full offload support for extended sequence number, replay protection window and lifetime packet limit.

For All HCA's:

Added support for the following features:

New query GID API that allows for querying a single GID entry by its port and GID index, or querying for all GID tables of a specific device. This API works over `ioctl` instead of `sysfs`, which accelerates the querying process.

Performing multi-host firmware reset in order to upgrade the device firmware. Firmware reset loads the new firmware in case it was burnt on the flash and was pending activation, and reload.

[Alpha] Firmware live patching in the driver. Live patching updates the firmware without the need to perform firmware reset. However, it can only be applied in scenarios where the difference between the current and new firmware versions are minor, which is decided upon by the firmware itself.

`devlink` tool for performing firmware reset in order to upgrade the device firmware. Firmware reset loads the new firmware in case it was burnt on the flash and was pending activation, and reloads the current firmware image

from the flash in case no new firmware was pending. For further information, please refer to the the devlink man page.

A resiliency mechanism for the driver to manually poll the command event queue (EQ) in case of a command timeout. In case the resiliency mechanism finds unhandled event queue entry (EQE) due to a lost interrupt, the driver will handle it, after which the command interface returns to a healthy state.

Setting a sniffer private flag is deprecated and no longer required. In order to capture offloaded/RoCE traffic, tcpdump can now be run on the RDMA device.

Added per-port reporters to devlink health to manage per-port health activities. Users can now access the devlink port reporters by specifying the port index in addition to the device devlink name through the devlink health commands API. This update was first introduced in iproute2 v5.8. As part of this feature, mlx5e Tx and Rx reporters are now redefined as devlink port reporters. For examples, please see devlink-health manpage

Optimized memory consumption of memory registration in huge page systems. As an example, in a 2MB huge page system, 600 MB would be saved for 100 GB memory registration.

mlx5dv API to modify the configured UDP source port for RoCE packets of a given RC/UC QP when QP is in RTS state.

Accelerating Tx datapath by saving PCI bandwidth and CPU utilization. The savings are achieved by aggregating multiple packets into a single WQE. The feature is driven by xmit_more for certain traffic types, such as UDP.

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) Driver for Red Hat Enterprise Linux 7 Update 8 (x86_64)

Version: 4.9 (A) (Recommended)

Filename: kmod-mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.rhel7u8.x86_64.compsig; kmod-mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.rhel7u8.x86_64.rpm; mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.rhel7u8.x86_64.compsig; mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.rhel7u8.x86_64.rpm

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation for HPE Mellanox adapters. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from "Mellanox OFED VPI Drivers and Utilities" 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 issues have been fixed in version 4.9:

An issue where injecting EEH (Extended Error Handling) may cause extra Kernel prints, such as: "EEH: Might be infinite loop in mlx5_core driver" was fixed.

RPM-based OSs with non-default kernels, using repositories after re-creating the installer (using --add-kernel-support) were resulting in improper installation of the drivers.

A typo in perftest package where help messages wrongly displayed the conversion result between Gb/s and MB/s (20^2 instead of 2^{20}).

When one of the LAG slaves went down, LAG deactivation failed, ultimately causing bandwidth degradation.

The mlx5 driver maintains a subdirectory for every open eth port in /sys/kernel/debug/. For the default network namespace, the sub-directory name is the name of the interface, like "eth8". The new convention for the network interfaces moved to the non-default network namespaces is the interfaces name followed by "@" and the port's PCI ID. For example: "eth8@0000:af:00.3".

"openibd" script load used to fail when esp6_offload module did not load successfully.

Added dependency of package mpi-selectors on perl-Getopt-Long system package. On minimal installs of RPM-based OSs, installing mpi-selectors will also install the required system package perl-Getopt-Long.

During certain rare scenarios, due to Rx page not being replenished, the same page fragment mistakenly became assigned to two different Rx descriptors.

Driver load issue existed with Errata-kernel on SLES15 SP1.

An issue in the Hairpin feature which prevented adding hairpin flows using TC tool was fixed.

WQ (Work Queue) queue flushing was not handled properly in the event of EEH.

A rare kernel crash scenario when exiting an application that uses RMPP made intensively.

A possible kernel crash scenario when AER/slot reset is done in parallel to user space commands execution.

Added missing ECN (Explicit Congestion Notification) configuration under sysfs for PFs in SwitchDev mode.

When firmware response time to commands became very long, some commands failed upon timeout. The driver may have then triggered a timeout completion on the wrong entry, leading to a NULL pointer call trace.

Added driver support for kernels with the old XDP_REDIRECT infrastructure that uses the following NetDev operations: .ndo_xdp_flush and .ndo_xdp_xmit.

Usage of --excludedocs Open MPI RPM option resulted in the removal of non-documentation related files.

Disabled automated loading of some modules through udev triggers to preserve the startup process of previous MLNX_OFED versions.

Reference count (refcount) for RDMA connection ID (cm_id) was not incremented in rdma_resolve_addr() function, resulting in a cm_id use-after-free access. A fix was applied to increment the cm_id refcount

A race condition which caused kernel panic when moving two ports to SwitchDev mode at the same time.

Allowed accessing sysfs hardware counters in SwitchDev mode

Function smp_processor_id() is called in the RX page recycle flow to determine the core to run on. This is intended to run in NAPI context. However, due to a bug in backporting, the RX page recycle was mistakenly called also in the RQ close flow when not needed.

Port link state was automatically changed (without admin state involvement) to "UP" after reboot.

ConnectX-3 adapter cards froze when running over SLES 11 OS.

RDMA CM (Remote Direct Memory Access Commutation Manager) connection failed when port space was small.

Traffic mirroring with OVS (Open VSwitch) offload and non-offload over VxLAN interface is now supported. Note: For kernel 4.9, make sure to use a dedicated OVS version.

When working with VF LAG while the bond device is in active-active mode, running fwreset would result in unequal traffic on both PFs, and PFs would not reach line rate.

When bond was created over VF (Virtual Function) netdevices in SwitchDev mode, the VF netdevice would be treated as representor netdevice. This caused the mlx5_core driver to crash in case it received netdevice events related to bond device.

An issue where following a bad affinity occurrence in VF LAG mode, traffic was sent after the port went up/down in the switch.

Added support for VLAN (Virtual Local Area Network) header rewrite on CentOS 7.2 OS.

Enhancements

The following changes and new features are added in version 4.9:

For ConnectX-5 Adapters and above

Added support for the following features:

Option to dump configuration space via the devlink tool in order to improve debug capabilities.

The conventional TX descriptor (WQE or Work Queue Element) describes a single packet for transmission. Added driver support for the HW feature of multi-packet TX WQEs in XDP transmit flows. With this, the HW becomes capable of working with a new and improved WQE layout that describes several packets. In effect, this feature saves PCI bandwidth and transactions, and improves transmit packet rate.

GENEVE encapsulation/decapsulation rules offload.

Driver support for the hardware feature of multi-packet Tx to work with a new and improved WQE layout that describes several packets instead of a single packet for XDP transmission flows. This saves PCI bandwidth and transactions, and improves transmit packet rate.

Updating CT (Connection Tracking) rules using the software steering mechanism.

Updating remote mirroring rules using the software steering mechanism.

For ConnectX-4 Adapters and above

Added support for the following features:

Exposed rx_prio[p]_discards discard counters per priority that count the number of received packets dropped due to lack of buffers on the physical port.

Reporting TSO and CSUM offload capabilities for MPLS tagged traffic and, allowed the kernel stack to use these offloads.

mlx5e Max Combined Channels Increased the driver's maximal combined channels value from 64 to 128 (however, note that OOB value will not cross 64). 128 is the upper bound. Lower maximal value can be seen on the host, depending on the number of cores and MSIX's configured by the firmware.

Added the following RoCE accelerator counters:

roce_adp_retrans - counts the number of adaptive retransmissions for RoCE traffic.

roce_adp_retrans_to - counts the number of times RoCE traffic reached timeout due to adaptive retransmission.

roce_slow_restart - counts the number of times RoCE slow restart was used.

roce_slow_restart_cnps - counts the number of times RoCE slow restart generated CNP packets

roce_slow_restart_trans - counts the number of times RoCE slow restart changed state to slow restart.

User to register memory regions with a relaxed ordering access flag through experimental verbs. This can enhance performance, depending on architecture and scenario.

For All HCA's

Added support for the following features:

Output ibdev2netdev tool output was changed such that the bonding device now points at the bond instead of the slave interface.

Monitoring and recovering from errors that occur on the RX queue, such as cookie errors and timeout.

Improved GSO (Generic Segmentation Offload) workload performance by decreasing doorbells usage to the minimum required.

TX CQE (Completion Queue Element) compression. Saves on outgoing PCIe bandwidth by compressing CQEs together. Disabled by default. Configurable via private flags of ethtool.

Firmware Versions Query via Devlink :Added the option to query for running and stored firmware versions using the devlink tool.

Firmware Flash Update via Devlink :Added the option to update the firmware image in the flash using the devlink tool. Usage: devlink dev flash file .mfa2 For further information on how to perform this update, see "Updating Firmware Using ethtool/devlink and .mfa2 File" section in MFT User Manual.

WQE (Work Queue Element) dump, triggered by an error on Rx/Tx reporters. In addition, some dumps (not triggered by an error) can be retrieved by the user via devlink health reporters.

GENEVE tunneled hardware offloads of TSO, CSUM and RSS.

TCP segmentation and checksum offload support for MPLS-tagged traffic.

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) Driver for Red Hat Enterprise Linux 7 Update 9 (x86_64)

Version: 4.9 (Recommended)

Filename: kmod-mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.rhel7u9.x86_64.compsig; kmod-mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.rhel7u9.x86_64.rpm; mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.rhel7u9.x86_64.compsig; mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.rhel7u9.x86_64.rpm

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation for HPE Mellanox adapters. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from "Mellanox OFED VPI Drivers and Utilities" 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 issues have been fixed in version 4.9:

An issue where injecting EEH (Extended Error Handling) may cause extra Kernel prints, such as: "EEH: Might be infinite loop in mlx5_core driver" was fixed.

RPM-based OSs with non-default kernels, using repositories after re-creating the installer (using --add-kernel-support) were resulting in improper installation of the drivers.

A typo in perftest package where help messages wrongly displayed the conversion result between Gb/s and MB/s (20^2 instead of 2^{20}).

When one of the LAG slaves went down, LAG deactivation failed, ultimately causing bandwidth degradation.

The mlx5 driver maintains a subdirectory for every open eth port in /sys/kernel/debug/. For the default network namespace, the sub-directory name is the name of the interface, like "eth8". The new convention for the network interfaces moved to the non-default network namespaces is the interfaces name followed by "@" and the port's PCI ID. For example: "eth8@0000:af:00.3".

"openibd" script load used to fail when esp6_offload module did not load successfully.

Added dependency of package mpi-selectors on perl-Getopt-Long system package. On minimal installs of RPM-based OSs, installing mpi-selectors will also install the required system package perl-Getopt-Long.

During certain rare scenarios, due to Rx page not being replenished, the same page fragment mistakenly became assigned to two different Rx descriptors.

Driver load issue existed with Errata-kernel on SLES15 SP1.

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RDMA CM (Remote Direct Memory Access Communion Manager) connection failed when port space was small.

Traffic mirroring with OVS (Open VSwitch) offload and non-offload over VxLAN interface is now supported. Note: For kernel 4.9, make sure to use a dedicated OVS version.

When working with VF LAG while the bond device is in active-active mode, running fwreset would result in unequal traffic on both PFs, and PFs would not reach line rate.

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An issue where following a bad affinity occurrence in VF LAG mode, traffic was sent after the port went up/down in the switch.

Added support for VLAN (Virtual Local Area Network) header rewrite on CentOS 7.2 OS.

Enhancements

The following changes and new features are added in version 4.9:

For ConnectX-5 Adapters and above

Added support for the following features:

Option to dump configuration space via the devlink tool in order to improve debug capabilities.

The conventional TX descriptor (WQE or Work Queue Element) describes a single packet for transmission. Added driver support for the HW feature of multi-packet TX WQEs in XDP transmit flows. With this, the HW becomes capable of working with a new and improved WQE layout that describes several packets. In effect, this feature saves PCI bandwidth and transactions, and improves transmit packet rate.

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GENEVE tunneled hardware offloads of TSO, CSUM and RSS.

TCP segmentation and checksum offload support for MPLS-tagged traffic.

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) Driver for Red Hat Enterprise Linux 8 update 2 (x86_64)

Version: 4.9 (A) (Recommended)

Filename: kmod-mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.rhel8u2.x86_64.compsig; kmod-mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.rhel8u2.x86_64.rpm; mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.rhel8u2.x86_64.compsig; mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.rhel8u2.x86_64.rpm

Important Note!

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The conventional TX descriptor (WQE or Work Queue Element) describes a single packet for transmission. Added driver support for the HW feature of multi-packet TX WQEs in XDP transmit flows. With this, the HW becomes capable of working with a new and improved WQE layout that describes several packets. In effect, this feature saves PCI bandwidth and transactions, and improves transmit packet rate.

GENEVE encapsulation/decapsulation rules offload.

Driver support for the hardware feature of multi-packet Tx to work with a new and improved WQE layout that describes several packets instead of a single packet for XDP transmission flows. This saves PCI bandwidth and transactions, and improves transmit packet rate.

Updating CT (Connection Tracking) rules using the software steering mechanism.

Updating remote mirroring rules using the software steering mechanism.

For ConnectX-4 Adapters and above

Added support for the following features:

Exposed rx_prio[p]_discards discard counters per priority that count the number of received packets dropped due to lack of buffers on the physical port.

Reporting TSO and CSUM offload capabilities for MPLS tagged traffic and, allowed the kernel stack to use these offloads.

mlx5e Max Combined Channels Increased the driver's maximal combined channels value from 64 to 128 (however, note that OOB value will not cross 64). 128 is the upper bound. Lower maximal value can be seen on the host, depending on the number of cores and MSIX's configured by the firmware.

Added the following RoCE accelerator counters:

roce_adp_retrans - counts the number of adaptive retransmissions for RoCE traffic.

roce_adp_retrans_to - counts the number of times RoCE traffic reached timeout due to adaptive retransmission.

roce_slow_restart - counts the number of times RoCE slow restart was used.

roce_slow_restart_cnps - counts the number of times RoCE slow restart generated CNP packets

roce_slow_restart_trans - counts the number of times RoCE slow restart changed state to slow restart.

User to register memory regions with a relaxed ordering access flag through experimental verbs. This can enhance performance, depending on architecture and scenario.

For All HCA's

Added support for the following features:

Output ibdev2netdev tool output was changed such that the bonding device now points at the bond instead of the slave interface.

Monitoring and recovering from errors that occur on the RX queue, such as cookie errors and timeout.

Improved GSO (Generic Segmentation Offload) workload performance by decreasing doorbells usage to the minimum required.

TX CQE (Completion Queue Element) compression. Saves on outgoing PCIe bandwidth by compressing CQEs together. Disabled by default. Configurable via private flags of ethtool.

Firmware Versions Query via Devlink :Added the option to query for running and stored firmware versions using the devlink tool.

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WQE (Work Queue Element) dump, triggered by an error on Rx/Tx reporters. In addition, some dumps (not triggered by an error) can be retrieved by the user via devlink health reporters.

GENEVE tunneled hardware offloads of TSO, CSUM and RSS.

TCP segmentation and checksum offload support for MPLS-tagged traffic.

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of Red Hat Enterprise Linux 8 update 2 (x86_64) supported by this binary rpm are:

4.18.0-193.el8 - (x86_64) and future update kernels.

HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for SUSE LINUX Enterprise Server 12 SP4 (AMD64/EM64T)

Version: 4.9 (A) (Recommended)

Filename: mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.sles12sp4.x86_64.compsig; mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.sles12sp4.x86_64.rpm; mlnx-ofa_kernel-kmp-default-4.9_k4.12.14_94.41-OFED.4.9.2.2.4.1.sles12sp4.x86_64.compsig; mlnx-ofa_kernel-kmp-default-4.9_k4.12.14_94.41-OFED.4.9.2.2.4.1.sles12sp4.x86_64.rpm

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation for HPE Mellanox adapters. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from "Mellanox OFED VPI Drivers and Utilities" 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 issues have been fixed in version 4.9:

An issue where injecting EEH (Extended Error Handling) may cause extra Kernel prints, such as: "EEH: Might be infinite loop in mlx5_core driver" was fixed.

RPM-based OSs with non-default kernels, using repositories after re-creating the installer (using --add-kernel-support) were resulting in improper installation of the drivers.

A typo in perftest package where help messages wrongly displayed the conversion result between Gb/s and MB/s (20^2 instead of 2^{20}).

When one of the LAG slaves went down, LAG deactivation failed, ultimately causing bandwidth degradation.

The mlx5 driver maintains a subdirectory for every open eth port in /sys/kernel/debug/. For the default network namespace, the sub-directory name is the name of the interface, like "eth8". The new convention for the network interfaces moved to the non-default network namespaces is the interfaces name followed by "@" and the port's PCI ID. For example: "eth8@0000:af:00.3".

"openibd" script load used to fail when esp6_offload module did not load successfully.

Added dependency of package mpi-selectors on perl-Getopt-Long system package. On minimal installs of RPM-based OSs, installing mpi-selectors will also install the required system package perl-Getopt-Long.

During certain rare scenarios, due to Rx page not being replenished, the same page fragment mistakenly became assigned to two different Rx descriptors.

Driver load issue existed with Errata-kernel on SLES15 SP1.

An issue in the Hairpin feature which prevented adding hairpin flows using TC tool was fixed.

WQ (Work Queue) queue flushing was not handled properly in the event of EEH.

A rare kernel crash scenario when exiting an application that uses RMPP made intensively.

A possible kernel crash scenario when AER/slot reset is done in parallel to user space commands execution.

Added missing ECN (Explicit Congestion Notification) configuration under sysfs for PFs in SwitchDev mode.

When firmware response time to commands became very long, some commands failed upon timeout. The driver may have then triggered a timeout completion on the wrong entry, leading to a NULL pointer call trace.

Added driver support for kernels with the old XDP_REDIRECT infrastructure that uses the following NetDev operations: .ndo_xdp_flush and .ndo_xdp_xmit.

Usage of --excludedocs Open MPI RPM option resulted in the removal of non-documentation related files.

Disabled automated loading of some modules through udev triggers to preserve the startup process of previous MLNX_OFED versions.

Reference count (refcount) for RDMA connection ID (cm_id) was not incremented in rdma_resolve_addr() function, resulting in a cm_id use-after-free access. A fix was applied to increment the cm_id refcount

A race condition which caused kernel panic when moving two ports to SwitchDev mode at the same time.

Allowed accessing sysfs hardware counters in SwitchDev mode

Function smp_processor_id() is called in the RX page recycle flow to determine the core to run on. This is intended to run in NAPI context. However, due to a bug in backporting, the RX page recycle was mistakenly called also in the RQ close flow when not needed.

Port link state was automatically changed (without admin state involvement) to "UP" after reboot.

ConnectX-3 adapter cards froze when running over SLES 11 OS.

RDMA CM (Remote Direct Memory Access Commutation Manager) connection failed when port space was small.

Traffic mirroring with OVS (Open VSwitch) offload and non-offload over VxLAN interface is now supported. Note: For kernel 4.9, make sure to use a dedicated OVS version.

When working with VF LAG while the bond device is in active-active mode, running fwreset would result in unequal traffic on both PFs, and PFs would not reach line rate.

When bond was created over VF (Virtual Function) netdevices in SwitchDev mode, the VF netdevice would be treated as representor netdevice. This caused the mlx5_core driver to crash in case it received netdevice events related to bond device.

An issue where following a bad affinity occurrence in VF LAG mode, traffic was sent after the port went up/down in the switch.

Added support for VLAN (Virtual Local Area Network) header rewrite on CentOS 7.2 OS.

Enhancements

The following changes and new features are added in version 4.9:

For ConnectX-5 Adapters and above

Added support for the following features:

Option to dump configuration space via the devlink tool in order to improve debug capabilities.

The conventional TX descriptor (WQE or Work Queue Element) describes a single packet for transmission. Added driver support for the HW feature of multi-packet TX WQEs in XDP transmit flows. With this, the HW becomes capable of working with a new and improved WQE layout that describes several packets. In effect, this feature saves PCI bandwidth and transactions, and improves transmit packet rate.

GENEVE encapsulation/decapsulation rules offload.

Driver support for the hardware feature of multi-packet Tx to work with a new and improved WQE layout that describes several packets instead of a single packet for XDP transmission flows. This saves PCI bandwidth and transactions, and improves transmit packet rate.

Updating CT (Connection Tracking) rules using the software steering mechanism.

Updating remote mirroring rules using the software steering mechanism.

For ConnectX-4 Adapters and above

Added support for the following features:

Exposed rx_prio[p]_discards discard counters per priority that count the number of received packets dropped due to lack of buffers on the physical port.

Reporting TSO and CSUM offload capabilities for MPLS tagged traffic and, allowed the kernel stack to use these offloads.

mlx5e Max Combined Channels Increased the driver's maximal combined channels value from 64 to 128 (however, note that OOB value will not cross 64). 128 is the upper bound. Lower maximal value can be seen on the host, depending on the number of cores and MSIX's configured by the firmware.

Added the following RoCE accelerator counters:

roce_adp_retrans - counts the number of adaptive retransmissions for RoCE traffic.

roce_adp_retrans_to - counts the number of times RoCE traffic reached timeout due to adaptive retransmission.

roce_slow_restart - counts the number of times RoCE slow restart was used.

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User to register memory regions with a relaxed ordering access flag through experimental verbs. This can enhance performance, depending on architecture and scenario.

For All HCA's

Added support for the following features:

Output ibdev2netdev tool output was changed such that the bonding device now points at the bond instead of the slave interface.

Monitoring and recovering from errors that occur on the RX queue, such as cookie errors and timeout.

Improved GSO (Generic Segmentation Offload) workload performance by decreasing doorbells usage to the minimum required.

TX CQE (Completion Queue Element) compression. Saves on outgoing PCIe bandwidth by compressing CQEs together. Disabled by default. Configurable via private flags of ethtool.

Firmware Versions Query via Devlink :Added the option to query for running and stored firmware versions using the devlink tool.

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WQE (Work Queue Element) dump, triggered by an error on Rx/Tx reporters. In addition, some dumps (not triggered by an error) can be retrieved by the user via devlink health reporters.

GENEVE tunneled hardware offloads of TSO, CSUM and RSS.

TCP segmentation and checksum offload support for MPLS-tagged traffic.

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) Driver for SUSE LINUX Enterprise Server 12 SP5 (AMD64/EM64T)

Version: 4.9 (A) (Recommended)

Filename: mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.sles12sp5.x86_64.compsig; mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.sles12sp5.x86_64.rpm; mlnx-ofa_kernel-kmp-default-4.9_k4.12.14_120-OFED.4.9.2.2.4.1.sles12sp5.x86_64.compsig; mlnx-ofa_kernel-kmp-default-4.9_k4.12.14_120-OFED.4.9.2.2.4.1.sles12sp5.x86_64.rpm

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation for HPE Mellanox adapters. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from "Mellanox OFED VPI Drivers and Utilities" 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 issues have been fixed in version 4.9:

An issue where injecting EEH (Extended Error Handling) may cause extra Kernel prints, such as: "EEH: Might be infinite loop in mlx5_core driver" was fixed.

RPM-based OSs with non-default kernels, using repositories after re-creating the installer (using --add-kernel-support) were resulting in improper installation of the drivers.

A typo in perftest package where help messages wrongly displayed the conversion result between Gb/s and MB/s (20^2 instead of 2^{20}).

When one of the LAG slaves went down, LAG deactivation failed, ultimately causing bandwidth degradation.

The mlx5 driver maintains a subdirectory for every open eth port in /sys/kernel/debug/. For the default network namespace, the sub-directory name is the name of the interface, like "eth8". The new convention for the network interfaces moved to the non-default network namespaces is the interfaces name followed by "@" and the port's PCI ID. For example: "eth8@0000:af:00.3".

"openibd" script load used to fail when esp6_offload module did not load successfully.

Added dependency of package mpi-selectors on perl-Getopt-Long system package. On minimal installs of RPM-based OSs, installing mpi-selectors will also install the required system package perl-Getopt-Long.

During certain rare scenarios, due to Rx page not being replenished, the same page fragment mistakenly became assigned to two different Rx descriptors.

Driver load issue existed with Errata-kernel on SLES15 SP1.

An issue in the Hairpin feature which prevented adding hairpin flows using TC tool was fixed.

WQ (Work Queue) queue flushing was not handled properly in the event of EEH.

A rare kernel crash scenario when exiting an application that uses RMPP mads intensively.

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Added missing ECN (Explicit Congestion Notification) configuration under sysfs for PFs in SwitchDev mode.

When firmware response time to commands became very long, some commands failed upon timeout. The driver may have then triggered a timeout completion on the wrong entry, leading to a NULL pointer call trace.

Added driver support for kernels with the old XDP_REDIRECT infrastructure that uses the following NetDev operations: .ndo_xdp_flush and .ndo_xdp_xmit.

Usage of --excludedocs Open MPI RPM option resulted in the removal of non-documentation related files.

Disabled automated loading of some modules through udev triggers to preserve the startup process of previous MLNX_OFED versions.

Reference count (refcount) for RDMA connection ID (cm_id) was not incremented in rdma_resolve_addr() function, resulting in a cm_id use-after-free access. A fix was applied to increment the cm_id refcount

A race condition which caused kernel panic when moving two ports to SwitchDev mode at the same time.

Allowed accessing sysfs hardware counters in SwitchDev mode

Function smp_processor_id() is called in the RX page recycle flow to determine the core to run on. This is intended to run in NAPI context. However, due to a bug in backporting, the RX page recycle was mistakenly called also in the RQ close flow when not needed.

Port link state was automatically changed (without admin state involvement) to "UP" after reboot.

ConnectX-3 adapter cards froze when running over SLES 11 OS.

RDMA CM (Remote Direct Memory Access Commutation Manager) connection failed when port space was small.

Traffic mirroring with OVS (Open VSwitch) offload and non-offload over VxLAN interface is now supported. Note: For kernel 4.9, make sure to use a dedicated OVS version.

When working with VF LAG while the bond device is in active-active mode, running fwreset would result in unequal traffic on both PFs, and PFs would not reach line rate.

When bond was created over VF (Virtual Function) netdevices in SwitchDev mode, the VF netdevice would be treated as representor netdevice. This caused the mlx5_core driver to crash in case it received netdevice events related to bond device.

An issue where following a bad affinity occurrence in VF LAG mode, traffic was sent after the port went up/down in the switch.

Added support for VLAN (Virtual Local Area Network) header rewrite on CentOS 7.2 OS.

Enhancements

The following changes and new features are added in version 4.9:

For ConnectX-5 Adapters and above

Added support for the following features:

Option to dump configuration space via the devlink tool in order to improve debug capabilities.

The conventional TX descriptor (WQE or Work Queue Element) describes a single packet for transmission. Added driver support for the HW feature of multi-packet TX WQEs in XDP transmit flows. With this, the HW becomes capable of working with a new and improved WQE layout that describes several packets. In effect, this feature saves PCI bandwidth and transactions, and improves transmit packet rate.

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Driver support for the hardware feature of multi-packet Tx to work with a new and improved WQE layout that describes several packets instead of a single packet for XDP transmission flows. This saves PCI bandwidth and transactions, and improves transmit packet rate.

Updating CT (Connection Tracking) rules using the software steering mechanism.

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For ConnectX-4 Adapters and above

Added support for the following features:

Exposed rx_prio[p]_discards discard counters per priority that count the number of received packets dropped due to lack of buffers on the physical port.

Reporting TSO and CSUM offload capabilities for MPLS tagged traffic and, allowed the kernel stack to use these offloads.

mlx5e Max Combined Channels Increased the driver's maximal combined channels value from 64 to 128 (however, note that OOB value will not cross 64). 128 is the upper bound. Lower maximal value can be seen on the host, depending on the number of cores and MSIX's configured by the firmware.

Added the following RoCE accelerator counters:

roce_adp_retrans - counts the number of adaptive retransmissions for RoCE traffic.

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User to register memory regions with a relaxed ordering access flag through experimental verbs. This can enhance performance, depending on architecture and scenario.

For All HCA's

Added support for the following features:

Output ibdev2netdev tool output was changed such that the bonding device now points at the bond instead of the slave interface.

Monitoring and recovering from errors that occur on the RX queue, such as cookie errors and timeout.

Improved GSO (Generic Segmentation Offload) workload performance by decreasing doorbells usage to the minimum required.

TX CQE (Completion Queue Element) compression. Saves on outgoing PCIe bandwidth by compressing CQEs together. Disabled by default. Configurable via private flags of ethtool.

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WQE (Work Queue Element) dump, triggered by an error on Rx/Tx reporters. In addition, some dumps (not triggered by an error) can be retrieved by the user via devlink health reporters.

GENEVE tunneled hardware offloads of TSO, CSUM and RSS.

TCP segmentation and checksum offload support for MPLS-tagged traffic.

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) Driver for SUSE LINUX Enterprise Server 15 SP1 (AMD64/EM64T)

Version: 4.9 (A) (Recommended)

Filename: mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.sles15sp1.x86_64.compsig; mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.sles15sp1.x86_64.rpm; mlnx-ofa_kernel-kmp-default-4.9_k4.12.14_195-OFED.4.9.2.2.4.1.sles15sp1.x86_64.compsig; mlnx-ofa_kernel-kmp-default-4.9_k4.12.14_195-OFED.4.9.2.2.4.1.sles15sp1.x86_64.rpm

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation for HPE Mellanox adapters. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from "Mellanox OFED VPI Drivers and Utilities" 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:

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Fixes

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Allowed accessing sysfs hardware counters in SwitchDev mode

Function `smp_processor_id()` is called in the RX page recycle flow to determine the core to run on. This is intended to run in NAPI context. However, due to a bug in backporting, the RX page recycle was mistakenly called also in the RQ close flow when not needed.

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ConnectX-3 adapter cards froze when running over SLES 11 OS.

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Monitoring and recovering from errors that occur on the RX queue, such as cookie errors and timeout.

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GENEVE tunneled hardware offloads of TSO, CSUM and RSS.

TCP segmentation and checksum offload support for MPLS-tagged traffic.

Supported Devices and Features

SUPPORTED KERNELS:

The kernels of SUSE LINUX Enterprise Server 15 SP1 (AMD64/EM64T) supported by this binary rpm are:
4.12.14-195-default - (AMD64/EM64T) and future update kernels.

HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for SUSE LINUX Enterprise Server 15 SP2 (AMD64/EM64T)

Version: 4.9 (Recommended)

Filename: mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.sles15sp2.x86_64.compsig; mlnx-ofa_kernel-4.9-OFED.4.9.2.2.4.1.1.sles15sp2.x86_64.rpm; mlnx-ofa_kernel-kmp-default-4.9_k5.3.18_22-OFED.4.9.2.2.4.1.sles15sp2.x86_64.compsig; mlnx-ofa_kernel-kmp-default-4.9_k5.3.18_22-OFED.4.9.2.2.4.1.sles15sp2.x86_64.rpm

Important Note!

Mellanox Ethernet + RoCE Linux driver (mlnx-ofa_kernel RPMs) supports only Ethernet mode of operation for HPE Mellanox adapters. For customers requiring complete InfiniBand functionality or "InfiniBand + Ethernet" modes of operation on the same node, install MLNX-OFED drivers from "Mellanox OFED VPI Drivers and Utilities" 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 issues have been fixed in version 4.9:

An issue where injecting EEH (Extended Error Handling) may cause extra Kernel prints, such as: "EEH: Might be infinite loop in mlx5_core driver" was fixed.

RPM-based OSs with non-default kernels, using repositories after re-creating the installer (using --add-kernel-support) were resulting in improper installation of the drivers.

A typo in perftest package where help messages wrongly displayed the conversion result between Gb/s and MB/s (20^2 instead of 2^{20}).

When one of the LAG slaves went down, LAG deactivation failed, ultimately causing bandwidth degradation.

The mlx5 driver maintains a subdirectory for every open eth port in /sys/kernel/debug/. For the default network namespace, the sub-directory name is the name of the interface, like "eth8". The new convention for the network interfaces moved to the non-default network namespaces is the interfaces name followed by "@" and the port's PCI ID. For example: "eth8@0000:af:00.3".

"openibd" script load used to fail when esp6_offload module did not load successfully.

Added dependency of package mpi-selectors on perl-Getopt-Long system package. On minimal installs of RPM-based OSs, installing mpi-selectors will also install the required system package perl-Getopt-Long.

During certain rare scenarios, due to Rx page not being replenished, the same page fragment mistakenly became assigned to two different Rx descriptors.

Driver load issue existed with Errata-kernel on SLES15 SP1.

An issue in the Hairpin feature which prevented adding hairpin flows using TC tool was fixed.

WQ (Work Queue) queue flushing was not handled properly in the event of EEH.

A rare kernel crash scenario when exiting an application that uses RMPP mads intensively.

A possible kernel crash scenario when AER/slot reset is done in parallel to user space commands execution.

Added missing ECN (Explicit Congestion Notification) configuration under sysfs for PFs in SwitchDev mode.

When firmware response time to commands became very long, some commands failed upon timeout. The driver may have then triggered a timeout completion on the wrong entry, leading to a NULL pointer call trace.

Added driver support for kernels with the old XDP_REDIRECT infrastructure that uses the following NetDev operations: .ndo_xdp_flush and .ndo_xdp_xmit.

Usage of --excludedocs Open MPI RPM option resulted in the removal of non-documentation related files.

Disabled automated loading of some modules through udev triggers to preserve the startup process of previous MLNX_OFED versions.

Reference count (refcount) for RDMA connection ID (cm_id) was not incremented in rdma_resolve_addr() function, resulting in a cm_id use-after-free access. A fix was applied to increment the cm_id refcount

A race condition which caused kernel panic when moving two ports to SwitchDev mode at the same time.

Allowed accessing sysfs hardware counters in SwitchDev mode

Function `smp_processor_id()` is called in the RX page recycle flow to determine the core to run on. This is intended to run in NAPI context. However, due to a bug in backporting, the RX page recycle was mistakenly called also in the RQ close flow when not needed.

Port link state was automatically changed (without admin state involvement) to "UP" after reboot.

ConnectX-3 adapter cards froze when running over SLES 11 OS.

RDMA CM (Remote Direct Memory Access Communion Manager) connection failed when port space was small.

Traffic mirroring with OVS (Open VSwitch) offload and non-offload over VxLAN interface is now supported. Note: For kernel 4.9, make sure to use a dedicated OVS version.

When working with VF LAG while the bond device is in active-active mode, running `fwreset` would result in unequal traffic on both PFs, and PFs would not reach line rate.

When bond was created over VF (Virtual Function) netdevices in SwitchDev mode, the VF netdevice would be treated as representor netdevice. This caused the `mlx5_core` driver to crash in case it received netdevice events related to bond device.

An issue where following a bad affinity occurrence in VF LAG mode, traffic was sent after the port went up/down in the switch.

Added support for VLAN (Virtual Local Area Network) header rewrite on CentOS 7.2 OS.

Enhancements

The following changes and new features are added in version 4.9:

For ConnectX-5 Adapters and above

Added support for the following features:

Option to dump configuration space via the `devlink` tool in order to improve debug capabilities.

The conventional TX descriptor (WQE or Work Queue Element) describes a single packet for transmission. Added driver support for the HW feature of multi-packet TX WQEs in XDP transmit flows. With this, the HW becomes capable of working with a new and improved WQE layout that describes several packets. In effect, this feature saves PCI bandwidth and transactions, and improves transmit packet rate.

GENEVE encapsulation/decapsulation rules offload.

Driver support for the hardware feature of multi-packet Tx to work with a new and improved WQE layout that describes several packets instead of a single packet for XDP transmission flows. This saves PCI bandwidth and transactions, and improves transmit packet rate.

Updating CT (Connection Tracking) rules using the software steering mechanism.

Updating remote mirroring rules using the software steering mechanism.

For ConnectX-4 Adapters and above

Added support for the following features:

Exposed rx_prio[p]_discards discard counters per priority that count the number of received packets dropped due to lack of buffers on the physical port.

Reporting TSO and CSUM offload capabilities for MPLS tagged traffic and, allowed the kernel stack to use these offloads.

mlx5e Max Combined Channels Increased the driver's maximal combined channels value from 64 to 128 (however, note that OOB value will not cross 64). 128 is the upper bound. Lower maximal value can be seen on the host, depending on the number of cores and MSIX's configured by the firmware.

Added the following RoCE accelerator counters:

roce_adp_retrans - counts the number of adaptive retransmissions for RoCE traffic.

roce_adp_retrans_to - counts the number of times RoCE traffic reached timeout due to adaptive retransmission.

roce_slow_restart - counts the number of times RoCE slow restart was used.

roce_slow_restart_cnps - counts the number of times RoCE slow restart generated CNP packets

roce_slow_restart_trans - counts the number of times RoCE slow restart changed state to slow restart.

User to register memory regions with a relaxed ordering access flag through experimental verbs. This can enhance performance, depending on architecture and scenario.

For All HCA's

Added support for the following features:

Output ibdev2netdev tool output was changed such that the bonding device now points at the bond instead of the slave interface.

Monitoring and recovering from errors that occur on the RX queue, such as cookie errors and timeout.

Improved GSO (Generic Segmentation Offload) workload performance by decreasing doorbells usage to the minimum required.

TX CQE (Completion Queue Element) compression. Saves on outgoing PCIe bandwidth by compressing CQEs together. Disabled by default. Configurable via private flags of ethtool.

Firmware Versions Query via Devlink :Added the option to query for running and stored firmware versions using the devlink tool.

Firmware Flash Update via Devlink :Added the option to update the firmware image in the flash using the devlink tool. Usage: devlink dev flash file .mfa2 For further information on how to perform this update, see "Updating Firmware Using ethtool/devlink and .mfa2 File" section in MFT User Manual.

WQE (Work Queue Element) dump, triggered by an error on Rx/Tx reporters. In addition, some dumps (not triggered by an error) can be retrieved by the user via devlink health reporters.

GENEVE tunneled hardware offloads of TSO, CSUM and RSS.

TCP segmentation and checksum offload support for MPLS-tagged traffic.

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 QLogic FastLinQ 10/25/50 GbE Drivers for Red Hat Enterprise Linux 7 x86_64

Version: 8.55.5.0-1 (Optional)

Filename: kmod-qlgc-fastlinq-8.55.5.0-1.rhel7u8.x86_64.compsig; kmod-qlgc-fastlinq-8.55.5.0-1.rhel7u8.x86_64.rpm; kmod-qlgc-fastlinq-8.55.5.0-1.rhel7u9.x86_64.compsig; kmod-qlgc-fastlinq-8.55.5.0-1.rhel7u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE QLogic FastLinQ Online Firmware Upgrade Utility for Linux x86_64, version 1.10.0 or later, for use with these drivers.

Fixes

This product corrects an issue where the driver fails to load in NPAR mode when RoCE Data Center Quantized Congestion Notification (DCQCN) is enabled.

This product corrects an issue ethernet data rate limiting unable on VFs.

This product addresses a system crash seen when injecting a fw_assert on a NIC PF.

This product addresses a system crash seen when limiting number of MSI-X interrupt vectors as requested for VFs

This product addresses a system crash seen when unloading and reloading the RoCE driver only.

This product addresses a system crash seen running burnin and iperf stress in Red Hat Enterprise Linux 7 update 9 environment

This product addresses a system crash seen during multiple reboots of virtual machines using VFs and RDMA.

This product addresses a the connection recover failed with heavy traffic

Enhancements

This product now supports Red Hat Enterprise Linux 7 update 9

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 Drivers for Red Hat Enterprise Linux 8

Version: 8.55.5.0-1 (Optional)

Filename: kmod-qlgc-fastlinq-8.55.5.0-1.rhel8u2.x86_64.compsig; kmod-qlgc-fastlinq-8.55.5.0-1.rhel8u2.x86_64.rpm; kmod-qlgc-fastlinq-8.55.5.0-2.rhel8u3.x86_64.compsig; kmod-qlgc-fastlinq-8.55.5.0-2.rhel8u3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE QLogic FastLinQ Online Firmware Upgrade Utility for Linux x86_64, version 1.10.0 or later, for use with these drivers.

Fixes

This product corrects an issue where the driver fails to load in NPAR mode when RoCE Data Center Quantized Congestion Notification (DCQCN) is enabled.

This product corrects an issue ethernet data rate limiting unable on VFs.

This product addresses a system crash seen when injecting a fw_assert on a NIC PF.

This product addresses a system crash seen when limiting number of MSI-X interrupt vectors as requested for VFs

This product addresses a system crash seen when unloading and reloading the RoCE driver only.

This product addresses a system crash seen during multiple reboots of virtual machines using VFs and RDMA.

This product addresses a the connection recover failed with heavy traffic

Enhancements

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

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 Drivers for SUSE Linux Enterprise Server 12 x86_64

Version: 8.55.5.0-1 (Optional)

Filename: qlgc-fastlinq-kmp-default-8.55.5.0_k4.12.14_120-1.sles12sp5.x86_64.compsig; qlgc-fastlinq-kmp-default-8.55.5.0_k4.12.14_120-1.sles12sp5.x86_64.rpm; qlgc-fastlinq-kmp-default-8.55.5.0_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; qlgc-fastlinq-kmp-default-8.55.5.0_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE QLogic FastLinQ Online Firmware Upgrade Utility for Linux x86_64, version 1.10.0 or later, for use with these drivers.

Fixes

This product corrects an issue where the driver fails to load in NPAR mode when RoCE Data Center Quantized Congestion Notification (DCQCN) is enabled.

This product corrects an issue ethernet data rate limiting unable on VFs.

This product addresses a system crash seen when injecting a fw_assert on a NIC PF.

This product addresses a system crash seen when limiting number of MSI-X interrupt vectors as requested for VFs

This product addresses a system crash seen when unloading and reloading the RoCE driver only.

This product addresses a system crash seen during multiple reboots of virtual machines using VFs and RDMA.

This product addresses a the connection recover failed with heavy traffic

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 Drivers for SUSE Linux Enterprise Server 15

Version: 8.55.5.0-1 (Optional)

Filename: qlgc-fastlinq-kmp-default-8.55.5.0_k4.12.14_195-1.sles15sp1.x86_64.compsig; qlgc-fastlinq-kmp-default-8.55.5.0_k4.12.14_195-1.sles15sp1.x86_64.rpm; qlgc-fastlinq-kmp-default-8.55.5.0_k5.3.18_22-1.sles15sp2.x86_64.compsig; qlgc-fastlinq-kmp-default-8.55.5.0_k5.3.18_22-1.sles15sp2.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE QLogic FastLinQ Online Firmware Upgrade Utility for Linux x86_64, version 1.10.0 or later, for use with these drivers.

Fixes

This product corrects an issue where the driver fails to load in NPAR mode when RoCE Data Center Quantized Congestion Notification (DCQCN) is enabled.

This product corrects an issue ethernet data rate limiting unable on VFs.

This product addresses a system crash seen when injecting a fw_assert on a NIC PF.

This product addresses a system crash seen when limiting number of MSI-X interrupt vectors as requested for VFs

This product addresses a system crash seen when unloading and reloading the RoCE driver only.

This product addresses a system crash seen during multiple reboots of virtual machines using VFs and RDMA.

This product addresses a the connection recover failed with heavy traffic

Enhancements

This product now supports Suse Linux Enterprise Server 15 Service Pack 2

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 Drivers for Windows Server x64 Editions

Version: 8.55.5.0 (Optional)

Filename: cp044990.compsig; cp044990.exe

Important Note!

HPE recommends the firmware provided in HPE QLogic FastLinQ Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.4.0 or later, for use with these drivers.

Fixes

This product correct an Wake-on-LAN (WoL) function unavailable.

This product correct high CPU usage with Virtual Machine Multiple Queues (VMMQ).

This product addresses a BSOD seen when using the netsh utility to configure global RSS.

This product correct an issue which fixes BSOD in case of NicSwitch and send NBL has vport id which exceeds max vports capability.

This product addresses a Windows Stop Error (BSOD) seen where an SR-IOV virtual function to assign while installing driver.

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 6.5

Version: 2021.04.05 (Optional)

Filename: cp046222.compsig; cp046222.zip

Important Note!

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

HPE recommends the firmware provided in HPE QLogic FastLinQ Online Firmware Upgrade Utility for VMware, version 4.13.0 or later, for use with this driver.

Fixes

This product corrects an issue runs out of MSI-X interrupt vectors caused what Purple Screen of Death (PSOD)

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 6.7

Version: 2021.04.05 (Optional)

Filename: cp044977.compsig; cp044977.zip

Important Note!

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

HPE recommends the firmware provided in HPE QLogic FastLinQ Online Firmware Upgrade Utility for VMware, version 4.13.0 or later, for use with this driver.

Fixes

This product addresses a Purple Screen Of Death (PSOD) seen on systems operating in a complicated VLAN environment.

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: 2021.04.05 (Optional)

Filename: cp044976.compsig; cp044976.zip

Important Note!

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

HPE recommends the firmware provided in HPE QLogic FastLinQ Online Firmware Upgrade Utility for VMware, version 4.13.0 or later, for use with this driver.

Fixes

This product addresses a Purple Screen Of Death (PSOD) seen on systems operating in a complicated VLAN environment.

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 Open-iSCSI Driver for Red Hat Enterprise Linux 8 Update 0

Version: 2.0-873.113-1 (Optional)

Filename: qlgc-open-iscsi-2.0_873.113.rhel8u0-1.x86_64.compsig; qlgc-open-iscsi-2.0_873.113.rhel8u0-1.x86_64.rpm; README

Enhancements

Initial release.

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 Open-iSCSI Driver for SUSE Linux Enterprise Server 12 SP4

Version: 2.0-873.113-1 (D) (Optional)

Filename: qlgc-open-iscsi-2.0_873.113.sles12sp4-1.x86_64.compsig; qlgc-open-iscsi-2.0_873.113.sles12sp4-1.x86_64.rpm; README

Enhancements

This product no longer supports Synergy servers and devices. Synergy servers and devices are now supported by the HPE Synergy QLogic FastLinQ Open-iSCSI Driver for SUSE Linux Enterprise Server 12 SP4.

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 Open-iSCSI Driver for SUSE Linux Enterprise Server 15 SP0

Version: 2.0-873.113-1 (D) (Optional)

Filename: qlgc-open-iscsi-2.0_873.113.sles15sp0-1.x86_64.compsig; qlgc-open-iscsi-2.0_873.113.sles15sp0-1.x86_64.rpm; README

Enhancements

This product no longer supports Synergy servers and devices. Synergy servers and devices are now supported by the HPE Synergy QLogic FastLinQ Open-iSCSI Driver for SUSE Linux Enterprise Server 15 SP0.

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 Open-iSCSI Driver for SUSE Linux Enterprise Server 15 SP1

Version: 2.0-873.113-1 (Optional)

Filename: qlgc-open-iscsi-2.0_873.113.sles15sp1-1.x86_64.compsig; qlgc-open-iscsi-2.0_873.113.sles15sp1-1.x86_64.rpm; README

Enhancements

Initial release.

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 iSCSI Offload IO Daemon for Red Hat Enterprise Linux 8 Update 0

Version: 2.11.5.13-3 (Optional)

Filename: iscsiuiio-2.11.5.13-3.rhel8u0.x86_64.compsig; iscsiuiio-2.11.5.13-3.rhel8u0.x86_64.rpm

Enhancements

Initial release.

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

HP Ethernet 10Gb 2-port 530SFP+ Adapter

HP Ethernet 10Gb 2-port 530T Adapter

HP FlexFabric 10Gb 2-port 533FLR-T Adapter

HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter

HPE FlexFabric 10Gb 4-port 536FLR-T Adapter

HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter

HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter

HP StoreFabric CN1100R Dual Port Converged Network Adapter

HPE StoreFabric CN1100R-T Converged Network Adapter

HPE QLogic iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 12 SP4

Version: 2.11.5.13-3 (B) (Optional)

Filename: iscsiui-2.11.5.13-3.sles12sp4.x86_64.compsig; iscsiui-2.11.5.13-3.sles12sp4.x86_64.rpm; README

Fixes

This product addresses an iSCSI discovery failure with VLAN.

Enhancements

This product no longer supports ProLiant Blade servers and devices. Blade servers and devices are now supported by the HPE Blade QLogic NX2 iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 12 SP4.

This product no longer supports Synergy servers and devices. Synergy servers and devices are now supported by the HPE Synergy QLogic iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 12 SP4.

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

HP Ethernet 10Gb 2-port 530SFP+ Adapter

HP Ethernet 10Gb 2-port 530T Adapter

HP FlexFabric 10Gb 2-port 533FLR-T Adapter

HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter

HPE FlexFabric 10Gb 4-port 536FLR-T Adapter

HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter

HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter

HP StoreFabric CN1100R Dual Port Converged Network Adapter

HPE StoreFabric CN1100R-T Converged Network Adapter

HPE QLogic iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 15 SP0

Version: 2.11.5.13-3 (B) (Optional)

Filename: iscsiuiio-2.11.5.13-3.sles15sp0.x86_64.compsig; iscsiuiio-2.11.5.13-3.sles15sp0.x86_64.rpm; README

Fixes

This product addresses an iSCSI discovery failure with VLAN.

Enhancements

This product no longer supports ProLiant Blade servers and devices. Blade servers and devices are now supported by the HPE Blade QLogic NX2 iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 15 SP0.

This product no longer supports Synergy servers and devices. Synergy servers and devices are now supported by the HPE Synergy QLogic iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 15 SP0.

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
HP Ethernet 10Gb 2-port 530SFP+ Adapter
HP Ethernet 10Gb 2-port 530T Adapter
HP FlexFabric 10Gb 2-port 533FLR-T Adapter
HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter
HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter
HP StoreFabric CN1100R Dual Port Converged Network Adapter
HPE StoreFabric CN1100R-T Converged Network Adapter

HPE QLogic iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 15 SP1

Version: 2.11.5.13-3 (Optional)

Filename: iscsiuiio-2.11.5.13-3.sles15sp1.x86_64.compsig; iscsiuiio-2.11.5.13-3.sles15sp1.x86_64.rpm

Enhancements

Initial release.

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
HP Ethernet 10Gb 2-port 530SFP+ Adapter
HP Ethernet 10Gb 2-port 530T Adapter
HP FlexFabric 10Gb 2-port 533FLR-T Adapter
HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
HPE FlexFabric 10Gb 4-port 536FLR-T Adapter

HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter

HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter

HP StoreFabric CN1100R Dual Port Converged Network Adapter

HPE StoreFabric CN1100R-T Converged Network Adapter

HPE QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 6.5

Version: 2021.04.05 (Optional)

Filename: cp046404.compsig; cp046404.zip

Important Note!

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

HPE recommends the firmware provided in HPE QLogic NX2 Online Firmware Upgrade Utility for VMware, version 1.28.0 or later, for use with this driver.

Fixes

This product corrects an incorrect MTU value displayed by the ESXCLI tool.

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 6.7

Version: 2021.04.05 (Optional)

Filename: cp044987.compsig; cp044987.zip

Important Note!

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

HPE recommends the firmware provided in HPE QLogic NX2 Online Firmware Upgrade Utility for VMware, version 1.28.0 or later, for use with this driver.

Fixes

This product addresses a Purple Screen Of Death (PSOD) seen during traffic scheduling.

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: 2021.04.05 (Optional)

Filename: cp045082.compsig; cp045082.zip

Important Note!

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

HPE recommends the firmware provided in HPE QLogic NX2 Online Firmware Upgrade Utility for VMware, version 1.28.0 or later, for use with this driver.

Fixes

This product addresses a Purple Screen Of Death (PSOD) seen during traffic scheduling.

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: 7.14.76-1 (Optional)

Filename: kmod-netxtreme2-7.14.76-1.rhel7u8.x86_64.compsig; kmod-netxtreme2-7.14.76-1.rhel7u8.x86_64.rpm; kmod-netxtreme2-7.14.76-1.rhel7u9.x86_64.compsig; kmod-netxtreme2-7.14.76-1.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 2.28.0 or later, for use with these drivers.

Fixes

This product corrects an issue obtain Medium Dependent Interface(MDI) and Medium Dependent Interface Crossover (MDIX) information when execution ethtool tools

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 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: 7.14.76-1 (Optional)

Filename: kmod-netxtreme2-7.14.76-1.rhel8u2.x86_64.compsig; kmod-netxtreme2-7.14.76-1.rhel8u2.x86_64.rpm; kmod-netxtreme2-7.14.76-1.rhel8u3.x86_64.compsig; kmod-netxtreme2-7.14.76-1.rhel8u3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64, version 2.28.0 or later, for use with these drivers.

Fixes

This product corrects an issue obtain Medium Dependent Interface(MDI) and Medium Dependent Interface Crossover (MDIX) information when execution ethtool tools

Enhancements

This product now supports Red Hat Enterprise Linux 8, Updates 2 and 3.

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: 7.14.76-1 (Optional)

Filename: netxtreme2-kmp-default-7.14.76_k4.12.14_120-1.sles12sp5.x86_64.compsig; netxtreme2-kmp-default-7.14.76_k4.12.14_120-1.sles12sp5.x86_64.rpm; netxtreme2-kmp-default-7.14.76_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; netxtreme2-kmp-default-7.14.76_k4.12.14_94.41-1.sles12sp4.x86_64.rpm;
README

Important Note!

HPE recommends the firmware provided in HPE QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64, version 2.28.0 or later, for use with these drivers.

Fixes

This product corrects an issue obtain Medium Dependent Interface(MDI) and Medium Dependent Interface Crossover (MDIX) information when execution ethtool tools

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: 7.14.76-1 (Optional)

Filename: netxtreme2-kmp-default-7.14.76_k4.12.14_195-1.sles15sp1.x86_64.compsig; netxtreme2-kmp-default-7.14.76_k4.12.14_195-1.sles15sp1.x86_64.rpm; netxtreme2-kmp-default-7.14.76_k5.3.18_22-1.sles15sp2.x86_64.compsig; netxtreme2-kmp-default-7.14.76_k5.3.18_22-1.sles15sp2.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64, version 2.28.0 or later, for use with these drivers.

Fixes

This product corrects an issue obtain Medium Dependent Interface(MDI) and Medium Dependent Interface Crossover (MDIX) information when execution ethtool tools

Enhancements

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

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: 7.13.196.0 (Optional)

Filename: cp044989.compsig; cp044989.exe

Important Note!

HP recommends the firmware provided in HPE QLogic NX2 Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.4.0 or later, for use with these drivers.

Fixes

This product correct an issue where the vSwitch unavailable to assign on WS2012R2.

This product correct an issue which fixes One time system crash seen while uninstalling NDIS driver

This product addresses an issue where an SR-IOV virtual function can't to start normaly.

Supported Devices and Features

This driver supports 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

Intel i350 Driver for Windows Server 2016

Version: 12.16.3.1 (Optional)

Filename: cp045122.compsig; cp045122.exe

Important Note!

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

Enhancements

This product contains Windows system update supported improvements.

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: 12.18.11.1 (Optional)

Filename: cp045123.compsig; cp045123.exe

Important Note!

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

Enhancements

This product contains Windows system update supported improvements.

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: 1.13.104.0 (Optional)

Filename: cp045319.compsig; cp045319.exe

Important Note!

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

Fixes

This product corrects an traffic packets making cert failure seen when packets transferred to VLAN after RDMA function enabled.

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: 1.13.104.0 (Optional)

Filename: cp045320.compsig; cp045320.exe

Important Note!

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

Fixes

This product corrects an traffic packets making cert failure seen when packets transferred to VLAN after RDMA function enabled.

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 (Optional)

Filename: cp045022.compsig; cp045022.exe

Important Note!

HPE recommends the firmware provided in 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 1.0.80.0 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 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-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 iavf Driver for Windows Server 2019

Version: 1.12.9.0 (Optional)

Filename: cp045023.compsig; cp045023.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 1.0.80.0 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 Intel VFnetwork adapters:

HPE Ethernet 10Gb 2-port SFP+ OCP3 X710-DA2 Adapter

HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter

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 icea Driver for Windows Server 2016

Version: 1.5.74.0 (Optional)

Filename: cp041200.compsig; cp041200.exe

Important Note!

HPE recommends the firmware provided in Intel Firmware Package for Columbiaville (FWPKG), version 2.2 or later, for use with this driver.

Enhancements

Initial release.

Supported Devices and Features

This driver supports the following HPE Intel ICEA 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 icea Driver for Windows Server 2019

Version: 1.5.74.0 (Optional)

Filename: cp041201.compsig; cp041201.exe

Important Note!

HPE recommends the firmware provided in Intel Firmware Package for Columbiaville (FWPKG), version 2.2 or later, for use with this driver.

Enhancements

Initial release.

Supported Devices and Features

This driver supports the following HPE Intel ICEA 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

Linux Intel Drivers build bundle for Red Hat Enterprise Linux

Version: 1.0.4.0 (Optional)

Filename: hp-i40e-2.13.10-1.all.src.rpm; hp-iavf-4.0.2-1.all.src.rpm; hp-igb-6.2.5-1.all.src.rpm; hp-ixgbe-5.9.4-1.all.src.rpm; hp-ixgbev-4.9.3-1.all.src.rpm; i40e-README; iavf-README; ice-1.2.1-1.all.src.rpm; ice-README; igb-README; irdma-1.2.21-1.all.src.rpm; irdma-README; ixgbe-README; ixgbev-README; kmod-hp-i40e-2.13.10-1.rhel7u8.x86_64.rpm; kmod-hp-i40e-2.13.10-1.rhel7u9.x86_64.rpm; kmod-hp-i40e-2.13.10-1.rhel8u2.x86_64.rpm; kmod-hp-i40e-2.13.10-1.rhel8u3.x86_64.rpm; kmod-hp-iavf-4.0.2-1.rhel7u8.x86_64.rpm; kmod-hp-iavf-4.0.2-1.rhel7u9.x86_64.rpm; kmod-hp-iavf-4.0.2-1.rhel8u2.x86_64.rpm; kmod-hp-iavf-4.0.2-1.rhel8u3.x86_64.rpm; kmod-hp-igb-6.2.5-1.rhel7u8.x86_64.rpm; kmod-hp-igb-6.2.5-1.rhel7u9.x86_64.rpm; kmod-hp-igb-6.2.5-1.rhel8u2.x86_64.rpm; kmod-hp-igb-6.2.5-1.rhel8u3.x86_64.rpm; kmod-hp-ixgbe-5.9.4-1.rhel7u8.x86_64.rpm; kmod-hp-ixgbe-5.9.4-1.rhel7u9.x86_64.rpm; kmod-hp-ixgbe-5.9.4-1.rhel8u2.x86_64.rpm; kmod-hp-ixgbe-5.9.4-1.rhel8u3.x86_64.rpm; kmod-hp-ixgbev-4.9.3-1.rhel7u8.x86_64.rpm; kmod-hp-ixgbev-4.9.3-1.rhel7u9.x86_64.rpm; kmod-hp-ixgbev-4.9.3-1.rhel8u2.x86_64.rpm; kmod-hp-ixgbev-4.9.3-1.rhel8u3.x86_64.rpm; kmod-ice-1.2.1-1.rhel7u8.x86_64.rpm; kmod-ice-1.2.1-1.rhel7u9.x86_64.rpm; kmod-ice-1.2.1-1.rhel8u2.x86_64.rpm; kmod-ice-1.2.1-1.rhel8u3.x86_64.rpm; kmod-irdma-1.2.21-1.rhel7u8.x86_64.rpm; kmod-irdma-1.2.21-1.rhel7u9.x86_64.rpm; kmod-irdma-1.2.21-1.rhel8u2.x86_64.rpm; kmod-irdma-1.2.21-1.rhel8u3.x86_64.rpm

Enhancements

Gen10PlusSnap4

Linux Intel Drivers build bundle for SUSE Linux Enterprise Server

Version: 1.0.4.0 (Optional)

Filename: hp-i40e-2.13.10-1.all.src.rpm; hp-i40e-kmp-default-2.13.10_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-i40e-kmp-default-2.13.10_k4.12.14_195-1.sles15sp1.x86_64.rpm; hp-i40e-kmp-default-2.13.10_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; hp-i40e-kmp-default-2.13.10_k5.3.18_22-1.sles15sp2.x86_64.rpm; hp-iavf-4.0.2-1.all.src.rpm; hp-iavf-kmp-default-4.0.2_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-iavf-kmp-default-4.0.2_k4.12.14_195-1.sles15sp1.x86_64.rpm; hp-iavf-kmp-default-4.0.2_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; hp-iavf-kmp-default-4.0.2_k5.3.18_22-1.sles15sp2.x86_64.rpm; hp-igb-6.2.5-1.all.src.rpm; hp-igb-kmp-default-6.2.5_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-igb-kmp-default-6.2.5_k4.12.14_195-1.sles15sp1.x86_64.rpm; hp-igb-kmp-default-6.2.5_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; hp-igb-kmp-default-6.2.5_k5.3.18_22-

1.sles15sp2.x86_64.rpm; hp-ixgbe-5.9.4-1.all.src.rpm; hp-ixgbe-kmp-default-5.9.4_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-ixgbe-kmp-default-5.9.4_k4.12.14_195-1.sles15sp1.x86_64.rpm; hp-ixgbe-kmp-default-5.9.4_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; hp-ixgbe-kmp-default-5.9.4_k5.3.18_22-1.sles15sp2.x86_64.rpm; hp-ixgbevf-4.9.3-1.all.src.rpm; hp-ixgbevf-kmp-default-4.9.3_k4.12.14_120-1.sles12sp5.x86_64.rpm; hp-ixgbevf-kmp-default-4.9.3_k4.12.14_195-1.sles15sp1.x86_64.rpm; hp-ixgbevf-kmp-default-4.9.3_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; hp-ixgbevf-kmp-default-4.9.3_k5.3.18_22-1.sles15sp2.x86_64.rpm; i40e-README; iavf-README; ice-1.2.1-1.all.src.rpm; ice-kmp-default-1.2.1_k4.12.14_120-1.sles12sp5.x86_64.rpm; ice-kmp-default-1.2.1_k4.12.14_195-1.sles15sp1.x86_64.rpm; ice-kmp-default-1.2.1_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; ice-kmp-default-1.2.1_k5.3.18_22-1.sles15sp2.x86_64.rpm; ice-README; igb-README; irdma-1.2.21-1.all.src.rpm; irdma-kmp-default-1.2.21_k4.12.14_120-1.sles12sp5.x86_64.rpm; irdma-kmp-default-1.2.21_k4.12.14_195-1.sles15sp1.x86_64.rpm; irdma-kmp-default-1.2.21_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; irdma-kmp-default-1.2.21_k5.3.18_22-1.sles15sp2.x86_64.rpm; irdma-README; ixgbe-README; ixgbevf-README

Enhancements

Gen10PlusSnap4

Marvell FastLinQ 10/25/50 GbE Drivers for Windows Server x64 Editions

Version: 8.55.5.0 (Optional)

Filename: cp044988.compsig; cp044988.exe

Important Note!

HPE recommends the firmware provided in Marvell FastLinQ Online Firmware Upgrade Utility for Windows Server x64 Editions, version 5.2.4.0 or later, for use with these drivers.

Fixes

This product correct an Wake-on-LAN (WoL) function unavailable.

This product correct high CPU usage with Virtual Machine Multiple Queues (VMMQ).

This product addresses a BSOD seen when using the netsh utility to configure global RSS.

This product correct an issue which fixes BSOD in case of NicSwitch and send NBL has vport id which exceeds max vports capability.

This product addresses a Windows Stop Error (BSOD) seen where an SR-IOV virtual function to assign while installing driver.

Supported Devices and Features

This product supports the following network adapters:

HPE Ethernet 10/25Gb 2-port SFP28 QL41232HQCU 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+ QL41132HQCU OCP3 Adapter

HPE Ethernet 10Gb 2-port SFP+ QL41132HLCU Adapter

Mellanox CX5 and CX6DX Driver for Windows Server 2016

Version: 2.60.23957.0 (Optional)

Filename: cp043868.compsig; cp043868.exe

Fixes

This product addresses a Windows Stop Error (BSOD) seen when running Mellanox NdStat Utility (mlx5cmd - ndstat) while ND connections was closing.

This product corrects driver loading failures seen due to incorrect INF file.

Enhancements

This product now supports the following network adapters:

Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE

Supported Devices and Features

This driver supports the following network adapters:

HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter

HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACAT Adapter

HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter

HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCAT Adapter

HPE Ethernet 100Gb 2-Port QSFP28 MCX516A-CCAT Adapter

HPE Ethernet 100Gb 2-Port QSFP56 MCX623436AS-CDAT Adapter

HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter

Mellanox CX5 and CX6DX Driver for Windows Server 2019

Version: 2.60.23957.0 (Optional)

Filename: cp043869.compsig; cp043869.exe

Fixes

This product addresses a Windows Stop Error (BSOD) seen when running Mellanox NdStat Utility (mlx5cmd - ndstat) while ND connections was closing.

This product corrects driver loading failures seen due to incorrect INF file.

Enhancements

This product now supports the following network adapters:

Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE

Supported Devices and Features

This driver supports the following network adapters:

HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter
HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACAT Adapter
HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter
HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCAT Adapter
HPE Ethernet 100Gb 2-Port QSFP28 MCX516A-CCAT Adapter
HPE Ethernet 100Gb 2-Port QSFP56 MCX623436AS-CDAT Adapter
HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter

net-mst kernel module driver component for VMware ESXi 6.5 and 6.7

Version: 2020.11.11 (Recommended)

Filename: cp046337.compsig; cp046337.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 HPE vibsdepot.hpe.com webpage, plus an HPE specific CPXXXX.xml file.

Prerequisites

NA

Enhancements

NMST version 4.12.0.105:

This version adds support for the following adapters:

HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter (Part Number: P21930-B21)

HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter (Part Number: P11341-B21)

HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter (Part Number: P13188-B21)

HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter (Part Number: P10112-B21)

HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter (Part Number: P21927-B21)

HPE InfiniBand HDR/Ethernet 200Gb 1-port 940QSFP56 x16 Adapter (Part Number: P06154-B21)

HPE InfiniBand HDR100/Ethernet 100Gb 1-port 940QSFP56 x16 Adapter (Part Number: P06250-B21)

HPE InfiniBand HDR100/Ethernet 100Gb 2-port 940QSFP56 x16 Adapter (Part Number: P06251-B21)

HPE InfiniBand HDR/Ethernet 200Gb 1-port MCX653105A-HDAT QSFP56 x16 Adapter (Part Number: P23664-B21)

HPE InfiniBand HDR100/Ethernet 100Gb 1-port MCX653105A-ECAT QSFP56 x16 Adapter (Part Number: P23665-B21)

HPE InfiniBand HDR100/Ethernet 100Gb 2-port MCX653106A-ECAT QSFP56 x16 Adapter (Part Number: P23666-B21)

HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter (Part Number: P25960-B21)

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

net-mst kernel module driver component for VMware ESXi 7.0

Version: 2020.11.11 (Recommended)

Filename: cp046317.compsig; cp046317.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 HPE vibstest.hpe.com webpage, plus an HPE specific CPXXXX.xml file.

Prerequisites

NA

Fixes

NMST version 4.14.3.3

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

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.

Management 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

HP 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 7.0

Version: 2020.11.11 (Recommended)

Filename: cp046345.compsig; cp046345.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.

Management 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 3.19.70.1:

Resolved an issue that caused the network adapter traffic to stop.

Fixed an internal multicast loopback issue that broke LACP(Link Aggregation Control Protocol) bonding protocol.

Supported Devices and Features

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

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

nmlx5_en Driver Component for VMware 6.5

Version: 2020.11.11 (Recommended)

Filename: cp046263.compsig; cp046263.zip

Important Note!

Known Issues in version 4.16.70.1:

The maximum number of established active RDMA connections (QPs) is currently 5000.

Setting ETS value to 0 may cause WQE timeout.

ECN tunable parameter initialAlphaValue for the Reaction Point protocol cannot be modified.

ECN statistic counters accumulatorsPeriod and ecnMarkedRoce-Packets display wrong values and cannot be cleared.

The hardware can offload only up to 256 Bytes of headers.

The "esxcli network sriovnic vf stats" command is not supported.

Traffic cannot be sent between PV and SR-IOV VF connected to different ports on the same HCA.

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 56 Bytes. Received packets with options length bigger than 56 Bytes are dropped.

Interaction 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 link going up and down.

VGT traffic over VXLAN interfaces is currently not supported.

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:

ConnectX-4: up to 127

ConnectX-5: up to 63

Fixes

The following issues have been fixed in version in 4.16.70.1:

The "esxcli network sriovnic vf stats" command was not supported. When running this command on a vmknics, a failure message was displayed.

Enhancements

Changes and New Features in smart component version 2020.11.11:

Added support for the following adapters:

HP Ethernet 200Gb 1-Port QSFP56 MCX623105AS-VDAT Adapter (HPE Part Number: P10180-B21)

New features and changes in version 4.16.70.1:

An event will be sent to notify the administrator if the power required by the network adapter is higher than that available on the PCIe slot.

Support for trusting Differentiated Services Code Point (DSCP) and setting default value for RoCE traffic.

A new counter that enables the user to query per Virtual Function counters.

RX out-of-buffer counter to indicate any lack of software receive buffers.

Module parameter to enforce specific RoCE version.

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
868779-B21	HPE Synergy 6410C 25/50Gb Ethernet Adapter	HPE0000000006
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HP_1200111023

817749-B21	HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter	HP_2690110034
817753-B21	HPE Ethernet 25Gb 2-port 640SFP28 Adapter	HP_2420110034
P24837-B21	HPE Ethernet 10/25Gb 2-port 642SFP28 Adapter	HPE0000000054
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014
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
P10180-B21	HPE Ethernet 200Gb 1-Port QSFP56 MCX623105AS-VDAT Adapter	MT_0000000435

nmlx5_en Driver Component for VMware 6.7

Version: 2020.11.11 (Recommended)

Filename: cp046264.compsig; cp046264.zip

Important Note!

Known Issues in version 4.17.70.1:

ECN tunable parameter initialAlphaValue for the Reaction Point protocol cannot be modified.

SRI-OV is not supported while ENS is enabled.

The maximum number of established active RDMA connections (QPs) is currently 5000.

Enhanced Network Stack(ENS) is currently not supported in ConnectX-6 Dx adapter cards.

Setting ETS value to 0 may cause WQE timeout.

A PSOD may occur during vMotion over ENS VMK.

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.

Live unload of the driver is not supported. Doing so may cause a PSOD if the max_vfs parameter is set.

ECN statistic counters accumulatorsPeriod and ecnMarkedRoce-Packets display wrong values and cannot be cleared.

The maximum value of RSS must be lower than the number of CPU cores.

The hardware can offload only up to 256B of headers.

The "esxcli network sriovnic vf stats" command is not supported. When running this command on a vmknic, a failure message is displayed.

There is no traffic between PV and SR-IOV VF connected to different ports on the same HCA.

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.

When a guest is assigned an IB PCI passthru device or an IB VF, VMware Tools networking information for the guest may be incorrect. This affects how the guest networking information, such as interfaces and their IPs, is displayed in vCenter.

Operations on vmnics which are in passthru mode are not supported.

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.

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.

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: up to 127

ConnectX-5: up to 127

For further information on the release notes for ESXi 6.7 Driver Version 4.17.70.1 follow the below link:

https://www.mellanox.com/page/products_dyn?product_family=29&mtag=vmware_driver

Fixes

The following issues have been fixed in version in 4.17.70.1:

The "esxcli network sriovnic vf stats" command was not supported. When running this command on a "vmknic", a failure message was displayed.

IPv6 as inner packet was not supported.

Enhancements

Changes and New Features in smart component version 2020.11.11:

Added support for the following adapters:

HPE Ethernet 200Gb 1-Port QSFP56 MCX623105AS-VDAT Adapter (HPE Part Number: P10180-B21)

New features and changes in version 4.17.70.1:

Disabled the option of shutting down the link due to power limitation.

Support for trusting Differentiated Services Code Point (DSCP) and setting default value for RoCE traffic.

New counter that enables the user to query per Virtual Function counters.

RX out-of-buffer counter to indicate any lack of software receive buffers.

Module parameter to enforce specific RoCE version.

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
868779-B21	HPE Synergy 6410C 25/50Gb Ethernet Adapter	HPE0000000006
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HP_1200111023
817749-B21	HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter	HP_2690110034
817753-B21	HPE Ethernet 25Gb 2-port 640SFP28 Adapter	HP_2420110034
P24837-B21	HPE Ethernet 10/25Gb 2-port 642SFP28 Adapter	HPE0000000054
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014
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
P10180-B21	HPE Ethernet 200Gb 1-Port QSFP56 MCX623105AS-VDAT Adapter	MT_0000000435

nmlx5_en Driver Component for VMware 7.0

Version: 2020.11.11 (Recommended)

Filename: cp046265.compsig; cp046265.zip

Important Note!

Known Issues in version 4.19.70.1:

SR-IOV is not supported while ENS is enabled.

Live unload of the driver is not supported. Doing so may cause a PSOD if the max_vfs parameter is set.

The maximum number of established active RDMA connections (QPs) is currently 5000.

ENS is currently not supported in ConnectX-6 Dx adapter cards.

Workaround: Use non ENS DVS for ConnectX-6 Dx cards.

Setting ETS value to 0 may cause WQE timeout.

Workaround: Set ETS value of 1 instead of 0.

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

Enhancements

Changes and New Features are included in smart component version 2020.11.11:

Added support for the following adapters:

HPE Ethernet 200Gb 1-Port QSFP56 MCX623105AS-VDAT Adapter (HPE Part Number: P10180-B21)

New features and changes in version 4.19.70.1:

Disabled the option of shutting down the link due to power limitation.

Support for trusting Differentiated Services Code Point (DSCP) and setting default value for RoCE traffic.

New counter that enables the user to query per Virtual Function counters.

RX out-of-buffer counter to indicate any lack of software receive buffers.

support for Data Center Bridging Capability Exchange (DCBx) protocol.DCBX works with LLDP to allow switches to exchange information about their Data Center Bridging (DCB) capabilities and configuration and automatically

negotiate common Priority-Based Flow Control (PFC) parameters.

Module parameter to enforce specific RoCE version.

Support for setting the minimal bandwidth guarantee for traffic classes (TCs).

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
868779-B21	HPE Synergy 6410C 25/50Gb Ethernet Adapter	HPE0000000006
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HP_1200111023
817749-B21	HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter	HP_2690110034
817753-B21	HPE Ethernet 25Gb 2-port 640SFP28 Adapter	HP_2420110034
P24837-B21	HPE Ethernet 10/25Gb 2-port 642SFP28 Adapter	HPE0000000054
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014
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
P10180-B21	HPE Ethernet 200Gb 1-Port QSFP56 MCX623105AS-VDAT Adapter	MT_0000000435

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

[Top](#)

HPE Smart Array S100i SR Gen10 SW RAID Driver for Windows Server 2012 R2, Windows Server 2016, and Windows Server 2019

Version: 106.12.6.0 (Recommended)

Filename: cp043250.compsig; cp043250.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.

Enhancements

Added support for AMD.

HPE Smart Storage SR100i Gen10 Plus SW RAID Driver for Windows Server 2016, and Windows Server 2019

Version: 106.106.2.1229 (Recommended)

Filename: cp045150.compsig; cp045150.exe

Enhancements

Added the NVMe SW Raid support

Driver - Storage Controller

[Top](#)

HPE MegaRAID MR416i-a, MR416i-p, MR216i-a, MR216i-p controller (64-bit) Driver for vSphere 7.0

Version: 7.716.03.00 (Recommended)

Filename: Broadcom-lsi-mr3_7.716.03.00-1OEM.700.1.0.15843807_17632848.zip

Enhancements

Initial Release

HPE ProLiant Gen10 and Gen10Plus Smart Array Controller (64-bit) Driver for Red Hat Enterprise Linux 7 (64-bit)

Version: 2.1.8-040 (Recommended)

Filename: kmod-smartpqi-2.1.8-040.rhel7u8.x86_64.compsig; kmod-smartpqi-2.1.8-040.rhel7u8.x86_64.rpm;
kmod-smartpqi-2.1.8-040.rhel7u9.x86_64.compsig; kmod-smartpqi-2.1.8-040.rhel7u9.x86_64.rpm

Important Note!

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Fixes

Firmware ASSERT issue might be observed when scsi-mid-layer sends requests that exceeded the exposed host queue depth. This issue might happen in Linux kernel version 5.5 and higher.

following error message might be observed 'Synchronize Cache(10) failed: Result: hostbyte=DID_NO_CONNECT driverbyte=DRIVER_OK', when unloading driver with outstanding I/O on drive write cache enabled for HBA SAS/SATA disks.

The SmartPath read I/O request might have access error and no data is returned, when I/O request hit UREs.

Enhancements

Added support to the HPE SR932i-p and SR416-a Gen10+ Controllers.

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: 2.1.8-040 (Recommended)

Filename: kmod-smartpqi-2.1.8-040.rhel8u2.x86_64.compsig; kmod-smartpqi-2.1.8-040.rhel8u2.x86_64.rpm;
kmod-smartpqi-2.1.8-040.rhel8u3.x86_64.compsig; kmod-smartpqi-2.1.8-040.rhel8u3.x86_64.rpm

Important Note!

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Fixes

Firmware ASSERT issue might be observed when scsi-mid-layer sends requests that exceeded the exposed host queue depth. This issue might happen in Linux kernel version 5.5 and higher.

following error message might be observed 'Synchronize Cache(10) failed: Result: hostbyte=DID_NO_CONNECT driverbyte=DRIVER_OK', when unloading driver with outstanding I/O on drive write cache enabled for HBA SAS/SATA disks.

The SmartPath read I/O request might have access error and no data is returned, when I/O request hit UREs.

Enhancements

Added support to the HPE SR932i-p and SR416-a Gen10+ Controllers.

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).

HPE ProLiant Gen10 and Gen10Plus Smart Array Controller (64-bit) Driver for SUSE LINUX Enterprise Server 12 (64-bit)

Version: 2.1.8-040 (Recommended)

Filename: smartpqi-kmp-default-2.1.8-040.sles12sp4.x86_64.compsig; smartpqi-kmp-default-2.1.8-040.sles12sp4.x86_64.rpm; smartpqi-kmp-default-2.1.8-040.sles12sp5.x86_64.compsig; smartpqi-kmp-default-2.1.8-040.sles12sp5.x86_64.rpm

Fixes

Firmware ASSERT issue might be observed when scsi-mid-layer sends requests that exceeded the exposed host queue depth. This issue might happen in Linux kernel version 5.5 and higher.

following error message might be observed 'Synchronize Cache(10) failed: Result: hostbyte=DID_NO_CONNECT driverbyte=DRIVER_OK', when unloading driver with outstanding I/O on drive write cache enabled for HBA SAS/SATA disks.

The SmartPath read I/O request might have access error and no data is returned, when I/O request hit UREs.

Enhancements

Added support to the HPE SR932i-p and SR416-a Gen10+ Controllers.

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: 2.1.8-040 (**Recommended**)

Filename: smartpqi-kmp-default-2.1.8-040.sles15sp1.x86_64.compsig; smartpqi-kmp-default-2.1.8-040.sles15sp1.x86_64.rpm; smartpqi-kmp-default-2.1.8-040.sles15sp2.x86_64.compsig; smartpqi-kmp-default-2.1.8-040.sles15sp2.x86_64.rpm

Important Note!

This driver is for Congaree, Everglades and Smoky Mountain Controller

Fixes

- Firmware ASSERT issue might be observed when scsi-mid-layer sends requests that exceeded the exposed host queue depth. This issue might happen in Linux kernel version 5.5 and higher.
- following error message might be observed 'Synchronize Cache(10) failed: Result: hostbyte=DID_NO_CONNECT driverbyte=DRIVER_OK', when unloading driver with outstanding I/O on drive write cache enabled for HBA SAS/SATA disks.
- The SmartPath read I/O request might have access error and no data is returned, when I/O request hit UREs.

Enhancements

Added support to the HPE SR932i-p and SR416-a Gen10+ Controllers.

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 Smart Array MR416i-a, MR416i-p, MR216i-a, MR216i-p controller Driver for 64-bit Red Hat Enterprise Linux 7

Version: 07.716.02.00 (**Recommended**)

Filename: kmod-megaraid_sas-07.716.02.00_el7.8-1.x86_64.compsig; kmod-megaraid_sas-07.716.02.00_el7.8-1.x86_64.rpm; kmod-megaraid_sas-07.716.02.00_el7.9-1.x86_64.compsig; kmod-megaraid_sas-07.716.02.00_el7.9-1.x86_64.rpm

Fixes

Initial Release

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 Gen10 and Gen10Plus Controller Driver for Windows Server 2012 R2, Windows Server 2016, and Windows Server 2019

Version: 106.278.0.1043 **(Recommended)**

Filename: cp044563.compsig; cp044563.exe

Fixes

- A BSOD issue when disk has outstanding commands to the logical drive and delete the logical drive.
- Watchdog timeouts BSOD might be observed when waking up the controller from sleep states.
- Watchdog times BSOD might be observed when running large I/O with SATA drives connected behind expander.
- A BSOD issue after running heavy I/O and getting LUN resets

Enhancements

- Added support to the HPE SR932i-p and SR416-a Gen10+ Controllers.

HPE Smart Array MR 416i-p MR 416i-a MR 216i-p MR 216i-a 64-bit controller driver for Microsoft Windows 2019 edition.

Version: 7.716.3.0 **(Recommended)**

Filename: cp044907.compsig; cp044907.exe

Fixes

Initial Release

HPE Smart Array MR416i-a, MR416i-p, MR216i-a, MR216i-p controller (64-bit) Driver for vSphere 6.7

Version: 7.716.03.00 **(Recommended)**

Filename: Broadcom-lsi-mr3_7.716.03.00-10EM.670.0.0.8169922-offline_bundle-17653784.zip

Enhancements

- Initial Release
-

HPE Smart Array MR416i-a, MR416i-p, MR216i-a, MR216i-p controller (64-bit) Driver for vSphere 6.7 (Driver Component)

Version: 2021.04.01 **(Recommended)**

Filename: cp044905.compsig; cp044905.zip

Important Note!

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

Fixes

Initial Release

HPE Smart Array MR416i-a, MR416i-p, MR216i-a, MR216i-p controller (64-bit) Driver for vSphere 7.0 (Driver Component)

Version: 2021.04.01 **(Recommended)**

Filename: cp044980.compsig; cp044980.zip

Important Note!

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

Enhancements

Initial release for the MR416i-p, MR216i-a, MR416-a, MR216i-p drivers

HPE Smart Array MR416i-a, MR416i-p, MR216i-a, MR216i-p controller Driver for 64-bit Red Hat Enterprise Linux 8

Version: 07.716.02.00 **(Recommended)**

Filename: kmod-megaraid_sas-07.716.02.00_el8.2-1.x86_64.compsig; kmod-megaraid_sas-07.716.02.00_el8.2-1.x86_64.rpm; kmod-megaraid_sas-07.716.02.00_el8.3-1.x86_64.compsig; kmod-megaraid_sas-07.716.02.00_el8.3-1.x86_64.rpm

Fixes

Initial Release

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.

HPE Smart Array MR416i-a, MR416i-p, MR216i-a, MR216i-p controller Driver for 64-bit SUSE LINUX Enterprise Server 15

Version: 07.716.02.00 (**Recommended**)

Filename: lsi-megaraid_sas-kmp-default-07.716.02.00_sles15-1.x86_64.compsig; lsi-megaraid_sas-kmp-default-07.716.02.00_sles15-1.x86_64.rpm; lsi-megaraid_sas-kmp-default-07.716.02.00_sles15sp1-1.x86_64.compsig; lsi-megaraid_sas-kmp-default-07.716.02.00_sles15sp1-1.x86_64.rpm; lsi-megaraid_sas-kmp-default-07.716.02.00_sles15sp2-1.x86_64.compsig; lsi-megaraid_sas-kmp-default-07.716.02.00_sles15sp2-1.x86_64.rpm

Fixes

Initial Release

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.

HPE Smart Array MR416i-p, MR416i-a, MR216i-p, MR216i-a controller Driver for 64-bit SUSE LINUX Enterprise Server 12

Version: 07.716.02.00 (**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

Initial Release

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 Smart Array MR416i-p,MR416i-a, MR216i-p, MR216i-a 64-bit controller driver for Microsoft Windows 2016 edition.

Version: 7.716.3.0 **(Recommended)**

Filename: cp044906.compsig; cp044906.exe

Fixes

Initial Release

HPE Smart Array P824i-p MR 64-bit controller driver for Microsoft Windows 2012 R2 edition.

Version: 6.714.18.0 **(Recommended)**

Filename: cp034410.compsig; cp034410.exe

Enhancements

- Added support for the Apollo 4510 system
-

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-mr3-7.706.09.00-1OEM.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 vibspot.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

Version: 12.0.1192.0 (**Recommended**)

Filename: cp042241.compsig; cp042241.exe

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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
```

Updated to driver version 12.0.1192.0

Prerequisites

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

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

Enhancements

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
```

Updated to driver version 12.0.1192.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

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

HPE Blade Storage Mezzanine Fibre Channel Over Ethernet Adapter Kit for the x64 Emulex Storport Driver for Microsoft Windows Server 2019

Version: 12.0.1192.0 (**Recommended**)

Filename: cp042240.compsig; cp042240.exe

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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

Updated to driver version 12.0.1192.0

Prerequisites

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

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

Enhancements

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

Updated to driver version 12.0.1192.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

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

HPE Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver for Microsoft Windows Server 2012R2

Version: 12.8.334.6 (**Recommended**)

Filename: cp044863.compsig; cp044863.exe

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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
```

Updated to driver version 12.8.334.6

Prerequisites

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

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

Enhancements

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

Updated to driver version 12.8.334.6

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver for Microsoft Windows Server 2016

Version: 12.8.334.6 **(Recommended)**

Filename: cp044734.compsig; cp044734.exe

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Enhancements:-

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
```

Updated to driver version 12.8.334.6

Prerequisites

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

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

Enhancements

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
```

Updated to driver version 12.8.334.6

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 Fibre Channel Adapter Kit for the x64 Emulex Storport Driver for Microsoft Windows Server 2019

Version: 12.8.334.6 **(Recommended)**

Filename: cp044733.compsig; cp044733.exe

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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
```

Updated to driver version 12.8.334.6

Prerequisites

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

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

Enhancements

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
```

Updated to driver version 12.8.334.6

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 Fibre Channel Adapter Kit for the x64 QLogic Storport Driver for Microsoft Windows Server 2012 R2

Version: 9.4.1.20 (b) **(Recommended)**

Filename: cp044785.compsig; cp044785.exe

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

Fixed the following:-

- Fixed a behavior where Hyper-V Virtual Machines (VMs) may not see all paths to Logical Unit Numbers (LUNs)
- Fixed a behavior where an Fibre Channel (FC) Tape device configured for Target Persistent Binding would not be recognized after server reboot
- Fixed a behavior where Multipath I/O (MPIO) paths may not recover if left offline for more than 90 seconds
- Fixed a behavior where Input/Output (I/O) incompletions would be reported after extended periods of uptime in an Fibre Channel (FC) fabric doing Remote Desktop Protocol (RDP) requests

Added the following:-

- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to version 9.4.1.20

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 a behavior where Hyper-V Virtual Machines (VMs) may not see all paths to Logical Unit Numbers (LUNs)
- Fixed a behavior where an Fibre Channel (FC) Tape device configured for Target Persistent Binding would not be recognized after server reboot
- Fixed a behavior where Multipath I/O (MPIO) paths may not recover if left offline for more than 90 seconds
- Fixed a behavior where Input/Output (I/O) incompletions would be reported after extended periods of uptime in an Fibre Channel (FC) fabric doing Remote Desktop Protocol (RDP) requests

Enhancements**Added the following:-**

- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to version 9.4.1.20

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

- HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000Q 16Gb Single Port PCIe 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 Storage Fibre Channel Adapter Kit for the x64 QLogic Storport Driver for Microsoft Windows Server 2016

Version: 9.4.2.20 (**Recommended**)

Filename: cp044786.compsig; cp044786.exe

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

Fixed the following:-

- Fixed a behavior where Hyper-V Virtual Machines (VMs) may not see all paths to Logical Unit Numbers (LUNs)
- Fixed a behavior where an Fibre Channel (FC) Tape device configured for Target Persistent Binding would not be recognized after server reboot
- Fixed a behavior where Multipath I/O (MPIO) paths may not recover if left offline for more than 90 seconds
- Fixed a behavior where Input/Output (I/O) incompletions would be reported after extended periods of uptime in an Fibre Channel (FC) fabric doing Remote Desktop Protocol (RDP) requests

Added the following:-

- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to version 9.4.2.20

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 a behavior where Hyper-V Virtual Machines (VMs) may not see all paths to Logical Unit Numbers (LUNs)
- Fixed a behavior where an Fibre Channel (FC) Tape device configured for Target Persistent Binding would not be recognized after server reboot
- Fixed a behavior where Multipath I/O (MPIO) paths may not recover if left offline for more than 90 seconds
- Fixed a behavior where Input/Output (I/O) incompletions would be reported after extended periods of uptime in an Fibre Channel (FC) fabric doing Remote Desktop Protocol (RDP) requests

Enhancements

Added the following:-

- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to version 9.4.2.20

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

- HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000Q 16Gb Single Port PCIe 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: 9.4.2.20 **(Recommended)**

Filename: cp044787.compsig; cp044787.exe

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

Fixed the following:-

- Fixed a behavior where Hyper-V Virtual Machines (VMs) may not see all paths to Logical Unit Numbers (LUNs)
- Fixed a behavior where an Fibre Channel (FC) Tape device configured for Target Persistent Binding would not be recognized after server reboot
- Fixed a behavior where Multipath I/O (MPIO) paths may not recover if left offline for more than 90 seconds
- Fixed a behavior where Input/Output (I/O) incompletions would be reported after extended periods of uptime in an Fibre Channel (FC) fabric doing Remote Desktop Protocol (RDP) requests

Added the following:-

- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to version 9.4.2.20

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 a behavior where Hyper-V Virtual Machines (VMs) may not see all paths to Logical Unit Numbers (LUNs)
- Fixed a behavior where an Fibre Channel (FC) Tape device configured for Target Persistent Binding would not be recognized after server reboot
- Fixed a behavior where Multipath I/O (MPIO) paths may not recover if left offline for more than 90 seconds
- Fixed a behavior where Input/Output (I/O) incompletions would be reported after extended periods of uptime in an Fibre Channel (FC) fabric doing Remote Desktop Protocol (RDP) requests

Enhancements

Added the following:-

- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to version 9.4.2.20

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

- HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000Q 16Gb Single Port PCIe 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 2012R2/2016

Version: 12.0.1192.0 (e) (**Recommended**)

Filename: cp042531.compsig; cp042531.exe

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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
```

Updated to driver version 12.0.1192.0

Each kit folder has subsequent architecture folders with subsequent OS folders. For example,

C:\Users\Administrator\Documents\Broadcom\Drivers\FCoE-version\x64\win2012

Updated to driver version 12.0.1192.0

Prerequisites

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

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

Enhancements

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

Updated to driver version 12.0.1192.0

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 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T 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 (f) **(Recommended)**

Filename: cp042530.compsig; cp042530.exe

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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
```

Updated to driver version 12.0.1192.0

Prerequisites

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

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

Enhancements

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
```

Updated to driver version 12.0.1192.0

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

HPE Storage Mezzanine Fibre Channel Adapter Kit for the x64 Emulex Storport Driver for Microsoft Windows Server 2012R2/2016

Version: 12.8.334.6 **(Recommended)**

Filename: cp044768.compsig; cp044768.exe

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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
```

Updated to driver version 12.8.334.6

Prerequisites

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

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

Enhancements

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
```

Updated to driver version 12.8.334.6

Supported Devices and Features

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

16Gb FC Adapter:

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

HPE Storage Mezzanine Fibre Channel Adapter Kit for the x64 Emulex Storport Driver for Microsoft Windows Server 2019

Version: 12.8.334.6 (**Recommended**)

Filename: cp044767.compsig; cp044767.exe

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

The raw driver files can be obtained by extracting the Smart Component and then extracting the Emulex installer. Use this command:

```
elxdvr-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

Updated to driver version 12.8.334.6

Prerequisites

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

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

Enhancements

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

Updated to driver version 12.8.334.6

Supported Devices and Features

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

16Gb FC Adapter:

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

HPE Storage Mezzanine Fibre Channel Adapter Kit for the x64 QLogic Storport Driver for Microsoft Windows Server 2012 R2

Version: 9.4.1.20 (b) **(Recommended)**

Filename: cp044798.compsig; cp044798.exe

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

Fixed the following:-

- Fixed a behavior where Input/Output (I/O) incompletions would be reported after extended periods of uptime in an Fibre Channel (FC) fabric doing Remote Desktop Protocol (RDP) requests
- Fixed a behavior where Multipath I/O (MPIO) paths may not recover if left offline for more than 90 seconds
- Fixed a behavior where an Fibre Channel (FC) Tape device configured for Target Persistent Binding would not be recognized after server reboot
- Fixed a behavior where Hyper-V Virtual Machines (VMs) may not see all paths to Logical Unit Numbers (LUNs)

Added the following:-

- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to version 9.4.1.20

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 a behavior where Input/Output (I/O) incompletions would be reported after extended periods of uptime in an Fibre Channel (FC) fabric doing Remote Desktop Protocol (RDP) requests
- Fixed a behavior where Multipath I/O (MPIO) paths may not recover if left offline for more than 90 seconds

- Fixed a behavior where an Fibre Channel (FC) Tape device configured for Target Persistent Binding would not be recognized after server reboot
- Fixed a behavior where Hyper-V Virtual Machines (VMs) may not see all paths to Logical Unit Numbers (LUNs)

Enhancements

Added the following:-

- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to version 9.4.1.20

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 Storage Mezzanine Fibre Channel Adapter Kit for the x64 QLogic Storport Driver for Microsoft Windows Server 2016

Version: 9.4.2.20 **(Recommended)**

Filename: cp044799.compsig; cp044799.exe

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

Fixed the following:-

- Fixed a behavior where Input/Output (I/O) incompletions would be reported after extended periods of uptime in an Fibre Channel (FC) fabric doing Remote Desktop Protocol (RDP) requests
- Fixed a behavior where Multipath I/O (MPIO) paths may not recover if left offline for more than 90 seconds
- Fixed a behavior where an Fibre Channel (FC) Tape device configured for Target Persistent Binding would not be recognized after server reboot
- Fixed a behavior where Hyper-V Virtual Machines (VMs) may not see all paths to Logical Unit Numbers (LUNs)

Added the following:-

- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to version 9.4.2.20

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 a behavior where Input/Output (I/O) incompletions would be reported after extended periods of uptime in an Fibre Channel (FC) fabric doing Remote Desktop Protocol (RDP) requests
- Fixed a behavior where Multipath I/O (MPIO) paths may not recover if left offline for more than 90 seconds
- Fixed a behavior where an Fibre Channel (FC) Tape device configured for Target Persistent Binding would not be recognized after server reboot
- Fixed a behavior where Hyper-V Virtual Machines (VMs) may not see all paths to Logical Unit Numbers (LUNs)

Enhancements**Added the following:-**

- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to version 9.4.2.20

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 Storage Mezzanine Fibre Channel Adapter Kit for the x64 QLogic Storport Driver for Microsoft Windows Server 2019

Version: 9.4.2.20 **(Recommended)**

Filename: cp044800.compsig; cp044800.exe

Important Note!

Release Notes:

[HPE QLogic Adapters Release Notes](#)

Fixed the following:-

- Fixed a behavior where Input/Output (I/O) incompletions would be reported after extended periods of uptime in an Fibre Channel (FC) fabric doing Remote Desktop Protocol (RDP) requests
- Fixed a behavior where Multipath I/O (MPIO) paths may not recover if left offline for more than 90 seconds
- Fixed a behavior where an Fibre Channel (FC) Tape device configured for Target Persistent Binding would not be recognized after server reboot
- Fixed a behavior where Hyper-V Virtual Machines (VMs) may not see all paths to Logical Unit Numbers (LUNs)

Added the following:-

- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to version 9.4.2.20

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 a behavior where Input/Output (I/O) incompletions would be reported after extended periods of uptime in an Fibre Channel (FC) fabric doing Remote Desktop Protocol (RDP) requests
- Fixed a behavior where Multipath I/O (MPIO) paths may not recover if left offline for more than 90 seconds
- Fixed a behavior where an Fibre Channel (FC) Tape device configured for Target Persistent Binding would not be recognized after server reboot
- Fixed a behavior where Hyper-V Virtual Machines (VMs) may not see all paths to Logical Unit Numbers (LUNs)

Enhancements

Added the following:-

- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to version 9.4.2.20

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

Red Hat Enterprise Linux 7 Update 8 Server Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 12.8.352.11 (**Recommended**)

Filename: kmod-elx-lpfc-12.8.352.11-1.rhel7u8.x86_64.compsig; kmod-elx-lpfc-12.8.352.11-1.rhel7u8.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE

Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Enhancements

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb 1Single 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

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 **(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.
2. On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title

"HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

- Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Prerequisites

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

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

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

- Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Enhancements

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

- HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000Q 16Gb Single Port PCIe 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 and mezzanine Converged Network Adapters(CNAs)

Version: 12.0.1342.0 (**Recommended**)

Filename: kmod-brcmfcoe-12.0.1342.0-1.rhel7u8.x86_64.compsig; kmod-brcmfcoe-12.0.1342.0-1.rhel7u8.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

- Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>
- Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

Updated to Driver version 12.0.1342.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

- Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>
- Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

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 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T 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 and Mezzanine Host Bus Adapters

Version: 12.8.352.11 **(Recommended)**

Filename: kmod-elx-lpfc-12.8.352.11-1.rhel7u9.x86_64.compsig; kmod-elx-lpfc-12.8.352.11-1.rhel7u9.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>

2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Added the following:-

- Added support for RHEL 7.9
- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE

Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Enhancements

Added the following:-

- Added support for RHEL 7.9
- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb 1Single 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

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 **(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.

2. On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

- Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Prerequisites

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

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

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

- Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Enhancements

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

- HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000Q 16Gb Single Port PCIe 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 and mezzanine Converged Network Adapters(CNAs)

Version: 12.0.1342.0 (**Recommended**)

Filename: kmod-brcmfcoe-12.0.1342.0-1.rhel7u9.x86_64.compsig; kmod-brcmfcoe-12.0.1342.0-1.rhel7u9.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

- Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>
- Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

Enhancements:-

- Added support for RHEL 7.9

Updated to Driver version 12.0.1342.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>

2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

- Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>
- Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

Enhancements

Added the following:-

- Added support for RHEL 7.9

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 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HPE FlexFabric 20Gb 2-port 650FLB Adapter
- HPE FlexFabric 20Gb 2-port 650M Adapter

Version: 12.8.352.11 (**Recommended**)

Filename: kmod-elx-lpfc-12.8.352.11-1.rhel8u2.x86_64.compsig; kmod-elx-lpfc-12.8.352.11-1.rhel8u2.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Enhancements

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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

Red Hat Enterprise Linux 8 Update 2 Server Fibre Channel Driver Kit for HPE QLogic Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 10.02.01.00.a14-k1 **(Recommended)**

Filename: kmod-qlgc-qla2xxx-10.02.01.00.a14_k1-1.rhel8u2.x86_64.compsig; kmod-qlgc-qla2xxx-10.02.01.00.a14_k1-1.rhel8u2.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. On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

- Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Prerequisites

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

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

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

- Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Enhancements

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

- HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000Q 16Gb Single Port PCIe 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 2 Server Fibre Channel over Ethernet (FCoE) Driver Kit for HPE Storage Emulex(BRCM) Converged Network and mezzanine Converged Network Adapters(CNAs)

Version: 12.0.1342.0 (**Recommended**)

Filename: kmod-brcmfcoe-12.0.1342.0-1.rhel8u2.x86_64.compsig; kmod-brcmfcoe-12.0.1342.0-1.rhel8u2.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

- Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>
- Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

Updated to Driver version 12.0.1342.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

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2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

- Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>
- Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

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 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T 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 Driver Kit for HPE Emulex Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 12.8.352.11 (Recommended)

Filename: kmod-elx-lpfc-12.8.352.11-1.rhel8u3.x86_64.compsig; kmod-elx-lpfc-12.8.352.11-1.rhel8u3.x86_64.rpm

Important Note!

Release Notes:

HPE Emulex Adapters Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Added the following:-

Added support for RHEL 8.3

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click > >.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Enhancements

Added the following:-

Added support for RHEL 8.3

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Supported Devices and Features

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

8Gb FC Adapter:

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter

HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1200E 16Gb 1Single 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

Red Hat Enterprise Linux 8 Update 3 Server Fibre Channel Driver Kit for HPE QLogic Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 10.02.01.00.a14-k1 (Recommended)

Filename: kmod-qlgc-qla2xxx-10.02.01.00.a14_k1-1.rhel8u3.x86_64.compsig; kmod-qlgc-qla2xxx-10.02.01.00.a14_k1-1.rhel8u3.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. On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability

Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Prerequisites

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

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

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Enhancements

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability

Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE SN1000Q 16Gb Single Port PCIe 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 3 Server Fibre Channel over Ethernet (FCoE) Driver Kit for HPE Storage Emulex(BRCM) Converged Network and mezzanine Converged Network Adapters(CNAs)

Version: 12.0.1342.0 (Recommended)

Filename: kmod-brcmfcoe-12.0.1342.0-1.rhel8u3.x86_64.compsig; kmod-brcmfcoe-12.0.1342.0-1.rhel8u3.x86_64.rpm

Important Note!

Release Notes:

HPE Emulex Adapters Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>

Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

Enhancements:-

Added support for RHEL 8.3

Updated the Driver version 12.0.1342.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>

Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

Enhancements

Added the following:-

Added support for RHEL 8.3

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 10Gb 2-port 556FLR-SFP+ Adapter

HPE FlexFabric 10Gb 2-port 556FLR-T Adapter

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

SUSE Linux Enterprise Server 12 Service Pack 4 Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 12.8.352.11 (Recommended)

Filename: elx-lpfc-kmp-default-12.8.352.11_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; elx-lpfc-kmp-default-12.8.352.11_k4.12.14_94.41-1.sles12sp4.x86_64.rpm

Important Note!

Release Notes:

HPE Emulex Adapters Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click > >.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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>

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9

Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link:
https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Enhancements

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Supported Devices and Features

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

8Gb FC Adapter:

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter

HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1200E 16Gb 1Single 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 12 Service Pack 4 Fibre Channel Driver Kit for HPE QLogic Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 10.02.01.00.a14-k1 (Recommended)

Filename: qlgc-qla2xxx-kmp-default-10.02.01.00.a14_k1_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; qlgc-qla2xxx-kmp-default-10.02.01.00.a14_k1_k4.12.14_94.41-1.sles12sp4.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>

3. On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability

Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Prerequisites

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

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

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Enhancements

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability

Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE SN1000Q 16Gb Single Port PCIe 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 4 Fibre Channel over Ethernet (FCoE) Driver Kit for HPE Storage Emulex(BRCM) Converged Network and mezzanine Converged Network Adapters(CNAs)

Version: 12.0.1342.0 (Recommended)

Filename: brcmfcoe-kmp-default-12.0.1342.0_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; brcmfcoe-kmp-default-12.0.1342.0_k4.12.14_94.41-1.sles12sp4.x86_64.rpm

Important Note!

Release Notes:

HPE Emulex Adapters Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>

Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

Updated to Driver version 12.0.1342.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>

Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

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 10Gb 2-port 556FLR-SFP+ Adapter

HPE FlexFabric 10Gb 2-port 556FLR-T Adapter

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

SUSE Linux Enterprise Server 12 Service Pack 5 Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 12.8.352.11 (Recommended)

Filename: elx-lpfc-kmp-default-12.8.352.11_k4.12.14_120-1.sles12sp5.x86_64.compsig; elx-lpfc-kmp-default-12.8.352.11_k4.12.14_120-1.sles12sp5.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the [Broadcom Software Kit Migration User Guide](#) for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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>

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Added the following:-

Added support for SLES 12 SP5

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Enhancements

Added the following:-

Added support for SLES 12 SP5

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Supported Devices and Features

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

8Gb FC Adapter:

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 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 (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>

3. On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability

Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Prerequisites

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

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

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Enhancements

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability

Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE SN1000Q 16Gb Single Port PCIe 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 and mezzanine Converged Network Adapters(CNAs)

Version: 12.0.1342.0 (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

Important Note!

Release Notes:

HPE Emulex Adapters Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>

Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

Enhancements:-

Added support for SLES 12 SP5

Updated to Driver version 12.0.1342.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>

Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

Enhancements

Added the following:-

Added support for SLES 12 SP5

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 10Gb 2-port 556FLR-SFP+ Adapter

HPE FlexFabric 10Gb 2-port 556FLR-T Adapter

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

SUSE Linux Enterprise Server 15 Service Pack 1 Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 12.8.352.11 (Recommended)

Filename: elx-lpfc-kmp-default-12.8.352.11_k4.12.14_195-1.sles15sp1.x86_64.compsig; elx-lpfc-kmp-default-12.8.352.11_k4.12.14_195-1.sles15sp1.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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>

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Enhancements

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Supported Devices and Features

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

8Gb FC Adapter:

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 1 Fibre Channel Driver Kit for HPE QLogic Host Bus Adapters and Mezzanine Host Bus Adapters

Version: 10.02.01.00.a14-k1 (Recommended)

Filename: qlgc-qla2xxx-kmp-default-10.02.01.00.a14_k1_k4.12.14_195-1.sles15sp1.x86_64.compsig; qlgc-qla2xxx-kmp-default-10.02.01.00.a14_k1_k4.12.14_195-1.sles15sp1.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>

3. On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability

Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Prerequisites

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

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

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Enhancements

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability

Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE SN1000Q 16Gb Single Port PCIe 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 1 Fibre Channel over Ethernet (FCoE) Driver Kit for HPE Storage Emulex(BRCM) Converged Network and mezzanine Converged Network Adapters(CNAs)

Version: 12.0.1342.0 (Recommended)

Filename: brcmfcoe-kmp-default-12.0.1342.0_k4.12.14_195-1.sles15sp1.x86_64.compsig; brcmfcoe-kmp-default-12.0.1342.0_k4.12.14_195-1.sles15sp1.x86_64.rpm

Important Note!

Release Notes:

HPE Emulex Adapters Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>

Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

Updated to Driver version 12.0.1342.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

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Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>

Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

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 10Gb 2-port 556FLR-SFP+ Adapter

HPE FlexFabric 10Gb 2-port 556FLR-T 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: 12.8.352.11 (Recommended)

Filename: elx-lpfc-kmp-default-12.8.352.11_k5.3.18_22-1.sles15sp2.x86_64.compsig; elx-lpfc-kmp-default-12.8.352.11_k5.3.18_22-1.sles15sp2.x86_64.rpm

Important Note!

Release Notes:

HPE Emulex Adapters Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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>

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Added the following:-

Added support for SLES 15 SP2

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Enhancements

Added the following:-

Added support for SLES 15 SP2

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to driver version 12.8.352.11

Supported Devices and Features

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

8Gb FC Adapter:

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 (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!

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>

3. On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability

Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Prerequisites

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

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

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

Improve detection and recovery from conditions described in customer advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Enhancements

Added the following:-

Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability

Added support for Fabric Performance Impact Notifications (FPIN)

Updated to driver version 10.02.01.00.a14-k1

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE SN1000Q 16Gb Single Port PCIe 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 and mezzanine Converged Network Adapters(CNAs)

Version: 12.0.1342.0 (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

Important Note!

Release Notes:

HPE Emulex Adapters Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixed the following:-

Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>

Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

Enhancements:-

Added support for SLES15 SP2

Updated to Driver version 12.0.1342.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

NOTE:

On any HPE Gen 9 Servers running Linux with secure boot enabled, must install the HPE-DB-2016 secure-boot key in NVRAM in order to load this Driver. For more information please go through the support document with title "HPE Gen9 Servers with Secure Boot Enabled Must Install the New HPE Db Key to Update Drivers" available at the following link: https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00109772en_us.

Fixes

Fixed the following:-

Fixed a behavior where cluster nodes could be evicted during Fibre Channel over Ethernet (FCoE) multipath failover as described in <https://access.redhat.com/solutions/3136041>

Fixed a behavior where Ethernet connections may not recover after a Virtual Connect (VC) interconnect module reboot

Enhancements

Added the following:-

Added support for SLES 15 SP2

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 10Gb 2-port 556FLR-SFP+ Adapter

HPE FlexFabric 10Gb 2-port 556FLR-T Adapter

HPE FlexFabric 20Gb 2-port 650FLB Adapter

HPE FlexFabric 20Gb 2-port 650M Adapter

Driver - System

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HPE Non-Volatile Memory Drivers for Microsoft Windows Server 2012 R2 and 2016

Version: 3.0.2.0 (Recommended)

Filename: cp042922.compsig; cp042922.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

These Non-Volatile Memory drivers enable support for Persistent Memory technology on select HPE Servers running Microsoft Windows Server 2012 R2 and 2016.

Added support for Microsoft virtual NVDIMMs (aka vNVDIMMs) presented by Hyper-V Server 2019, on WS2012R2 and WS2016 guests.

Added support for HPE Persistent Memory devices (featuring Intel Optane DC Persistent Memory), on WS2012R2 and WS2016.

Added support for HPE 16GB NVDIMM devices, on WS2012R2.

Changed block sector size from 512B to 4096B. Old data won't be accessible and must be backed up first if it needs to be preserved.

For more information about Persistent Memory technology offered on HPE Servers, please consult the following links:

<https://www.hpe.com/us/en/servers/persistent-memory.html>

<https://persistentmemory.hpe.com/windows/nvdimms>

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_10EM.700.0.0.14828939_signed_component_15675715.zip

Enhancements

Support for VMware ESXi 7.0

iLO 5 Automatic Server Recovery Driver for Windows Server 2012 R2

Version: 4.7.1.0 **(Recommended)**

Filename: cp046491.compsig; cp046491.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.

Fixes

- Modified code to comply with de-branding requirements
-

iLO 5 Automatic Server Recovery Driver for Windows Server 2016 and Server 2019

Version: 4.7.1.0 **(Recommended)**

Filename: cp046492.compsig; cp046492.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.

Fixes

- Modified code to comply with de-branding requirements
-

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 2012 R2

Version: 4.7.1.0 **(Recommended)**

Filename: cp046356.compsig; cp046356.exe

Fixes

- Modified code to comply with de-branding requirements
-

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

iLO 5 Channel Interface Driver for Windows Server 2016 and Server 2019

Version: 4.7.1.0 **(Recommended)**

Filename: cp046333.compsig; cp046333.exe

Fixes

- Modified code to comply with de-branding requirements
-

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 Windows Server 2012 R2

Version: 9.15.1.224 (B) **(Optional)**

Filename: cp040214.compsig; cp040214.exe

Enhancements

Add support for iLO 5 version 2.x firmware.

Matrox G200eH3 Video Controller Driver for Windows Server 2016 and Server 2019

Version: 9.15.1.224 (C) **(Optional)**

Filename: cp041584.compsig; cp041584.exe

Enhancements

TBD

Firmware - Blade Infrastructure

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HPE BladeSystem c-Class Virtual Connect Firmware, Ethernet plus 8Gb 20-port and 8/16Gb 24-port FC Edition Component for Windows

Version: 4.85 **(Recommended)**

Filename: cp043332.exe

Prerequisites

The 4.85 version of HPE Virtual Connect Release Notes contains the prerequisites and can also be found in the following URL: <http://www.hpe.com/info/vc/manuals>

Fixes

The list of issues resolved in 4.85 version can be found in the HPE Virtual Connect Release Notes at URL: <http://www.hpe.com/info/vc/manuals>

Enhancements

The list of enhancements in 4.85 version can be found in the HPE Virtual Connect Release Notes at URL: <http://www.hpe.com/info/vc/manuals>

Supported Devices and Features

HPE Virtual Connect FlexFabric 10Gb/24-port Module for c-Class BladeSystem

HPE Virtual Connect 8Gb 24-port Fibre Channel Module for c-Class BladeSystem

HPE Virtual Connect 8Gb 20-port Fibre Channel Module for c-Class BladeSystem

HPE Virtual Connect Flex-10/10D Module for c-Class BladeSystem

HPE Virtual Connect FlexFabric-20/40 F8 Module for HPE BladeSystem c-Class

HPE Virtual Connect 16Gb 24-port Fibre Channel Module for c-Class BladeSystem

HPE BladeSystem c-Class Virtual Connect Firmware, Ethernet plus 8Gb 20-port and 8/16Gb 24-port FC Edition Component for Linux

Version: 4.85 **(Recommended)**

Filename: RPMS/x86_64/firmware-vceth-4.85-1.1.x86_64.rpm

Prerequisites

The 4.85 version of HPE Virtual Connect Release Notes contains the prerequisites and can be found in the following URL: <http://www.hpe.com/info/vc/manuals>

Fixes

The list of issues resolved in 4.85 version can be found in the HPE Virtual Connect Release Notes at URL: <http://www.hpe.com/info/vc/manuals>

Enhancements

The list of enhancements in 4.85 version can be found in the HPE Virtual Connect Release Notes at URL: <http://www.hpe.com/info/vc/manuals>

Supported Devices and Features

HPE Virtual Connect FlexFabric 10Gb/24-port Module for c-Class BladeSystem

HPE Virtual Connect 8Gb 24-port Fibre Channel Module for c-Class BladeSystem

HPE Virtual Connect 8Gb 20-port Fibre Channel Module for c-Class BladeSystem

HPE Virtual Connect Flex-10/10D Module for c-Class BladeSystem

HPE Virtual Connect FlexFabric-20/40 F8 Module for HPE BladeSystem c-Class

HPE Virtual Connect 16Gb 24-port Fibre Channel Module for c-Class BladeSystem

Online HP 6Gb SAS BL Switch Firmware Smart Component for Linux (x86/x64)

Version: 4.3.6.0 (B) **(Optional)**

Filename: RPMS/i586/firmware-solex6gb-solex-4.3.6.0-2.1.i586.rpm

Important Note!

Note: If version 4.3.6.0 was previously installed, then it is not necessary to upgrade to version 4.3.6.0 (B).

Enhancements

- Added support for SUSE Linux Enterprise Server 15 OS

Online HPE 6Gb SAS BL Switch Firmware Smart Component for Windows (x86/x64)

Version: 4.3.6.0 (C) **(Optional)**

Filename: cp038273.exe

Enhancements

- Improved integration with Smart Update Manager

Online HPE BladeSystem c-Class Onboard Administrator Firmware Component for Linux

Version: 4.97 (**Recommended**)

Filename: RPMS/x86_64/firmware-oa-4.97-1.1.x86_64.rpm

Important Note!

Important Notes

- **Firmware Upgrade**
 - Starting OA 4.50 release, a standardized code signing and validation mechanism has been introduced to enhance the firmware image authenticity.
 - For customers using Firmware ROM image to upgrade OA:
 - For OAs with firmware version less than 3.50, first update to OA 3.50 and then continue updating to OA 4.50 or above.
 - For customers using Smart Components to upgrade OA:
 - OA firmware update mechanisms which rely on HPE Smart Components (example: EFM), will not be affected by this change. The Smart Component will automatically perform the intermediate upgrade to OA 3.50 before performing the OA 4.50 or above upgrade.
- **EFM**
 - The OA only supports SPP ISO images that are less than 4 GB in size, whether hosted directly via the Enclosure DVD feature or an attached USB key, or mounted remotely via a specified URL. If an ISO image exceeds 4 GB, the CLI SHOW FIRMWARE MANAGEMENT command displays ISO URL Status as "Invalid URL."
 - If an SPP ISO image exceeds 4 GB, it is necessary to create a custom ISO image that excludes components unnecessary to the OA EFM blade firmware update process. At a minimum, the custom ISO must contain the firmware components for HPE ProLiant BL servers. (When using HPE SUM to create the custom ISO image, select Firmware as the Component Type, and select HPE ProLiant BL Series as the Server Type.) For information about creating a custom ISO image compatible for OA EFM functionality, see the *HPE BladeSystem Onboard Administrator User Guide*. More HPE SUM information can be found via HPE Smart Update Manager online help or at <https://www.hpe.com/servers/hpsum/documentation>.
- **FIPS**
 - Onboard Administrator 4.71 is FIPS certified as referenced in the 140-2 In Process list located at <http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/140InProcess.pdf>.
- **IPv6**
 - When the Enable DHCPv6 or Enable SLAAC enclosure IPv6 settings are disabled on the Onboard Administrator, the respective DHCPv6 or SLAAC addresses of the iLOs in the enclosure are retained until these addresses expire automatically based on their respective configurations. A manual reset of the iLO releases these addresses immediately

Prerequisites

To access the OA web interface, you must have the OA IP address and a compatible web browser. You must access the

application through HTTPS (HTTP packets exchanged over an SSL/TLS-encrypted session).

The OA web interface requires an XSLT-enabled browser with support for JavaScript 1.3 or the equivalent.

Supported browsers include:

- Microsoft Internet Explorer 11
- Mozilla Firefox 67.0.4(64-bit)
- Google Chrome 77.0.3865.90 (Official Build) (64-bit)

Fixes

General

- Addressed an issue where running concurrent UPDATE ILO cli command from different SSH sessions cause few of the commands to end in operation failure.
- Fixed an issue in SET SERVER DVD CONNECT cli command usage in IPv6 environment.
- Addressed an issue where blade's ProductID update in System Rom RBSU is not reflected in the Onboard Administrator.
- Harnessed certificate read operation from flash to minimize certificate read failures.
- Fixed an issue in SNMP v3 protocol where EngineTime was not reset on increment of EngineBoot count.
- Addressed an issue related to blade discovery failure
- Fixed an issue in Smart Component where it fails to establish communication with Onboard Administrator using DHE ciphers.
- Addressed an issue related to ECDSA ciphers enable/disable feature.
- Added SSH cipher list to the configuration script
- Fixed an issue in Onboard Administrator GUI where IPv4 DynamicDNS could not be enabled when enclosure is configured for static IP configuration.
- Fixed help message display issues in CLI commands SET SSL_SESSION TIMEOUT and SET SECURESH.
- Addressed an issue in SNMP where EngineBoot count was incremented by two for add/delete of trap receiver.
- Fixed Online Help (OLH) pages display issue that occur when language pack is uploaded into Onboard Administrator.

Security

The following security vulnerabilities are fixed:

- Onboard Administrator's web server response is enhanced to include X-Content-Type-Options security header.
- CVE-2011-3026 - libpng: Heap buffer overflow
- CVE-2018-1000517 - BusyBox wget version contains a Buffer Overflow vulnerability
- CVE-2020-1971 - EDIPARTYNAME NULL pointer de-reference
- CVE-2020-15861 - Net-SNMP allows Escalation of Privileges
- CVE-2020-15862 - Net-SNMP provides the ability to run arbitrary commands as root.

- CVE-2019-20892 – SNMPv3 get bulk request issue

Issues and workarounds

Browsers

- OA GUI is not accessible in Chrome versions 43.0.2357.10 to 44.0.2383. The issue was caused by a “regression” in Chrome (or WebKit). Customers should use an alternative browser like Firefox or Internet Explorer or try a different version of Chrome.
- SSO-to-iLO connection from the OA using an iLO host name fails with Microsoft Internet Explorer 11 on Windows 8. On a Windows 8 system with Internet Explorer 10 or Internet Explorer 11, if the OA web GUI session is loaded using a host name instead of an IP address, an attempt to open an iLO window using SSO from the OA web GUI might result in the iLO page loading in the OA web GUI window instead of the intended new window. This issue was determined to be a bug in Internet Explorer and is expected to be fixed in a future release or update for Internet Explorer. To work around this issue, either use an IP address to load the OA Web GUI, or turn off Protected Mode for the appropriate zone in Internet Explorer’s settings. This issue occurs only on Internet Explorer browsers.

FIPS

Certificates smaller than 2048 bits in size are not compliant with FIPS requirements as enforced by the OA firmware starting with OA 4.20. When the OA running OA firmware version 4.40 or greater is operating in FIPS Mode ON/DEBUG and is configured with a 1024-bit LDAP certificate that was installed when running a previous version of OA firmware, FIPS Mode ON/DEBUG is considered to be operating in a degraded state due to the presence of the non-compliant certificate. While operating in this FIPS-Degraded Mode operational state, attempts to set FIPS Mode OFF from the OA GUI Network Access>FIPS tab will fail and show the error message The selected FIPS mode is already enabled. When the non-compliant certificate is removed, the FIPS-Degraded operational status is cleared, FIPS Mode can then be successfully set to OFF from the GUI interface. Note that the OA CLI command SET FIPS MODE OFF can be successfully used to set FIPS Mode OFF even with non-compliant 1024-bit LDAP certificates installed in the OA.

IRC

Unable to open .net IRC console for Gen10 Blades, Gen9 Blades also have the same issue. The Java applet and Webstart however, loads but the virtual media mounting fails. The work around is to launch the IRC through IRC Application (HPE Lights-Out Stand Alone Remote Console) which is installed on terminal client.

EFM

To use EFM on Gen 10 Blades, please select options/filters “*Make Bootable ISO file*” and “*Enclosure Firmware Management*” while creating custom SPP ISO on HPE SUM 8.0.0. Please refer to HPE SUM 8.0.0 User guide for further details.

CAC

- In the CAC mode SSH, Telnet and XML Reply protocols will be disabled.
- Linked enclosure login will not work if the linked enclosure is in CAC mode.
- If accurate Service account details are not provided, LDAP user login with certificate will fail.

- It is highly recommended to establish a recovery plan before getting started with CAC. If something goes wrong with the OA configuration, the OA may be recovered through the serial port or Insight Display panel and USB KEY. Both methods require physical access to the OA. However, if an LCD PIN has been configured (and forgotten) and local accounts have been disabled or CAC has been incorrectly configured then, the only way to recover is through a serial port. The two most common situations where OA recovery is needed are when LDAP has been configured incorrectly with local accounts disabled or when CAC has been configured without certificate access.

Configurable SSH Port Number

If a Standby OA is running firmware version less than 4.85 and it is updated to firmware version greater than or equal to 4.85 using synchronize firmware feature from Active OA, after the firmware update and reboot of the Standby OA, SSH port will not open in the configured port number. The work around is to reboot the Standby OA and SSH port will open in the configured port in next boot. This issue will not occur in the case where SSH port is configured to default port 22 in the Active OA.

Smart component

When OA is in FIPS ON or FIPS TOP-SECRET mode and any of the ciphers that use Diffie-Hellman (DH) keys are enabled, firmware upgrade or downgrade using OA Smart Component 4.96 or earlier versions may fail with following error:

Error: 1013: Client cannot connect with the Onboard Administrator. Verify the target address is correct and can be accessed from your system.

FIPS ON

TLS_DHE_RSA_WITH_3DES_EDE_CBC_SHA
TLS_DHE_RSA_WITH_AES_128_GCM_SHA256
TLS_DHE_RSA_WITH_AES_256_GCM_SHA384
TLS_DHE_RSA_WITH_AES_128_CBC_SHA256
TLS_DHE_RSA_WITH_AES_256_CBC_SHA256

FIPS TOP-SECRET

TLS_DHE_RSA_WITH_AES_256_GCM_SHA384

Same error may occur when OA upgrade or downgrade is performed through Smart Update Manager (SUM) resulting in the following error message in the SUM.

Component	Package	Deployment Status	Log	Deployment

cpC39063	Online HPE BladeSystem c-Class Onboard Administrator for Windows	Update returned an error	View Log	

When this failure occurs, the following message can be seen in the OA Smart Component log file.

Error: 1013: Client cannot connect with the Onboard Administrator.

Verify The target address is correct and can be accessed from your system.

The work-around for this problem is to disable all the ciphers that use DH key and rerun the firmware upgrade or downgrade.

Disabling ciphers can be done using the CLI command `DISABLE SSL CIPHER` or through the GUI. The disabled ciphers can be re-enabled once the firmware upgrade or downgrade is completed.

ILO5 Firmware Update

The `UPDATE ILO` command is failing to update the iLO5 firmware versions 2.10 and later on OA version 4.90 and less than 4.95. This issue is caused by the introduction of new signature in the iLO5 firmware version 2.10

. The work-around is to update the OA firmware to 4.95 and then try the `UPDATE ILO` command. This issue will not occur with OA versions 4.95 and later.

Enhancements

Onboard Administrator 4.97 provides support for the following enhancements:

Hardware additions

- None

Features: **additions and changes**

General

- A new feature is added to SNMP to support enable/disable options for v1/v2c protocols.
- New SNMP traps were added for emergency brake (e-brake) activated and deactivated events.
- Added support for firmware update of new NIDEC fans.
- Enhanced PowerPIC firmware update to support firmware version 1.8.
- In the Onboard Administrator GUI added support for iLO HTML5 IRC console.

Security

- A new feature is added in SSH to support enable/disable of Key Exchange (KEX) Algorithms.

Online HPE BladeSystem c-Class Onboard Administrator Firmware Component for Windows

Version: 4.97 (**Recommended**)

Filename: cp046217.exe

Important Note!

Important Notes

- **Firmware Upgrade**
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 - For customers using Firmware ROM image to upgrade OA:
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- **IPv6**
 - When the Enable DHCPv6 or Enable SLAAC enclosure IPv6 settings are disabled on the Onboard Administrator, the respective DHCPv6 or SLAAC addresses of the iLOs in the enclosure are retained until these addresses expire automatically based on their respective configurations. A manual reset of the iLO releases these addresses immediately.

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EFM

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CAC

- In the CAC mode SSH, Telnet and XML Reply protocols will be disabled.
- Linked enclosure login will not work if the linked enclosure in CAC mode.
- If accurate Service account details are not provided, LDAP user login with certificate will fail.
- It is highly recommended to establish a recovery plan before getting started with CAC. If something goes wrong with the OA configuration, the OA may be recovered through the serial port or Insight Display panel and USB KEY. Both methods require physical access to the OA. However, if an LCD PIN has been configured (and forgotten) and local accounts have been disabled or CAC has been incorrectly configured then, the only way to recover is through a serial port. The two most common situations where OA recovery is needed are when LDAP has been configured incorrectly with local accounts disabled or when CAC has been configured without certificate access.

Configurable SSH Port Number

If a Standby OA is running firmware version less than 4.85 and it is updated to firmware version greater than or equal to 4.85 using synchronize firmware feature from Active OA, after the firmware update and reboot of the Standby OA, SSH port will not open in the configured port number. The work around is to reboot the Standby OA and SSH port will open in the configured port in next boot. This issue will not occur in the case where SSH port is configured to default port 22 in the Active OA.

Smart component

When OA is in FIPS ON or FIPS TOP-SECRET mode and any of the ciphers that use Diffie-Hellman (DH) keys are enabled, firmware upgrade or downgrade using OA Smart Component 4.96 or earlier versions may fail with following error:

Error: 1013: Client cannot connect with the Onboard Administrator. Verify the target address is correct and can be accessed from your system.

FIPS ON

TLS_DHE_RSA_WITH_3DES_EDE_CBC_SHA
TLS_DHE_RSA_WITH_AES_128_GCM_SHA256
TLS_DHE_RSA_WITH_AES_256_GCM_SHA384
TLS_DHE_RSA_WITH_AES_128_CBC_SHA256
TLS_DHE_RSA_WITH_AES_256_CBC_SHA256

FIPS TOP-SECRET

TLS_DHE_RSA_WITH_AES_256_GCM_SHA384

Same error may occur when OA upgrade or downgrade is performed through Smart Update Manager (SUM) resulting in the following error message in the SUM.

Component oyment Status	Package Log	Depl

cpC39063 Windows	Online HPE BladeSystem c-Class Onboard Administrator for Update returned an error	View Log

When this failure occurs, the following message can be seen in the OA Smart Component log file.

Error: 1013: Client cannot connect with the Onboard Administrator.

Verify The target address is correct and can be accessed from your system.

The work-around for this problem is to disable all the ciphers that use DH key and rerun the firmware upgrade or downgrade.

Disabling ciphers can be done using the CLI command DISABLE SSL CIPHER or through the GUI. The disabled ciphers can be re-enabled once the firmware upgrade or downgrade is completed.

ILO5 Firmware Update

The UPDATE ILO command is failing to update the iLO5 firmware versions 2.10 and later on OA version 4.90 and less than 4.95. This issue is caused by the introduction of new signature in the iLO5 firmware version 2.10.

The work-around is to update the OA firmware to 4.95 and then try the UPDATE ILO command. This issue will not occur with OA versions 4.95 and later.

Enhancements

Onboard Administrator 4.97 provides support for the following enhancements:

Hardware additions

- None

Features: **additions and changes**

General

- A new feature is added to SNMP to support enable/disable options for v1/v2c protocols.
- New SNMP traps were added for emergency brake (e-brake) activated and deactivated events.
- Added support for firmware update of new NIDEC fans.
- Enhanced PowerPIC firmware update to support firmware version 1.8.
- In the Onboard Administrator GUI added support for iLO HTML5 IRC console.

Security

- A new feature is added in SSH to support enable/disable of Key Exchange (KEX) Algorithms.

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: 2.42 **(Optional)**

Filename: RPMS/x86_64/firmware-ilo5-2.42-1.1.x86_64.rpm; RPMS/x86_64/firmware-ilo5-2.42-1.1.x86_64_part1.compsig; RPMS/x86_64/firmware-ilo5-2.42-1.1.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) 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

- Corrected Product Name listed under Device Inventory as "NVIDIA Quadro M3000SE", that was wrongly listed as "Synergy 75W MXM Mezzanine" with iLO firmware v2.16 and higher
- iLO stops monitoring the second Pensando card after the first one fails with a PCIe error

Enhancements

- Added Server Identity (iLO IDevID, iLO LDevID, System IDevID, System IAK and Platform certificates) capability to uniquely identify a server across networks that is cryptographically verifiable
- EAP-TLS based authentication for onboarding into an 802.1X access-controlled network
- Enabled support for Intel VROC
 - o Device discovery and inventory of VROC SATA Controller and drives attached to it
 - o Firmware inventory of Intel VROC(VMD NVMe RAID) and VROC SATA Controller
- Extend size for firmware versions supported to 48 bytes
- Liquid Cooling support for Apollo systems
- Server Platform Services Descriptor verification and recovery
- Enabled Discovery, Inventory and Thermal support for Pensando Cloud Adapters
 - o P41849-B21: Pensando DSP DSC-25 Cld-SP 10/25Gb Card
 - o P41852-B21: Pensando DSP DSC-100 Cld-SP 100Gb Card
- For Synergy, restricted the capability to change below settings.

Note : Changes to these settings can affect communication between One-view and iLO

- o iLO Web service
- o iLO Web service Non-SSL Port
- o Web server SSL Port
- o iLO RIBCL Interface

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: 2.42 **(Recommended)**

Filename: cp046458.exe; cp046458_part1.compsig; cp046458_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) 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

- Corrected Product Name listed under Device Inventory as "NVIDIA Quadro M3000SE", that was wrongly listed as "Synergy 75W MXM Mezzanine" with iLO firmware v2.16 and higher

- iLO stops monitoring the second Pensando card after the first one fails with a PCIe error

Enhancements

- Added Server Identity (iLO IDevID, iLO LDevID, System IDevID, System IAK and Platform certificates) capability to uniquely identify a server across networks that is cryptographically verifiable
- EAP-TLS based authentication for onboarding into an 802.1X access-controlled network
- Enabled support for Intel VROC
 - o Device discovery and inventory of VROC SATA Controller and drives attached to it
 - o Firmware inventory of Intel VROC(VMD NVMe RAID) and VROC SATA Controller
- Extend size for firmware versions supported to 48 bytes
- Liquid Cooling support for Apollo systems
- Server Platform Services Descriptor verification and recovery
- Enabled Discovery, Inventory and Thermal support for Pensando Cloud Adapters
 - o P41849-B21: Pensando DSP DSC-25 Cld-SP 10/25Gb Card
 - o P41852-B21: Pensando DSP DSC-100 Cld-SP 100Gb Card
- For Synergy, restricted the capability to change below settings.

Note : Changes to these settings can affect communication between One-view and iLO

- o iLO Web service
- o iLO Web service Non-SSL Port
- o Web server SSL Port
- o iLO RIBCL Interface

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: 2.42 **(Recommended)**

Filename: ilo5_242.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

- Corrected Product Name listed under Device Inventory as "NVIDIA Quadro M3000SE", that was wrongly listed as "Synergy 75W MXM Mezzanine" with iLO firmware v2.16 and higher
- iLO stops monitoring the second Pensando card after the first one fails with a PCIe error

Enhancements

- Added Server Identity (iLO IDevID, iLO LDevID, System IDevID, System IAK and Platform certificates) capability to uniquely identify a server across networks that is cryptographically verifiable
- EAP-TLS based authentication for onboarding into an 802.1X access-controlled network
- Enabled support for Intel VROC
 - o Device discovery and inventory of VROC SATA Controller and drives attached to it
 - o Firmware inventory of Intel VROC(VMD NVMe RAID) and VROC SATA Controller
- Extend size for firmware versions supported to 48 bytes
- Liquid Cooling support for Apollo systems
- Server Platform Services Descriptor verification and recovery
- Enabled Discovery, Inventory and Thermal support for Pensando Cloud Adapters
 - o P41849-B21: Pensando DSP DSC-25 Cld-SP 10/25Gb Card
 - o P41852-B21: Pensando DSP DSC-100 Cld-SP 100Gb Card
- For Synergy, restricted the capability to change below settings.

Note : Changes to these settings can affect communication between One-view and iLO

- o iLO Web service
- o iLO Web service Non-SSL Port
- o Web server SSL Port
- o iLO RIBCL Interface

Firmware - Network

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Broadcom Firmware Package for BCM5741x adapters

Version: 218.0.166.0 **(Recommended)**

Filename: bcm218.0.166.0.pup.fwpkg

Fixes

- o This product addresses a modification on help string of Family Firmware Version.
- o This product addresses an issue about failing to detect firmware version while updating that under operation system.
- o This product addresses an issue about connection lost under pre-OS environment after restart the system from OS.

Enhancements

- o Initial version
- o This product brings the support of Data Center Interconnect on supported devices.

Supported Devices and Features

This product supports the following network adapters:

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

HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for Linux (x64)

Version: 2021.02.01 **(Recommended)**

Filename: RPMS/x86_64/firmware-cna-mezz-emulex-2021.02.01-1.6.x86_64.rpm; RPMS/x86_64/firmware-cna-mezz-emulex-2021.02.01-1.6.x86_64_part1.compsig; RPMS/x86_64/firmware-cna-mezz-emulex-2021.02.01-1.6.x86_64_part2.compsig

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:

- Fixed a behavior with internal engineering data displays

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE FlexFabric 20Gb 2-port 650FLB Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0
HPE FlexFabric 20Gb 2-port 650M Adapter	20Gb	12.0.1277.0	12.0.1336.0	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 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.

Fixes

Fixed the following:

- Fixed a behavior with internal engineering data displays

Enhancements

We have separate components to update fibre channel and converged network adapters. This is a converged network adapter update component.

Updated CNA (XE100 series) firmware

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE FlexFabric 20Gb 2-port 650FLB Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0
HPE FlexFabric 20Gb 2-port 650M Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

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

HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for Microsoft Windows Server 2012R2/2016/2019(x64)

Version: 2021.02.01 **(Recommended)**

Filename: cp042239.compsig; cp042239.exe

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:

- Fixed a behavior with internal engineering data displays

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE FlexFabric 20Gb 2-port 650FLB Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0
HPE FlexFabric 20Gb 2-port 650M Adapter	20Gb	12.0.1277.0	12.0.1336.0	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>.

Fixes

Fixed the following:

- Fixed a behavior with internal engineering data displays

Enhancements

We have separate components to update fibre channel and converged network adapters. This is a converged network adapter update component.

Updated CNA (XE100 series) firmware

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE FlexFabric 20Gb 2-port 650FLB Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0
HPE FlexFabric 20Gb 2-port 650M Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

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

HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for VMware vSphere 6.5

Version: 2021.02.01 **(Recommended)**

Filename: CP042236.compsig; CP042236.zip

Important Note!

Release Notes:

[HPE Emulex Adapter Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>

2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:

- Fixed a behavior with internal engineering data displays

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE FlexFabric 20Gb 2-port 650FLB Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0
HPE FlexFabric 20Gb 2-port 650M Adapter	20Gb	12.0.1277.0	12.0.1336.0	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/>

Fixes

Fixed the following:

- Fixed a behavior with internal engineering data displays

Enhancements

Updated CNA (XE100 series) firmware

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE FlexFabric 20Gb 2-port 650FLB Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0
HPE FlexFabric 20Gb 2-port 650M Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

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

HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for VMware vSphere 6.7

Version: 2021.02.01 **(Recommended)**

Filename: CP042237.compsig; CP042237.zip

Important Note!

Release Notes:

[HPE Emulex Adapter Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:

- Fixed a behavior with internal engineering data displays

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE FlexFabric 20Gb 2-port 650FLB Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0
HPE FlexFabric 20Gb 2-port 650M Adapter	20Gb	12.0.1277.0	12.0.1336.0	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/>

Fixes

Fixed the following:

- Fixed a behavior with internal engineering data displays

Enhancements

Updated CNA (XE100 series) firmware

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE FlexFabric 20Gb 2-port 650FLB Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0

HPE FlexFabric 20Gb 2-port 650M Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0
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Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

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

HPE Blade Firmware Flash for Emulex Mezzanine Converged Network Adapters for VMware vSphere 7.0

Version: 2021.02.01 (**Recommended**)

Filename: CP042549.compsig; CP042549.zip

Important Note!

Release Notes:

[HPE Emulex Adapter Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
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This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:

- Fixed a behavior with internal engineering data displays

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE FlexFabric 20Gb 2-port 650FLB Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0
HPE FlexFabric 20Gb 2-port 650M Adapter	20Gb	12.0.1277.0	12.0.1336.0	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/>

Fixes

Fixed the following:

- Fixed a behavior with internal engineering data displays

Enhancements

Updated CNA (XE100 series) firmware

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE FlexFabric 20Gb 2-port 650FLB Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0
HPE FlexFabric 20Gb 2-port 650M Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1269.0	12.0.1171.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

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

HPE Blade Intel Online Firmware Upgrade Utility for Linux

Version: 1.2.3 **(Optional)**

Filename: firmware-nic-intel-bl-1.2.3-1.1.x86_64.compsig; firmware-nic-intel-bl-1.2.3-1.1.x86_64.rpm

Important Note!

HPE recommends the *HPE Blade Intel ixgbe Drivers for Linux*, versions 5.9.4 or later, for use with this firmware.

Prerequisites

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

Enhancements

This product now supports Red Hat Enterprise Linux 7, Updates 8 and 9.
This product now supports Red Hat Enterprise Linux 8, Updates 2 and 3.
This product now supports SUSE Linux Enterprise Server 12 SP5.
This product now supports SUSE Linux Enterprise Server 15 SP2.

Supported Devices and Features

This package supports the following network adapters:

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

HPE Blade Intel Online Firmware Upgrade Utility for VMware

Version: 1.2.3 **(Optional)**

Filename: CP045076.compsig; CP045076.zip

Important Note!

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

Prerequisites

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

Enhancements

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

Supported Devices and Features

This package supports the following network adapters:

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

HPE Blade Intel Online Firmware Upgrade Utility for Windows Server x64 Editions

Version: 1.0.2.3 **(Optional)**

Filename: cp045079.compsig; cp045079.exe

Important Note!

HPE recommends one of the following drivers, as appropriate for your system, for use with this firmware:

- *HPE Blade Intel ixn Driver for Windows Server 2012 R2*, version 3.14.214.0 or later
- *HPE Blade Intel ixn Driver for Windows Server 2016*, version 4.1.199.0 or later
- *HPE Blade Intel ixn Driver for Windows Server 2019*, version 4.1.197.0 or later

Prerequisites

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

Enhancements

This firmware is updated to maintain compatibility with the updated Windows ixn drivers.

Supported Devices and Features

This package supports the following network adapters:

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

HPE Blade QLogic NX2 Online Firmware Upgrade Utility for Linux

Version: 1.2.3 **(Optional)**

Filename: firmware-nic-qlogic-nx2-bl-1.2.3-1.1.x86_64.compsig; firmware-nic-qlogic-nx2-bl-1.2.3-1.1.x86_64.rpm

Important Note!

HPE recommends *HPE Blade QLogic NX2 10/20GbE Multifunction Drivers for Linux*, versions 7.14.76-1 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*) before firmware can be updated.

Fixes

This product addresses an issue where powering on the system with any I/O virtualization functionality (NPAR, SR-IOV, etc) enabled results in an Uncorrectable Machine Check Exception (UMCE).
This product addresses an issue where the WOL option is displayed on the Human Interface Infrastructure (HII) menu for 534M and 630M mezzanine devices, even though WOL is not supported on those devices.

Enhancements

This product now supports Red Hat Enterprise Linux 7, Updates 8 and 9.
This product now supports Red Hat Enterprise Linux 8, Updates 2 and 3.
This product now supports SUSE Linux Enterprise Server 12 SP5.
This product now supports SUSE Linux Enterprise Server 15 SP2.

Supported Devices and Features

This product supports the following network adapters:

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

HPE Blade QLogic NX2 Online Firmware Upgrade Utility for VMware

Version: 1.2.2 **(Optional)**

Filename: CP045077.compsig; CP045077.zip

Important Note!

HPE recommends the *HPE Blade QLogic NX2 10/20 GbE Multifunction Driver for VMware*, version 2021.04.19 or later, for use with this firmware.

Prerequisites

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

Fixes

This product addresses an issue where powering on the system with any I/O virtualization functionality (NPAR, SR-IOV, etc) enabled results in an Uncorrectable Machine Check Exception (UMCE).
This product addresses an issue where the WOL option is displayed on the Human Interface Infrastructure (HII) menu for 534M and 630M mezzanine devices, even though WOL is not supported on those devices.

Enhancements

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

Supported Devices and Features

This product supports the following network adapters:

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

HPE Blade QLogic NX2 Online Firmware Upgrade Utility for Windows Server x64 Editions

Version: 1.0.2.2 **(Optional)**

Filename: cp045080.compsig; cp045080.exe

Important Note!

HPE recommends *HPE Blade QLogic NX2 10/20GbE Multifunction Drivers for Windows Server x64 Editions*, version 7.13.195.0 or later, for use with this firmware.

Prerequisites

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

Fixes

This product addresses an issue where powering on the system with any I/O virtualization functionality (NPAR, SR-IOV, etc) enabled results in an Uncorrectable Machine Check Exception (UMCE).
This product addresses an issue where the WOL option is displayed on the Human Interface Infrastructure (HII) menu for 534M and 630M mezzanine devices, even though WOL is not supported on those devices.

Supported Devices and Features

This product supports the following network adapters:

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

HPE Broadcom NetXtreme-E Firmware Package for BCM5741x adapters

Version: 218.0.166000 **(Recommended)**

Filename: bcm218.0.166000.Optimized.pup.fwpkg

Fixes

- This product addresses a modification on help string of Family Firmware Version.
- This product addresses an enhancement on LLDP functional option naming under RBSU and the interactivity of DCB protocol option.
- This product addresses an issue about lack of MAC address while querying via RedFish.
- This product addresses an issue about failing to recognize the adapter firmware version under Microsoft Windows(R).
- This product addresses an issue for receiving PCIe errors while installing SUSE Linux Enterprise Server.
- This product addresses an issue for packets missing when UDP multicast application is started/stopped.
- This product addresses an issue for HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter not linking up during POST.

Enhancements

Initial version

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: 2.27.6 **(Optional)**

Filename: firmware-nic-broadcom-2.27.6-1.1.x86_64.compsig; firmware-nic-broadcom-2.27.6-1.1.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 be installed on 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 an issue about lack of information under AHS log.
- This product addresses an RSOD issue which appeared intermittently during POST after having a warm reboot.
- This product addresses a modification on help string of Family Firmware Version.

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: 1.28.6 **(Optional)**

Filename: CP045013.compsig; CP045013.zip

Important Note!

This software package contains combo image v20.18.31 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	1.5.27	21.6.12	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	1.5.27	21.6.12	218.0.10.0
HPE Ethernet 1Gb 2-port 332i Adapter (22E8) HPE Ethernet 1Gb 2-port 332T Adapter	1.40	21.6.0	1.5.27	21.6.12	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 issue about lack of information under AHS log.
- This product addresses an RSOD issue which appeared intermittently during POST after having a warm reboot.
- This product addresses a modification on help string of Family Firmware Version.

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: 5.2.4.0 **(Optional)**

Filename: cp045014.compsig; cp045014.exe

Important Note!

HPE recommends *HPE Broadcom NX1 1Gb Driver for Windows Server x64 Editions*, version 214.0.0.6 or later, for use with this firmware.

This software package contains combo image v20.18.31 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	1.5.27	21.6.12	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	1.5.27	21.6.12	218.0.10.0
HPE Ethernet 1Gb 2-port 332i Adapter (22E8) HPE Ethernet 1Gb 2-port 332T Adapter	1.40	21.6.0	1.5.27	21.6.12	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 issue about lack of information under AHS log.

- This product addresses an RSOD issue which appeared intermittently during POST after having a warm reboot.
- This product addresses a modification on help string of Family Firmware Version.

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: 2021.02.01 **(Recommended)**

Filename: RPMS/x86_64/firmware-cna-emulex-2021.02.01-1.8.x86_64.compsig; RPMS/x86_64/firmware-cna-emulex-2021.02.01-1.8.x86_64.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:

- Fixed a behavior with internal engineering data display

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UI
HPE FlexFabric 10Gb 2-port 556FLR-T Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E Dual Port Converged Network Adapter	20Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E-T Dual Port Adapter	20Gb	12.0.1277.0	12.0.1336.0	12

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 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.

Fixes

Fixed the following:

- Fixed a behavior with internal engineering data display

Enhancements

Updated CNA (XE100 series) firmware

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UI
HPE FlexFabric 10Gb 2-port 556FLR-T Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E Dual Port Converged Network Adapter	20Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E-T Dual Port Adapter	20Gb	12.0.1277.0	12.0.1336.0	12

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

HPE Firmware Flash for Emulex Converged Network Adapters for Microsoft Windows Server 2012R2/2016/2019

Version: 2021.02.01 **(Recommended)**

Filename: cp042529.compsig; cp042529.exe

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:

- Fixed a behavior with internal engineering data display

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UI
HPE FlexFabric 10Gb 2-port 556FLR-T Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E Dual Port Converged Network Adapter	20Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E-T Dual Port Adapter	20Gb	12.0.1277.0	12.0.1336.0	12

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>.

Fixes

Fixed the following:

- Fixed a behavior with internal engineering data display

Enhancements

Updated CNA (XE100 series) firmware

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UI
HPE FlexFabric 10Gb 2-port 556FLR-T Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E Dual Port Converged Network Adapter	20Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E-T Dual Port Adapter	20Gb	12.0.1277.0	12.0.1336.0	12

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

HPE Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.5

Version: 2021.02.01 **(Recommended)**

Filename: CP042526.compsig; CP042526.zip

Important Note!

Release Notes:

[HPE Emulex Adapter Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:-

- Fixed a behavior with internal engineering data display

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UI
HPE FlexFabric 10Gb 2-port 556FLR-T Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E Dual Port Converged Network Adapter	20Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E-T Dual Port Adapter	20Gb	12.0.1277.0	12.0.1336.0	12

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 a behavior with internal engineering data display

Enhancements

Updated CNA (XE100 series) firmware

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UI
HPE FlexFabric 10Gb 2-port 556FLR-T Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E Dual Port Converged Network Adapter	20Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E-T Dual Port Adapter	20Gb	12.0.1277.0	12.0.1336.0	12

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

HPE Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.7

Version: 2021.02.01 **(Recommended)**

Filename: CP042527.compsig; CP042527.zip

Important Note!

Release Notes:

[HPE Emulex Adapter Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:

- Fixed a behavior with internal engineering data display

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UI
HPE FlexFabric 10Gb 2-port 556FLR-T Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E Dual Port Converged Network Adapter	20Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E-T Dual Port Adapter	20Gb	12.0.1277.0	12.0.1336.0	12

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 a behavior with internal engineering data display

Enhancements

Updated CNA (XE100 series) firmware

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UI
HPE FlexFabric 10Gb 2-port 556FLR-T Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E Dual Port Converged Network Adapter	20Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E-T Dual Port Adapter	20Gb	12.0.1277.0	12.0.1336.0	12

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

HPE Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 7.0

Version: 2021.02.01 **(Recommended)**

Filename: CP042543.compsig; CP042543.zip

Important Note!

Release Notes:

[HPE Emulex Adapter Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>

2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:

- Fixed a behavior with internal engineering data display

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UI
HPE FlexFabric 10Gb 2-port 556FLR-T Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	10Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E Dual Port Converged Network Adapter	20Gb	12.0.1277.0	12.0.1336.0	12
HPE CN1200E-T Dual Port Adapter	20Gb	12.0.1277.0	12.0.1336.0	12

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 a behavior with internal engineering data display

Enhancements

Updated CNA (XE100 series) firmware

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI
HPE FlexFabric 10Gb 2-port 556FLR-T Adapter	10Gb	12.0.1277.0	12.0.1336.0	12.0.1
HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	10Gb	12.0.1277.0	12.0.1336.0	12.0.1
HPE CN1200E Dual Port Converged Network Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1
HPE CN1200E-T Dual Port Adapter	20Gb	12.0.1277.0	12.0.1336.0	12.0.1

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

HPE Intel Online Firmware Upgrade Utility for Linux x86_64

Version: 1.21.6 **(Optional)**

Filename: firmware-nic-intel-1.21.6-1.1.x86_64.compsig; firmware-nic-intel-1.21.6-1.1.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 6.2.5 or later
- HPE Intel ixgbe Drivers for Linux , versions 5.9.4 or later
- HPE Intel i40e Drivers for Linux, versions 2.13.10 or later

Prerequisites

This package requires the appropriate driver for your network adapter be installed an 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 an issue where Systems Insight Display (SID) modul is green when there's no Network connection.

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: 3.14.5 **(Optional)**

Filename: CP045036.compsig; CP045036.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	1.2836.0	N/A
HPE Ethernet 1Gb 2-port 361T Adapter	80000F91	1.2836.0	N/A

HPE Ethernet 1Gb 2-port 363i Adapter	80000D00	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 366i Communication Board	80000EBF	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 366i Adapter	8000105E	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 366FLR Adapter	80001060	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 366T Adapter	8000105F	1.2836.0	N/A
HPE Ethernet 1Gb 2-port 368i Adapter	800027FA	1.2836.0	N/A
HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter	800027F8	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 369i Adapter	800027FB	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter	80000838	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 560SFP+ Adapter	80000835	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 561T Adapter	80000636	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 561FLR-T Adapter	800005B6	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 568i Adapter	800027FC	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter	800027F8	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter	800027F8	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 563i Adapter	800035C0	1.1375.0	N/A
HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	80009655	1.2836.0	10.54.7
HPE Ethernet 10Gb 2-port 562FLR-T Adapter	8000137D	1.2836.0	10.54.4
HPE Ethernet 10Gb 2-port 562SFP+ Adapter	800095AA	1.2836.0	10.54.7
HPE Ethernet 10Gb 2-port 562T Adapter	8000137C	1.2836.0	10.54.4

The combo image v1.2836.0 includes: Boot Agent: 1GbE - v1.5.88, 10GbE - v2.4.44, 40GbE - v1.1.18 & UEFI Drivers: 1GbE - v9.4.06, 10GbE - v7.8.13, 40GbE - v4.4.12

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 Systems Insight Display (SID) modul is green when there's no Network connection.

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: 5.2.4.0 **(Optional)**

Filename: cp045037.compsig; cp045037.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	1.2836.0	N/A
HPE Ethernet 1Gb 2-port 361T Adapter	80000F91	1.2836.0	N/A
HPE Ethernet 1Gb 2-port 363i Adapter	80000D00	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 366i Communication Board	80000EBF	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 366i Adapter	8000105E	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 366FLR Adapter	80001060	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 366T Adapter	8000105F	1.2836.0	N/A
HPE Ethernet 1Gb 2-port 368i Adapter	800027FA	1.2836.0	N/A
HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter	800027F8	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 369i Adapter	800027FB	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter	80000838	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 560SFP+ Adapter	80000835	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 561T Adapter	80000636	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 561FLR-T Adapter	800005B6	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 568i Adapter	800027FC	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter	800027F8	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter	800027F8	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 563i Adapter	800035C0	1.1375.0	N/A
HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	80009655	1.2836.0	10.54.7
HPE Ethernet 10Gb 2-port 562FLR-T Adapter	8000137D	1.2836.0	10.54.4
HPE Ethernet 10Gb 2-port 562SFP+ Adapter	800095AA	1.2836.0	10.54.7
HPE Ethernet 10Gb 2-port 562T Adapter	8000137C	1.2836.0	10.54.4

The combo image v1.2836.0 includes: Boot Agent: 1GbE - v1.5.88, 10GbE - v2.4.44, 40GbE - v1.1.18 & UEFI Drivers: 1GbE - v9.4.06, 10GbE - v7.8.13, 40GbE - v4.4.12

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 Systems Insight Display (SID) modul is green when there's no Network connection.

Supported Devices and Features

This package supports the following network adapters:

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

HPE QLogic FastLinQ Online Firmware Upgrade Utility for Linux x86_64

Version: 1.10.10 (**Optional**)

Filename: firmware-nic-qlogic-flq-1.10.10-1.1.x86_64.compsig; firmware-nic-qlogic-flq-1.10.10-1.1.x86_64.rpm

Important Note!

HPE recommends *HPE QLogic FastLinQ 10/25/50GbE Drivers for Linux*, versions 8.55.5.0-1 or later, for use with the firmware in this product.

Prerequisites

This package requires the appropriate driver for your network adapter be installed on 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/.

Enhancements

This product contains support PLDM firmware upgrade base improvements.

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: 4.13.50 **(Optional)**

Filename: CP046982.compsig; CP046982.zip

Important Note!

HPE recommends *HPE QLogic FastLinQ 10/25/50GbE Multifunction Drivers for VMware*, versions 2021.04.05 or later, for use with this firmware.

This software package contains combo image version v8.55.12 includes:

- Boot Code (MFW): 8.55.21.0
- UEFI: 4.1.11.2
- 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.

Enhancements

This product contains support PLDM firmware upgrade base improvements.

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 Windows Server x64 Editions

Version: 5.2.4.0 **(Optional)**

Filename: cp044812.compsig; cp044812.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 8.55.5.0

This combo image version v8.55.12 includes:

- Boot Code (MFW): 8.55.21.0
- UEFI: 4.1.11.2
- 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.

Enhancements

This product contains support PLDM firmware upgrade base improvements.

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: 2.28.6 **(Optional)**

Filename: firmware-nic-qlogic-nx2-2.28.6-1.1.x86_64.compsig; firmware-nic-qlogic-nx2-2.28.6-1.1.x86_64.rpm

Important Note!

HPE recommends *HPE QLogic NX2 10/20GbE Multifunction Drivers for Linux*, versions 7.14.76-1 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 an issue that platform would be randomly waked up by WOL packet.

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: 1.28.6 **(Optional)**

Filename: CP044814.compsig; CP044814.zip

Important Note!

HPE recommends HPE QLogic NX2 10/20GbE Multifunction Drivers for VMware, versions 2021.04.05 or later, for use with this firmware.

This software package contains combo image v7.18.80 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	7.16.03	7.14.13	8.8.2	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	7.16.03	7.14.13	8.8.2	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 an issue that platform would be randomly waked up by WOL packet.

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: 5.2.4.0 **(Optional)**

Filename: cp044815.compsig; cp044815.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 7.13.196.0 or later

This software package contains combo image v7.18.80 with the following firmware versions:

NIC	Boot Code Version	PXE Version	UEFI Version	iSCSI Version	FCoE Version	CCM Version	L2 Version
HP Ethernet 10Gb 2-port 530SFP+ Adapter HP Ethernet 10Gb 2-port 530T Adapter	7.16.03	7.14.13	8.8.2	n/a	n/a	7.14.4	7.12.25
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	7.16.03	7.14.13	8.8.2	7.14.0	7.14.3	7.14.4	7.12.25

CN1100R-T Converged Network Adapter							
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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 an issue that platform would be randomly waked up by WOL packet.

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-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter

Version: 2.24 (**Recommended**)

Filename: HPE_E810_CQDA2_2p24_PLDMoMCTP_800059DB.fwpkg

Enhancements

Initial version

Supported Devices and Features

This product supports the following network adapters:

- Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE
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Intel Firmware Package For E810-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter

Version: 2.24 **(Recommended)**

Filename: HPE_E810_CQDA2_OCP_2p24_NCSIwPLDMoMCTP_800059D4.fwpkg

Enhancements

Initial version

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: 2.24 **(Recommended)**

Filename: HPE_E810_XXVDA2_SD_2p24_PLDMoMCTP_800059DF.fwpkg

Enhancements

Initial version

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: 2.24 **(Recommended)**

Filename: HPE_E810_XXVDA2_SD_OCP_2p24_NCSIwPLDMoMCTP_800059DE.fwpkg

Enhancements

Initial version

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 2-port SFP28 Adapter

Version: 2.24 **(Recommended)**

Filename: HPE_E810_XXVDA4_FH_2p24_PLDMoMCTP_800059D9.fwpkg

Enhancements

Initial version

Supported Devices and Features

This product supports the following network adapters:

- Intel E810-XXVDA4 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE

Intel Online Firmware Upgrade Utility for Linux x86_64

Version: 1.22.11 **(Optional)**

Filename: firmware-nic-is-intel-1.22.11-1.1.x86_64.compsig; firmware-nic-is-intel-1.22.11-1.1.x86_64.rpm

Prerequisites

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

Enhancements

- This product now supports SUSE Linux Enterprise Server 15 SP2.
- This product now supports Red Hat Enterprise Linux 8, Update 2 and Update 3.

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: 3.15.8 **(Optional)**

Filename: CP044896.compsig; CP044896.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	80009837	1.2829.0	8.10
HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter	800093DD	1.2829.0	8.10
Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter	80001099	1.2839.0	N/A
Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter	80001097	1.2839.0	N/A
Intel(R) I350 Gigabit Network Connection (2-port)	8000108E	1.2839.0	N/A
Intel(R) I350 Gigabit Network Connection (4-port)	8000108F	1.2839.0	N/A

The combo image v1.2829.0 includes: Boot Agent: I40E - v1.1.18& UEFI Drivers: 40GbE - v4.4.12.

The combo image v1.2839.0 includes: Boot Agent: 1GbE - v1.5.88 & UEFI Drivers: 1GbE - v9.4.06.

Prerequisites

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

Enhancements

This product now supports VMware vSphere 7.0 U1.

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: 5.2.4.0 **(Optional)**

Filename: cp044897.compsig; cp044897.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	80009837	1.2829.0	8.10
HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter	800093DD	1.2829.0	8.10
Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter	80001099	1.2839.0	N/A
Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter	80001097	1.2839.0	N/A
Intel(R) I350 Gigabit Network Connection (2-port)	8000108E	1.2839.0	N/A
Intel(R) I350 Gigabit Network Connection (4-port)	8000108F	1.2839.0	N/A

The combo image v1.2829.0 includes: Boot Agent: I40E - v1.1.18& UEFI Drivers: 40GbE - v4.4.12.

The combo image v1.2839.0 includes: Boot Agent: 1GbE - v1.5.88 & UEFI Drivers: 1GbE - v9.4.06.

Prerequisites

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

Fixes

This product correct an issue which fixes OROM downgrade failed from older version with exit code 6

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 Online Firmware Upgrade Utility for Linux x86_64

Version: 1.10.8 **(Optional)**

Filename: firmware-nic-is-marvell-flq-1.10.8-1.1.x86_64.compsig; firmware-nic-is-marvell-flq-1.10.8-1.1.x86_64.rpm

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*) before firmware can be updated.

Fixes

- This product contains support PLDM firmware upgrade base improvements.
- This product addresses an overheat issue on the network adapters as below,

HPE Ethernet 10Gb 2-port BaseT QL41132HLRJ Adapter
HPE Ethernet 10Gb 2-port BaseT QL41132HQRJ OCP3 Adapter

Enhancements

This product now supported NPAR enabling option.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10/25Gb 2-port SFP28 QL41232HQCU 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+ QL41132HQCU OCP3 Adapter
- HPE Ethernet 10Gb 2-port SFP+ QL41132HLCU Adapter

Marvell FastLinQ Online Firmware Upgrade Utility for VMware

Version: 4.13.9 **(Optional)**

Filename: CP044970.compsig; CP044970.zip

Important Note!

This software package contains combo image v8.55.12. This combo image includes:

- PXE: 2.0.19
- Boot Code (MFW): 8.55.22.0
- UEFI: 6.1.8.2

Prerequisites

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

Fixes

- This product contains support PLDM firmware upgrade base improvements.
- This product addresses an overheat issue on the network adapters as below,

HPE Ethernet 10Gb 2-port BaseT QL41132HLRJ Adapter
HPE Ethernet 10Gb 2-port BaseT QL41132HQRJ OCP3 Adapter

Enhancements

This product now supported NPAR enabling option.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10/25Gb 2-port SFP28 QL41232HQCU 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+ QL41132HQCU OCP3 Adapter
- HPE Ethernet 10Gb 2-port SFP+ QL41132HLCU Adapter

Marvell FastLinQ Online Firmware Upgrade Utility for Windows Server x64 Editions

Version: 5.2.4.0 **(Optional)**

Filename: cp044971.compsig; cp044971.exe

Important Note!

HPE recommends *Marvell FastLinQ 10/25/50 GbE Drivers for Windows Server x64 Editions 8.55.5.0* or later, for use with the firmware in this product.

This software package contains combo image v8.55.12. This combo image includes:

- PXE: 2.0.19
- Boot Code (MFW): 8.55.22.0
- UEFI: 6.1.8.2

Prerequisites

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

Fixes

- This product contains support PLDM firmware upgrade base improvements.
- This product addresses an overheat issue on the network adapters as below,

HPE Ethernet 10Gb 2-port BaseT QL41132HLRJ Adapter
HPE Ethernet 10Gb 2-port BaseT QL41132HQRJ OCP3 Adapter

Enhancements

This product now supported NPAR enabling option.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10/25Gb 2-port SFP28 QL41232HQCU 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+ QL41132HQCU OCP3 Adapter
- HPE Ethernet 10Gb 2-port SFP+ QL41132HLCU Adapter

Mellanox Firmware Package(FWPKG) for HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT PCIe3 x16 Adapter

Version: 16.29.1016 (**Recommended**)

Filename: 16_29_1016-MCX515A-CCA_HPE_Ax.pldm.fwpkg

Important Note!

Known Issues with firmware version 16.29.1016:

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

Prerequisites

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

Fixes

The following issues have been fixed in version 16.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that prevented VXLAN packets with svlan/cvlan tag from being matched.
- The eth_wqe_too_small counter to count ODP (On-Demand Paging) page used to fail.
- An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- Low performance occurred after enabling the RoCE Accelerator capability.

- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

New Feature and Changes in Version 16.29.1016:

- Ethernet wqe_too_small Mode: New counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- PCIe Rx modifications to prevent the adapter cards from disappearing from the system.
- Hardware steering dump output used for debugging and troubleshooting.

Added support for the following features:

- HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compare to the FW Flow Metering.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- Steering DP hash flow groups.
- ignore_flow_level is now enabled by the TRUST LEVEL access registry.
- The cq_omrrun counter: The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- Enabled the capability to allow Virtual Functions to send Pause Frames packets. (Beta)
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- 2 new Mini CQE formats:
 - Responder Mini CQE With Flow Tag Layout.
 - Responder Mini CQE With I3_I4_info Layout.

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_0000000

Mellanox Firmware Package(FWPKG) for HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter

Version: 22.29.1016 **(Recommended)**

Filename: 22_29_1016-MCX623106AS-CDA_Ax.pldm.fwpkg

Important Note!

Known Issues with firmware version 22.29.1016:

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

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 22.27.1016 or later and iLO5 firmware version must be 2.30 or higher.

Fixes

The following issues have been fixed in version 22.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that prevented VXLAN packets with svlan/cvlan tag from being matched.
- The eth_wqe_too_small counter to count ODP (On-Demand Paging) page used to fail.
- An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- Low performance occurred after enabling the RoCE Accelerator capability.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR
- "iperf3" and "iperf3 -l 512" issue fixed from having traffic for virtio hardware offload solution .

Enhancements

New Features and Changes in Version 22.29.1016:

- Improved NRZ link performance (RX algorithm).
- Improved NRZ link-up time (25G\50G\100G speeds).
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Optimized vDPA performance for PPS in scalability of up to 127 devices per port.
- When using a Multi-Host device, the firmware can now discover who is the external SmartNIC host (the Embedded CPU PF (ECPF)) with the highest index that is responsible for performing offload activities to the adapter card
- Hardware steering dump output used for debugging and troubleshooting.

Added support for the following features:

- Eye-Opening: supported only when using NRZ signal. (Beta)

- Option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order. To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command and set DPP relevant attributes.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- Error statistics and reporting for vDPA.
- IPv6 TSO offload.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P25960-B21	HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter	MT_0000000437

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

Version: 22.29.1016 (**Recommended**)

Filename: 22_29_1016-MCX623105AS-VDA_Ax.pldm.fwpkg

Important Note!

Known Issues with firmware version 22.29.1016:

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

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 22.27.1016 or later and iLO5 firmware version must be 2.30 or higher.

Fixes

The following issues have been fixed in version 22.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter `min_time_between_cnps` to 4 on all devices to support larger scalability of cluster.
- An issue that prevented VXLAN packets with `svlan/cvlan` tag from being matched.
- The `eth_wqe_too_small` counter to count ODP (On-Demand Paging) page used to fail.
- An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.
- When `MKEY_BY_NAME` was enabled by `NVCONFIG` and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when `MKEY_BY_NAME` is disabled.
- Low performance occurred after enabling the RoCE Accelerator capability.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR
- "iperf3" and "iperf3 -l 512" issue fixed from having traffic for virtio hardware offload solution .

Enhancements

New Features and Changes in Version 22.29.1016:

- Improved NRZ link performance (RX algorithm).
- Improved NRZ link-up time (25G\50G\100G speeds).
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "`ooo_per_sl`" field in the `HCA_VPORT` context. It can be also queried by running the `QUERY_HCA_VPORT_CONTEXT` command.
- Optimized vDPA performance for PPS in scalability of up to 127 devices per port.
- When using a Multi-Host device, the firmware can now discover who is the external SmartNIC host (the Embedded CPU PF (ECPF)) with the highest index that is responsible for performing offload activities to the adapter card
- Hardware steering dump output used for debugging and troubleshooting.

Added support for the following features:

- Eye-Opening: supported only when using NRZ signal. (Beta)
- Option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order. To enable DPP offload, the software should create a special RQ by using the `CREATE_RQ` command and set DPP relevant attributes.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- Error statistics and reporting for vDPA.
- IPv6 TSO offload.

Supported Devices and Features

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

Mellanox Firmware Package(FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 1-port MCX653105A-HDAT QSFP56 x16 Adapter

Version: 20.29.1016 **(Recommended)**

Filename: 20_29_1016-MCX653105A-HDA_HPE_Ax.pldm.fwpkg

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
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

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 20.29.1016:

1. Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
2. An issue that prevented VXLAN packets with svlan/cvlan tag from being matched.
3. The eth_wqe_too_small counter to count ODP (On-Demand Paging) page used to fail.
4. An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.
5. When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
6. Low performance occurred after enabling the RoCE Accelerator capability.
7. On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

New Features and Changes in Version 20.29.1016:

Added support for following features:

- LinkX module burning via MFT toolset. The new capability enables direct firmware burning from the internal flash storage to reduce the bandwidth and accelerate the burning process, including burning several modules at a time.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- Improved NRZ link performance (RX algorithm).
- Improved NRZ link-up time (25G\50G\100G speeds).
- Enabled the options to control different Tx sets for the same attribute when connecting a Mellanox-Mellanox vs Mellanox to 3rd party HCA.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order.
- To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command, and set DPP relevant attributes.
- Added trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Enhanced IB Congestion Control to support lower minimum rate. Now it uses destination-lid to classify flows to handle larger scale, and achieve better results in GPCNeT benchmark.
- Hardware steering dump output used for debugging and troubleshooting.

Supported Devices and Features

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

Mellanox Firmware Package(FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 MCX653435A-HDAI OCP3 PCIe4 x16 Adapter

Version: 20.29.1016 **(Recommended)**

Filename: 20_29_1016-MCX653435A-HDA_HPE_Ax.pldm.fwpkg

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
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

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 20.29.1016:

1. Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
2. An issue that prevented VXLAN packets with svlan/cvlan tag from being matched.
3. The eth_wqe_too_small counter to count ODP (On-Demand Paging) page used to fail.
4. An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.

5. When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
6. Low performance occurred after enabling the RoCE Accelerator capability.
7. On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

New Features and Changes in Version 20.29.1016:

Added support for following features:

- LinkX module burning via MFT toolset. The new capability enables direct firmware burning from the internal flash storage to reduce the bandwidth and accelerate the burning process, including burning several modules at a time.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- Improved NRZ link performance (RX algorithm).
- Improved NRZ link-up time (25G\50G\100G speeds).
- Enabled the options to control different Tx sets for the same attribute when connecting a Mellanox-Mellanox vs Mellanox to 3rd party HCA.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order.
- To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command, and set DPP relevant attributes.
- Added trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Enhanced IB Congestion Control to support lower minimum rate. Now it uses destination-lid to classify flows to handle larger scale, and achieve better results in GPCNeT benchmark.
- Hardware steering dump output used for debugging and troubleshooting.

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 MCX653106A-HDAT PCIe4 x16 Adapter

Version: 20.29.1016 **(Recommended)**

Filename: 20_29_1016-MCX653106A-HDA_HPE_Ax.pldm.fwpkg

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
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

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 20.29.1016:

1. Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
2. An issue that prevented VXLAN packets with svlan/cvlan tag from being matched.
3. The eth_wqe_too_small counter to count ODP (On-Demand Paging) page used to fail.
4. An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.
5. When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
6. Low performance occurred after enabling the RoCE Accelerator capability.
7. On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

New Features and Changes in Version 20.29.1016:

Added support for following features:

- LinkX module burning via MFT toolset. The new capability enables direct firmware burning from the internal flash storage to reduce the bandwidth and accelerate the burning process, including burning several modules at a time.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- Improved NRZ link performance (RX algorithm).
- Improved NRZ link-up time (25G\50G\100G speeds).
- Enabled the options to control different Tx sets for the same attribute when connecting a Mellanox-Mellanox vs Mellanox to 3rd party HCA.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order.
- To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command, and set DPP relevant attributes.
- Added trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Enhanced IB Congestion Control to support lower minimum rate. Now it uses destination-lid to classify flows to handle larger scale, and achieve better results in GPCNeT benchmark.
- Hardware steering dump output used for debugging and troubleshooting.

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 MCX653436A-HDAI OCP3 PCIe4 x16 Adapter

Version: 20.29.1016 **(Recommended)**

Filename: 20_29_1016-MCX653436A-HDA_HPE_Ax.pldm.fwpkg

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
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

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 20.29.1016:

1. Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
2. An issue that prevented VXLAN packets with svlan/cvlan tag from being matched.
3. The eth_wqe_too_small counter to count ODP (On-Demand Paging) page used to fail.
4. An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.
5. When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
6. Low performance occurred after enabling the RoCE Accelerator capability.
7. On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

New Features and Changes in Version 20.29.1016:

Added support for following features:

- LinkX module burning via MFT toolset. The new capability enables direct firmware burning from the internal flash storage to reduce the bandwidth and accelerate the burning process, including burning several modules at a time.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- Improved NRZ link performance (RX algorithm).

- Improved NRZ link-up time (25G\50G\100G speeds).
- Enabled the options to control different Tx sets for the same attribute when connecting a Mellanox-Mellanox vs Mellanox to 3rd party HCA.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order.
- To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command, and set DPP relevant attributes.
- Added trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Enhanced IB Congestion Control to support lower minimum rate. Now it uses destination-lid to classify flows to handle larger scale, and achieve better results in GPCNeT benchmark.
- Hardware steering dump output used for debugging and troubleshooting.

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 MCX653105A-ECAT QSFP56 x16 Adapter

Version: 20.29.1016 **(Recommended)**

Filename: 20_29_1016-MCX653105A-ECA_HPE_Ax.pldm.fwpkg

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
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

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 20.29.1016:

1. Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
2. An issue that prevented VXLAN packets with svlan/cvlan tag from being matched.
3. The eth_wqe_too_small counter to count ODP (On-Demand Paging) page used to fail.
4. An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.
5. When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
6. Low performance occurred after enabling the RoCE Accelerator capability.
7. On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

New Features and Changes in Version 20.29.1016:

Added support for following features:

- LinkX module burning via MFT toolset. The new capability enables direct firmware burning from the internal flash storage to reduce the bandwidth and accelerate the burning process, including burning several modules at a time.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- Improved NRZ link performance (RX algorithm).
- Improved NRZ link-up time (25G\50G\100G speeds).
- Enabled the options to control different Tx sets for the same attribute when connecting a Mellanox-Mellanox vs Mellanox to 3rd party HCA.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order.
- To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command, and set DPP relevant attributes.
- Added trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.

- Enhanced IB Congestion Control to support lower minimum rate. Now it uses destination-lid to classify flows to handle larger scale, and achieve better results in GPCNeT benchmark.
- Hardware steering dump output used for debugging and troubleshooting.

Supported Devices and Features

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

Mellanox Firmware Package(FWPKG) for HPE InfiniBand HDR100/Ethernet 100Gb 2-port MCX653106A-ECAT QSFP56 x16 Adapter

Version: 20.29.1016 **(Recommended)**

Filename: 20_29_1016-MCX653106A-ECA_HPE_Ax.pldm.fwpkg

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
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

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 20.29.1016:

1. Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
2. An issue that prevented VXLAN packets with svlan/cvlan tag from being matched.
3. The eth_wqe_too_small counter to count ODP (On-Demand Paging) page used to fail.
4. An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.
5. When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
6. Low performance occurred after enabling the RoCE Accelerator capability.
7. On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

New Features and Changes in Version 20.29.1016:

Added support for following features:

- LinkX module burning via MFT toolset. The new capability enables direct firmware burning from the internal flash storage to reduce the bandwidth and accelerate the burning process, including burning several modules at a time.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- Improved NRZ link performance (RX algorithm).
- Improved NRZ link-up time (25G\50G\100G speeds).
- Enabled the options to control different Tx sets for the same attribute when connecting a Mellanox-Mellanox vs Mellanox to 3rd party HCA.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order.
- To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command, and set DPP relevant attributes.
- Added trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Enhanced IB Congestion Control to support lower minimum rate. Now it uses destination-lid to classify flows to handle larger scale, and achieve better results in GPCNeT benchmark.
- Hardware steering dump output used for debugging and troubleshooting.

Supported Devices and Features

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

Online Firmware Upgrade Utility (ESXi 6.5) for HPE Ethernet 10Gb 2-port 548SFP+ Adapter

Version: 1.0.4 **(Recommended)**

Filename: CP045197.compsig; CP045197.zip

Important Note!

No known issues were included in firmware version 14.29.1016:

Prerequisites

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

Fixes

Following issues have been fixed in version 14.29.1016:

- An issue that caused the sent packet to hang while the device entered FLR mode.
- Enabled Bar configuration bitwise by applying the write_en bitmask.
- A rare case where the the device froze while running the sw reset flow under heavy stress and with many open resources.
- Low PXE performance while using the VSC to trigger the send_ring_doorbells.
- An error that prevented the completions (CQ) from being completed due to a race condition in the firmware transport error handlers, and the error stressors, where the error stressors would hang the firmware transport error handler flow.
- An issue that caused the fragmented IP packets to drop was fixed.

Enhancements

Firmware for the following device is updated to 14.29.1016:

P11338-B21 (HPE Ethernet 10Gb 2-port 548SFP+ Adapter)

Following New features and Changes are included in version 14.29.1016:

- Added mlxconfig support for power reduction: PCI CAP AUTO_POWER_SAVE_LINK_DOWN
 - PCI CAP
 - AUTO_POWER_SAVE_LINK_DOWN
- Added the following segments, as appeared in the PRM, to the Resource Dump:
 - PRM_QUERY_QP
 - PRM_QUERY_CQ
 - PRM_QUERY_MKEY
 - QUERY_VNIC_ENV

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: 1.0.9 **(Recommended)**

Filename: CP045192.compsig; CP045192.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.

Known Issues for FW version 2.42.5044 :

- When using the QSFP module RTX320-581, and performing a driver restart for the firmware upgrade/downgrade to take effect, the link does not come up.
- 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 LES will not be active while the ETH link is in an idle mode.
- In SR-IOV setup, using mlxconfig when the PF is passed through to a VM requires a reboot of the Hypervisor.
- Downgrade to previous GA requires server reboot. Downgrading from v2.30.8000 or later to an earlier version than 2.30.8000 requires server reboot. 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.
- 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
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.

- 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.
- MFT tools 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.
- 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.
- Firmware downgrade message When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3
- RM#DMFS should not be enabled when working with InfiniBand on MLNX_OFED-2.0.3
- RM#VPD read-only fields are writable.
- Increasing SymbolErrorCounter When working in 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.
- ConnectX-3 Pro VF device ID is presented the same as ConnectX-3 VF device ID due to driver limitations.
- RSOD while running PXE (legacy) on G9 servers. This occurs only when PXE boot fails and BIOS boots from HDD. Currently it is pending BIOS fix.
- Changing port protocol from ETH to IB on port with NCSI/IPMI enabled while the port is connected to ETH switch is not supported.
- RDP over IPv6 is currently not functional.
- 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 mlx-4_en_get_drvinfo() that is called from asynchronous event handler.
- 832298: When running ibdump, loopback traffic is mirroring into the kernel driver.
- AHS reports wrong MTU size
- RM#846523: MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer

Known Issues for FW version 14.29.1016 and 16.29.1016:

- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
Workaround: Use full reset flow for firmware upgrade/downgrade.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.
Workaround: If such issue is observed:
 - Enable ZTT to overcome the high latency. Run: `mlxconfig -d set ZERO_TOUCH_TUNING_ENABLE=1`
 - Reset or power cycle the firmware for change to take effect
- The following are the Steering Dump limitations:
 - Supported only on ConnectX-5 adapter cards
 - Requires passing the version (FW/Stelib/MFT) and device type to stelib
 - Re-format is not supported
 - Advanced multi-port feature is not supported -
LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire)

- Packet types supported:
 - Layer 2 Eth
 - Layer 3 IPv4/IPv6/Grh
 - Layer 4 TCP/UDP/Bth/GreV0/GreV1
 - Tunneling VXLAN/Geneve/GREv0/Mpls
 - FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
 - Compiles only on x86
- Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Known Issues for FW version 14.29.1016:

- Low performance might be experienced when upgrading from previous firmware version to 14.29.1000 when using "Fast FW Reset".

Known Issues for FW version 16.29.1016:

- When PER_PF_NUM_SF=1 (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (PF_TOTAL_SF=0), then the firmware wrongly opens BAR2 with size 128KB.
- Multi-APP QoS is not supported when LAG is configured.
- When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.
Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share.
- Occasionally, Tag Matching RNDV and NVME emulation wasn't behaving as expected.

Prerequisites

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

Fixes

Fixes submitted 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.

Following issues have been fixed in firmware version 14.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that caused packets to drop due to header size issues and/or failing checks. The issue was caused due to a Linux issue that caused VFs to set the wrong header size value in wqe_inline_header_mode input.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs were configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

- An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 16.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that prevented VXLAN packets with svlan/ cvlan tag from being matched.
- The eth_wqe_too_small counter to count ODP page used to fail.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- An issue that resulted in low performance after enabling the RoCE Accelerator capability.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- The chassis manager calculation for Multi-Host and Socket-Direct adapter cards to allow running NC-SI commands by the chassis manager BMC. Now the chassis manager is count as BMC with index 0, regardless of how many BMC there are.
- An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Enhancements

Firmware for the following devices are updated to 2.42.5044 :

779799-B21 (HPE Ethernet 10G 2-port 546FLR-SFP+ Adapter)
779793-B21 (HPE Ethernet 10G 2-port 546SFP+ Adapter)

Firmware for the following devices are updated to 14.29.1016:

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

Firmware for the following devices are updated to 14.29.1016:

817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

Firmware for the following device is updated to 16.29.1016:

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

New features and changes in version 14.29.1016:

Added support for the following features:

- A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- cq_overflow counter: This counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- Enabled the capability to allow Virtual Functions to send Pause Frames packets.
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- Hardware steering dump output used for debugging and troubleshooting.

New features and changes in version 16.29.1016:

Added support for following features:

- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compare to the FW Flow Metering.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- 2 new Mini CQE formats: Responder Mini CQE With Flow Tag Layout Responder Mini CQE With I3_I4_info Layout
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Steering DP hash flow groups.
- A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- PCIe Rx modifications to prevent the adapter cards from disappearing from the system.
- ignore_flow_level is now enabled by the TRUST LEVEL access registry.
- cq_overrun counter. The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- [Beta] Enabled the capability to allow Virtual Functions to send Pause Frames packets.
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- Hardware steering dump output used for debugging and troubleshooting.

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: 1.0.8 (**Recommended**)

Filename: CP045145.compsig; CP045145.zip

Important Note!

Known Issues with firmware version 12.28.1002:

- When MKEY_BY_NAME is enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.

Known Issues with firmware version 16.29.1016:

- Multi-APP QoS is not supported when LAG is configured.
- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
Workaround: Use full reset flow for firmware upgrade/downgrade.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.
Workaround: If such issue is observed:
 - Enable ZTT to overcome the high latency. Run: `mlxconfig -d set ZERO_TOUCH_TUNING_ENABLE=1`
 - Reset or power cycle the firmware for change to take effect
- When PER_PF_NUM_SF=1 (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (PF_TOTAL_SF=0), then the firmware wrongly opens BAR2 with size 128KB.
- The following are the Steering Dump limitations:
 - Supported only on ConnectX-5 adapter cards
 - Requires passing the version (FW/Stelib/MFT) and device type to stelib
 - Re-format is not supported
 - Advanced multi-port feature is not supported - LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire)
 - Packet types supported:
 - Layer 2 Eth
 - Layer 3 IPv4/IPv6/Grh
 - Layer 4 TCP/UDP/Bth/GreV0/GreV1
 - Tunneling VXLAN/Geneve/GREv0/Mpls
 - FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
 - Compiles only on x86
- When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.
Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share.
- Occasionally, Tag Matching RNDV and NVME emulation wasn't behaving as expected.
- Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Fixes

Following issues have been fixed in firmware version 16.29.1016:

- An issue that prevented VXLAN packets with svlan/ cvlan tag from being matched.
- An issue that caused the eth_wqe_too_small counter to count ODP (On-Demand Paging) page faults.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- An issue that resulted in low performance after enabling the RoCE Accelerator capability.
Note: The fix is available when all ports are set as Ethernet.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- The chassis manager calculation for Multi-Host and Socket-Direct adapter cards to allow running NC-SI commands by the chassis manager BMC. Now the chassis manager is count as BMC with index 0, regardless of how many BMC there are.

- An issue that caused the device to go to down IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 12.28.1002:

- 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.
- An issue that caused PortCounters.PortRcvErr / PPCNT.infiniband_counters.PortRcvErr not to report port icrc errors.

Enhancements

Firmware for the following devices are updated to 12.28.1002:

825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)
825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

New Feature and Changes in Version 12.28.1002:

- Increased the maximum XRQ number to 512.

Firmware for the following devices are updated to 16.29.1016:

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 Feature and Changes in Version 16.29.1016:

Added support for the following features:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compared to the FW Flow Metering.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- 2 new Mini CQE formats: Responder Mini CQE With Flow Tag Layout Responder Mini CQE With I3_I4_info Layout
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Steering DP hash flow groups.
- A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- PCIe Rx modifications to prevent the adapter cards from disappearing from the system.
- ignore_flow_level is now enabled by the TRUST LEVEL access registry.

- cq_overnrun counter. The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- [Beta] Enabled the capability to allow Virtual Functions to send Pause Frames packets.
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- Hardware steering dump output used for debugging and troubleshooting.

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 (ESXi 6.5) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX6 devices on VMware ESXi 6.5

Version: 1.0.1 **(Recommended)**

Filename: CP044869.compsig; CP044869.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
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

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX6 firmware version 20.27.6008. 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 20.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that prevented VXLAN packets with svlan/cvlan tag from being matched.
- The eth_wqe_too_small counter to count ODP (On-Demand Paging) page used to fail.
- An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- Low performance occurred after enabling the RoCE Accelerator capability.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

Firmware for the following devices are updated to 20.29.1016:

HPE InfiniBand HDR/Ethernet 200Gb 1-port 940QSFP56 x16 Adapter - P06154-B21
HPE InfiniBand HDR100/Ethernet 100Gb 1-port 940QSFP56 x16 Adapter - P06250-B21
HPE InfiniBand HDR100/Ethernet 100Gb 2-port 940QSFP56 x16 Adapter - P06251-B21

New Features and Changes in Version 20.29.1016:

Added support for following features:

- LinkX module burning via MFT toolset. The new capability enables direct firmware burning from the internal flash storage to reduce the bandwidth and accelerate the burning process, including burning several modules at a time.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- Improved NRZ link performance (RX algorithm).
- Improved NRZ link-up time (25G\50G\100G speeds).
- Enabled the options to control different Tx sets for the same attribute when connecting a Mellanox-Mellanox vs Mellanox to 3rd party HCA.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order.
- To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command, and set DPP relevant attributes.
- Added trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Enhanced IB Congestion Control to support lower minimum rate. Now it uses destination-lid to classify flows to handle larger scale, and achieve better results in GPCNeT benchmark.
- Hardware steering dump output used for debugging and troubleshooting.

Supported Devices and Features

HPE Part Number	Device Name	PSID
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

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 "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.

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: 1.0.4 (**Recommended**)

Filename: CP045140.zip; CP045140_part1.compsig; CP045140_part2.compsig

Important Note!

Known Issues in firmware 14.29.1016:

- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
Workaround: Use full reset flow for firmware upgrade/downgrade.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.
Workaround: If such issue is observed:
- Enable ZTT to overcome the high latency. Run: `mlxconfig -d <mst device> set ZERO_TOUCH_TUNING_ENABLE=1`
- Reset or power cycle the firmware for change to take effect
- Low performance might be experienced when upgrading from previous firmware version to 14.29.1000 when using "Fast FW Reset".
- The following are the Steering Dump limitations:
 - Supported only on ConnectX-5 adapter cards.
 - Requires passing the version (FW/Stelib/MFT) and device type to stelib.
 - Re-format is not supported
 - Advanced multi-port feature is not supported – LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire).
 - Packet types supported:
 - Layer 2 Eth
 - Layer 3 IPv4/IPv6/Grh
 - Layer 4 TCP/UDP/Bth/GreV0/GreV1
 - Tunneling VXLAN/Geneve/GREv0/Mpls FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
 - FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
 - Compiles only on x86
- Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Known Issues with firmware version 16.29.1016:

- Multi-APP QoS is not supported when LAG is configured.
- When `PER_PF_NUM_SF=1` (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (`PF_TOTAL_SF=0`), then the firmware wrongly opens BAR2 with size 128KB.
Workaround: N/A
- When configuring adapter card's Level Scheduling, a QoS tree leaf (`QUEUE_GROUP`) configured with default `rate_limit` and default `bw_share`, may not obey the QoS restrictions imposed by any of the leaf's ancestors.
Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: `max_average_bw` or `bw_share`.
- Occasionally, Tag Matching RNDV and NVME emulation was not behaving as expected.
Workaround: N/A

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.

Fixes

Following issues have been fixed in firmware version 14.29.1016 and 16.29.1016:

- Changed the default value of DCQCN's NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that caused packets to drop due to header size issues and/or failing checks. This issue was caused due to a Linux issue that caused VFs to set the wrong header size value in wqe_inline_header_mode input.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) might take longer than when MKEY_BY_NAME was disabled.
- In rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 16.29.1016:

- An issue that caused the eth_wqe_too_small counter to count ODP page faults.
- A low performance was observed after enabling the RoCE Accelerator capability.

Enhancements

Firmware for the following devices is updated to 14.29.1016:

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 devices is updated to 16.29.1016:

P13188-B21 (HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACAT Adapter)
P21927-B21 (HPE Ethernet 100Gb 2-Port QSFP28 MCX516A-CCHT Adapter)
P10112-B21 (HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter)

This release contains important reliability improvements and security hardening enhancements. Upgrade the firmware of the device to this release to improve the devices' firmware security and reliability.

New Feature and Changes in Version 14.29.1016 and 16.29.1016:

- Ethernet wqe_too_small Mode: A per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- Hardware steering dump output used for debugging and troubleshooting.

Added support for the following features:

- cq_overnrun counter: The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- Enabled the capability to allow Virtual Functions to send Pause Frames packets. (Beta)

- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.

New Feature and Changes in Version 16.29.1016:

- Hardware steering dump output used for debugging and troubleshooting.

Added support for the following features:

- HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compare to the FW Flow Metering.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- 2 new Mini CQE formats:
 - Responder Mini CQE With Flow Tag Layout.
 - Responder Mini CQE With I3_I4_info Layout.
- Steering DP hash flow groups.
- ignore_flow_level is now enabled by the TRUST LEVEL access registry.

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 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P13188-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter	MT_0000000416
P10112-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter	MT_0000000241
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417

Online Firmware Upgrade Utility (ESXi 6.7) for HPE Ethernet 10Gb 2-port 548SFP+ Adapter

Version: 1.0.4 (**Recommended**)

Filename: CP045198.compsig; CP045198.zip

Important Note!

No known issues were included in firmware version 14.29.1016:

Prerequisites

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

Fixes

Following issues have been fixed in version 14.29.1016:

- An issue that caused the sent packet to hang while the device entered FLR mode.
- Enabled Bar configuration bitwise by applying the write_en bitmask.
- A rare case where the the device froze while running the sw reset flow under heavy stress and with many open resources.
- Low PXE performance while using the VSC to trigger the send_ring_doorbells.
- An error that prevented the completions (CQ) from being completed due to a race condition in the firmware transport error handlers, and the error stressors, where the error stressors would hang the firmware transport error handler flow.
- An issue that caused the fragmented IP packets to drop was fixed.

Enhancements

Firmware for the following device is updated to 14.29.1016:

P11338-B21 (HPE Ethernet 10Gb 2-port 548SFP+ Adapter)

Following New features and Changes are included in version 14.29.1016:

- Added mlxconfig support for power reduction: PCI CAP AUTO_POWER_SAVE_LINK_DOWN
 - PCI CAP
 - AUTO_POWER_SAVE_LINK_DOWN
- Added the following segments, as appeared in the PRM, to the Resource Dump:
 - PRM_QUERY_QP
 - PRM_QUERY_CQ
 - PRM_QUERY_MKEY
 - QUERY_VNIC_ENV

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 6.7) for HPE Mellanox Ethernet only adapters

Version: 1.0.5 **(Recommended)**

Filename: CP045193.compsig; CP045193.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.

Known Issues for FW version 2.42.5044 :

- When using the QSFP module RTX320-581, and performing a driver restart for the firmware upgrade/downgrade to take effect, the link does not come up.
- 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 LES will not be active while the ETH link is in an idle mode.
- In SR-IOV setup, using mlxconfig when the PF is passed through to a VM requires a reboot of the Hypervisor.
- Downgrade to previous GA requires server reboot. Downgrading from v2.30.8000 or later to an earlier version than 2.30.8000 requires server reboot. 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.
- 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
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- 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.
- MFT tools 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.
- 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.
- Firmware downgrade message When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3
- RM#DMFS should not be enabled when working with InfiniBand on MLNX_OFED-2.0.3
- RM#VPD read-only fields are writable.
- Increasing SymbolErrorCounter When working in 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.
- ConnectX-3 Pro VF device ID is presented the same as ConnectX-3 VF device ID due to driver limitations.
- RSOD while running PXE (legacy) on G9 servers. This occurs only when PXE boot fails and BIOS boots from HDD. Currently it is pending BIOS fix.
- Changing port protocol from ETH to IB on port with NCSI/IPMI enabled while the port is connected to ETH switch is not supported.
- RDP over IPv6 is currently not functional.
- 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 mlx-4_en_get_drvinfo() that is called from asynchronous event handler.
- 832298: When running ibdump, loopback traffic is mirroring into the kernel driver.
- AHS reports wrong MTU size
- RM#846523: MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer

Known Issues for FW version 14.29.1016 and 16.29.1016:

- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
Workaround: Use full reset flow for firmware upgrade/downgrade.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.
Workaround: If such issue is observed:
 - Enable ZTT to overcome the high latency. Run: `mlxconfig -d set ZERO_TOUCH_TUNING_ENABLE=1`
 - Reset or power cycle the firmware for change to take effect
- The following are the Steering Dump limitations:
 - Supported only on ConnectX-5 adapter cards
 - Requires passing the version (FW/Stelib/MFT) and device type to stelib

- Re-format is not supported
- Advanced multi-port feature is not supported -
LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire)
 - Packet types supported:
 - Layer 2 Eth
 - Layer 3 IPv4/Ipv6/Grh
 - Layer 4 TCP/UDP/Bth/GreV0/GreV1
 - Tunneling VXLAN/Geneve/GREv0/Mpls
- FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
- Compiles only on x86
- Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Known Issues for FW version 14.29.1016:

- Low performance might be experienced when upgrading from previous firmware version to 14.29.1000 when using "Fast FW Reset".

Known Issues for FW version 16.29.1016:

- When PER_PF_NUM_SF=1 (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (PF_TOTAL_SF=0), then the firmware wrongly opens BAR2 with size 128KB.
- Multi-APP QoS is not supported when LAG is configured.
- When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.
Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share.
- Occasionally, Tag Matching RNDV and NVME emulation wasn't behaving as expected.

Prerequisites

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

Fixes

ixes submitted 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.

Following issues have been fixed in firmware version 14.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that caused packets to drop due to header size issues and/or failing checks. The issue was caused due to a Linux issue that caused VFs to set the wrong header size value in wqe_inline_header_mode input.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs were configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

- An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 16.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that prevented VXLAN packets with svlan/ cvlan tag from being matched.
- The eth_wqe_too_small counter to count ODP page used to fail.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- An issue that resulted in low performance after enabling the RoCE Accelerator capability.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- The chassis manager calculation for Multi-Host and Socket-Direct adapter cards to allow running NC-SI commands by the chassis manager BMC. Now the chassis manager is count as BMC with index 0, regardless of how many BMC there are.
- An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Enhancements

Firmware for the following devices are updated to 2.42.5044 :

779799-B21 (HPE Ethernet 10G 2-port 546FLR-SFP+ Adapter)
779793-B21 (HPE Ethernet 10G 2-port 546SFP+ Adapter)

Firmware for the following devices are updated to 14.29.1016:

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

Firmware for the following devices are updated to 14.29.1016:

817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

Firmware for the following device is updated to 16.29.1016:

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

New features and changes in version 14.29.1016:

Added support for the following features:

- A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- cq_overrun counter: This counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- Enabled the capability to allow Virtual Functions to send Pause Frames packets.
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- Hardware steering dump output used for debugging and troubleshooting.

New features and changes in version 16.29.1016:

Added support for following features:

- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compare to the FW Flow Metering.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- 2 new Mini CQE formats: Responder Mini CQE With Flow Tag Layout Responder Mini CQE With I3_I4_info Layout
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Steering DP hash flow groups.
- A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- PCIe Rx modifications to prevent the adapter cards from disappearing from the system.
- ignore_flow_level is now enabled by the TRUST LEVEL access registry.
- cq_overnrun counter. The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- [Beta] Enabled the capability to allow Virtual Functions to send Pause Frames packets.
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- Hardware steering dump output used for debugging and troubleshooting.

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: 1.0.4 (**Recommended**)

Filename: CP045146.compsig; CP045146.zip

Important Note!

Known Issues with firmware version 12.28.1002:

- When MKEY_BY_NAME is enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.

Known Issues with firmware version 16.29.1016:

- Multi-APP QoS is not supported when LAG is configured.
- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
Workaround: Use full reset flow for firmware upgrade/downgrade.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.
Workaround: If such issue is observed:

-
- Enable ZTT to overcome the high latency. Run: `mlxconfig -d set ZERO_TOUCH_TUNING_ENABLE=1`
- Reset or power cycle the firmware for change to take effect
- When `PER_PF_NUM_SF=1` (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (`PF_TOTAL_SF=0`), then the firmware wrongly opens BAR2 with size 128KB.
- The following are the Steering Dump limitations:
 - Supported only on ConnectX-5 adapter cards
 - Requires passing the version (FW/Stelib/MFT) and device type to stelib
 - Re-format is not supported
 - Advanced multi-port feature is not supported -
LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire)
 - Packet types supported:
 - Layer 2 Eth
 - Layer 3 IPv4/IPv6/Grh
 - Layer 4 TCP/UDP/Bth/GreV0/GreV1
 - Tunneling VXLAN/Geneve/GREv0/Mpls
 - FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
 - Compiles only on x86
- When configuring adapter card's Level Scheduling, a QoS tree leaf (`QUEUE_GROUP`) configured with default `rate_limit` and default `bw_share`, may not obey the QoS restrictions imposed by any of the leaf's ancestors.
Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: `max_average_bw` or `bw_share`.
- Occasionally, Tag Matching RNDV and NVME emulation wasn't behaving as expected.
- Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Fixes

Following issues have been fixed in firmware version 16.29.1016:

- An issue that prevented VXLAN packets with svlan/ cvlan tag from being matched.
- An issue that caused the `eth_wqe_too_small` counter to count ODP (On-Demand Paging) page faults.
- When `MKEY_BY_NAME` was enabled by `NVCONFIG` and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when `MKEY_BY_NAME` is disabled.
- An issue that resulted in low performance after enabling the RoCE Accelerator capability.
Note: The fix is available when all ports are set as Ethernet.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- The chassis manager calculation for Multi-Host and Socket-Direct adapter cards to allow running NC-SI commands by the chassis manager BMC. Now the chassis manager is count as BMC with index 0, regardless of how many BMC there are.
- An issue that caused the device to go to down IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 12.28.1002:

- 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.

- An issue that caused PortCounters.PortRcvErr / PPCNT.infiniband_counters.PortRcvErr not to report port icrc errors.

Enhancements

Firmware for the following devices are updated to 12.28.1002:

825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)
825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

New Feature and Changes in Version 12.28.1002:

- Increased the maximum XRQ number to 512.

Firmware for the following devices are updated to 16.29.1016:

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 Feature and Changes in Version 16.29.1016:

Added support for the following features:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compared to the FW Flow Metering.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- 2 new Mini CQE formats: Responder Mini CQE With Flow Tag Layout Responder Mini CQE With I3_I4_info Layout
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Steering DP hash flow groups.
- A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- PCIe Rx modifications to prevent the adapter cards from disappearing from the system.
- ignore_flow_level is now enabled by the TRUST LEVEL access registry.
- cq_overrun counter. The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- [Beta] Enabled the capability to allow Virtual Functions to send Pause Frames packets.
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- Hardware steering dump output used for debugging and troubleshooting.

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 (ESXi 6.7) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX6 devices on VMware ESXi 6.7

Version: 1.0.1 **(Recommended)**

Filename: CP044870.compsig; CP044870.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
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

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX6 firmware version 20.27.6008. 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 20.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that prevented VXLAN packets with svlan/cvlan tag from being matched.
- The eth_wqe_too_small counter to count ODP (On-Demand Paging) page used to fail.
- An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- Low performance occurred after enabling the RoCE Accelerator capability.

- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

Firmware for the following devices are updated to 20.29.1016:

HPE InfiniBand HDR/Ethernet 200Gb 1-port 940QSFP56 x16 Adapter - P06154-B21
HPE InfiniBand HDR100/Ethernet 100Gb 1-port 940QSFP56 x16 Adapter - P06250-B21
HPE InfiniBand HDR100/Ethernet 100Gb 2-port 940QSFP56 x16 Adapter - P06251-B21

New Features and Changes in Version 20.29.1016:

Added support for following features:

- LinkX module burning via MFT toolset. The new capability enables direct firmware burning from the internal flash storage to reduce the bandwidth and accelerate the burning process, including burning several modules at a time.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- Improved NRZ link performance (RX algorithm).
- Improved NRZ link-up time (25G\50G\100G speeds).
- Enabled the options to control different Tx sets for the same attribute when connecting a Mellanox-Mellanox vs Mellanox to 3rd party HCA.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order.
- To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command, and set DPP relevant attributes.
- Added trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Enhanced IB Congestion Control to support lower minimum rate. Now it uses destination-lid to classify flows to handle larger scale, and achieve better results in GPCNeT benchmark.
- Hardware steering dump output used for debugging and troubleshooting.

Supported Devices and Features

HPE Part Number	Device Name	PSID
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

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**)

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 "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.

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 6.7) for Mellanox Open Ethernet cards

Version: 1.0.4 **(Recommended)**

Filename: CP045141.zip; CP045141_part1.compsig; CP045141_part2.compsig

Important Note!

Known Issues in firmware 14.29.1016:

- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
Workaround: Use full reset flow for firmware upgrade/downgrade.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.
Workaround: If such issue is observed:
- Enable ZTT to overcome the high latency. Run: `mlxconfig -d <mst device> set ZERO_TOUCH_TUNING_ENABLE=1`
- Reset or power cycle the firmware for change to take effect
- Low performance might be experienced when upgrading from previous firmware version to 14.29.1000 when using "Fast FW Reset".
- The following are the Steering Dump limitations:
 - Supported only on ConnectX-5 adapter cards.
 - Requires passing the version (FW/Stelib/MFT) and device type to stelib.
 - Re-format is not supported
 - Advanced multi-port feature is not supported – LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire).
 - Packet types supported:
 - Layer 2 Eth
 - Layer 3 IPv4/IPv6/Grh
 - Layer 4 TCP/UDP/Bth/GreV0/GreV1
 - Tunneling VXLAN/Geneve/GREv0/Mpls FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
 - FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
 - Compiles only on x86
- Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Known Issues with firmware version 16.29.1016:

- Multi-APP QoS is not supported when LAG is configured.
- When `PER_PF_NUM_SF=1` (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (`PF_TOTAL_SF=0`), then the firmware wrongly opens BAR2 with size 128KB.
Workaround: N/A
- When configuring adapter card's Level Scheduling, a QoS tree leaf (`QUEUE_GROUP`) configured with default `rate_limit` and default `bw_share`, may not obey the QoS restrictions imposed by any of the leaf's ancestors.
Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: `max_average_bw` or `bw_share`.
- Occasionally, Tag Matching RNDV and NVME emulation was not behaving as expected.
Workaround: N/A

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.

Fixes

Following issues have been fixed in firmware version 14.29.1016 and 16.29.1016:

- Changed the default value of DCQCN's NP parameter `min_time_between_cnps` to 4 on all devices to support larger scalability of cluster.
- An issue that caused packets to drop due to header size issues and/or failing checks. This issue was caused due to a Linux issue that caused VFs to set the wrong header size value in `wqe_inline_header_mode` input.

- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) might take longer than when MKEY_BY_NAME was disabled.
- In rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 16.29.1016:

- An issue that caused the eth_wqe_too_small counter to count ODP page faults.
- A low performance was observed after enabling the RoCE Accelerator capability.

Enhancements

Firmware for the following devices is updated to 14.29.1016:

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 devices is updated to 16.29.1016:

P13188-B21 (HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACAT Adapter)
P21927-B21 (HPE Ethernet 100Gb 2-Port QSFP28 MCX516A-CCHT Adapter)
P10112-B21 (HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter)

This release contains important reliability improvements and security hardening enhancements. Upgrade the firmware of the device to this release to improve the devices' firmware security and reliability.

New Feature and Changes in Version 14.29.1016 and 16.29.1016:

- Ethernet wqe_too_small Mode: A per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- Hardware steering dump output used for debugging and troubleshooting.

Added support for the following features:

- cq_overnrun counter: The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- Enabled the capability to allow Virtual Functions to send Pause Frames packets. (Beta)
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.

New Feature and Changes in Version 16.29.1016:

- Hardware steering dump output used for debugging and troubleshooting.

Added support for the following features:

- HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compare to the FW Flow Metering.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- 2 new Mini CQE formats:

- Responder Mini CQE With Flow Tag Layout.
- Responder Mini CQE With I3_I4_info Layout.
- Steering DP hash flow groups.
- ignore_flow_level is now enabled by the TRUST LEVEL access registry.

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 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P13188-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter	MT_0000000416
P10112-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter	MT_0000000241
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417

Online Firmware Upgrade Utility (ESXi 7.0) for HPE Ethernet 10Gb 2-port 548SFP+ Adapter
Version: 1.0.1 (**Recommended**)
Filename: CP045199.compsig; CP045199.zip

Important Note!

No known issues were included in firmware version 14.29.1016:

Prerequisites

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

Fixes

Following issues have been fixed in version 14.29.1016:

- An issue that caused the sent packet to hang while the device entered FLR mode.
- Enabled Bar configuration bitwise by applying the write_en bitmask.
- A rare case where the the device froze while running the sw reset flow under heavy stress and with many open resources.
- Low PXE performance while using the VSC to trigger the send_ring_doorbells.
- An error that prevented the completions (CQ) from being completed due to a race condition in the firmware transport error handlers, and the error stressors, where the error stressors would hang the firmware transport error handler flow.
- An issue that caused the fragmented IP packets to drop was fixed.

Enhancements

Firmware for the following device is updated to 14.29.1016:

P11338-B21 (HPE Ethernet 10Gb 2-port 548SFP+ Adapter)

Following New features and Changes are included in version 14.29.1016:

- Added mlxconfig support for power reduction: PCI CAP AUTO_POWER_SAVE_LINK_DOWN
 - PCI CAP
 - AUTO_POWER_SAVE_LINK_DOWN

- Added the following segments, as appeared in the PRM, to the Resource Dump:
 - PRM_QUERY_QP
 - PRM_QUERY_CQ
 - PRM_QUERY_MKEY
 - QUERY_VNIC_ENV

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: 1.0.1 **(Recommended)**
 Filename: CP045194.compsig; CP045194.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.

Known Issues for FW version 2.42.5044 :

- When using the QSFP module RTX320-581, and performing a driver restart for the firmware upgrade/downgrade to take effect, the link does not come up.
- 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 LES will not be active while the ETH link is in an idle mode.
- In SR-IOV setup, using mlxconfig when the PF is passed through to a VM requires a reboot of the Hypervisor.
- Downgrade to previous GA requires server reboot. Downgrading from v2.30.8000 or later to an earlier version than 2.30.8000 requires server reboot. 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.
- 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
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- 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.
- MFT tools 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.
- 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.
- Firmware downgrade message When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3
- RM#DMFS should not be enabled when working with InfiniBand on MLNX_OFED-2.0.3
- RM#VPD read-only fields are writable.
- Increasing SymbolErrorCounter When working in 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.
- ConnectX-3 Pro VF device ID is presented the same as ConnectX-3 VF device ID due to driver limitations.
- RSOD while running PXE (legacy) on G9 servers. This occurs only when PXE boot fails and BIOS boots from HDD. Currently it is pending BIOS fix.
- Changing port protocol from ETH to IB on port with NCSI/IPMI enabled while the port is connected to ETH switch is not supported.
- RDP over IPv6 is currently not functional.
- 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 mlx-4_en_get_drvinfo() that is called from asynchronous event handler.
- 832298:When running ibdump, loopback traffic is mirroring into the kernel driver.
- AHS reports wrong MTU size
- RM#846523: MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer

Known Issues for FW version 14.29.1016 and 16.29.1016:

- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
Workaround: Use full reset flow for firmware upgrade/downgrade.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.
Workaround: If such issue is observed:
 - Enable ZTT to overcome the high latency. Run: `mlxconfig -d set ZERO_TOUCH_TUNING_ENABLE=1`
 - Reset or power cycle the firmware for change to take effect
- The following are the Steering Dump limitations:
 - Supported only on ConnectX-5 adapter cards
 - Requires passing the version (FW/Stelib/MFT) and device type to stelib
 - Re-format is not supported
 - Advanced multi-port feature is not supported - LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire)
 - Packet types supported:
 - Layer 2 Eth
 - Layer 3 IPv4/IPv6/Grh
 - Layer 4 TCP/UDP/Bth/GreV0/GreV1
 - Tunneling VXLAN/Geneve/GREv0/Mpls
 - FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
 - Compiles only on x86
- Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Known Issues for FW version 14.29.1016:

- Low performance might be experienced when upgrading from previous firmware version to 14.29.1000 when using "Fast FW Reset".

Known Issues for FW version 16.29.1016:

- When PER_PF_NUM_SF=1 (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (PF_TOTAL_SF=0), then the firmware wrongly opens BAR2 with size 128KB.
- Multi-APP QoS is not supported when LAG is configured.
- When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.
Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share.
- Occasionally, Tag Matching RNDV and NVME emulation wasn't behaving as expected.

Prerequisites

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

Fixes

ixes submitted 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.

Following issues have been fixed in firmware version 14.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that caused packets to drop due to header size issues and/or failing checks. The issue was caused due to a Linux issue that caused VFs to set the wrong header size value in wqe_inline_header_mode input.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs were configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 16.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that prevented VXLAN packets with svlan/ cvlan tag from being matched.
- The eth_wqe_too_small counter to count ODP page used to fail.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- An issue that resulted in low performance after enabling the RoCE Accelerator capability.

- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- The chassis manager calculation for Multi-Host and Socket-Direct adapter cards to allow running NC-SI commands by the chassis manager BMC. Now the chassis manager is count as BMC with index 0, regardless of how many BMC there are.
- An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Enhancements

Firmware for the following devices are updated to 2.42.5044 :

779799-B21 (HPE Ethernet 10G 2-port 546FLR-SFP+ Adapter)
779793-B21 (HPE Ethernet 10G 2-port 546SFP+ Adapter)

Firmware for the following devices are updated to 14.29.1016:

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

Firmware for the following devices are updated to 14.29.1016:

817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

Firmware for the following device is updated to 16.29.1016:

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

New features and changes in version 14.29.1016:

Added support for the following features:

- A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- cq_overnrun counter: This counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- Enabled the capability to allow Virtual Functions to send Pause Frames packets.
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- Hardware steering dump output used for debugging and troubleshooting.

New features and changes in version 16.28.1016:

Added support for following features:

- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compare to the FW Flow Metering.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- 2 new Mini CQE formats: Responder Mini CQE With Flow Tag Layout Responder Mini CQE With I3_I4_info Layout
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.

- Steering DP hash flow groups.
- A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- PCIe Rx modifications to prevent the adapter cards from disappearing from the system.
- ignore_flow_level is now enabled by the TRUST LEVEL access registry.
- cq_overnrun counter. The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- [Beta] Enabled the capability to allow Virtual Functions to send Pause Frames packets.
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- Hardware steering dump output used for debugging and troubleshooting.

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: 1.0.1 **(Recommended)**

Filename: CP045147.compsig; CP045147.zip

Important Note!

Known Issues with firmware version 12.28.1002:

- When MKEY_BY_NAME is enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.

Known Issues with firmware version 16.29.1016:

- Multi-APP QoS is not supported when LAG is configured.
- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
Workaround: Use full reset flow for firmware upgrade/downgrade.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.
Workaround: If such issue is observed:
 - Enable ZTT to overcome the high latency. Run: mlxconfig -d set ZERO_TOUCH_TUNING_ENABLE=1
 - Reset or power cycle the firmware for change to take effect
- When PER_PF_NUM_SF=1 (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (PF_TOTAL_SF=0), then the firmware wrongly opens BAR2 with size 128KB.
- The following are the Steering Dump limitations:
 - Supported only on ConnectX-5 adapter cards
 - Requires passing the version (FW/Stelib/MFT) and device type to stelib
 - Re-format is not supported
 - Advanced multi-port feature is not supported - LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire)

- Packet types supported:
 - Layer 2 Eth
 - Layer 3 IPv4/IPv6/Grh
 - Layer 4 TCP/UDP/Bth/GreV0/GreV1
 - Tunneling VXLAN/Geneve/GREv0/Mpls
- FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
- Compiles only on x86
- When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.

Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share.
- Occasionally, Tag Matching RNDV and NVME emulation wasn't behaving as expected.
- Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Fixes

Following issues have been fixed in firmware version 16.29.1016:

- An issue that prevented VXLAN packets with svlan/ cvlan tag from being matched.
- An issue that caused the eth_wqe_too_small counter to count ODP (On-Demand Paging) page faults.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- An issue that resulted in low performance after enabling the RoCE Accelerator capability. Note: The fix is available when all ports are set as Ethernet.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- The chassis manager calculation for Multi-Host and Socket-Direct adapter cards to allow running NC-SI commands by the chassis manager BMC. Now the chassis manager is count as BMC with index 0, regardless of how many BMC there are.
- An issue that caused the device to go to down IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 12.28.1002:

- 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.
- An issue that caused PortCounters.PortRcvErr / PPCNT.infiniband_counters.PortRcvErr not to report port icrc errors.

Enhancements

Firmware for the following devices are updated to 12.28.1002:

825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)
 825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

New Feature and Changes in Version 12.28.1002:

- Increased the maximum XRQ number to 512.

Firmware for the following devices are updated to 16.29.1016:

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 Feature and Changes in Version 16.29.1016:

Added support for the following features:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter `min_time_between_cnps` to 4 on all devices to support larger scalability of cluster.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compared to the FW Flow Metering.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- 2 new Mini CQE formats: Responder Mini CQE With Flow Tag Layout Responder Mini CQE With I3_I4_info Layout
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Steering DP hash flow groups.
- A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- PCIe Rx modifications to prevent the adapter cards from disappearing from the system.
- `ignore_flow_level` is now enabled by the TRUST LEVEL access registry.
- `cq_overnrun` counter. The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- [Beta] Enabled the capability to allow Virtual Functions to send Pause Frames packets.
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- Hardware steering dump output used for debugging and troubleshooting.

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 (ESXi 7.0) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX6 devices on VMware ESXi 7.0
Version: 1.0.1 (**Recommended**)
Filename: CP044871.compsig; CP044871.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
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

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX6 firmware version 20.27.6008. 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 20.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that prevented VXLAN packets with svlan/cvlan tag from being matched.
- The eth_wqe_too_small counter to count ODP (On-Demand Paging) page used to fail.
- An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- Low performance occurred after enabling the RoCE Accelerator capability.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

Firmware for the following devices are updated to 20.29.1016:

HPE InfiniBand HDR/Ethernet 200Gb 1-port 940QSFP56 x16 Adapter - P06154-B21
HPE InfiniBand HDR100/Ethernet 100Gb 1-port 940QSFP56 x16 Adapter - P06250-B21
HPE InfiniBand HDR100/Ethernet 100Gb 2-port 940QSFP56 x16 Adapter - P06251-B21

New Features and Changes in Version 20.29.1016:

Added support for following features:

- LinkX module burning via MFT toolset. The new capability enables direct firmware burning from the internal flash storage to reduce the bandwidth and accelerate the burning process, including burning several modules at a time.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- Improved NRZ link performance (RX algorithm).
- Improved NRZ link-up time (25G\50G\100G speeds).
- Enabled the options to control different Tx sets for the same attribute when connecting a Mellanox-Mellanox vs Mellanox to 3rd party HCA.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order.
- To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command, and set DPP relevant attributes.
- Added trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Enhanced IB Congestion Control to support lower minimum rate. Now it uses destination-lid to classify flows to handle larger scale, and achieve better results in GPCNeT benchmark.
- Hardware steering dump output used for debugging and troubleshooting.

Supported Devices and Features

HPE Part Number	Device Name	PSID
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

Online Firmware Upgrade Utility (ESXi 7.0) for HPE Mellanox VPI (Ethernet and Infiniband mode) devices on VMware ESXi 7.0

Version: 1.0.1 (**Recommended**)

Filename: CP045904.compsig; CP045904.zip

Important Note!

Known Issues in firmware 2.42.5000, 2.42.5056, 2.42.5700:

- When using the Quad Small Form-factor Pluggable (QSFP) module 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 `"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.

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 7.0) for Mellanox Open Ethernet cards
Version: 1.0.1 **(Recommended)**
Filename: CP045142.zip; CP045142_part1.compsig; CP045142_part2.compsig

Important Note!

Known Issues in firmware 14.29.1016:

- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
Workaround: Use full reset flow for firmware upgrade/downgrade.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.
Workaround: If such issue is observed:
- Enable ZTT to overcome the high latency. Run: mlxconfig -d <mst device> set ZERO_TOUCH_TUNING_ENABLE=1
- Reset or power cycle the firmware for change to take effect
- Low performance might be experienced when upgrading from previous firmware version to 14.29.1000 when using "Fast FW Reset".
- The following are the Steering Dump limitations:

- Supported only on ConnectX-5 adapter cards.
- Requires passing the version (FW/Stelib/MFT) and device type to stelib.
- Re-format is not supported
- Advanced multi-port feature is not supported – LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire).
 - Packet types supported:
 - Layer 2 Eth
 - Layer 3 IPv4/Ipv6/Grh
 - Layer 4 TCP/UDP/Bth/GreV0/GreV1
 - Tunneling VXLAN/Geneve/GREv0/Mpls FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
- FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
- Compiles only on x86
- Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Known Issues with firmware version 16.29.1016:

- Multi-APP QoS is not supported when LAG is configured.
- When PER_PF_NUM_SF=1 (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (PF_TOTAL_SF=0), then the firmware wrongly opens BAR2 with size 128KB.
Workaround: N/A
- When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.
Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share.
- Occasionally, Tag Matching RNDV and NVME emulation was not behaving as expected.
Workaround: N/A

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.

Fixes

Following issues have been fixed in firmware version 14.29.1016 and 16.29.1016:

- Changed the default value of DCQCN's NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that caused packets to drop due to header size issues and/or failing checks. This issue was caused due to a Linux issue that caused VFs to set the wrong header size value in wqe_inline_header_mode input.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) might take longer than when MKEY_BY_NAME was disabled.
- In rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 16.29.1016:

- An issue that caused the eth_wqe_too_small counter to count ODP page faults.
- A low performance was observed after enabling the RoCE Accelerator capability.

Enhancements

Firmware for the following devices is updated to 14.29.1016:

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 devices is updated to 16.29.1016:

P13188-B21 (HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACAT Adapter)
P21927-B21 (HPE Ethernet 100Gb 2-Port QSFP28 MCX516A-CCHT Adapter)
P10112-B21 (HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter)

This release contains important reliability improvements and security hardening enhancements. Upgrade the firmware of the device to this release to improve the devices' firmware security and reliability.

New Feature and Changes in Version 14.29.1016 and 16.29.1016:

- Ethernet wqe_too_small Mode: A per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- Hardware steering dump output used for debugging and troubleshooting.

Added support for the following features:

- cq_overnrun counter: The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- Enabled the capability to allow Virtual Functions to send Pause Frames packets. (Beta)
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.

New Feature and Changes in Version 16.29.1016:

- Hardware steering dump output used for debugging and troubleshooting.

Added support for the following features:

- HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compare to the FW Flow Metering.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- 2 new Mini CQE formats:
- Responder Mini CQE With Flow Tag Layout.
- Responder Mini CQE With I3_I4_info Layout.
- Steering DP hash flow groups.
- ignore_flow_level is now enabled by the TRUST LEVEL access registry.

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 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P13188-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter	MT_0000000416

P10112-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter	MT_0000000241
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417

Online Firmware Upgrade Utility (Linux x86_64) for HPE Ethernet 10Gb 2-port 548SFP+ Adapter

Version: 1.0.4 (**Recommended**)

Filename: firmware-nic-mellanox-eth-only-mft-1.0.4-1.1.x86_64.compsig; firmware-nic-mellanox-eth-only-mft-1.0.4-1.1.x86_64.rpm

Important Note!

No known issues were included in firmware version 14.29.1016:

Prerequisites

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

Fixes

Following issues have been fixed in version 14.29.1016:

- An issue that caused the sent packet to hang while the device entered FLR mode.
- Enabled Bar configuration bitwise by applying the write_en bitmask.
- A rare case where the the device froze while running the sw reset flow under heavy stress and with many open resources.
- Low PXE performance while using the VSC to trigger the send_ring_doorbells.
- An error that prevented the completions (CQ) from being completed due to a race condition in the firmware transport error handlers, and the error stressors, where the error stressors would hang the firmware transport error handler flow.
- An issue that caused the fragmented IP packets to drop was fixed.

Enhancements

Firmware for the following device is updated to 14.29.1016:

P11338-B21 (HPE Ethernet 10Gb 2-port 548SFP+ Adapter)

Following New features and Changes are included in version 14.29.1016:

- Added mlxconfig support for power reduction: PCI CAP AUTO_POWER_SAVE_LINK_DOWN
 - PCI CAP
 - AUTO_POWER_SAVE_LINK_DOWN
- Added the following segments, as appeared in the PRM, to the Resource Dump:
 - PRM_QUERY_QP
 - PRM_QUERY_CQ
 - PRM_QUERY_MKEY
 - QUERY_VNIC_ENV

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 (Linux x86_64) for HPE Intel OPA adapters

Version: 1.9.2 **(Recommended)**

Filename: firmware-nic-intel-opa-hfi-1.9.2-1.1.x86_64.compsig; firmware-nic-intel-opa-hfi-1.9.2-1.1.x86_64.rpm

Prerequisites

The smart component requires Intel IFS or Basic software v10.9.2.0.9 to be installed as a prerequisite.

Fixes

Following issues have been resolved in version 1.9.2:

- Due to a SLES 15 kernel setting, hfi1_eprom cannot work while the HFI driver is loaded. The tool and driver are mutually exclusive.

Enhancements

Changes and New Features in version 1.9.2:

- Added hfi1_eprom **v10_9_2_0_0**.
- Loader ROM **HfiPcieGen3Loader_1.9.2.0.0.rom** and driver EFI **HfiPcieGen3_1.9.2.0.0.efi** were added.

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 HPE Mellanox Ethernet only adapters

Version: 1.0.14 **(Recommended)**

Filename: firmware-nic-mellanox-ethernet-only-1.0.14-1.1.x86_64.compsig; firmware-nic-mellanox-ethernet-only-1.0.14-1.1.x86_64.rpm

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.

Known Issues for FW version 2.42.5044 :

- When using the QSFP module RTX320-581, and performing a driver restart for the firmware upgrade/downgrade to take effect, the link does not come up.
- 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 LES will not be active while the ETH link is in an idle mode.
- In SR-IOV setup, using mlxconfig when the PF is passed through to a VM requires a reboot of the Hypervisor.
- Downgrade to previous GA requires server reboot. Downgrading from v2.30.8000 or later to an earlier version than 2.30.8000 requires server reboot. 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.
- 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
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- 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.
- MFT tools 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.
- 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.
- Firmware downgrade message When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3
- RM#DMFS should not be enabled when working with InfiniBand on MLNX_OFED-2.0.3
- RM#VPD read-only fields are writable.
- Increasing SymbolErrorCounter When working in 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.
- ConnectX-3 Pro VF device ID is presented the same as ConnectX-3 VF device ID due to driver limitations.
- RSOD while running PXE (legacy) on G9 servers. This occurs only when PXE boot fails and BIOS boots from HDD. Currently it is pending BIOS fix.
- Changing port protocol from ETH to IB on port with NCSI/IPMI enabled while the port is connected to ETH switch is not supported.
- RDP over IPv6 is currently not functional.
- 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 mlx-4_en_get_drvinfo() that is called from asynchronous event handler.
- 832298: When running ibdump, loopback traffic is mirroring into the kernel driver.
- AHS reports wrong MTU size

- RM#846523: MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer

Known Issues for FW version 14.29.1016 and 16.29.1016:

- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
Workaround: Use full reset flow for firmware upgrade/downgrade.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.
Workaround: If such issue is observed:
 - Enable ZTT to overcome the high latency. Run: `mlxconfig -d set ZERO_TOUCH_TUNING_ENABLE=1`
 - Reset or power cycle the firmware for change to take effect
- The following are the Steering Dump limitations:
 - Supported only on ConnectX-5 adapter cards
 - Requires passing the version (FW/Stelib/MFT) and device type to stelib
 - Re-format is not supported
 - Advanced multi-port feature is not supported -
LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire)
 - Packet types supported:
 - Layer 2 Eth
 - Layer 3 IPv4/IPv6/Grh
 - Layer 4 TCP/UDP/Bth/GreV0/GreV1
 - Tunneling VXLAN/Geneve/GREv0/Mpls
 - FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
 - Compiles only on x86
- Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Known Issues for FW version 14.29.1016:

- Low performance might be experienced when upgrading from previous firmware version to 14.29.1000 when using "Fast FW Reset".

Known Issues for FW version 16.29.1016:

- When `PER_PF_NUM_SF=1` (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (`PF_TOTAL_SF=0`), then the firmware wrongly opens BAR2 with size 128KB.
- Multi-APP QoS is not supported when LAG is configured.
- When configuring adapter card's Level Scheduling, a QoS tree leaf (`QUEUE_GROUP`) configured with default `rate_limit` and default `bw_share`, may not obey the QoS restrictions imposed by any of the leaf's ancestors.
Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: `max_average_bw` or `bw_share`.
- Occasionally, Tag Matching RNDV and NVME emulation wasn't behaving as expected.

Prerequisites

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

Fixes

ixes submitted 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.

Following issues have been fixed in firmware version 14.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that caused packets to drop due to header size issues and/or failing checks. The issue was caused due to a Linux issue that caused VFs to set the wrong header size value in wqe_inline_header_mode input.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs were configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 16.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that prevented VXLAN packets with svlan/ cvlan tag from being matched.
- The eth_wqe_too_small counter to count ODP page used to fail.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- An issue that resulted in low performance after enabling the RoCE Accelerator capability.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- The chassis manager calculation for Multi-Host and Socket-Direct adapter cards to allow running NC-SI commands by the chassis manager BMC. Now the chassis manager is count as BMC with index 0, regardless of how many BMC there are.
- An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Enhancements

Firmware for the following devices are updated to 2.42.5044 :

779799-B21 (HPE Ethernet 10G 2-port 546FLR-SFP+ Adapter)
779793-B21 (HPE Ethernet 10G 2-port 546SFP+ Adapter)

Firmware for the following devices are updated to 14.29.1016:

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

Firmware for the following devices are updated to 14.29.1016:

817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

Firmware for the following device is updated to 16.29.1016:

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

New features and changes in version 14.29.1016:

Added support for the following features:

- A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- cq_overnrun counter: This counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- Enabled the capability to allow Virtual Functions to send Pause Frames packets.
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- Hardware steering dump output used for debugging and troubleshooting.

New features and changes in version 16.29.1016:

Added support for following features:

- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compare to the FW Flow Metering.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- 2 new Mini CQE formats: Responder Mini CQE With Flow Tag Layout Responder Mini CQE With I3_I4_info Layout
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Steering DP hash flow groups.
- A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- PCIe Rx modifications to prevent the adapter cards from disappearing from the system.
- ignore_flow_level is now enabled by the TRUST LEVEL access registry.
- cq_overnrun counter. The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- [Beta] Enabled the capability to allow Virtual Functions to send Pause Frames packets.
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- Hardware steering dump output used for debugging and troubleshooting.

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: 1.0.7 (**Recommended**)

Filename: firmware-nic-mellanox-ib-cx4-cx5-1.0.7-1.1.x86_64.compsig; firmware-nic-mellanox-ib-cx4-cx5-1.0.7-1.1.x86_64.rpm

Important Note!

Known Issues with firmware version 12.28.1002:

- When MKEY_BY_NAME is enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.

Known Issues with firmware version 16.29.1016:

- Multi-APP QoS is not supported when LAG is configured.
- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
Workaround: Use full reset flow for firmware upgrade/downgrade.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.
Workaround: If such issue is observed:
 - - Enable ZTT to overcome the high latency. Run: `mlxconfig -d set ZERO_TOUCH_TUNING_ENABLE=1`
 - Reset or power cycle the firmware for change to take effect
- When PER_PF_NUM_SF=1 (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (PF_TOTAL_SF=0), then the firmware wrongly opens BAR2 with size 128KB.
- The following are the Steering Dump limitations:
 - Supported only on ConnectX-5 adapter cards
 - Requires passing the version (FW/Stelib/MFT) and device type to stelib
 - Re-format is not supported
 - Advanced multi-port feature is not supported -
LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire)
 - Packet types supported:
 - Layer 2 Eth
 - Layer 3 IPv4/IPv6/Grh
 - Layer 4 TCP/UDP/Bth/GreV0/GreV1
 - Tunneling VXLAN/Geneve/GREv0/Mpls
 - FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
 - Compiles only on x86
- When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.
Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share
- Occasionally, Tag Matching RNDV and NVME emulation wasn't behaving as expected.
- Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Fixes

Following issues have been fixed in firmware version 16.29.1016:

- An issue that prevented VXLAN packets with svlan/ cvlan tag from being matched.
- An issue that caused the eth_wqe_too_small counter to count ODP (On-Demand Paging) page faults.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.

- An issue that resulted in low performance after enabling the RoCE Accelerator capability.
Note: The fix is available when all ports are set as Ethernet.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- The chassis manager calculation for Multi-Host and Socket-Direct adapter cards to allow running NC-SI commands by the chassis manager BMC. Now the chassis manager is count as BMC with index 0, regardless of how many BMC there are.
- An issue that caused the device to go to down IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 12.28.1002:

- 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.
- An issue that caused PortCounters.PortRcvErr / PPCNT.infiniband_counters.PortRcvErr not to report port icrc errors.

Enhancements

Firmware for the following devices are updated to 12.28.1002:

843400-B21 (HPE Apollo A10 InfiniBand EDR (100Gb) 2-port Adapter)

New Feature and Changes in Version 12.28.1002:

- Increased the maximum XRQ number to 512.

Firmware for the following devices are updated to 16.29.1016:

872723-B21 (HPE Apollo InfiniBand EDR 100Gb 2-port 841z Mezzanine Adapter)

872725-B21 (HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter)

New Feature and Changes in Version 16.29.1016:

Added support for following features:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of the cluster.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compared to the FW Flow Metering.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- 2 new Mini CQE formats: Responder Mini CQE With Flow Tag Layout Responder Mini CQE With I3_I4_info Layout
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Steering DP hash flow groups.

- A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- PCIe Rx modifications to prevent the adapter cards from disappearing from the system.
- ignore_flow_level is now enabled by the TRUST LEVEL access registry.
- cq_omrrun counter. The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- [Beta] Enabled the capability to allow Virtual Functions to send Pause Frames packets.
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- Hardware steering dump output used for debugging and troubleshooting.

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 (Linux x86_64) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX4 and ConnectX5 devices on Linux x86_64 platform

Version: 1.0.10 (**Recommended**)

Filename: firmware-hca-mellanox-vpi-connectx4-1.0.10-1.1.x86_64.compsig; firmware-hca-mellanox-vpi-connectx4-1.0.10-1.1.x86_64.rpm

Important Note!

Known Issues with firmware version 12.28.1002:

- When MKEY_BY_NAME is enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.

Known Issues with firmware version 16.29.1016:

- Multi-APP QoS is not supported when LAG is configured.
- Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.
Workaround: Use full reset flow for firmware upgrade/downgrade.
- On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.
Workaround: If such issue is observed:
 - Enable ZTT to overcome the high latency. Run: mlxconfig -d set ZERO_TOUCH_TUNING_ENABLE=1
 - Reset or power cycle the firmware for change to take effect
- When PER_PF_NUM_SF=1 (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (PF_TOTAL_SF=0), then the firmware wrongly opens BAR2 with size 128KB.
- The following are the Steering Dump limitations:
 - Supported only on ConnectX-5 adapter cards
 - Requires passing the version (FW/Stelib/MFT) and device type to stelib
 - Re-format is not supported

- Advanced multi-port feature is not supported -
LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire)
 - Packet types supported:
 - Layer 2 Eth
 - Layer 3 IPv4/IPv6/Grh
 - Layer 4 TCP/UDP/Bth/GreV0/GreV1
 - Tunneling VXLAN/Geneve/GREv0/Mpls
- FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).
- Compiles only on x86
- When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.
Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share.
- Occasionally, Tag Matching RNDV and NVME emulation wasn't behaving as expected.
- Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Fixes

Following issues have been fixed in firmware version 16.29.1016:

- An issue that prevented VXLAN packets with svlan/ cvlan tag from being matched.
- An issue that caused the eth_wqe_too_small counter to count ODP (On-Demand Paging) page faults.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- An issue that resulted in low performance after enabling the RoCE Accelerator capability.
Note: The fix is available when all ports are set as Ethernet.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.
- The chassis manager calculation for Multi-Host and Socket-Direct adapter cards to allow running NC-SI commands by the chassis manager BMC. Now the chassis manager is count as BMC with index 0, regardless of how many BMC there are.
- An issue that caused the device to go to down IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 12.28.1002:

- 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.
- An issue that caused PortCounters.PortRcvErr / PPCNT.infiniband_counters.PortRcvErr not to report port icrc errors.

Enhancements

Firmware for the following devices are updated to 12.28.1002:

825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)
825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

New Feature and Changes in Version 12.28.1002:

- Increased the maximum XRQ number to 512.

Firmware for the following devices are updated to 16.29.1016:

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 Feature and Changes in Version 16.29.1016:

Added support for the following features:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter `min_time_between_cnps` to 4 on all devices to support larger scalability of cluster.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compared to the FW Flow Metering.
- Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- 2 new Mini CQE formats: Responder Mini CQE With Flow Tag Layout Responder Mini CQE With I3_I4_info Layout
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT_CONTEXT. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Steering DP hash flow groups.
- A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".
- PCIe Rx modifications to prevent the adapter cards from disappearing from the system.
- `ignore_flow_level` is now enabled by the TRUST LEVEL access registry.
- `cq_omitted` counter. The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.
- [Beta] Enabled the capability to allow Virtual Functions to send Pause Frames packets.
- Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.
- Hardware steering dump output used for debugging and troubleshooting.

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: 1.0.6 (**Recommended**)

Filename: `firmware-hca-mellanox-vpi-connectx6-mft-1.0.6-1.1.x86_64.compsig`; `firmware-hca-mellanox-vpi-connectx6-mft-1.0.6-1.1.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
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

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX6 firmware version 20.27.6008. 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 20.29.1016:

- Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.
- An issue that prevented VXLAN packets with svlan/cvlan tag from being matched.
- The eth_wqe_too_small counter to count ODP (On-Demand Paging) page used to fail.
- An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.
- When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.
- Low performance occurred after enabling the RoCE Accelerator capability.
- On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

Firmware for the following devices are updated to 20.29.1016:

HPE InfiniBand HDR/Ethernet 200Gb 1-port 940QSFP56 x16 Adapter - P06154-B21
HPE InfiniBand HDR100/Ethernet 100Gb 1-port 940QSFP56 x16 Adapter - P06250-B21
HPE InfiniBand HDR100/Ethernet 100Gb 2-port 940QSFP56 x16 Adapter - P06251-B21

New Features and Changes in Version 20.29.1016:

Added support for following features:

- LinkX module burning via MFT toolset. The new capability enables direct firmware burning from the internal flash storage to reduce the bandwidth and accelerate the burning process, including burning several modules at a time.
- An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.
- Improved NRZ link performance (RX algorithm).
- Improved NRZ link-up time (25G\50G\100G speeds).
- Enabled the options to control different Tx sets for the same attribute when connecting a Mellanox-Mellanox vs Mellanox to 3rd party HCA.
- "InfiniBand" properties set to the Network Device Function Redfish object.
- Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order.
- To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command, and set DPP relevant attributes.
- Added trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.
- UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.
- Enhanced IB Congestion Control to support lower minimum rate. Now it uses destination-lid to classify flows to handle larger scale, and achieve better results in GPCNet benchmark.
- Hardware steering dump output used for debugging and troubleshooting.

Supported Devices and Features

HPE Part Number	Device Name	PSID
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

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

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 `"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.

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 (Linux x86_64) for Mellanox ConnectX6Dx Open Ethernet cards

Version: 1.0.3 (Recommended)

Filename: firmware-nic-mellanox-nic-mft-1.0.3-1.1.x86_64.compsig; firmware-nic-mellanox-nic-mft-1.0.3-1.1.x86_64.rpm

Important Note!

Important Notes:

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

Single-root input/output virtualization (SR-IOV) - Virtual Functions (VF) per Port - The maximum Virtual Functions (VF) per port is 127.

It is recommended to enable the "above 4G decoding" BIOS setting for features that require large amount of PCIe resources. Such features are: Single-root input/output virtualization (SR-IOV) with numerous Virtual Functions (VFs), PCIe Emulated Switch, and Large BAR Requests.

Known Issues:

Multi-APP QoS is not supported when LAG is configured.

Workaround: N/A

When Emulated PCIe Switch is enabled, and more than 8 PFs are enabled, the OS boot process might halt.

Workaround: N/A

When Emulated PCIe Switch is enabled, and the OS does resource reallocation, the OS boot process might halt.

Workaround: N/A

Unable to complete migration when virtio device is in high traffic load (20/20 MPPS) as although vDPA hardware offload solution can support higher speed than the software solution, it needs to enable QEMU auto-converge to complete migration.

Workaround: Turn auto-converge on by adding "--auto-converge". For example: `virsh migrate --verbose --live --persistent gen-l-vrt-295-005CentOS-7.4 qemu+ssh://gen-l-vrt-295/system --unsafe --auto-converge`

Using the Eye-Opening tool might cause degradation in the link speed or link down events.

Workaround: N/A

Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.

Workaround: Use full reset flow for firmware upgrade/downgrade.

On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.

Workaround: If such issue is observed:

Enable ZTT to overcome the high latency. Run: `mlxconfig -d <mst device> set ZERO_TOUCH_TUNING_ENABLE=1` .

Reset or power cycle the firmware for change to take effect .

Eye-opening can cause effective errors on the port.

Workaround: N/A

Connection to BMC is lost after applying Phyless reset following an AC-Cycle.

Workaround: N/A

Phyless Reset functionality is not supported when updating firmware from v22.28.4000 (and below) to v22.29.1000.

Workaround: N/A

The following are the Steering Dump limitations:

Supported only on ConnectX-5 adapter cards.

Requires passing the version (FW/Stelib/MFT) and device type to stelib.

Re-format is not supported Advanced multi-port feature is not supported – LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire).

Packet types supported:

Layer 2 Eth

Layer 3 IPv4/IPv6/Grh

Layer 4 TCP/UDP/Bth/GreV0/GreV1

Tunneling VXLAN/Geneve/GREv0/Mpls FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).

Compiles only on x86

FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).

Compiles only on x86.

Workaround: N/A

When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.

Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX5/ConnectX6 firmware version 22.27.6008. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

Fixes

Following issues have been resolved in firmware version 22.29.1016:

Traffic for virtio hardware offload solution was prevented from "iperf3" in Windows Operating System.

Traffic for virtio hardware offload solution was prevented from "iperf3 -i 512".

The struct virtio_net_hdr was not set properly by the virtio hardware offload solution. The following message appeared in dmesg during traffic: "bad gso: type xx, size: xx".

When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs were configured, VM restart (VF/PF FLR) might have taken longer than that of when MKEY_BY_NAME was disabled.

TCP/IP traffic received by the guest kernel with version higher than 4.10 were unstable because of corrupted GSO header. The following message could be seen from dmesg: "bad gso: type: xx, size: xxxx".

Enabling the RoCE Accelerator capability resulted in low performance

Note: The fix is available when all ports are set as Ethernet.

On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

Firmware for the following devices is updated to 22.29.1016:

P25960-B21 (HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter)

P10180-B21 (Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE)

New features and changes in version 22.29.1016:

Improved NRZ link performance (RX algorithm).

Improved NRZ link-up time (25G\50G\100G speeds).

UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.

Optimized vDPA performance for PPS in scalability of up to 127 devices per port.

When using a Multi-Host device, the firmware can now discover who is the external SmartNIC host (the Embedded CPU PF (ECPF)) with the highest index that is responsible for performing offload activities to the adapter card.

Hardware steering dump output used for debugging and troubleshooting.

Changed the default value of DCQCN's NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.

Added support for the following features:

Eye-Opening: supported only when using NRZ signal. (Beta)

Option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.

"InfiniBand" properties set to the Network Device Function Redfish object.

Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order. To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command and set DPP relevant attributes.

Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.

Error statistics and reporting for vDPA.

IPv6 TSO offload.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P25960-B21	HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter	MT_0000000437
P10180-B21	Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE MT_0000000435	

Online Firmware Upgrade Utility (Linux x86_64) for Mellanox Open Ethernet cards

Version: 1.0.4 (Recommended)

Filename: firmware-nic-open-mellanox-eth-mft-1.0.4-1.1.x86_64.compsig; firmware-nic-open-mellanox-eth-mft-1.0.4-1.1.x86_64.rpm

Important Note!

Known Issues in firmware 14.29.1016:

Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.

Workaround: Use full reset flow for firmware upgrade/downgrade.

On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.

Workaround: If such issue is observed:

Enable ZTT to overcome the high latency. Run: `mlxconfig -d <mst device> set ZERO_TOUCH_TUNING_ENABLE=1`

Reset or power cycle the firmware for change to take effect

Low performance might be experienced when upgrading from previous firmware version to 14.29.1000 when using "Fast FW Reset".

The following are the Steering Dump limitations:

Supported only on ConnectX-5 adapter cards.

Requires passing the version (FW/Stelib/MFT) and device type to stelib.

Re-format is not supported

Advanced multi-port feature is not supported – LAG/ROCE_AFFILIATION/MPFS_LB/ ESW_LB (only traffic vhca <- > wire).

Packet types supported:

Layer 2 Eth

Layer 3 IPv4/Ipv6/Grh

Layer 4 TCP/UDP/Bth/GreV0/GreV1

Tunneling VXLAN/Geneve/GREv0/Mpls FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).

FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).

Compiles only on x86

Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Known Issues with firmware version 16.29.1016:

Multi-APP QoS is not supported when LAG is configured.

When `PER_PF_NUM_SF=1` (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (`PF_TOTAL_SF=0`), then the firmware wrongly opens BAR2 with size 128KB.

Workaround: N/A

When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.

Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share.

Occasionally, Tag Matching RNDV and NVME emulation was not behaving as expected.

Workaround: N/A

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.

Fixes

Following issues have been fixed in firmware version 14.29.1016 and 16.29.1016:

Changed the default value of DCQCN's NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.

An issue that caused packets to drop due to header size issues and/or failing checks. This issue was caused due to a Linux issue that caused VFs to set the wrong header size value in wqe_inline_header_mode input.

When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) might take longer than when MKEY_BY_NAME was disabled.

In rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 16.29.1016:

An issue that caused the eth_wqe_too_small counter to count ODP page faults.

A low performance was observed after enabling the RoCE Accelerator capability.

Enhancements

Firmware for the following devices is updated to 14.29.1016:

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 devices is updated to 16.29.1016:

P13188-B21 (HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACAT Adapter)

P21927-B21 (HPE Ethernet 100Gb 2-Port QSFP28 MCX516A-CCHT Adapter)

P10112-B21 (HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter)

This release contains important reliability improvements and security hardening enhancements. Upgrade the firmware of the device to this release to improve the devices' firmware security and reliability.

New Feature and Changes in Version 14.29.1016 and 16.29.1016:

Ethernet wqe_too_small Mode: A per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".

Hardware steering dump output used for debugging and troubleshooting.

Added support for the following features:

cq_overnrun counter: The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.

Enabled the capability to allow Virtual Functions to send Pause Frames packets. (Beta)

Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.

New Feature and Changes in Version 16.29.1016:

Hardware steering dump output used for debugging and troubleshooting.

Added support for the following features:

HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compare to the FW Flow Metering.

Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.

2 new Mini CQE formats:

Responder Mini CQE With Flow Tag Layout.

Responder Mini CQE With I3_I4_info Layout.

Steering DP hash flow groups.

ignore_flow_level is now enabled by the TRUST LEVEL access registry.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
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P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414
P11341-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P13188-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter	MT_0000000416
P10112-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter	MT_0000000241
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: 1.0.0.4 (Recommended)

Filename: cp045200.compsig; cp045200.exe

Important Note!

No known issues were included in firmware version 14.29.1016:

Prerequisites

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

Fixes

Following issues have been fixed in version 14.29.1016:

An issue that caused the sent packet to hang while the device entered FLR mode.

Enabled Bar configuration bitwise by applying the write_en bitmask.

A rare case where the the device froze while running the sw reset flow under heavy stress and with many open resources.

Low PXE performance while using the VSC to trigger the send_ring_doorbells.

An error that prevented the completions (CQ) from being completed due to a race condition in the firmware transport error handlers, and the error stressors, where the error stressors would hang the firmware transport error handler flow.

An issue that caused the fragmented IP packets to drop was fixed.

Enhancements

Firmware for the following device is updated to 14.29.1016:

P11338-B21 (HPE Ethernet 10Gb 2-port 548SFP+ Adapter)

Following New features and Changes are included in version 14.29.1016:

Added mlxconfig support for power reduction: PCI CAP AUTO_POWER_SAVE_LINK_DOWN

PCI CAP

AUTO_POWER_SAVE_LINK_DOWN

Added the following segments, as appeared in the PRM, to the Resource Dump:

PRM_QUERY_QP

PRM_QUERY_CQ

PRM_QUERY_MKEY

QUERY_VNIC_ENV

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 (Windows x64) for HPE Mellanox Ethernet only adapters

Version: 1.0.0.14 (Recommended)

Filename: cp045195.compsig; cp045195.exe

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.

Known Issues for FW version 2.42.5044 :

When using the QSFP module RTX320-581, and performing a driver restart for the firmware upgrade/downgrade to take effect, the link does not come up.

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 LES will not be active while the ETH link is in an idle mode.

In SR-IOV setup, using mlxconfig when the PF is passed through to a VM requires a reboot of the Hypervisor.

Downgrade to previous GA requires server reboot. Downgrading from v2.30.8000 or later to an earlier version than 2.30.8000 requires server reboot. 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.

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

RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.

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.

MFT tools 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.

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.

Firmware downgrade message When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3

RM#DMFS should not be enabled when working with InfiniBand on MLNX_OFED-2.0.3

RM#VPD read-only fields are writable.

Increasing SymbolErrorCounter When working in 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.

ConnectX-3 Pro VF device ID is presented the same as ConnectX-3 VF device ID due to driver limitations.

RSOD while running PXE (legacy) on G9 servers. This occurs only when PXE boot fails and BIOS boots from HDD. Currently it is pending BIOS fix.

Changing port protocol from ETH to IB on port with NCSI/IPMI enabled while the port is connected to ETH switch is not supported.

RDP over IPv6 is currently not functional.

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 `mlx-4_en_get_drvinfo()` that is called from asynchronous event handler.

832298: When running `ibdump`, loopback traffic is mirroring into the kernel driver.

AHS reports wrong MTU size

RM#846523: MAC address that are set from the OS using `ifconfig` are not reflected in the OCBB buffer

Known Issues for FW version 14.29.1016 and 16.29.1016:

Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.

Workaround: Use full reset flow for firmware upgrade/downgrade.

On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.

Workaround: If such issue is observed:

Enable ZTT to overcome the high latency. Run: `mlxconfig -d set ZERO_TOUCH_TUNING_ENABLE=1`

Reset or power cycle the firmware for change to take effect

The following are the Steering Dump limitations:

Supported only on ConnectX-5 adapter cards

Requires passing the version (FW/Stelib/MFT) and device type to `stelib`

Re-format is not supported

Advanced multi-port feature is not supported -LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic `vhca <-> wire`)

Packet types supported:

Layer 2 Eth

Layer 3 IPv4/IPv6/Grh

Layer 4 TCP/UDP/Bth/GreV0/GreV1

Tunneling VXLAN/Geneve/GREv0/Mpls

FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).

Compiles only on x86

Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Known Issues for FW version 14.29.1016:

Low performance might be experienced when upgrading from previous firmware version to 14.29.1000 when using "Fast FW Reset".

Known Issues for FW version 16.29.1016:

When PER_PF_NUM_SF=1 (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (PF_TOTAL_SF=0), then the firmware wrongly opens BAR2 with size 128KB.

Multi-APP QoS is not supported when LAG is configured.

When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.

Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share.

Occasionally, Tag Matching RNDV and NVME emulation wasn't behaving as expected.

Prerequisites

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

Fixes

ixes submitted 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.

Following issues have been fixed in firmware version 14.29.1016:

Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.

An issue that caused packets to drop due to header size issues and/or failing checks. The issue was caused due to a Linux issue that caused VFs to set the wrong header size value in wqe_inline_header_mode input.

When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs were configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.

On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 16.29.1016:

Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.

An issue that prevented VXLAN packets with svlan/ cvlan tag from being matched.

The eth_wqe_too_small counter to count ODP page used to fail.

When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.

An issue that resulted in low performance after enabling the RoCE Accelerator capability.

On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

The chassis manager calculation for Multi-Host and Socket-Direct adapter cards to allow running NC-SI commands by the chassis manager BMC. Now the chassis manager is count as BMC with index 0, regardless of how many BMC there are.

An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Enhancements

Firmware for the following devices are updated to 2.42.5044 :

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

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

Firmware for the following devices are updated to 14.29.1016:

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

Firmware for the following devices are updated to 14.29.1016:

817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

Firmware for the following device is updated to 16.29.1016:

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

New features and changes in version 14.29.1016:

Added support for the following features:

A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".

cq_omitted counter: This counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.

Enabled the capability to allow Virtual Functions to send Pause Frames packets.

Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.

Hardware steering dump output used for debugging and troubleshooting.

New features and changes in version 16.29.1016:

Added support for following features:

An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.

"InfiniBand" properties set to the Network Device Function Redfish object.

HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compare to the FW Flow Metering.

Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.

2 new Mini CQE formats: Responder Mini CQE With Flow Tag Layout Responder Mini CQE With I3_I4_info Layout

UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.

Steering DP hash flow groups.

A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".

PCIe Rx modifications to prevent the adapter cards from disappearing from the system.

ignore_flow_level is now enabled by the TRUST_LEVEL access registry.

cq_omitted counter. The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.

[Beta] Enabled the capability to allow Virtual Functions to send Pause Frames packets.

Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.

Hardware steering dump output used for debugging and troubleshooting.

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: 1.0.0.7 (Recommended)

Filename: cp045138.compsig; cp045138.exe

Important Note!

Known Issues with firmware version 12.28.1002:

When MKEY_BY_NAME is enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.

Known Issues with firmware version 16.29.1016:

Multi-APP QoS is not supported when LAG is configured.

Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.

Workaround: Use full reset flow for firmware upgrade/downgrade.

On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.

Workaround: If such issue is observed:

Enable ZTT to overcome the high latency. Run: `mlxconfig -d set ZERO_TOUCH_TUNING_ENABLE=1`

Reset or power cycle the firmware for change to take effect

When `PER_PF_NUM_SF=1` (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (`PF_TOTAL_SF=0`), then the firmware wrongly opens BAR2 with size 128KB.

The following are the Steering Dump limitations:

Supported only on ConnectX-5 adapter cards

Requires passing the version (FW/Stelib/MFT) and device type to stelib

Re-format is not supported

Advanced multi-port feature is not supported -LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire)

Packet types supported:

Layer 2 Eth

Layer 3 IPv4/Ipv6/Grh

Layer 4 TCP/UDP/Bth/GreV0/GreV1

Tunneling VXLAN/Geneve/GREv0/Mpls

FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).

Compiles only on x86

When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.

Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share

Occasionally, Tag Matching RNDV and NVME emulation wasn't behaving as expected.

Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Fixes

Following issues have been fixed in firmware version 16.29.1016:

An issue that prevented VXLAN packets with svlan/ cvlan tag from being matched.

An issue that caused the eth_wqe_too_small counter to count ODP (On-Demand Paging) page faults.

When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.

An issue that resulted in low performance after enabling the RoCE Accelerator capability. Note: The fix is available when all ports are set as Ethernet.

On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

The chassis manager calculation for Multi-Host and Socket-Direct adapter cards to allow running NC-SI commands by the chassis manager BMC. Now the chassis manager is count as BMC with index 0, regardless of how many BMC there are.

An issue that caused the device to go to down IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 12.28.1002:

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's time-to-live was increased, and the maximum retry timeout was decreased.

Increased PHY power consumption limit to 1.5w.

An issue that caused PortCounters.PortRcvErr / PPCNT.infiniband_counters.PortRcvErr not to report port icrc errors.

Enhancements

Firmware for the following devices are updated to 12.28.1002:

843400-B21 (HPE Apollo A10 InfiniBand EDR (100Gb) 2-port Adapter)

New Feature and Changes in Version 12.28.1002:

Increased the maximum XRQ number to 512.

Firmware for the following devices are updated to 16.29.1016:

872723-B21 (HPE Apollo InfiniBand EDR 100Gb 2-port 841z Mezzanine Adapter)

872725-B21 (HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter)

New Feature and Changes in Version 16.29.1016:

Added support for following features:

Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of the cluster.

An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.

"InfiniBand" properties set to the Network Device Function Redfish object.

HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compared to the FW Flow Metering.

Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.

2 new Mini CQE formats: Responder Mini CQE With Flow Tag Layout Responder Mini CQE With I3_I4_info Layout

UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.

Steering DP hash flow groups.

A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".

PCIe Rx modifications to prevent the adapter cards from disappearing from the system.

ignore_flow_level is now enabled by the TRUST LEVEL access registry.

cq_omitted counter. The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.

[Beta] Enabled the capability to allow Virtual Functions to send Pause Frames packets.

Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.

Hardware steering dump output used for debugging and troubleshooting.

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: 1.0.0.9 (Recommended)

Filename: cp045148.compsig; cp045148.exe

Important Note!

Known Issues with firmware version 12.28.1002:

When MKEY_BY_NAME is enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.

Known Issues with firmware version 16.29.1016:

Multi-APP QoS is not supported when LAG is configured.

Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.

Workaround: Use full reset flow for firmware upgrade/downgrade.

On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.

Workaround: If such issue is observed:

Enable ZTT to overcome the high latency. Run: `mlxconfig -d set ZERO_TOUCH_TUNING_ENABLE=1`

Reset or power cycle the firmware for change to take effect

When `PER_PF_NUM_SF=1` (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (`PF_TOTAL_SF=0`), then the firmware wrongly opens BAR2 with size 128KB.

The following are the Steering Dump limitations:

Supported only on ConnectX-5 adapter cards

Requires passing the version (FW/Stelib/MFT) and device type to stelib

Re-format is not supported

Advanced multi-port feature is not supported -LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire)

Packet types supported:

Layer 2 Eth

Layer 3 IPv4/IPv6/Grh

Layer 4 TCP/UDP/Bth/GreV0/GreV1

Tunneling VXLAN/Geneve/GREv0/Mpls

FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).

Compiles only on x86

When configuring adapter card's Level Scheduling, a QoS tree leaf (`QUEUE_GROUP`) configured with default `rate_limit` and default `bw_share`, may not obey the QoS restrictions imposed by any of the leaf's ancestors.

Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: `max_average_bw` or `bw_share`.

Occasionally, Tag Matching RNDV and NVME emulation wasn't behaving as expected.

Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Fixes

Following issues have been fixed in firmware version 16.29.1016:

An issue that prevented VXLAN packets with svlan/ cvlan tag from being matched.

An issue that caused the eth_wqe_too_small counter to count ODP (On-Demand Paging) page faults.

When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.

An issue that resulted in low performance after enabling the RoCE Accelerator capability. Note: The fix is available when all ports are set as Ethernet.

On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

The chassis manager calculation for Multi-Host and Socket-Direct adapter cards to allow running NC-SI commands by the chassis manager BMC. Now the chassis manager is count as BMC with index 0, regardless of how many BMC there are.

An issue that caused the device to go to down IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 12.28.1002:

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.

An issue that caused PortCounters.PortRcvErr / PPCNT.infiniband_counters.PortRcvErr not to report port icrc errors.

Enhancements

Firmware for the following devices are updated to 12.28.1002:

825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)

825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

New Feature and Changes in Version 12.28.1002:

Increased the maximum XRQ number to 512.

Firmware for the following devices are updated to 16.29.1016:

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 Feature and Changes in Version 16.29.1016:

Added support for the following features:

Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter `min_time_between_cnps` to 4 on all devices to support larger scalability of cluster.

An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.

"InfiniBand" properties set to the Network Device Function Redfish object.

HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compared to the FW Flow Metering.

Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.

2 new Mini CQE formats: Responder Mini CQE With Flow Tag Layout Responder Mini CQE With I3_I4_info Layout

UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the `QUERY_HCA_VPORT_CONTEXT` command.

Steering DP hash flow groups.

A new counter per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".

PCIe Rx modifications to prevent the adapter cards from disappearing from the system.

`ignore_flow_level` is now enabled by the TRUST LEVEL access registry.

`cq_overnrun` counter. The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.

[Beta] Enabled the capability to allow Virtual Functions to send Pause Frames packets.

Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.

Hardware steering dump output used for debugging and troubleshooting.

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: 1.0.0.3 (Recommended)

Filename: cp044872.compsig; cp044872.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

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

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX6 firmware version 20.27.6008. 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 20.29.1016:

Changed the default value of DCQCN's (Data center- Quantized Congestion Notification) NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.

An issue that prevented VXLAN packets with svlan/cvlan tag from being matched.

The eth_wqe_too_small counter to count ODP (On-Demand Paging) page used to fail.

An issue related to raising 100GbE link on ConnectX-6 VPI 100Gb/s adapter cards.

When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) will take longer than when MKEY_BY_NAME is disabled.

Low performance occurred after enabling the RoCE Accelerator capability.

On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

Firmware for the following devices are updated to 20.29.1016:

HPE InfiniBand HDR/Ethernet 200Gb 1-port 940QSFP56 x16 Adapter - P06154-B21

HPE InfiniBand HDR100/Ethernet 100Gb 1-port 940QSFP56 x16 Adapter - P06250-B21

HPE InfiniBand HDR100/Ethernet 100Gb 2-port 940QSFP56 x16 Adapter - P06251-B21

New Features and Changes in Version 20.29.1016:

Added support for following features:

LinkX module burning via MFT toolset. The new capability enables direct firmware burning from the internal flash storage to reduce the bandwidth and accelerate the burning process, including burning several modules at a time.

An option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.

Improved NRZ link performance (RX algorithm).

Improved NRZ link-up time (25G\50G\100G speeds).

Enabled the options to control different Tx sets for the same attribute when connecting a Mellanox-Mellanox vs Mellanox to 3rd party HCA.

"InfiniBand" properties set to the Network Device Function Redfish object.

Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order.

To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command, and set DPP relevant attributes.

Added trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.

UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.

Enhanced IB Congestion Control to support lower minimum rate. Now it uses destination-lid to classify flows to handle larger scale, and achieve better results in GPCNeT benchmark.

Hardware steering dump output used for debugging and troubleshooting.

Supported Devices and Features

HPE Part Number	Device Name	PSID
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

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

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 `"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.

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 (Windows x64) for Mellanox ConnectX6Dx Open Ethernet cards

Version: 1.0.0.3 (Recommended)

Filename: cp044271.compsig; cp044271.exe

Important Note!

Important Notes:

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

Single-root input/output virtualization (SR-IOV) - Virtual Functions (VF) per Port - The maximum Virtual Functions (VF) per port is 127.

It is recommended to enable the "above 4G decoding" BIOS setting for features that require large amount of PCIe resources. Such features are: Single-root input/output virtualization (SR-IOV) with numerous Virtual Functions (VFs), PCIe Emulated Switch, and Large BAR Requests.

Known Issues:

Multi-APP QoS is not supported when LAG is configured.

Workaround: N/A

When Emulated PCIe Switch is enabled, and more than 8 PFs are enabled, the OS boot process might halt.

Workaround: N/A

When Emulated PCIe Switch is enabled, and the OS does resource reallocation, the OS boot process might halt.

Workaround: N/A

Unable to complete migration when virtio device is in high traffic load (20/20 MPPS) as although vDPA hardware offload solution can support higher speed than the software solution, it needs to enable QEMU auto-converge to complete migration.

Workaround: Turn auto-converge on by adding "--auto-converge". For example: `virsh migrate --verbose --live --persistent gen-l-vrt-295-005CentOS-7.4 qemu+ssh://gen-l-vrt-295/system --unsafe --auto-converge`

Using the Eye-Opening tool might cause degradation in the link speed or link down events.

Workaround: N/A

Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.

Workaround: Use full reset flow for firmware upgrade/downgrade.

On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.

Workaround: If such issue is observed:

Enable ZTT to overcome the high latency. Run: `mlxconfig -d <mst device> set ZERO_TOUCH_TUNING_ENABLE=1` .

Reset or power cycle the firmware for change to take effect .

Eye-opening can cause effective errors on the port.

Workaround: N/A

Connection to BMC is lost after applying Phyless reset following an AC-Cycle.

Workaround: N/A

Phyless Reset functionality is not supported when updating firmware from v22.28.4000 (and below) to v22.29.1000.

Workaround: N/A

The following are the Steering Dump limitations:

Supported only on ConnectX-5 adapter cards.

Requires passing the version (FW/Stelib/MFT) and device type to stelib.

Re-format is not supported Advanced multi-port feature is not supported – LAG/ROCE_AFFILIATION/MPFS_LB/ESW_LB (only traffic vhca <-> wire).

Packet types supported:

Layer 2 Eth

Layer 3 IPv4/Ipv6/Grh

Layer 4 TCP/UDP/Bth/GreV0/GreV1

Tunneling VXLAN/Geneve/GREv0/Mpls FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).

Compiles only on x86

FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).

Compiles only on x86.

Workaround: N/A

When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.

Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX5/ConnectX6 firmware version 22.27.6008. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

Fixes

Following issues have been resolved in firmware version 22.29.1016:

Traffic for virtio hardware offload solution was prevented from "iperf3" in Windows Operating System.

Traffic for virtio hardware offload solution was prevented from "iperf3 -i 512".

The struct virtio_net_hdr was not set properly by the virtio hardware offload solution. The following message appeared in dmesg during traffic: "bad gso: type xx, size: xx".

When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs were configured, VM restart (VF/PF FLR) might have taken longer than that of when MKEY_BY_NAME was disabled.

TCP/IP traffic received by the guest kernel with version higher than 4.10 were unstable because of corrupted GSO header. The following message could be seen from dmesg: "bad gso: type: xx, size: xxxx".

Enabling the RoCE Accelerator capability resulted in low performance

Note: The fix is available when all ports are set as Ethernet.

On rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

Enhancements

Firmware for the following devices is updated to 22.29.1016:

P25960-B21 (HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter)

P10180-B21 (Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE)

New features and changes in version 22.29.1016:

Improved NRZ link performance (RX algorithm).

Improved NRZ link-up time (25G\50G\100G speeds).

UCX can now enable AR by exposing Out-Of-Ordering bitmask per SL with "ooo_per_sl" field in the HCA_VPORT context. It can be also queried by running the QUERY_HCA_VPORT_CONTEXT command.

Optimized vDPA performance for PPS in scalability of up to 127 devices per port.

When using a Multi-Host device, the firmware can now discover who is the external SmartNIC host (the Embedded CPU PF (ECPF)) with the highest index that is responsible for performing offload activities to the adapter card.

Hardware steering dump output used for debugging and troubleshooting.

Changed the default value of DCQCN's NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.

Added support for the following features:

Eye-Opening: supported only when using NRZ signal. (Beta)

Option to allow applications to build their own QoS tree over the NIC hierarchy by connecting QPs to responder/requestor Queue Groups.

"InfiniBand" properties set to the Network Device Function Redfish object.

Direct Packet Placement (DPP): DPP is a receive side transport service in which the Ethernet packets are scattered to the memory according to a packet sequence number (PSN) carried by the packet, and not by their arrival order. To enable DPP offload, the software should create a special RQ by using the CREATE_RQ command and set DPP relevant attributes.

Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.

Error statistics and reporting for vDPA.

IPv6 TSO offload.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P25960-B21	HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter	MT_0000000437
P10180-B21	Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	MT_0000000435

Online Firmware Upgrade Utility (Windows x64) for Mellanox Open Ethernet cards

Version: 1.0.0.4 (Recommended)

Filename: cp045143.compsig; cp045143.exe

Important Note!

Known Issues in firmware 14.29.1016:

Sub 1sec firmware update (fast reset flow) is not supported when updating from previous releases to the current one. Doing so may cause network disconnection events.

Workaround: Use full reset flow for firmware upgrade/downgrade.

On systems with high PCIe latency (2us or above), lower bandwidth may be experienced.

Workaround: If such issue is observed:

Enable ZTT to overcome the high latency. Run: `mlxconfig -d <mst device> set ZERO_TOUCH_TUNING_ENABLE=1`

Reset or power cycle the firmware for change to take effect

Low performance might be experienced when upgrading from previous firmware version to 14.29.1000 when using "Fast FW Reset".

The following are the Steering Dump limitations:

Supported only on ConnectX-5 adapter cards.

Requires passing the version (FW/Stelib/MFT) and device type to stelib.

Re-format is not supported

Advanced multi-port feature is not supported – LAG/ROCE_AFFILIATION/MPFS_LB/ ESW_LB (only traffic vhca <- > wire).

Packet types supported:

Layer 2 Eth

Layer 3 IPv4/IPv6/Grh

Layer 4 TCP/UDP/Bth/GreV0/GreV1

Tunneling VXLAN/Geneve/GREv0/Mpls FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).

FlexParser protocols are not supported (e.g AliVxlan/VxlanGpe etc..).

Compiles only on x86

Congestion Control may not work properly if the card supports two ports and each PF for each port is not raised at the same time.

Known Issues with firmware version 16.29.1016:

Multi-APP QoS is not supported when LAG is configured.

When `PER_PF_NUM_SF=1` (per PF configurations are used for SFs), if the number of SFs configured for a PF is 0 (`PF_TOTAL_SF=0`), then the firmware wrongly opens BAR2 with size 128KB.

Workaround: N/A

When configuring adapter card's Level Scheduling, a QoS tree leaf (QUEUE_GROUP) configured with default rate_limit and default bw_share, may not obey the QoS restrictions imposed by any of the leaf's ancestors.

Workaround: To prevent such a case, configure at least one of the following QoS attributes of a leaf: max_average_bw or bw_share.

Occasionally, Tag Matching RNDV and NVME emulation was not behaving as expected.

Workaround: N/A

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.

Fixes

Following issues have been fixed in firmware version 14.29.1016 and 16.29.1016:

Changed the default value of DCQCN's NP parameter min_time_between_cnps to 4 on all devices to support larger scalability of cluster.

An issue that caused packets to drop due to header size issues and/or failing checks. This issue was caused due to a Linux issue that caused VFs to set the wrong header size value in wqe_inline_header_mode input.

When MKEY_BY_NAME was enabled by NVCONFIG and a large number of VFs are configured, VM restart (VF/PF FLR) might take longer than when MKEY_BY_NAME was disabled.

In rare cases, a fatal error related to errors from the PCI transport layer might be reported during FLR.

An issue that caused the device to go to dead IRISC as one of the firmware semaphores could not be released when a speed change or port state change was triggered.

Following issues have been fixed in firmware version 16.29.1016:

An issue that caused the eth_wqe_too_small counter to count ODP page faults.

A low performance was observed after enabling the RoCE Accelerator capability.

Enhancements

Firmware for the following devices is updated to 14.29.1016:

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 devices is updated to 16.29.1016:

P13188-B21 (HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACAT Adapter)

P21927-B21 (HPE Ethernet 100Gb 2-Port QSFP28 MCX516A-CCHT Adapter)

P10112-B21 (HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter)

This release contains important reliability improvements and security hardening enhancements. Upgrade the firmware of the device to this release to improve the devices' firmware security and reliability.

New Feature and Changes in Version 14.29.1016 and 16.29.1016:

Ethernet wqe_too_small Mode: A per vPort that counts the number of packets that reached the Ethernet RQ but cannot fit into the WQE due to their large size. Additionally, we added the option to control if such packet will cause "CQE with Error" or "CQE MOCK".

Hardware steering dump output used for debugging and troubleshooting.

Added support for the following features:

cq_overnrun counter: The counter represents the number of times CQs enter an error state due to overflow that occur when the device tries to post a CQE into a full CQ buffer.

Enabled the capability to allow Virtual Functions to send Pause Frames packets. (Beta)

Enabled 10/25GbE auto-sensing with 3rd party when using 10/25GbE optical cables.

New Feature and Changes in Version 16.29.1016:

Hardware steering dump output used for debugging and troubleshooting.

Added support for the following features:

HW support for Flow Metering to utilize Advanced Steering Operation (ASO). HW Flow Meter allows higher scale, more accuracy, and better performance compare to the FW Flow Metering.

Trust level for VFs. Once the VF is trusted, it will get a set of trusted capabilities.

2 new Mini CQE formats:

Responder Mini CQE With Flow Tag Layout.

Responder Mini CQE With I3_I4_info Layout.

Steering DP hash flow groups.

ignore_flow_level is now enabled by the TRUST LEVEL access registry.

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 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P13188-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter	MT_0000000416
P10112-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter	MT_0000000241
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417

Firmware - NVDIMM

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Firmware Package - 16GB NVDIMM-N DDR4-2666

Version: 1.04 (A) (Recommended)

Filename: nvdimmm-16gb_1.04.fwpkg

Fixes

Initial release.

Enhancements

Initial release.

Firmware package for HPE Persistent Memory featuring Intel Optane DC Persistent Memory on HPE Gen10 Servers

Version: 01.02.00.5435 (B) (Recommended)

Filename: dcpmm_01.02.00.5435.fwpkg

Important Note!

This software package contains Intel Optane DC Persistent Memory Firmware version 1.2.0.5435

Enhancements

This product contains mainly performance improvements.

This product now supports Red Hat Enterprise Linux 8, SUSE Linux Enterprise Server 12 and VMware ESXi 7.0.

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 (A) (Optional)

Filename: RPMS/x86_64/firmware-nvdim-16gb-1.04-1.1.x86_64.compsig; RPMS/x86_64/firmware-nvdim-16gb-1.04-1.1.x86_64.rpm

Fixes

Initial release.

Enhancements

Initial release.

Online Flash Component for Linux - HPE Persistent Memory featuring Intel Optane DC Persistent Memory on HPE Gen10 Servers

Version: 1.2.0.5435 (B) (Recommended)

Filename: RPMS/x86_64/firmware-dcpmm-1.2.0.5435-2.1.x86_64.compsig; RPMS/x86_64/firmware-dcpmm-1.2.0.5435-2.1.x86_64.rpm

Important Note!

This software package contains Intel Optane DC Persistent Memory Firmware version 1.2.0.5435

Prerequisites

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

Enhancements

Initial release of Firmware for HPE Persistent Memory for Gen10 Servers.

This product contains mainly performance improvements.

This product now supports Red Hat Enterprise Linux 8 and SUSE Linux Enterprise Server 12.

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 Windows x64 - 16GB NVDIMM-N DDR4-2666

Version: 1.04 (A) (Optional)

Filename: cp037531.compsig; cp037531.exe

Fixes

Initial release.

Enhancements

Initial release.

Online Flash Component for Windows x64 - HPE Persistent Memory featuring Intel Optane DC Persistent Memory on HPE Gen10 Servers

Version: 1.2.0.5435 (Recommended)

Filename: cp042965.compsig; cp042965.exe

Important Note!

This software package contains Intel Optane DC Persistent Memory Firmware version 1.2.0.5435

Prerequisites

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

Enhancements

Initial release of Firmware for HPE Persistent Memory for Gen10 Servers.

This product contains mainly performance improvements.

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 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-b45e49679c-HPK4-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-b45e49679c-HPK4-5.1.x86_64.rpm

Enhancements

Added support for RHEL 8.3

Online NVMe SSD Flash Component for Linux (x64) - MO0400KEFHN, MO0800KEFHP, MO1600KEFHQ, MO2000KEFHR, MT0800KEXUU and MT1600KEXUV Drives

Version: HPK4 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-2a5b65f157-HPK4-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-2a5b65f157-HPK4-5.1.x86_64.rpm

Enhancements

Added support for RHEL 8.2

Online NVMe SSD Flash Component for Linux (x64) - VS000480KWDUP, VS000960KWDUQ, MS000400KWDUR and MS000800KWDUT Drives

Version: HPK4 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-95a2e5abcb-HPK4-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-95a2e5abcb-HPK4-5.1.x86_64.rpm

Enhancements

Added support for RHEL 8.3

Online NVMe SSD Flash Component for Linux (x64) - LO0400KEFJQ, LO0800KEFJR, LO1600KEFJT, LO2000KEFJU, LT0800KEXVA, LT1600KEXVB and LT2000KEXVC Drives

Version: HPK4 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-d64642c780-HPK4-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-d64642c780-HPK4-5.1.x86_64.rpm

Enhancements

Added support for RHEL 8.2

Online NVMe SSD Flash Component for Linux (x64) - MK000800KWWFE, MK001600KWWFF, MK003200KWWFH, MK006400KWWFK, VK000960KWWFL, VK001920KWWFN, VK003840KWWFP and VK007680KWWFQ Drives

Version: HPK3 (E) (Critical)

Filename: rpm/RPMS/x86_64/firmware-hdd-54addf5312-HPK3-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-54addf5312-HPK3-5.1.x86_64.rpm

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

Online NVMe SSD Flash Component for Linux (x64) - MO001600KWVNB, MO003200KWVNC, MO006400KWVND, MT001600KWSTB, MT003200KWSTC and MT006400KWSTD Drives

Version: HPK3 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-cea219e4b1-HPK3-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-cea219e4b1-HPK3-1.1.x86_64.rpm

Fixes

Fixed SSD weargauge report error issue.

Fixed Assign FWState as TR_DONE_ERR at the correct location.

Prepare proper response data for Get Message Type Supported MCTP Command.

Added code to preserve current feature values cross live firmware update.

Allocate 4 bytes instead of 2 bytes for parameter code.

Changed the value for NLB equal to NSize -1.

Online NVMe SSD Flash Component for Linux (x64) - MO001600KWZQP and MO003200KWZQQ Drives

Version: HPK5 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-95b6ae2e85-HPK5-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-95b6ae2e85-HPK5-1.1.x86_64.rpm

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.

Enhancements

Added support for RHEL 8.3

Online NVMe SSD Flash Component for Linux (x64) - MT001600KWHAC, MT003200KWHAD and MT006400KWHAE Drives

Version: HPS1 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-8e8ddc5265-HPS1-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-8e8ddc5265-HPS1-5.1.x86_64.rpm

Enhancements

Added support for RHEL 8.3

Online NVMe SSD Flash Component for Linux (x64) - MZPLJ1T6HBJR-000, MZPLJ3T2HBJR-000 and MZPLJ6T4HALA-000 Drives

Version: 4H3Q (B) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-6628fce235-4H3Q-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-6628fce235-4H3Q-2.1.x86_64.rpm

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.

Online NVMe SSD Flash Component for Linux (x64) - MZPLJ1T6HBJR-000H3, MZPLJ3T2HBJR-000H3 and MZPLJ6T4HALA-000H3 Drives

Version: EPK74H3Q (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-6628fce235-EPK74H3Q-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-6628fce235-EPK74H3Q-1.1.x86_64.rpm

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.

Online NVMe SSD Flash Component for Linux (x64) - MZXL5800HBHQ-000, MZXL51T6HBJR-000, MZXL53T2HBLS-000, MZXL56T4HALA-000, MZXL512THALA-000, MZXL5960HBHQ-000, MZXL51T9HBJR-000, MZXL53T8HBLS-000, MZXL57T6HALA-000 and MZXL515THALA-00 Drives

Version: 3H5Q (B) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-e320db791d-3H5Q-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-e320db791d-3H5Q-2.1.x86_64.rpm

Fixes

Optimized T-offset setting .

Change MQES setting to 8192.

Code change to set 'Slot Clock Configuration bit in Link Status register.

Fixed LED Behavior misaligned specs issue.

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-00H3 Drive

Version: MPK73H5Q (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-e320db791d-MPK73H5Q-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-e320db791d-MPK73H5Q-1.1.x86_64.rpm

Fixes

Optimized T-offset setting .

Change MQES setting to 8192.

Code change to set 'Slot Clock Configuration bit in Link Status register.

Fixed LED Behavior misaligned specs issue.

Online NVMe SSD Flash Component for Linux (x64) - VO001000KWJSE, VO002000KWJSF, VO004000KWJSH, VT004000KWJSU, MO001600KWJSN and MO003200KWJSQ Drives

Version: 4ICDHPK1 (Critical)

Filename: rpm/RPMS/x86_64/firmware-hdd-1656c1b14a-4ICDHPK1-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-1656c1b14a-4ICDHPK1-1.1.x86_64.rpm

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 8.3

Online NVMe SSD Flash Component for Linux (x64) - VO001920KWVMT, VO003840KWVMU, and VO007680KWVMV Drives

Version: HPK3 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-fe9c474847-HPK3-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-fe9c474847-HPK3-1.1.x86_64.rpm

Fixes

Fixed SSD weargauge report error issue.

Fixed Assign FWState as TR_DONE_ERR at the correct location.

Prepare proper response data for Get Message Type Supported MCTP Command.

Added code to preserve current feature values cross live firmware update.

Allocate 4 bytes instead of 2 bytes for parameter code.

Changed the value for NLB equal to NSize -1.

Online NVMe SSD Flash Component for Linux (x64) - VO001920KWZQR and VO003840KWZQT Drives

Version: HPK5 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-2af7385a1e-HPK5-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-2af7385a1e-HPK5-1.1.x86_64.rpm

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.

Enhancements

Added support for RHEL 8.3

Online NVMe SSD Flash Component for Linux (x64) - VO0400KEFJB, VO1200KEFJC and VO2000KEFJD Drives

Version: HPK4 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-9a826ccd8a-HPK4-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-9a826ccd8a-HPK4-5.1.x86_64.rpm

Enhancements

Added support for RHEL 8.2

Online NVMe SSD Flash Component for Linux (x64) - VS000480KXALB Drive

Version: 85030G00 (B) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-805abb7e9c-85030G00-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-805abb7e9c-85030G00-2.1.x86_64.rpm

Enhancements

Added Support for RHEL 8.2

Online NVMe SSD Flash Component for VMware ESXi - MK000400KWDUK, VK000480KWDUE, MK000800KWDUL, VK000960KWDUF, MK001600KWDUN and VK001920KWDUH Drives

Version: HPK4 (F) (Recommended)

Filename: CP045714.compsig; CP045714.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 U1

Online NVMe SSD Flash Component for VMware ESXi - MO001600KWZQP and MO003200KWZQQ Drives

Version: HPK5 (Recommended)

Filename: CP045989.compsig; CP045989.zip

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.

Enhancements

Added support for VMware 7.0 U1

Online NVMe SSD Flash Component for VMware ESXi - MO0400KEFHN, MO0800KEFHP, MO1600KEFHQ, MO2000KEFHR, MT0800KEXUU and MT1600KEXUV Drives

Version: HPK4 (C) (Recommended)

Filename: CP043753.compsig; CP043753.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

Online NVMe SSD Flash Component for VMware ESXi - MT001600KWHAC, MT003200KWHAD and MT006400KWHAE Drives

Version: HPS1 (E) (Recommended)

Filename: CP045720.compsig; CP045720.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 U1

Online NVMe SSD Flash Component for VMware ESXi - VO001920KWVMT, VO003840KWVMU, and VO007680KWVMV Drives

Version: HPK3 (Recommended)

Filename: CP046658.compsig; CP046658.zip

Fixes

Fixed SSD weargauge report error issue.

Fixed Assign FWState as TR_DONE_ERR at the correct location.

Prepare proper response data for Get Message Type Supported MCTP Command.

Added code to preserve current feature values cross live firmware update.

Allocate 4 bytes instead of 2 bytes for parameter code.

Changed the value for NLB equal to NSize -1.

Online NVMe SSD Flash Component for VMware ESXi - VO001920KWZQR and VO003840KWZQT Drives

Version: HPK5 (Recommended)

Filename: CP045993.compsig; CP045993.zip

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.

Enhancements

Added support for VMware 7.0 U1

Online NVMe SSD Flash Component for VMware ESXi - VS000480KWDUP, VS000960KWDUQ, MS000400KWDUR and MS000800KWDUT Drives

Version: HPK4 (D) (Recommended)

Filename: CP045692.compsig; CP045692.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 U1

Online NVMe SSD Flash Component for VMware ESXi - LO0400KEFJQ, LO0800KEFJR, LO1600KEFJT, LO2000KEFJU, LT0800KEXVA, LT1600KEXVB, and LT2000KEXVC Drives

Version: HPK4 (D) (Recommended)

Filename: CP044498.compsig; CP044498.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

Online NVMe SSD Flash Component for VMware ESXi - MK000800KWWFE, MK001600KWWFF, MK003200KWWFH, MK006400KWWFK, VK000960KWWFL, VK001920KWWFN, VK003840KWWFP and VK007680KWWFQ Drives

Version: HPK3 (B) (Critical)

Filename: CP047337.compsig; CP047337.zip

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

Online NVMe SSD Flash Component for VMware ESXi - MO001600KWVNB, MO003200KWVNC, MO006400KWVND, MT001600KWSTB, MT003200KWSTC and MT006400KWSTD Drives

Version: HPK3 (Recommended)

Filename: CP045709.compsig; CP045709.zip

Fixes

Fixed SSD weargauge report error issue.

Fixed Assign FWState as TR_DONE_ERR at the correct location.

Prepare proper response data for Get Message Type Supported MCTP Command.

Added code to preserve current feature values cross live firmware update.

Allocate 4 bytes instead of 2 bytes for parameter code.

Changed the value for NLB equal to NSize -1.

Online NVMe SSD Flash Component for VMware ESXi - MZPLJ1T6HBJR-000, MZPLJ3T2HBJR-000 and MZPLJ6T4HALA-000 Drives

Version: 4H3Q (B) (Recommended)

Filename: CP046696.compsig; CP046696.zip

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.

Online NVMe SSD Flash Component for VMware ESXi - MZPLJ1T6HBJR-000H3, MZPLJ3T2HBJR-000H3 and MZPLJ6T4HALA-000H3 Drives

Version: EPK74H3Q (Recommended)

Filename: CP046470.compsig; CP046470.zip

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.

Online NVMe SSD Flash Component for VMware ESXi - MZXL5800HBHQ-000, MZXL51T6HBJR-000, MZXL53T2HBLS-000, MZXL56T4HALA-000, MZXL512THALA-000, MZXL5960HBHQ-000, MZXL51T9HBJR-000, MZXL53T8HBLS-000, MZXL57T6HALA-000 and MZXL515THALA-000 Drives

Version: 3H5Q (B) (Recommended)

Filename: CP046694.compsig; CP046694.zip

Fixes

Optimized T-offset setting .

Change MQES setting to 8192.

Code change to set 'Slot Clock Configuration bit in Link Status register.

Fixed LED Behavior misaligned specs issue.

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: MPK73H5Q (Recommended)

Filename: CP046468.compsig; CP046468.zip

Fixes

Optimized T-offset setting .

Change MQES setting to 8192.

Code change to set 'Slot Clock Configuration bit in Link Status register.

Fixed LED Behavior misaligned specs issue.

Online NVMe SSD Flash Component for VMware ESXi - VO001000KWJSE, VO002000KWJSF, VO004000KWJSH, VT004000KWJSU, MO001600KWJSN and MO003200KWJSQ Drives

Version: 4ICDHPK1 (Critical)

Filename: CP046728.compsig; CP046728.zip

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 U1

Online NVMe SSD Flash Component for VMware ESXi - VO0400KEFJB, VO1200KEFJC and VO2000KEFJD Drives

Version: HPK4 (D) (Recommended)

Filename: CP044497.compsig; CP044497.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

Online NVMe SSD Flash Component for VMware ESXi - VS000480KXALB Drive

Version: 85030G00 (C) (Recommended)

Filename: CP044993.compsig; CP044993.zip

Enhancements

Added support for VMware 7.0 U1.

Online NVMe SSD Flash Component for Windows (x64) - MK000400KWDUK, VK000480KWDUE, MK000800KWDUL, VK000960KWDUF, MK001600KWDUN and VK001920KWDUH Drives

Version: HPK4 (C) (Recommended)

Filename: cp045559.compsig; cp045559.exe; cp045559.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 Windows 2019.

Online NVMe SSD Flash Component for Windows (x64) - MO0400KEFHN, MO0800KEFHP, MO1600KEFHQ, MO2000KEFHR, MT0800KEXUU and MT1600KEXUV Drives

Version: HPK4 (C) (Recommended)

Filename: cp045592.compsig; cp045592.exe; cp045592.md5

Enhancements

Added support for Microsoft Windows Server 2019.

Online NVMe SSD Flash Component for Windows (x64) - MT001600KWHAC, MT003200KWHAD and MT006400KWHAE Drives

Version: HPS1 (C) (Recommended)

Filename: cp044275.compsig; cp044275.exe; cp044275.md5

Enhancements

Added support for Windows Server 2019.

Online NVMe SSD Flash Component for Windows (x64) - VS000480KWDUP, VS000960KWDUQ, MS000400KWDUR and MS000800KWDUT Drives

Version: HPK4 (C) (Recommended)

Filename: cp045582.compsig; cp045582.exe; cp045582.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 Windows 2019.

Online NVMe SSD Flash Component for Windows (x64) - LO0400KEFJQ, LO0800KEFJR, LO1600KEFJT, LO2000KEFJU, LT0800KEXVA, LT1600KEXVB, and LT2000KEXVC Drives

Version: HPK4 (C) (Recommended)

Filename: cp045513.compsig; cp045513.exe; cp045513.md5

Enhancements

Added support for Microsoft Windows Server 2019.

Online NVMe SSD Flash Component for Windows (x64) - MK000800KWWFE, MK001600KWWFF, MK003200KWWFH, MK006400KWWFK, VK000960KWWFL, VK001920KWWFN, VK003840KWWFP and VK007680KWWFQ Drives

Version: HPK3 (B) (Critical)

Filename: cp047338.compsig; cp047338.exe; cp047338.md5

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

Online NVMe SSD Flash Component for Windows (x64) - MO001600KWVNB, MO003200KWVNC, MO006400KWVND, MT001600KWSTB, MT003200KWSTC and MT006400KWSTD Drives

Version: HPK3 (Recommended)

Filename: cp045598.compsig; cp045598.exe; cp045598.md5

Fixes

Fixed SSD weargauge report error issue.

Fixed Assign FWState as TR_DONE_ERR at the correct location.

Prepare proper response data for Get Message Type Supported MCTP Command.

Added code to preserve current feature values cross live firmware update.

Allocate 4 bytes instead of 2 bytes for parameter code.

Changed the value for NLB equal to NSize -1.

Online NVMe SSD Flash Component for Windows (x64) - MO001600KWZQP and MO003200KWZQQ Drives

Version: HPK5 (Recommended)

Filename: cp045987.compsig; cp045987.exe; cp045987.md5

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.

Enhancements

Added support for Windows Server 2019

Online NVMe SSD Flash Component for Windows (x64) - MZPLJ1T6HBJR-000, MZPLJ3T2HBJR-000 and MZPLJ6T4HALA-000 Drives

Version: 4H3Q (B) (Recommended)

Filename: cp046695.compsig; cp046695.exe; cp046695.md5

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.

Online NVMe SSD Flash Component for Windows (x64) - MZPLJ1T6HBJR-000H3, MZPLJ3T2HBJR-000H3 and MZPLJ6T4HALA-000H3 Drives

Version: EPK74H3Q (Recommended)

Filename: cp046472.compsig; cp046472.exe; cp046472.md5

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.

Online NVMe SSD Flash Component for Windows (x64) - MZXL5800HBHQ-000, MZXL51T6HBJR-000, MZXL53T2HBLS-000, MZXL56T4HALA-000, MZXL512THALA-000, MZXL5960HBHQ-000, MZXL51T9HBJR-000, MZXL53T8HBLS-000, MZXL57T6HALA-000 and MZXL515THALA-000 Drives

Version: 3H5Q (B) (Recommended)

Filename: cp046693.compsig; cp046693.exe; cp046693.md5

Fixes

Optimized T-offset setting .

Change MQES setting to 8192.

Code change to set 'Slot Clock Configuration bit in Link Status register.

Fixed LED Behavior misaligned specs issue.

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: MPK73H5Q (Recommended)

Filename: cp046469.compsig; cp046469.exe; cp046469.md5

Fixes

Optimized T-offset setting .

Change MQES setting to 8192.

Code change to set 'Slot Clock Configuration bit in Link Status register.

Fixed LED Behavior misaligned specs issue.

Online NVMe SSD Flash Component for Windows (x64) - VO001000KWJSE, VO002000KWJSF, VO004000KWJSH, VT004000KWJSU, MO001600KWJSN and MO003200KWJSQ Drives

Version: 4ICDHPK1 (Critical)

Filename: cp046729.compsig; cp046729.exe; cp046729.md5

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 Windows 2019.

Online NVMe SSD Flash Component for Windows (x64) - VO001920KWVMT, VO003840KWVMU, and VO007680KWVMV Drives

Version: HPK3 (Recommended)

Filename: cp046660.compsig; cp046660.exe; cp046660.md5

Fixes

Fixed SSD weargauge report error issue.

Fixed Assign FWState as TR_DONE_ERR at the correct location.

Prepare proper response data for Get Message Type Supported MCTP Command.

Added code to preserve current feature values cross live firmware update.

Allocate 4 bytes instead of 2 bytes for parameter code.

Changed the value for NLB equal to NSize -1.

Online NVMe SSD Flash Component for Windows (x64) - VO001920KWZQR and VO003840KWZQT Drives

Version: HPK5 (Recommended)

Filename: cp045992.compsig; cp045992.exe; cp045992.md5

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.

Enhancements

Added support for Windows Server 2019

Online NVMe SSD Flash Component for Windows (x64) - VO0400KEFJB, VO1200KEFJC and VO2000KEFJD Drives

Version: HPK4 (C) (Recommended)

Filename: cp045579.compsig; cp045579.exe; cp045579.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 2019.

Online NVMe SSD Flash Component for Windows (x64) - VS000480KXALB drive

Version: 85030G00 (C) (Recommended)

Filename: cp045602.compsig; cp045602.exe; cp045602.md5

Enhancements

Added Support for Windows Server 2019.

Firmware - Power Management

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ROM Flash Firmware Package - Advanced Power Capping Microcontroller Firmware for HPE Gen10 and Gen10 Plus Servers

Version: 1.0.7 (D) (Optional)

Filename: PICGen10-1.0.7-1.fwpkg

Important Note!

Important Notes:

Ver. 1.0.7 (D) contains updates to the component packaging and is functionally equivalent to ver. 1.0.7. It is not necessary to upgrade with Revision (D) if a previous component revision was used to upgrade the firmware to ver. 1.0.7. This is the initial version for HPE Gen10 Plus servers.

Deliverable Name:

Advanced Power Capping Microcontroller Firmware for HPE Gen10 and Gen10 Plus Servers

Release Version:

1.0.7

Last Recommended or Critical Revision:

1.0.4 (HPE Gen10)

Previous Revision:

1.0.4 (HPE Gen10)

Firmware Dependencies:

For HPE ProLiant DL325/DL385 Gen10 servers, ROM version 2.00 or later is required to enable the support. iLO5 version 1.40 or above is required to upgrade to this version.

Enhancements/New Features:

Added support for AMD EPYC 7002 Generation Processors on HPE ProLiant DL325/DL385 Gen10 servers. ROM version 2.00 or later is required to enable the support. This version of firmware does not include any changes for AMD EPYC 7001 Generation Processors. iLO5 version 1.40 or above is required to upgrade to this version.

This is the initial version for HPE Gen10 Plus servers.

Added support for VMware ESXi 7.x on AMD Gen10 and Gen10 Plus servers.

Problems Fixed:

None

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.

Enhancements

Important Notes:

Ver. 1.0.7 (D) contains updates to the component packaging and is functionally equivalent to ver. 1.0.7. It is not necessary to upgrade with Revision (D) if a previous component revision was used to upgrade the firmware to ver. 1.0.7. This is the initial version for HPE Gen10 Plus servers.

Firmware Dependencies:

For HPE ProLiant DL325/DL385 Gen10 servers, ROM version 2.00 or later is required to enable the support. iLO5 version 1.40 or above is required to upgrade to this version.

Enhancements/New Features:

Added support for AMD EPYC 7002 Generation Processors on HPE ProLiant DL325/DL385 Gen10 servers. ROM version 2.00 or later is required to enable the support. This version of firmware does not include any changes for AMD EPYC 7001 Generation Processors. iLO5 version 1.40 or above is required to upgrade to this version.

This is the initial version for HPE Gen10 Plus servers.

Added support for VMware ESXi 7.x on AMD Gen10 and Gen10 Plus servers.

Known Issues:

None

Firmware - SAS Storage Disk

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Online HDD/SDD Flash Component for VMware ESXi - MB6000JVYZD and MB4000JVYZC Drives

Version: HPD4 (F) (Recommended)

Filename: CP045783.compsig; CP045783.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 U1

Online HDD/SSD Flash Component for Linux (x64) - EG000300JWBHR Drive

Version: HPD4 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-2e4c61fc63-HPD4-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-2e4c61fc63-HPD4-5.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG000300JWFVB Drive

Version: HPD2 (F) (Optional)

Filename: rpm/RPMS/x86_64/firmware-hdd-c5cd837c29-HPD2-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-c5cd837c29-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG000600JWFUV and EG001200JWFVA Drives

Version: HPD3 (F) (Optional)

Filename: rpm/RPMS/x86_64/firmware-hdd-f0c91d2fe3-HPD3-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-f0c91d2fe3-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG000600JWJNP and EG001200JWJNQ Drives

Version: HPD3 (C) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-bdfb8e99d9-HPD3-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-bdfb8e99d9-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG001800JWJNR and EG002400JWJNT Drives

Version: HPD5 (C) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-b1c9eaf74c-HPD5-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-b1c9eaf74c-HPD5-3.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG0600JETKA, EG0900JETKB and EG1200JETKC Drives

Version: HPD7 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-7505dfb5ae-HPD7-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-7505dfb5ae-HPD7-5.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EK0800JVYPN, EO1600JVYPP, MK0800JVYPQ and MO1600JVYPR Drives

Version: HPD7 (C) (Critical)

Filename: rpm/RPMS/x86_64/firmware-hdd-481c8ea9a7-HPD7-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-481c8ea9a7-HPD7-3.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EO000400JWDKP, EO000800JWDKQ, EO001600JWDKR, MO000400JWDKU, MO000800JWDKV, MO001600JWDLA and MO003200JWDLB Drives

Version: HPD2 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-5dcf26fa42-HPD2-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-5dcf26fa42-HPD2-5.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB002000JWFVN and MB004000JWFVP Drives

Version: HPD3 (C) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-d7af557f47-HPD3-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-d7af557f47-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB004000JWFVK and MB006000JWFVL Drives

Version: HPD3 (C) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-f6d00bd17e-HPD3-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-f6d00bd17e-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB6000JVYZD and MB4000JVYZC Drives

Version: HPD4 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-e800e8d3b9-HPD4-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-e800e8d3b9-HPD4-5.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MM1000JEFRB and MM2000JEFRC Drives

Version: HPD8 (F) (Optional)

Filename: rpm/RPMS/x86_64/firmware-hdd-b04257b77b-HPD8-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-b04257b77b-HPD8-6.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MO000400JWUFT, MO000800JWUFU, MO001600JWUFV, MO003200JWUGA, MO006400JWUGB, EO000400JWUGC, EO000800JWUGD and EO001600JWUGE Drives

Version: HPD3 (B) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-ef93133161-HPD3-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-ef93133161-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VO000960JWTBK, VO001920JWTL, VO003840JWTLN, VO007680JWTLB, MO000400JWTLQ, MO000800JWTLR, MO001600JWTLT, MO003200JWTLU, MO006400JWTLCD, EO000400JWTLV, EO000800JWTLCA and EO001600JWTLCB Drives

Version: HPD7 (F) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-9ad359dac1-HPD7-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-9ad359dac1-HPD7-6.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG000300JWSJP, EG000600JWJNH and EG001200JWJNK Drive

Version: HPD2 (D) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-24fe569b72-HPD2-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-24fe569b72-HPD2-4.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG001800JWFVC Drive

Version: HPD3 (F) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-693b9a2853-HPD3-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-693b9a2853-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG001800JWJNL and EG002400JWJNN Drives

Version: HPD2 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-852266afdf-HPD2-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-852266afdf-HPD2-5.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG0300FCSPH, EG0450FCSPK, EG0600FCSPH and EG0900FCSPN Drives

Version: HPD2 (G) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-7c1a1734f9-HPD2-7.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-7c1a1734f9-HPD2-7.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG0300JEHLV, EG0600JEHMA, EG0900JEHMB and EG1200JEHMC Drives

Version: HPD5 (H) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-31f91b8622-HPD5-8.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-31f91b8622-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG0300JFCKA, EG0600JEMCV, EG0900JFCKB and EG1200JEMDA Drives

Version: HPD6 (H) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-ac3fda26eb-HPD6-8.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-ac3fda26eb-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..

Enhancements

Added support for RHEL 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG1800JEHMD Drive

Version: HPD6 (H) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-8a2c06af48-HPD6-8.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-8a2c06af48-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..

Enhancements

Added support for RHEL 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG1800JEMDB Drive

Version: HPD5 (G) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-0a38b25661-HPD5-7.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-0a38b25661-HPD5-7.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EG1800JFHHM Drive

Version: HPD7 (F) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-7fc5497116-HPD7-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-7fc5497116-HPD7-6.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EH000300JWCPK, EH000600JWCPL and EH000900JWCPN Drives

Version: HPD6 (B) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-3d97759111-HPD6-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-3d97759111-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EH000600JWCPF and EH000900JWCPH Drives

Version: HPD8 (B) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-a05f29cef3-HPD8-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-a05f29cef3-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EH000900JWHPK and EH000600JWHPH Drives

Version: HPD4 (C) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-c7df7ceedb-HPD4-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-c7df7ceedb-HPD4-3.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EH000900JWHPP, EH000600JWHPN and EH000300JWHPL Drives

Version: HPD4 (C) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-8d68452816-HPD4-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-8d68452816-HPD4-3.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EH0300JDXBA, EH0450JDXBB and EH0600JDXBC Drives

Version: HPD5 (G) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-1cbab97ff0-HPD5-7.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-1cbab97ff0-HPD5-7.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EH0300JDYTH, EH0450JDYTK and EH0600JDYTL Drives

Version: HPD6 (H) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-b9340d29be-HPD6-8.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-b9340d29be-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..

Enhancements

Added support for RHEL 8.3

Online HDD/SSD Flash Component for Linux (x64) - EH0300JEDHC, EH0450JEDHD and EH0600JEDHE Drives

Version: HPD4 (H) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-8c4a212ff9-HPD4-8.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-8c4a212ff9-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - EH0600JDYTN Drive

Version: HPD7 (G) (Critical)

Filename: rpm/RPMS/x86_64/firmware-hdd-f3faa195ff-HPD7-7.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-f3faa195ff-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..

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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB004000JWKGU Drive

Version: HPD1 (D) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-2c27a7a9a4-HPD1-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-2c27a7a9a4-HPD1-4.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB004000JWWQB, MB002000JWWQA and MB001000JWWPV Drives

Version: HPD4 (B) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-adb3ab8147-HPD4-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-adb3ab8147-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB006000JWKGN Drive

Version: HPD1 (D) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-a886842a99-HPD1-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-a886842a99-HPD1-4.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB008000JWJRQ and MB006000JWJRP Drives

Version: HPD8 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-faf39e0ff7-HPD8-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-faf39e0ff7-HPD8-1.1.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 release provides additional protections against hangs in certain corner cases, and cleans up some error handling and command behavior issues.

Online HDD/SSD Flash Component for Linux (x64) - MB008000JWRTD Drive

Version: HPD1 (D) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-8b26d1ef02-HPD1-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-8b26d1ef02-HPD1-4.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB008000JWWQP and MB006000JWWQN Drives

Version: HPD2 (C) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-ae6b41e855-HPD2-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-ae6b41e855-HPD2-3.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB010000JWAYK and MB008000JWAYH Drives

Version: HPD5 (F) (Critical)

Filename: rpm/RPMS/x86_64/firmware-hdd-6ec35faf90-HPD5-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-6ec35faf90-HPD5-6.1.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..

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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB012000JWDFD Drive

Version: HPD2 (F) (Critical)

Filename: rpm/RPMS/x86_64/firmware-hdd-aaf1014ede-HPD2-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-aaf1014ede-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..

Fixes

Corrects a potential data integrity issue during unaligned write commands, only found in supplier ongoing lab testing. Includes additional fixes to improve error handling and reliability.

Enhancements

Added support for RHEL 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB014000JWRTH, MB012000JWRTF and MB010000JWRTE Drives

Version: HPD2 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-10385ef3e6-HPD2-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-10385ef3e6-HPD2-5.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB014000JWUDB Drive

Version: HPD2 (D) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-cfd7436fcc-HPD2-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-cfd7436fcc-HPD2-4.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB1000JVYZL, MB2000JVYZN, MB3000JVYZP and MB4000JVYZQ Drives

Version: HPD3 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-b85516c7d2-HPD3-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-b85516c7d2-HPD3-5.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB2000JFDSL and MB4000JFDSN Drives

Version: HPD4 (G) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-46fc43ab26-HPD4-7.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-46fc43ab26-HPD4-7.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB2000JFEML and MB4000JFEMN Drives

Version: HPD6 (G) (Critical)

Filename: rpm/RPMS/x86_64/firmware-hdd-624b75c7e2-HPD6-7.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-624b75c7e2-HPD6-7.1.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

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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB2000JFEPA and MB4000JFEPB Drives

Version: HPD5 (G) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-326de7c0f2-HPD5-7.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-326de7c0f2-HPD5-7.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB4000JEFNC and MB6000JEFND Drives

Version: HPD9 (G) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-af802bb412-HPD9-7.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-af802bb412-HPD9-7.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB4000JEQNL and MB6000JEQNN Drives

Version: HPDB (G) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-2cfaac41db-HPDB-7.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-2cfaac41db-HPDB-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB4000JEXYA and MB6000JEXYB Drives

Version: HPD9 (E) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-0f923833e9-HPD9-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-0f923833e9-HPD9-5.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB6000JEQUV and MB8000JEQVA Drives

Version: HPDB (G) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-df22f7effd-HPDB-7.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-df22f7effd-HPDB-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB6000JVYYV Drive

Version: HPD2 (G) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-0595c2a887-HPD2-7.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-0595c2a887-HPD2-7.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB8000JFECQ Drive

Version: HPD7 (F) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-252770cdda-HPD7-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-252770cdda-HPD7-6.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MM1000JFJTH Drive

Version: HPD3 (F) (Optional)

Filename: rpm/RPMS/x86_64/firmware-hdd-fa46c607d6-HPD3-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-fa46c607d6-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MO000400JWFVN, MO000800JWFWP, MO001600JFWQ, MO003200JFWR, MO000960JFWT, MO001920JFWU and MO003840JFWV Drives

Version: HPD5 (D) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-b8a60fbe9a-HPD5-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-b8a60fbe9a-HPD5-4.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MO0200JEFNV, MO0400JEFPA, MO0800JFPB, MO1600JFPC, EO0200JFPD, EO0400JFPE and EO0800JFPF Drives

Version: HPD3 (G) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-71af849f3b-HPD3-7.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-71af849f3b-HPD3-7.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MO0400JFFCF, MO0800JFFCH, MO1600JFFCK and MO3200JFFCL Drives

Version: HPD9 (C) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-edf6dcd906-HPD9-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-edf6dcd906-HPD9-3.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VK000960JWSSQ, VK001920JWSSR, VK003840JWSST, VK007680JWSSU and VO015300JWSSV Drives

Version: HPD8 (D) (Critical)

Filename: rpm/RPMS/x86_64/firmware-hdd-1e51a57347-HPD8-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-1e51a57347-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VO000480JWDAR, VO000960JWDAT, VO001920JWDAU and VO003840JWDAV Drives

Version: HPD8 (C) (Critical)

Filename: rpm/RPMS/x86_64/firmware-hdd-2eb810cdd7-HPD8-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-2eb810cdd7-HPD8-3.1.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..

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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VO000800JWZJP, VO001600JWZJQ, VO003200JWZJR and VO006400JWZJT Drives

Version: HPD4 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-a07a420ed1-HPD4-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-a07a420ed1-HPD4-1.1.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.

Fixes

Modify Drive Vendor Identification String (VID) in Inquiry page from "HP" to "HPE".

Enhancements

Added support for RHEL 8.3

Online HDD/SSD Flash Component for Linux (x64) - VO000960JWZJF, VO001920JWZJH, VO003840JWZJK, VO007680JWZJL and VO015360JWZJN Drives

Version: HPD4 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-35fd24601f-HPD4-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-35fd24601f-HPD4-1.1.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.

Fixes

Modify Drive Vendor Identification String (VID) in Inquiry page from "HP" to "HPE".

Enhancements

Added support for RHEL 8.3

Online HDD/SSD Flash Component for Linux (x64) - VO000960RWUEV, VO001920RWUFA, VO003840RWUFB, VO007680RWUFC, VO000960RWUFD, VO001920RWUFE and VO003840RWUFF Drives

Version: HPD3 (C) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-8fafc9efb2-HPD3-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-8fafc9efb2-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 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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VO007680JWCNK and VO015300JWCNL Drives

Version: HPD8 (C) (Critical)

Filename: rpm/RPMS/x86_64/firmware-hdd-4c048aaeb0-HPD8-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-4c048aaeb0-HPD8-3.1.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..

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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VO0480JFDGT, VO0960JFDGU, VO1920JFDGV and VO3840JFDHA Drives

Version: HPD9 (C) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-8ed8893abd-HPD9-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-8ed8893abd-HPD9-3.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VO1920JEUQQ Drive

Version: HPD3 (G) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-hdd-5d9e841607-HPD3-7.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-5d9e841607-HPD3-7.1.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 8.3

Online HDD/SSD Flash Component for VMware ESXi - EG000300JWBHR Drive

Version: HPD4 (F) (Recommended)

Filename: CP045716.compsig; CP045716.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG000300JWFVB Drive

Version: HPD2 (G) (Recommended)

Filename: CP045604.compsig; CP045604.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG000600JWFUV and EG001200JWFVA Drives

Version: HPD3 (G) (Optional)

Filename: CP045606.compsig; CP045606.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG000600JWJNP and EG001200JWJNQ Drives

Version: HPD3 (D) (Recommended)

Filename: CP045607.compsig; CP045607.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG001800JWJNR and EG002400JWJNT Drives

Version: HPD5 (D) (Recommended)

Filename: CP045609.compsig; CP045609.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG0600JETKA, EG0900JETKB and EG1200JETKC Drives

Version: HPD7 (E) (Recommended)

Filename: CP045612.compsig; CP045612.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EH000900JWHPK and EH000600JWHPH Drives

Version: HPD4 (D) (Recommended)

Filename: CP045618.compsig; CP045618.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EH000900JWHPH, EH000600JWHPN and EH000300JWHPH Drives

Version: HPD4 (D) (**Recommended**)

Filename: CP045619.compsig; CP045619.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EH0600JDYTN Drive

Version: HPD7 (G) **(Critical)**

Filename: CP045623.compsig; CP045623.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.Ã,Ã

Enhancements

- Added support for VMware 7.0 U1

Online HDD/SSD Flash Component for VMware ESXi - EO000400JWDKP, EO000800JWDKQ, EO001600JWDKR, MO000400JWDKU, MO000800JWDKV, MO001600JWDLA and MO003200JWDLB Drives

Version: HPD2 (E) **(Recommended)**

Filename: CP045625.compsig; CP045625.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB002000JWFVN and MB004000JWFVP Drives

Version: HPD3 (D) **(Recommended)**

Filename: CP045630.compsig; CP045630.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB004000JWFVK and MB006000JWFVL Drives

Version: HPD3 (D) **(Recommended)**

Filename: CP045632.compsig; CP045632.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB012000JWDFD Drive

Version: HPD2 (F) **(Critical)**

Filename: CP045643.compsig; CP045643.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 during unaligned write commands, found in supplier ongoing lab testing. Includes additional fixes to improve error handling and reliability.

Enhancements

- Added support for VMware 7.0 U1
-

Online HDD/SSD Flash Component for VMware ESXi - MB2000JFEML and MB4000JFEMN Drives

Version: HPD6 (H) **(Critical)**

Filename: CP045654.compsig; CP045654.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB4000JEQNL and MB6000JEQNN Drives

Version: HPDB (H) **(Recommended)**

Filename: CP045659.compsig; CP045659.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB6000JEQUV and MB8000JEQVA Drives

Version: HPDB (H) **(Recommended)**

Filename: CP045666.compsig; CP045666.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MM1000JEFRB and MM2000JEFRD Drives

Version: HPD8 (G) **(Optional)**

Filename: CP045674.compsig; CP045674.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MM1000JFJTH Drive

Version: HPD3 (G) **(Optional)**

Filename: CP045675.compsig; CP045675.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MO000400JWUFT, MO000800JWUFU, MO001600JWUFV, MO003200JWUGA, MO006400JWUGB, EO000400JWUGC, EO000800JWUGD and EO001600JWUGE Drives

Version: HPD3 (B) **(Recommended)**

Filename: CP045976.compsig; CP045976.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VO000960JWBK, VO001920JWTL, VO003840JWBN, VO007680JWBP, MO000400JWBQ, MO000800JWBR, MO001600JWBT, MO003200JWBU, MO006400JWCD, EO000400JWBV, EO000800JWCA, EO001600JWCB Drives

Version: HPD7 (E) **(Recommended)**

Filename: CP045688.compsig; CP045688.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG000300JWSJP, EG000600JWJNH and EG001200JWJNK Drive

Version: HPD2 (E) **(Recommended)**

Filename: CP045605.compsig; CP045605.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG001800JWFVC Drive

Version: HPD3 (E) **(Recommended)**

Filename: CP045608.compsig; CP045608.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG001800JWJNL and EG002400JWJNN Drive

Version: HPD2 (F) **(Recommended)**

Filename: CP045723.compsig; CP045723.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG0300FCSPH, EG0450FCSPK, EG0600FC SPL and EG0900FCSPN Drives

Version: HPD2 (H) **(Recommended)**

Filename: CP045610.compsig; CP045610.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG0300JEHLV, EG0600JEHMA, EG0900JEHMB, and EG1200JEHMC Drives

Version: HPD5 (I) **(Recommended)**

Filename: CP044982.compsig; CP044982.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG0300JFCKA, EG0600JEMCV, EG0900JFCKB and EG1200JEMDA Drives

Version: HPD6 (H) **(Recommended)**

Filename: CP045611.compsig; CP045611.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG1800JEHMD Drive

Version: HPD6 (I) **(Recommended)**

Filename: CP045613.compsig; CP045613.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG1800JEMDB Drive

Version: HPD5 (H) **(Recommended)**

Filename: CP045614.compsig; CP045614.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EG1800JFHHM Drive

Version: HPD7 (G) **(Recommended)**

Filename: CP045615.compsig; CP045615.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EH000300JWCPK, EH000600JWCPL and EH000900JWCPN Drives

Version: HPD6 (B) **(Recommended)**

Filename: CP046301.compsig; CP046301.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EH000600JWCPF and EH000900JWCPH Drives

Version: HPD8 (B) **(Recommended)**

Filename: CP046300.compsig; CP046300.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EH0300JDXBA, EH0450JDXBB and EH0600JDXBC Drives

Version: HPD5 (H) **(Recommended)**

Filename: CP045620.compsig; CP045620.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EH0300JDYTH, EH0450JDYTK and EH0600JDYTL Drives

Version: HPD6 (I) **(Recommended)**

Filename: CP045621.compsig; CP045621.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EH0300JEDHC, EH0450JEDHD and EH0600JEDHE Drives

Version: HPD4 (I) **(Recommended)**

Filename: CP045622.compsig; CP045622.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 U1

Online HDD/SSD Flash Component for VMware ESXi - EK0800JVYPN, EO1600JVYPP, MK0800JVYPQ and MO1600JVYPR Drives

Version: HPD7 (C) **(Critical)**

Filename: CP045698.compsig; CP045698.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB004000JWKGU Drive

Version: HPD1 (E) **(Recommended)**

Filename: CP045633.compsig; CP045633.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB004000JWWQB, MB002000JWWQA and MB001000JWWPV Drives

Version: HPD4 (B) **(Recommended)**

Filename: CP045979.compsig; CP045979.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB006000JWKGN Drive

Version: HPD1 (E) **(Recommended)**

Filename: CP045636.compsig; CP045636.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB008000JWJRQ and MB006000JWJRP Drives

Version: HPD8 **(Recommended)**

Filename: CP046240.compsig; CP046240.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 release provides additional protections against hangs in certain corner cases, and cleans up some error handling and command behavior issues.

Online HDD/SSD Flash Component for VMware ESXi - MB008000JWRTD Drive

Version: HPD1 (E) **(Recommended)**

Filename: CP045638.compsig; CP045638.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB008000JWWQP and MB006000JWWQN Drives

Version: HPD2 (C) **(Recommended)**

Filename: CP045696.compsig; CP045696.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB010000JWAYK and MB008000JWAYH Drives

Version: HPD5 (F) **(Critical)**

Filename: CP045640.compsig; CP045640.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 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 VMware 7.0 U1

Online HDD/SSD Flash Component for VMware ESXi - MB014000JWUDB Drive

Version: HPD2 (E) **(Recommended)**

Filename: CP045647.compsig; CP045647.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB1000JVYZL, MB2000JVYZN, MB3000JVYZP and MB4000JVYZQ Drives

Version: HPD3 (E) **(Recommended)**

Filename: CP045650.compsig; CP045650.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB2000JFDSL and MB4000JFDSN Drives

Version: HPD4 (H) **(Recommended)**

Filename: CP045653.compsig; CP045653.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB2000JFEPA and MB4000JFEPB Drives

Version: HPD5 (H) **(Recommended)**

Filename: CP045655.compsig; CP045655.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB4000JEFNC and MB6000JEFND Drives

Version: HPD9 (H) **(Recommended)**

Filename: CP045658.compsig; CP045658.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB4000JEXYA and MB6000JEXYB Drives

Version: HPD9 (E) **(Recommended)**

Filename: CP045660.compsig; CP045660.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB6000JVYYV Drive

Version: HPD2 (H) **(Recommended)**

Filename: CP045667.compsig; CP045667.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB8000JFECQ Drive

Version: HPD7 (G) **(Recommended)**

Filename: CP045668.compsig; CP045668.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MO000400JWFWN, MO000800JWFWP, MO001600JWFWQ, MO003200JFWWR, MO000960JWFWT, MO001920JWFWU and MO003840JWFWV Drives

Version: HPD5 (E) **(Recommended)**

Filename: CP045676.compsig; CP045676.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MO0200JEFNV, MO0400JEFPA, MO0800JFPB, MO1600JEFPC, EO0200JEPFD, EO0400JEFPE and EO0800JEPF Drives

Version: HPD3 (H) **(Recommended)**

Filename: CP045677.compsig; CP045677.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MO0400JFFCF, MO0800JFFCH, MO1600JFFCK and MO3200JFFCL Drives

Version: HPD9 (C) **(Recommended)**

Filename: CP045708.compsig; CP045708.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VK000960JWSSQ, VK001920JWSSR, VK003840JWSST, VK007680JWSSU and VO015300JWSSV Drives

Version: HPD8 (D) **(Critical)**

Filename: CP045711.compsig; CP045711.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VO000480JWDAR, VO000960JWDAT, VO001920JWDAU and VO003840JWDAV Drives

Version: HPD8 (F) **(Critical)**

Filename: CP044848.compsig; CP044848.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VO000800JWZJP, VO001600JWZJQ, VO003200JWZJR and VO006400JWZJT Drives

Version: HPD4 **(Recommended)**

Filename: CP046321.compsig; CP046321.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

- Modify Drive Vendor Identification String (VID) in Inquiry page from "HP" to "HPE".

Enhancements

- Added support for VMware 7.0 U1

Online HDD/SSD Flash Component for VMware ESXi - VO000960JWZJF, VO001920JWZJH, VO003840JWZJK, VO007680JWZJL and VO015360JWZJN Drives

Version: HPD4 **(Recommended)**

Filename: CP046318.compsig; CP046318.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

- Modify Drive Vendor Identification String (VID) in Inquiry page from "HP" to "HPE".

Enhancements

- Added support for VMware 7.0 U1
-

Online HDD/SSD Flash Component for VMware ESXi - VO000960RWUEV, VO001920RWUFA, VO003840RWUFB, VO007680RWUFC, VO000960RWUFD, VO001920RWUFE and VO003840RWUFF Drives

Version: HPD3 (D) **(Recommended)**

Filename: CP045722.compsig; CP045722.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VO007680JWCNK and VO015300JWCNL Drives

Version: HPD8 (D) **(Critical)**

Filename: CP045689.compsig; CP045689.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VO0480JFDGT, VO0960JFDGU, VO1920JFDGV and VO3840JFDHA Drives

Version: HPD9 (C) **(Recommended)**

Filename: CP045701.compsig; CP045701.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VO1920JEUQQ Drive

Version: HPD3 (H) **(Recommended)**

Filename: CP045690.compsig; CP045690.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 U1

Online HDD/SSD Flash Component for VMware ESXi -MB014000JWRTH, MB012000JWRTF and MB010000JWRTE Drives

Version: HPD2 (E) **(Recommended)**

Filename: CP045646.compsig; CP045646.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 U1

Online HDD/SSD Flash Component for Windows (x64) - EG000300JWBHR Drive

Version: HPD4 (D) **(Recommended)**

Filename: cp045490.compsig; cp045490.exe; cp045490.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - EG000300JWFVB Drive

Version: HPD2 (E) **(Optional)**

Filename: cp045489.compsig; cp045489.exe; cp045489.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - EG000300JWSJP, EG000600JWJNH and EG001200JWJNK Drives

Version: HPD2 (D) **(Recommended)**

Filename: cp045492.compsig; cp045492.exe; cp045492.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - EG000600JWFUV and EG001200JWFVA Drives

Version: HPD3 (E) **(Optional)**

Filename: cp045491.compsig; cp045491.exe; cp045491.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - EG000600JWJNP and EG001200JWJNQ Drives

Version: HPD3 (C) **(Recommended)**

Filename: cp045493.compsig; cp045493.exe; cp045493.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 Windows server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EG001800JWFVC Drive

Version: HPD3 (D) **(Recommended)**

Filename: cp045494.compsig; cp045494.exe; cp045494.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EG001800JWJNL and EG002400JWJNN Drives

Version: HPD2 (E) **(Recommended)**

Filename: cp045772.compsig; cp045772.exe; cp045772.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EG001800JWJNR and EG002400JWJNT Drives

Version: HPD5 (C) **(Recommended)**

Filename: cp045496.compsig; cp045496.exe; cp045496.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 Windows server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EG0300FCSPH, EG0450FCSPK, EG0600FCSPH and EG0900FCSPN Drives

Version: HPD2 (F) **(Recommended)**

Filename: cp045495.compsig; cp045495.exe; cp045495.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EG0300JEHLV, EG0600JEHMA, EG0900JEHMB and EG1200JEHMC Drives

Version: HPD5 (G) **(Recommended)**

Filename: cp045497.compsig; cp045497.exe; cp045497.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EG0300JFCKA, EG0600JEMCV, EG0900JFCKB and EG1200JEMDA Drives

Version: HPD6 (F) **(Recommended)**

Filename: cp045498.compsig; cp045498.exe; cp045498.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EG0600JETKA, EG0900JETKB and EG1200JETKC Drives

Version: HPD7 (D) **(Recommended)**

Filename: cp045499.compsig; cp045499.exe; cp045499.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EG1800JEHMD Drive

Version: HPD6 (G) **(Recommended)**

Filename: cp045500.compsig; cp045500.exe; cp045500.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EG1800JEMDB Drive

Version: HPD5 (F) **(Recommended)**

Filename: cp045501.compsig; cp045501.exe; cp045501.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EG1800JFHMH Drive

Version: HPD7 (F) **(Recommended)**

Filename: cp045502.compsig; cp045502.exe; cp045502.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EH000300JWCPK, EH000600JWCPL and EH000900JWCPN Drives

Version: HPD6 (B) **(Recommended)**

Filename: cp046213.compsig; cp046213.exe; cp046213.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EH000600JWCPF and EH000900JWCPH Drives

Version: HPD8 (B) **(Recommended)**

Filename: cp046269.compsig; cp046269.exe; cp046269.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EH000900JWHPK and EH000600JWHPH Drives

Version: HPD4 (C) **(Recommended)**

Filename: cp045505.compsig; cp045505.exe; cp045505.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 Windows server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EH000900JWHPP, EH000600JWHPN and EH000300JWHPL Drives

Version: HPD4 (C) **(Recommended)**

Filename: cp045506.compsig; cp045506.exe; cp045506.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 Windows server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EH0300JDXBA, EH0450JDXBB and EH0600JDXBC Drives

Version: HPD5 (F) **(Recommended)**

Filename: cp045507.compsig; cp045507.exe; cp045507.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EH0300JDYTH, EH0450JDYTK and EH0600JDYTL Drives
Version: HPD6 (G) **(Recommended)**

Filename: cp045508.compsig; cp045508.exe; cp045508.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EH0300JEDHC, EH0450JEDHD and EH0600JEDHE Drives
Version: HPD4 (H) **(Recommended)**

Filename: cp045509.compsig; cp045509.exe; cp045509.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EH0600JDYTN Drive

Version: HPD7 (E) **(Critical)**

Filename: cp045510.compsig; cp045510.exe; cp045510.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EK0800JVYPN, EO1600JVYPP, MK0800JVYPQ and MO1600JVYPR Drives

Version: HPD7 (C) **(Critical)**

Filename: cp045587.compsig; cp045587.exe; cp045587.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - EO000400JWDKP, EO000800JWDKQ, EO001600JWDKR, MO000400JWDKU, MO000800JWDKV, MO001600JWDLA and MO003200JWDLB Drives

Version: HPD2 (D) **(Recommended)**

Filename: cp045512.compsig; cp045512.exe; cp045512.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB002000JWFVN and MB004000JWFVP Drives

Version: HPD3 (C) **(Recommended)**

Filename: cp045518.compsig; cp045518.exe; cp045518.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 Windows server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB004000JWFVK and MB006000JWFVL Drives

Version: HPD3 (C) **(Recommended)**

Filename: cp045520.compsig; cp045520.exe; cp045520.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 Windows server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB004000JWKGU Drive

Version: HPD1 (D) **(Recommended)**

Filename: cp045521.compsig; cp045521.exe; cp045521.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB004000JWWQB, MB002000JWWQA and MB001000JWWPV Drives

Version: HPD4 (B) **(Recommended)**

Filename: cp045900.compsig; cp045900.exe; cp045900.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - MB006000JWKGN Drive

Version: HPD1 (D) **(Recommended)**

Filename: cp045524.compsig; cp045524.exe; cp045524.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB008000JWJRQ and MB006000JWJRP Drives

Version: HPD8 **(Recommended)**

Filename: cp046242.compsig; cp046242.exe; cp046242.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 release provides additional protections against hangs in certain corner cases, and cleans up some error handling and command behavior issues.

Online HDD/SSD Flash Component for Windows (x64) - MB008000JWRTD Drive

Version: HPD1 (D) **(Recommended)**

Filename: cp045526.compsig; cp045526.exe; cp045526.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB008000JWWQP and MB006000JWWQN Drives

Version: HPD2 (C) **(Recommended)**

Filename: cp045585.compsig; cp045585.exe; cp045585.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB010000JWAYK and MB008000JWAYH Drives

Version: HPD5 (E) **(Critical)**

Filename: cp045528.compsig; cp045528.exe; cp045528.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 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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB012000JWDFD Drive

Version: HPD2 (E) **(Critical)**

Filename: cp045531.compsig; cp045531.exe; cp045531.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 during unaligned write commands, found in supplier ongoing lab testing. Includes additional fixes to improve error handling and reliability.

Enhancements

- Added support for Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB014000JWRTH, MB012000JWRTF and MB010000JWRTE Drives

Version: HPD2 (D) **(Recommended)**

Filename: cp045534.compsig; cp045534.exe; cp045534.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB014000JWUDB Drive

Version: HPD2 (D) **(Recommended)**

Filename: cp045535.compsig; cp045535.exe; cp045535.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - MB1000JVYZL, MB2000JVYZN, MB3000JVYZP and MB4000JVYZQ Drives

Version: HPD3 (D) **(Recommended)**

Filename: cp045538.compsig; cp045538.exe; cp045538.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - MB2000JFDSL and MB4000JFDSN Drives

Version: HPD4 (F) **(Recommended)**

Filename: cp045541.compsig; cp045541.exe; cp045541.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - MB2000JFEML and MB4000JFEMN Drives

Version: HPD6 (F) **(Critical)**

Filename: cp045542.compsig; cp045542.exe; cp045542.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB2000JFEPA and MB4000JFEPB Drives

Version: HPD5 (F) **(Recommended)**

Filename: cp045543.compsig; cp045543.exe; cp045543.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB4000JEFNC and MB6000JEFND Drives

Version: HPD9 (F) **(Recommended)**

Filename: cp045546.compsig; cp045546.exe; cp045546.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB4000JEQNL and MB6000JEQNN Drives

Version: HPDB (F) **(Recommended)**

Filename: cp045547.compsig; cp045547.exe; cp045547.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB4000JEXYA and MB6000JEXYB Drives

Version: HPD9 (D) **(Recommended)**

Filename: cp045548.compsig; cp045548.exe; cp045548.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - MB6000JEQUV and MB8000JEQVA Drives

Version: HPDB (F) **(Recommended)**

Filename: cp045554.compsig; cp045554.exe; cp045554.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - MB6000JVYYV Drive

Version: HPD2 (F) **(Recommended)**

Filename: cp045555.compsig; cp045555.exe; cp045555.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB6000JVYZD and MB4000JVYZC Drives

Version: HPD4 (D) **(Recommended)**

Filename: cp045556.compsig; cp045556.exe; cp045556.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB8000JFECQ Drive

Version: HPD7 (E) **(Recommended)**

Filename: cp045558.compsig; cp045558.exe; cp045558.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MM1000JEFRB and MM2000JEFRC Drives

Version: HPD8 (E) **(Optional)**

Filename: cp045563.compsig; cp045563.exe; cp045563.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MM1000JFJTH Drive

Version: HPD3 (E) **(Optional)**

Filename: cp045564.compsig; cp045564.exe; cp045564.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MO000400JWFVN, MO000800JWFWP, MO001600JFWQ, MO003200JFWR, MO000960JFWT, MO001920JFWU and MO003840JFWV Drives

Version: HPD5 (D) **(Recommended)**

Filename: cp045565.compsig; cp045565.exe; cp045565.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MO000400JWUFT, MO000800JWUFU, MO001600JWUFV, MO003200JWUGA, MO006400JWUGB, EO000400JWUGC, EO000800JWUGD and EO001600JWUGE Drives

Version: HPD3 (B) **(Recommended)**

Filename: cp045156.compsig; cp045156.exe; cp045156.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MO0200JEFNV, MO0400JEFPA, MO0800JEFPB, MO1600JEFPC, EO0200JEFPD, EO0400JEFPE and EO0800JEFPF Drives

Version: HPD3 (F) **(Recommended)**

Filename: cp045566.compsig; cp045566.exe; cp045566.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MO0400JFFCF, MO0800JFFCH, MO1600JFFCK and MO3200JFFCL Drives

Version: HPD9 (C) **(Recommended)**

Filename: cp045596.compsig; cp045596.exe; cp045596.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VK000960JWSSQ, VK001920JWSSR, VK003840JWSST, VK007680JWSSU and VO015300JWSSV Drives

Version: HPD8 (C) **(Critical)**

Filename: cp045600.compsig; cp045600.exe; cp045600.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

- 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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VO000480JWDAR, VO000960JWDAT, VO001920JWDAU and VO003840JWDAV Drives

Version: HPD8 (C) **(Critical)**

Filename: cp044648.compsig; cp044648.exe; cp044648.md5

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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VO000800JWZJP, VO001600JWZJQ, VO003200JWZJR and VO006400JWZJT Drives

Version: HPD4 (**Recommended**)

Filename: cp046322.compsig; cp046322.exe; cp046322.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.

Fixes

- Modify Drive Vendor Identification String (VID) in Inquiry page from "HP" to "HPE".

Enhancements

- Added support for Windows Server 2019

Online HDD/SSD Flash Component for Windows (x64) - VO000960JWTBK, VO001920JWTBL, VO003840JWTBN, VO007680JWTBP, MO000400JWTBQ, MO000800JWTBK, MO001600JWBTB, MO003200JWBTU, MO006400JWTCB, EO000400JWTCB, EO000800JWTCB and EO001600JWTCB Drives

Version: HPD7 (D) **(Recommended)**

Filename: cp045576.compsig; cp045576.exe; cp045576.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VO000960JWZJF, VO001920JWZJH, VO003840JWZJK, VO007680JWZJL and VO015360JWZJN Drives

Version: HPD4 **(Recommended)**

Filename: cp046320.compsig; cp046320.exe; cp046320.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.

Fixes

- Modify Drive Vendor Identification String (VID) in Inquiry page from "HP" to "HPE".

Enhancements

- Added support for Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - VO000960RWUEV, VO001920RWUFA, VO003840RWUFB, VO007680RWUFC, VO000960RWUFD, VO001920RWUFE and VO003840RWUFF Drives

Version: HPD3 (C) **(Recommended)**

Filename: cp045603.compsig; cp045603.exe; cp045603.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 Windows Server 2019

Online HDD/SSD Flash Component for Windows (x64) - VO007680JWCNK and VO015300JWCNL Drives

Version: HPD8 (C) **(Critical)**

Filename: cp045578.compsig; cp045578.exe; cp045578.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VO0480JFDGT, VO0960JFDGU, VO1920JFDGV and VO3840JFDHA Drives

Version: HPD9 (C) **(Recommended)**

Filename: cp045594.compsig; cp045594.exe; cp045594.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VO1920JEUQQ Drive

Version: HPD3 (F) **(Recommended)**

Filename: cp045580.compsig; cp045580.exe; cp045580.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 Windows Server 2019.

Firmware - SATA Storage Disk

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Online HDD/SSD Flash Component for Linux (x64) - EK000200GWEPD, EK000400GWEPE, EK000800GWEPP and EK001600GWEPP Drives

Version: HPG3 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-5bf9355926-HPG3-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-5bf9355926-HPG3-6.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB001000GWCBC and MB002000GWCBD Drives

Version: HPG6 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-68b12e54d2-HPG6-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-68b12e54d2-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB001000GWFWK and MB002000GWFWL Drives

Version: HPG6 (D) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-bfc4af697b-HPG6-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-bfc4af697b-HPG6-4.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB001000GWJAN, MB002000GWFWA and MB004000GWFWB Drives

Version: HPG1 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-d39e7a7e75-HPG1-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-d39e7a7e75-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 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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB002000GWFGH and MB001000GWFGF Drives

Version: HPG3 (G) **(Optional)**

Filename: rpm/RPMS/x86_64/firmware-hdd-0b575b5895-HPG3-7.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-0b575b5895-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB004000GWKGV Drive

Version: HPG1 (D) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-ca21e169e2-HPG1-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-ca21e169e2-HPG1-4.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB004000GWWQH, MB002000GWWQF and MB001000GWWQE Drives

Version: HPG3 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-12304c1aca-HPG3-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-12304c1aca-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB006000GWBXQ and MB008000GWBYL Drives

Version: HPG8 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-a1fd19f9ca-HPG8-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-a1fd19f9ca-HPG8-5.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB006000GWJRR and MB008000GWJRT Drives

Version: HPG4 (C) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-c993b31232-HPG4-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-c993b31232-HPG4-3.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB006000GWKGR Drive

Version: HPG1 (D) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-7f2a26e6d0-HPG1-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-7f2a26e6d0-HPG1-4.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB008000GWRTC Drive

Version: HPG1 (D) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-82894b9e0a-HPG1-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-82894b9e0a-HPG1-4.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB008000GWWQU and MB006000GWWQT Drives

Version: HPG2 (C) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-18e328f036-HPG2-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-18e328f036-HPG2-3.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB010000GWAYN and MB008000GWAYL Drives

Version: HPG5 (F) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-cc819d4bff-HPG5-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-cc819d4bff-HPG5-6.1.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..

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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB012000GWDFF Drive

Version: HPG2 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-059b8654a6-HPG2-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-059b8654a6-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 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 RHEL8.3

Online HDD/SSD Flash Component for Linux (x64) - MB012000GWTFE and MB014000GWTFE Drives

Version: HPG7 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-b78255e146-HPG7-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-b78255e146-HPG7-2.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB014000GWRTN, MB012000GWRTL and MB010000GWRTK Drives

Version: HPG2 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-6b7ce3da0e-HPG2-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-6b7ce3da0e-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 8.3
-

Online HDD/SSD Flash Component for Linux (x64) - MB014000GWUDA Drive

Version: HPG2 (D) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-41cdb1c9da-HPG2-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-41cdb1c9da-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 8.3
-

Online HDD/SSD Flash Component for Linux (x64) - MB1000GDUNU, MB2000GDUNV, MB3000GDUPA and MB4000GDUPB Drives

Version: HPG4 (I) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-3ab4c70e64-HPG4-9.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-3ab4c70e64-HPG4-9.1.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 8.3
-

Online HDD/SSD Flash Component for Linux (x64) - MB1000GVYZE, MB2000GVYZF, MB3000GVYZH and MB4000GVYZK Drives

Version: HPG4 (I) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-0a7010918e-HPG4-9.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-0a7010918e-HPG4-9.1.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 8.3
-

Online HDD/SSD Flash Component for Linux (x64) - MB2000GCWLT, MB3000GCWLU and MB4000GCWLV Drives

Version: HPG4 (I) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-2e70ce7412-HPG4-9.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-2e70ce7412-HPG4-9.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB2000GFEMH and MB4000GFEMK Drives

Version: HPG6 (H) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-70e3962f98-HPG6-8.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-70e3962f98-HPG6-8.1.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 corrects settings preservation after a code download, and includes emergency power off improvements.

Enhancements

- Added support for RHEL 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB4000GEFNA and MB6000GEFNB Drives

Version: HPG6 (I) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-40277d55d3-HPG6-9.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-40277d55d3-HPG6-9.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB4000GEQNH and MB6000GEQNK Drives

Version: HPGB (H) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-bfc95f0628-HPGB-8.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-bfc95f0628-HPGB-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 corrects settings preservation after a code download, and includes emergency power off improvements.

Enhancements

- Added support for RHEL 8.3
-

Online HDD/SSD Flash Component for Linux (x64) - MB6000GEBTP Drive

Version: HPG4 (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-3243fce9a0-HPG4-8.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-3243fce9a0-HPG4-8.1.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 8.3
-

Online HDD/SSD Flash Component for Linux (x64) - MB6000GEQUT and MB8000GEQUU Drives

Version: HPGB (H) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-1d7f19120b-HPGB-8.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-1d7f19120b-HPGB-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 only found during supplier ongoing reliability testing.

Enhancements

- Added support for RHEL 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB6000GEXXV Drive

Version: HPG2 (I) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-a629fcea59-HPG2-9.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-a629fcea59-HPG2-9.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB6000GVYYU Drive

Version: HPG2 (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-bdc37cb37f-HPG2-8.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-bdc37cb37f-HPG2-8.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB6000GVYZB and MB4000GVYZA Drives

Version: HPG4 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-0a7d4aa47f-HPG4-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-0a7d4aa47f-HPG4-5.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MB8000GFECR Drive

Version: HPG6 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-6d922fc9a8-HPG6-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-6d922fc9a8-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MK000240GWCEU, MK000480GWCEV, MK000960GWCFA and MK001920GWCFCB Drives

Version: HPG3 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-7677644a25-HPG3-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-7677644a25-HPG3-6.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MK000480GWSSC, MK000960GWSSD, MK001920GWSSE and MK003840GWSSF Drives

Version: HPG3 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-f693ccc138-HPG3-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-f693ccc138-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MK000480GWXFF, MK000960GWXFH, MK001920GWXFK and MK003840GWXFL Drives

Version: HPG1 (C) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-8e1e8083c5-HPG1-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-8e1e8083c5-HPG1-3.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MK003840GWHITE Drive

Version: HPG6 (D) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-ac20a1e1c6-HPG6-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-ac20a1e1c6-HPG6-4.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MK0960GECQK Drive

Version: HPG3 (J) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-3e34285be7-HPG3-10.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-3e34285be7-HPG3-10.1.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

- Firmware fixes intermittent data corruption issue associated with unaligned sequential write operations.

Enhancements

- Added support for RHEL 8.3

Online HDD/SSD Flash Component for Linux (x64) - MM1000GEFQV and MM2000GEFRA Drives

Version: HPG8 (G) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-ec908c3650-HPG8-7.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-ec908c3650-HPG8-7.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MM1000GFJTE Drive

Version: HPG5 (E) (**Optional**)

Filename: rpm/RPMS/x86_64/firmware-hdd-95af9a555e-HPG5-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-95af9a555e-HPG5-5.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - MR000240GWFLU, MR000480GWFLV, VR000480GWFMD, MR000960GWFMA, VR000960GWFME, MR001920GWFMB and VR001920GWFMC Drives

Version: HPGE (D) (**Recommended**)

Filename: rpm/RPMS/x86_64/firmware-hdd-9196d4f720-HPGE-4.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-9196d4f720-HPGE-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VK000150GWCNN, VK000240GWCNP, VK000480GWCNQ, VK000960GWCNR and VK001600GWCNT Drives

Version: HPG1 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-6e3845def5-HPG1-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-6e3845def5-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 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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VK000240GWCFD, VK000480GWCFE, VK000960GWCF, VK001920GWCFH and VK003840GWCFK Drives

Version: HPG3 (F) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-f42438de3d-HPG3-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-f42438de3d-HPG3-6.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VK000240GWEZB, VK000480GWEZC, VK000960GWEZD, VK001920GWEZE, MK000240GWEZF, MK000480GWEZH, MK000960GWEZK and MK001920GWHRU Drives

Version: HPGE (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-3db7640485-HPGE-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-3db7640485-HPGE-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VK000240GWJPD, VK000480GWJPE, VK000960GWJPF, VK001920GWJPH, VK003840GWJPK, MK000240GWKVK, MK000480GWJPN, MK000960GWJPP and MK001920GWJPQ Drives

Version: HPG5 (E) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-aef2a690c9-HPG5-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-aef2a690c9-HPG5-5.1.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

- Fixes a rare link loss issue and adds enhancements for drive reliability.
- After HPG5 firmware is downloaded to the drive, the new HPG5 firmware will be active on the drive.
- The new drive bootloader code will be activated after the next drive power cycle.
- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00072768en_us

Enhancements

- Added support for RHEL 8.3

Online HDD/SSD Flash Component for Linux (x64) - VK000240GWSRQ, VK000480GWSRR, VK000960GWSRT, VK001920GWSRU and VK003840GWSRV Drives

Version: HPG4 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-db687966b4-HPG4-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-db687966b4-HPG4-2.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VK000240GWTSV, VK000480GWTTA, VK000960GWTTB, VK001920GW TTC, VK003840GWTTD, MK000480GW TTH, MK000960GW TTK, MK001920GW TTL and MK003840GW TTN Drives

Version: HPG6 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-c566d63ca0-HPG6-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-c566d63ca0-HPG6-2.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VK000480GWSXF, VK000960GWSXH, VK001920GWSXK, MK000480GWUGF, MK000960GWUGH and MK001920GWUGK Drives

Version: HPG2 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-9e87eecb3f-HPG2-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-9e87eecb3f-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 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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VK000480GWTHA, VK000960GWTHB, VK001920GWTHC and VK003840GWTHD Drives

Version: HPG2 (**Recommended**)

Filename: rpm/RPMS/x86_64/firmware-hdd-492a9952f6-HPG2-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-492a9952f6-HPG2-1.1.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 maintenance FW release addresses a rare corner case COMRESET issue at warm boot, and to address an early EOL behavior under certain use cases.

Online HDD/SSD Flash Component for Linux (x64) - VK003840GWSXL Drive

Version: HPG2 (E) (**Recommended**)

Filename: rpm/RPMS/x86_64/firmware-hdd-d1cf327bc4-HPG2-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-d1cf327bc4-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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VK007680GWSXN Drive

Version: HPG2 (E) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-b460823f70-HPG2-5.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-b460823f70-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 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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VK0120GFDKE, VK0240GFDKF, VK0480GFDKH, VK0960GFDKK, VK1920GFDKL and VK3840GFDKN Drives

Version: HPG1 (I) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-a2d4b5c742-HPG1-9.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-a2d4b5c742-HPG1-9.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VK0240GEPQN, VK0480GEPQP and VK0960GEPQQ Drives

Version: HPG1 (H) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-1a516522d1-HPG1-8.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-1a516522d1-HPG1-8.1.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 8.3

Online HDD/SSD Flash Component for Linux (x64) - VR000150GWEPP and VR000480GWEPR Drives

Version: HPG1 (F) **(Critical)**

Filename: rpm/RPMS/x86_64/firmware-hdd-b7eb905efe-HPG1-6.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-b7eb905efe-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..

Fixes

- Fixes an issue which caused the drive to become non-functional.

- Fixes VPD Log D0h reported drive Sanitize times.
- Adds support for Security Log Page BBh.

Enhancements

- Added support for RHEL 8.3

Online HDD/SSD Flash Component for Linux (x64) - XP0120GFJSL and XP0240GFJSN Drives

Version: HPS4 (I) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-d355375539-HPS4-9.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-hdd-d355375539-HPS4-9.1.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 8.3

Online HDD/SSD Flash Component for VMware ESXi - EK000200GWE PD, EK000400GWEPE, EK000800GWE PF and EK001600GWE PH Drives

Version: HPG3 (F) **(Recommended)**

Filename: CP045624.compsig; CP045624.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB001000GWCBC and MB002000GWCBD Drives

Version: HPG6 (E) **(Recommended)**

Filename: CP045626.compsig; CP045626.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB001000GWFWK and MB002000GWFWL Drives

Version: HPG6 (E) **(Recommended)**

Filename: CP045627.compsig; CP045627.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB001000GWJAN, MB002000GWFWA and MB004000GWFWB Drives

Version: HPG1 (E) **(Recommended)**

Filename: CP045628.compsig; CP045628.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB002000GWFGH and MB001000GWFGF Drives

Version: HPG3 (G) **(Optional)**

Filename: CP045629.compsig; CP045629.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB004000GWKGV Drive

Version: HPG1 (E) **(Recommended)**

Filename: CP045631.compsig; CP045631.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB004000GWWQH, MB002000GWWQF and MB001000GWWQE Drives

Version: HPG3 (B) **(Recommended)**

Filename: CP045978.compsig; CP045978.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB006000GWBXQ and MB008000GWBYL Drives

Version: HPG8 (E) **(Recommended)**

Filename: CP045634.compsig; CP045634.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB006000GWJRR and MB008000GWJRT Drives

Version: HPG4 (C) **(Recommended)**

Filename: CP045710.compsig; CP045710.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 U1
-

Online HDD/SSD Flash Component for VMware ESXi - MB006000GWKGR Drive

Version: HPG1 (E) **(Recommended)**

Filename: CP045635.compsig; CP045635.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 U1
-

Online HDD/SSD Flash Component for VMware ESXi - MB008000GWRTC Drive

Version: HPG1 (E) **(Recommended)**

Filename: CP045637.compsig; CP045637.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB008000GWWQU and MB006000GWWQT Drives

Version: HPG2 (C) **(Recommended)**

Filename: CP045695.compsig; CP045695.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB010000GWAYN and MB008000GWAYL Drives

Version: HPG5 (F) **(Critical)**

Filename: CP045639.compsig; CP045639.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 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 VMware 7.0 U1

Online HDD/SSD Flash Component for VMware ESXi - MB012000GWDFE Drive

Version: HPG2 (F) **(Critical)**

Filename: CP045641.compsig; CP045641.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 during unaligned write commands, found in supplier ongoing lab testing.
- Includes additional fixes to improve error handling and reliability.

Enhancements

- Added support for VMware 7.0 U1

Online HDD/SSD Flash Component for VMware ESXi - MB012000GWTFE and MB014000GWTFE Drives

Version: HPG7 (B) **(Recommended)**

Filename: CP046334.compsig; CP046334.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB014000GWRTN, MB012000GWRTL and MB010000GWRTK Drives

Version: HPG2 (E) **(Recommended)**

Filename: CP045644.compsig; CP045644.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB014000GWUDA Drive

Version: HPG2 (E) **(Recommended)**

Filename: CP045645.compsig; CP045645.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB1000GDUNU, MB2000GDUNV, MB3000GDUPA and MB4000GDUPB Drives

Version: HPG4 (J) **(Recommended)**

Filename: CP045648.compsig; CP045648.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB1000GVYZE, MB2000GVYZF, MB3000GVYZH and MB4000GVYZK Drives

Version: HPG4 (H) **(Recommended)**

Filename: CP045649.compsig; CP045649.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB2000GCWLT, MB3000GCWLU and MB4000GCWLV Drives

Version: HPG4 (J) **(Recommended)**

Filename: CP045651.compsig; CP045651.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB2000GFEMH and MB4000GFEMK Drives

Version: HPG6 (H) **(Critical)**

Filename: CP045652.compsig; CP045652.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 corrects settings preservation after a code download, and includes emergency power off improvements.
- Online firmware update fails when drives are connected behind AHCI controller.

Enhancements

- Added support for VMware 7.0 U1

Online HDD/SSD Flash Component for VMware ESXi - MB4000GEFNA and MB6000GEFNB Drives

Version: HPG6 (H) **(Recommended)**

Filename: CP045656.compsig; CP045656.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB4000GEQNH and MB6000GEQNK Drives

Version: HPGB (H) **(Critical)**

Filename: CP045657.compsig; CP045657.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 corrects settings preservation after a code download, and includes emergency power off improvements.

Enhancements

- Added support for VMware 7.0 U1

Online HDD/SSD Flash Component for VMware ESXi - MB6000GEBTP Drive

Version: HPG4 (H) **(Recommended)**

Filename: CP045661.compsig; CP045661.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB6000GEQUT and MB8000GEQUU Drives

Version: HPGB (H) **(Critical)**

Filename: CP045662.compsig; CP045662.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 only found during supplier ongoing reliability testing.
- Online firmware update fails when drives are connected behind AHCI controller.

Enhancements

- Added support for VMware 7.0 U1

Online HDD/SSD Flash Component for VMware ESXi - MB6000GEXXV Drive

Version: HPG2 (J) **(Recommended)**

Filename: CP045663.compsig; CP045663.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB6000GVYYU Drive

Version: HPG2 (H) **(Recommended)**

Filename: CP045664.compsig; CP045664.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB6000GVYZB and MB4000GVYZA Drives

Version: HPG4 (E) **(Recommended)**

Filename: CP045665.compsig; CP045665.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MB8000GFECR Drive

Version: HPG6 (F) **(Recommended)**

Filename: CP045713.compsig; CP045713.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MK000240GWCEU, MK000480GWCEV, MK000960GWCFA and MK001920GWCFA Drives

Version: HPG3 (F) **(Recommended)**

Filename: CP045669.compsig; CP045669.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MK000480GWSSC, MK000960GWSSD, MK001920GWSSE and MK003840GWSSF Drives

Version: HPG3 (B) **(Recommended)**

Filename: CP045980.compsig; CP045980.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MK000480GWXFF, MK000960GWXFH, MK001920GWXFK and MK003840GWXFL Drives

Version: HPG1 (C) **(Recommended)**

Filename: CP045697.compsig; CP045697.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MK003840GWHTe Drive

Version: HPG6 (E) **(Recommended)**

Filename: CP045670.compsig; CP045670.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MK0960GECQK Drive

Version: HPG3 (K) **(Critical)**

Filename: CP045671.compsig; CP045671.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

- Firmware fixes intermittent data corruption issue associated with unaligned sequential write operations.

Enhancements

- Added support for VMware 7.0 U1

Online HDD/SSD Flash Component for VMware ESXi - MM1000GEFQV and MM2000GEFRA Drives

Version: HPG8 (G) **(Recommended)**

Filename: CP045672.compsig; CP045672.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MM1000GFJTE Drive

Version: HPG5 (E) **(Optional)**

Filename: CP045673.compsig; CP045673.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 U1

Online HDD/SSD Flash Component for VMware ESXi - MR000240GWFLU, MR000480GWFLV, VR000480GWFMF, MR000960GWFMA, VR000960GWFME, MR001920GWFMB and VR001920GWFMC Drives

Version: HPGE (E) **(Recommended)**

Filename: CP045678.compsig; CP045678.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VK000150GWCNN, VK000240GWCNP, VK000480GWCNQ, VK000960GWCNR and VK001600GWCNT Drives

Version: HPG1 (E) **(Recommended)**

Filename: CP045679.compsig; CP045679.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VK000240GWCFD, VK000480GWCFE, VK000960GWCF, VK001920GWCFH and VK003840GWCFK Drives.

Version: HPG3 (F) (**Recommended**)

Filename: CP045680.compsig; CP045680.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VK000240GWEZB, VK000480GWEZC, VK000960GWEZD, VK001920GWEZE, MK000240GWEZF, MK000480GWEZH, MK000960GWEZK and MK001920GWHRU Drives

Version: HPGE (F) (**Optional**)

Filename: CP045694.compsig; CP045694.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VK000240GWJPD, VK000480GWJPE, VK000960GWJPF, VK001920GWJPH, VK003840GWJPK, MK000240GWKVK, MK000480GWJPN, MK000960GWJPP and MK001920GWJPQ Drives

Version: HPG5 (E) **(Critical)**

Filename: CP045721.compsig; CP045721.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 rare link loss issue and adds enhancements for drive reliability.
- After HPG5 firmware is downloaded to the drive, the new HPG5 firmware will be active on the drive.
- The new drive bootloader code will be activated after the next drive power cycle.
- For more information, refer to HPE Customer Advisory at the following URL: https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00072768en_us

Enhancements

- Added support for VMware 7.0 U1

Online HDD/SSD Flash Component for VMware ESXi - VK000240GWSRQ, VK000480GWSRR, VK000960GWSRT, VK001920GWSRU, VK003840GWSRV Drives

Version: HPG4 (B) **(Recommended)**

Filename: CP045848.compsig; CP045848.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VK000240GWTSV, VK000480GWTTA, VK000960GWTTB, VK001920GWTTTC, VK003840GWTTD, MK000480GWTTT, MK000960GWTTK, MK001920GWTTL and MK003840GWTTN Drives

Version: HPG6 (B) **(Recommended)**

Filename: CP045948.compsig; CP045948.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 ESXi 7.0 U1.

Online HDD/SSD Flash Component for VMware ESXi - VK000480GWSXF, VK000960GWSXH, VK001920GWSXK, MK000480GWUGF, MK000960GWUGH and MK001920GWUGK Drives

Version: HPG2 (E) **(Recommended)**

Filename: CP045682.compsig; CP045682.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VK000480GWTHA, VK000960GWTHB, VK001920GWTHC and VK003840GWTHD Drives

Version: HPG2 **(Recommended)**

Filename: CP046506.compsig; CP046506.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 maintenance FW release addresses a rare corner case COMRESET issue at warm boot, and to address an early EOL behavior under certain use cases.

Online HDD/SSD Flash Component for VMware ESXi - VK003840GWSXL Drive

Version: HPG2 (E) **(Recommended)**

Filename: CP045684.compsig; CP045684.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VK007680GWSXN Drive

Version: HPG2 (E) **(Recommended)**

Filename: CP045685.compsig; CP045685.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VK0120GFDKE, VK0240GFDKF, VK0480GFDKH, VK0960GFDKK, VK1920GFDKL, and VK3840GFDKN Drives

Version: HPG1 (I) **(Recommended)**

Filename: CP045686.compsig; CP045686.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VK0240GEPQN, VK0480GEPQP and VK0960GEPQQ Drives

Version: HPG1 (I) **(Recommended)**

Filename: CP045687.compsig; CP045687.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 U1

Online HDD/SSD Flash Component for VMware ESXi - VR000150GWEPP and VR000480GWEPR Drives

Version: HPG1 (F) **(Critical)**

Filename: CP045691.compsig; CP045691.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 timing issue which can cause the drive to become non-functional.
- Fixes VPD Log D0h reported drive Sanitize times.
- Adds support for Security Log Page BBh.

Enhancements

- Added support for VMware 7.0 U1

Online HDD/SSD Flash Component for VMware ESXi - XP0120GFJSL and XP0240GFJSN Drives

Version: HPS4 (I) **(Recommended)**

Filename: CP045693.compsig; CP045693.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 U1

Online HDD/SSD Flash Component for Windows (x64) - EK000200GWE PD, EK000400GWE PE, EK000800GWE PF and EK001600GWE PH Drives

Version: HPG3 (E) **(Recommended)**

Filename: cp045511.compsig; cp045511.exe; cp045511.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB001000GWCBC and MB002000GWCBD Drives

Version: HPG6 (D) **(Recommended)**

Filename: cp045514.compsig; cp045514.exe; cp045514.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - MB001000GWFWK and MB002000GWFWL Drives

Version: HPG6 (D) **(Recommended)**

Filename: cp045515.compsig; cp045515.exe; cp045515.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - MB001000GWJAN, MB002000GWFWA and MB004000GWFWB Drives

Version: HPG1 (D) **(Recommended)**

Filename: cp045516.compsig; cp045516.exe; cp045516.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - MB002000GWFGH and MB001000GWFGF Drives

Version: HPG3 (F) **(Optional)**

Filename: cp045517.compsig; cp045517.exe; cp045517.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 Windows Server 2019.
-

Online HDD/SSD Flash Component for Windows (x64) - MB004000GWKGV Drive

Version: HPG1 (D) **(Recommended)**

Filename: cp045519.compsig; cp045519.exe; cp045519.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB004000GWWQH, MB002000GWWQF and MB001000GWWQE Drives

Version: HPG3 (B) **(Recommended)**

Filename: cp045899.compsig; cp045899.exe; cp045899.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB006000GWBXQ and MB008000GWBYL Drives

Version: HPG8 (D) **(Recommended)**

Filename: cp045522.compsig; cp045522.exe; cp045522.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB006000GWJRR and MB008000GWJRT Drives

Version: HPG4 (C) **(Recommended)**

Filename: cp045599.compsig; cp045599.exe; cp045599.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 Windows server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB006000GWKGR Drive

Version: HPG1 (D) **(Recommended)**

Filename: cp045523.compsig; cp045523.exe; cp045523.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB008000GWRTC Drive

Version: HPG1 (D) **(Recommended)**

Filename: cp045525.compsig; cp045525.exe; cp045525.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB008000GWWQU and MB006000GWWQT Drives

Version: HPG2 (C) **(Recommended)**

Filename: cp045584.compsig; cp045584.exe; cp045584.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB010000GWAYN and MB008000GWAYL Drives

Version: HPG5 (E) **(Critical)**

Filename: cp045527.compsig; cp045527.exe; cp045527.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 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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB012000GWDFE Drive

Version: HPG2 (E) **(Critical)**

Filename: cp045529.compsig; cp045529.exe; cp045529.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 during unaligned write commands, found in supplier ongoing lab testing. Includes additional fixes to improve error handling and reliability.

Enhancements

- Added support for Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB012000GWTFE and MB014000GWTFE Drives

Version: HPG7 (B) (**Recommended**)

Filename: cp046335.compsig; cp046335.exe; cp046335.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 Windows server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB014000GWRTN, MB012000GWRTL and MB010000GWRTK Drives

Version: HPG2 (D) (**Recommended**)

Filename: cp045532.compsig; cp045532.exe; cp045532.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB014000GWUDA Drive

Version: HPG2 (D) **(Recommended)**

Filename: cp045533.compsig; cp045533.exe; cp045533.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB1000GDUNU, MB2000GDUNV, MB3000GDUPA and MB4000GDUPB Drives

Version: HPG4 (H) **(Recommended)**

Filename: cp045536.compsig; cp045536.exe; cp045536.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB1000GVYZE, MB2000GVYZF, MB3000GVYZH and MB4000GVYZK Drives

Version: HPG4 (H) **(Recommended)**

Filename: cp045537.compsig; cp045537.exe; cp045537.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB2000GCWLT, MB3000GCWLU and MB4000GCWLV Drives

Version: HPG4 (H) **(Recommended)**

Filename: cp045539.compsig; cp045539.exe; cp045539.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB2000GFEMH and MB4000GFEMK Drives

Version: HPG6 (G) **(Critical)**

Filename: cp045540.compsig; cp045540.exe; cp045540.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.Â This issue was found during supplier ongoing reliability testing.
- The firmware also corrects settings preservation after a code download, and includes emergency power off improvements.

Enhancements

- Added support for Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB4000GEFNA and MB6000GEFNB Drives

Version: HPG6 (H) **(Recommended)**

Filename: cp045544.compsig; cp045544.exe; cp045544.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB4000GEQNH and MB6000GEQNK Drives

Version: HPGB (G) **(Critical)**

Filename: cp045545.compsig; cp045545.exe; cp045545.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 corrects settings preservation after a code download, and includes emergency power off improvements.

Enhancements

- Added support for Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB6000GEBTP Drive

Version: HPG4 (G) **(Recommended)**

Filename: cp045549.compsig; cp045549.exe; cp045549.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB6000GEQUT and MB8000GEQUU Drives

Version: HPGB (G) **(Critical)**

Filename: cp045550.compsig; cp045550.exe; cp045550.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 only found during supplier ongoing reliability testing.
- Online firmware update fails when drives are connected behind AHCI controller.

Enhancements

- Added support for Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB6000GEXXV Drive

Version: HPG2 (H) **(Recommended)**

Filename: cp045551.compsig; cp045551.exe; cp045551.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB6000GVYYU Drive

Version: HPG2 (G) **(Recommended)**

Filename: cp045552.compsig; cp045552.exe; cp045552.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB6000GVYZB and MB4000GVYZA Drives

Version: HPG4 (D) (Recommended)

Filename: cp045553.compsig; cp045553.exe; cp045553.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MB8000GFECR Drive

Version: HPG6 (D) (Recommended)

Filename: cp045557.compsig; cp045557.exe; cp045557.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MK000240GWCEU, MK000480GWCEV, MK000960GWCFA and MK001920GWCFA Drives

Version: HPG3 (E) (Recommended)

Filename: cp045560.compsig; cp045560.exe; cp045560.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MK000480GWSSC, MK000960GWSSD, MK001920GWSSE and MK003840GWSSF Drives

Version: HPG3 (B) (Recommended)

Filename: cp045901.compsig; cp045901.exe; cp045901.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MK000480GWXFF, MK000960GWXFH, MK001920GWXFK and MK003840GWXFL Drives

Version: HPG1 (C) (Recommended)

Filename: cp045586.compsig; cp045586.exe; cp045586.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MK003840GWHITE Drive

Version: HPG6 (D) (Recommended)

Filename: cp045561.compsig; cp045561.exe; cp045561.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MK0960GECQK Drive

Version: HPG3 (J) (Critical)

Filename: cp045562.compsig; cp045562.exe; cp045562.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

Firmware fixes intermittent data corruption issue associated with unaligned sequential write operations.

Enhancements

Added support for Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MM1000GEFQV and MM2000GEFRA Drives

Version: HPG8 (F) (Recommended)

Filename: cp044279.compsig; cp044279.exe; cp044279.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MM1000GFJTE Drive

Version: HPG5 (D) (Optional)

Filename: cp044278.compsig; cp044278.exe; cp044278.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - MR000240GWFLU, MR000480GWFLV, VR000480GWFMD, MR000960GWFMA, VR000960GWFME, MR001920GWFMB and VR001920GWPMC Drives

Version: HPGE (D) (Recommended)

Filename: cp045567.compsig; cp045567.exe; cp045567.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VK000150GWCNN, VK000240GWCNP, VK000480GWCNQ, VK000960GWCNR and VK001600GWCNT Drives

Version: HPG1 (D) (Recommended)

Filename: cp045568.compsig; cp045568.exe; cp045568.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VK000240GWCFD, VK000480GWCFE, VK000960GWCF, VK001920GWCFH and VK003840GWCFK Drives

Version: HPG3 (E) (Recommended)

Filename: cp045290.compsig; cp045290.exe; cp045290.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VK000240GWEZB, VK000480GWEZC, VK000960GWEZD, VK001920GWEZE, MK000240GWEZF, MK000480GWEZH, MK000960GWEZK and MK001920GWHRU Drives

Version: HPGE (E) (Optional)

Filename: cp045773.compsig; cp045773.exe; cp045773.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VK000240GWJPD, VK000480GWJPE, VK000960GWJPF, VK001920GWJPH, VK003840GWJPK, MK000240GWKVK, MK000480GWJPN, MK000960GWJPP and MK001920GWJPQ Drives

Version: HPG5 (D) (Critical)

Filename: cp045601.compsig; cp045601.exe; cp045601.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 rare link loss issue and adds enhancements for drive reliability.

After HPG5 firmware is downloaded to the drive, the new HPG5 firmware will be active on the drive.

The new drive bootloader code will be activated after the next drive power cycle.

For more information, refer to HPE Customer Advisory at the following URL:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00072768en_us

Enhancements

Added support for Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VK000240GWSRQ, VK000480GWSRR, VK000960GWSRT, VK001920GWSRU and VK003840GWSRV Drives

Version: HPG4 (B) (Recommended)

Filename: cp045204.compsig; cp045204.exe; cp045204.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VK000240GWTSV, VK000480GWTTA, VK000960GWTTB, VK001920GW TTC, VK003840GWTTD, MK000480GW TTH, MK000960GW TTK, MK001920GW TTL and MK003840GW TTN Drives

Version: HPG6 (B) (Recommended)

Filename: cp045898.compsig; cp045898.exe; cp045898.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VK000480GWSXF, VK000960GWSXH, VK001920GWSXK, MK000480GWUGF, MK000960GWUGH and MK001920GWUGK Drives

Version: HPG2 (D) (Recommended)

Filename: cp045570.compsig; cp045570.exe; cp045570.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VK000480GWTHA, VK000960GWTHB, VK001920GWTHC and VK003840GWTHD Drives

Version: HPG2 (Recommended)

Filename: cp046508.compsig; cp046508.exe; cp046508.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 maintenance FW release addresses a rare corner case COMRESET issue at warm boot, and to address an early EOL behavior under certain use cases.

Online HDD/SSD Flash Component for Windows (x64) - VK003840GWSXL Drive

Version: HPG2 (D) (Recommended)

Filename: cp045572.compsig; cp045572.exe; cp045572.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VK007680GWSXN Drive

Version: HPG2 (D) (Recommended)

Filename: cp045573.compsig; cp045573.exe; cp045573.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VK0120GFDKE, VK0240GFDKF, VK0480GFDKH, VK0960GFDKK, VK1920GFDKL and VK3840GFDKN Drives

Version: HPG1 (G) (Recommended)

Filename: cp045574.compsig; cp045574.exe; cp045574.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VK0240GEPQN, VK0480GEPQP and VK0960GEPQQ Drives

Version: HPG1 (G) (Recommended)

Filename: cp045575.compsig; cp045575.exe; cp045575.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 Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - VR000150GWEPP and VR000480GWEPR Drives

Version: HPG1 (E) (Critical)

Filename: cp045581.compsig; cp045581.exe; cp045581.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 timing issue which can cause the drive to become non-functional.

Fixes VPD Log D0h reported drive Sanitize times.

Adds support for Security Log Page BBh.

Enhancements

Added support for Windows Server 2019.

Online HDD/SSD Flash Component for Windows (x64) - XP0120GFJSL and XP0240GFJSN Drives

Version: HPS4 (G) (Recommended)

Filename: cp045583.compsig; cp045583.exe; cp045583.md5

Important Note!

Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or a ProLiant 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 Windows Server 2019.

Firmware - Storage Controller

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HPE D3600/D3700/D3610/D3710 12Gb SAS Disk Enclosure ROM Flash Component for Linux (x64)

Version: 5.04 (B) (Recommended)

Filename: CP045792.md5; RPMS/x86_64/firmware-d3000-5.04-2.1.x86_64.compsig; RPMS/x86_64/firmware-d3000-5.04-2.1.x86_64.rpm

Important Note!

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted. In single domain configuration, if user hosts an OS in D3000(or any storage box) and flash the SEPs, it will hang/crash everytime as SmartComponent will reset the SEPs after flash/codeload.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D3000.log and flash summary is logged to /var/cpq/Component.log.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D3000.log and flash summary is logged to /var/cpq/Component.log.

Fixes

The following fixes were incorporated in this version:

The Enabled-ClusterS2D command now completes successfully when executed on a SATA drive within a D3610 disk enclosure for a NonStop solution.

The smart carrier, which is the drive case for SAS drives, now authenticates in the D3610/D3710 drive enclosure.

Added new 7-segment error codes E0 and E1 to report issues with Fan modules A and B, respectively. These new codes only apply to the D3610/D3710 and only display when running firmware 5.04.

If the storage enclosure processor within the I/O module fails, a hard reset (power down and then power up) is executed to ensure the processor comes back online.

Please refer to the Release Notes for the complete listing of fixes, enhancements, known issues and work-arounds corresponding to this firmware.

Enhancements

The following enhancement has been added in this version:

Added support of RHEL 7.8

Added support of RHEL 8.2

Added support of SLES15 SP2

Supported Devices and Features

The D3600 / D3700 / D3610 / D3710 Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

Smart Array P841 Controller

Smart Array P441 Controller

Smart HBA H241

Smart Array P408e-p Controller

Smart Array E208e-p Controller

Smart Array P408e-m Controller

Smart Array P741m Controller

HPE D3600/D3700/D3610/D3710 12Gb SAS Disk Enclosure ROM Flash Component for VMware (ESXi)

Version: 5.04 (B) (Recommended)

Filename: CP045788.compsig; CP045788.md5; CP045788.zip

Important Note!

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted. In single domain configuration, if user hosts an OS in D3000(or any storage box) and flash the SEPs, it will hang/crash everytime as SmartComponent will reset the SEPs after flash/codeload.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D3000.log and flash summary is logged to /var/cpq/Component.log.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D3000.log and flash summary is logged to /var/cpq/Component.log.

Fixes

The following fixes were incorporated in this version:

The Enabled-ClusterS2D command now completes successfully when executed on a SATA drive within a D3610 disk enclosure for a NonStop solution.

The smart carrier, which is the drive case for SAS drives, now authenticates in the D3610/D3710 drive enclosure.

Added new 7-segment error codes E0 and E1 to report issues with Fan modules A and B, respectively. These new codes only apply to the D3610/D3710 and only display when running firmware 5.04.

If the storage enclosure processor within the I/O module fails, a hard reset (power down and then power up) is executed to ensure the processor comes back online.

Please refer to the Release Notes for the complete listing of fixes, enhancements, known issues and work-arounds corresponding to this firmware.

Supported Devices and Features

The D3600 / D3700 / D3610 / D3710 Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

Smart Array P841 Controller

Smart Array P441 Controller

Smart HBA H241

Smart Array P741m Controller

Smart Array P408e-p Controller

Smart Array E208e-p Controller

Smart Array P408e-m Controller

HPE D3600/D3700/D3610/D3710 12Gb SAS Disk Enclosure ROM Flash Component for Windows (x64)

Version: 5.04 (B) (Recommended)

Filename: cp045793.compsig; cp045793.exe

Important Note!

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted. In single domain configuration, if user hosts an OS in D3000(or any storage box) and flash the SEPs, it will hang/crash everytime as SmartComponent will reset the SEPs after flash/code load.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to %systemdrive%\CPQSYSTEM\Log\D3000.log and flash summary is logged to %systemdrive%\CPQSYSTEM\Log\cpqsetup.log.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to %systemdrive%\CPQSYSTEM\Log\D3000.log and flash summary is logged to %systemdrive%\CPQSYSTEM\Log\cpqsetup.log.

Fixes

The following fixes were incorporated in this version:

The Enabled-ClusterS2D command now completes successfully when executed on a SATA drive within a D3610 disk enclosure for a NonStop solution.

The smart carrier, which is the drive case for SAS drives, now authenticates in the D3610/D3710 drive enclosure.

Added new 7-segment error codes E0 and E1 to report issues with Fan modules A and B, respectively. These new codes only apply to the D3610/D3710 and only display when running firmware 5.04.

If the storage enclosure processor within the I/O module fails, a hard reset (power down and then power up) is executed to ensure the processor comes back online.

Please refer to the Release Notes for the complete listing of fixes, enhancements, known issues and work-arounds corresponding to this firmware.

Supported Devices and Features

The D3600 / D3700 / D3610 / D3710 Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

Smart Array P841 Controller

Smart Array P441 Controller

Smart HBA H241

Smart Array P408e-p Controller

Smart Array E208e-p Controller

Smart Array P408e-m Controller

Smart Array P741m Controller

HPE D6020 12Gb SAS Disk Enclosure ROM Flash Component for Linux (x64)

Version: 2.74 (I) (Recommended)

Filename: CP045970.md5; RPMS/x86_64/firmware-d6020-2.74-9.1.x86_64.compsig; RPMS/x86_64/firmware-d6020-2.74-9.1.x86_64.rpm

Important Note!

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted. In single domain configuration, if user hosts an OS in D6020(or any storage box) and flash the SEPs, it will hang/crash everytime as SmartComponent will reset the SEPs after flash/codeload.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D6020.log and flash summary is logged to /var/cpq/Component.log.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D6020.log and flash summary is logged to /var/cpq/Component.log.

Fixes

The following fixes were incorporated in this version:

Temperature sensors logic inside gSEP model and SES database

When an IOM is pulled the surviving IOM reports false critical temperatures

Please refer to the Release Notes for the complete listing of fixes, enhancements, known issues and work-arounds corresponding to this firmware.

Enhancements

The following enhancement has been added in this version:

Added support of RHEL 7.8

Added support of RHEL 8.2

Added support of SLES15 SP2

Supported Devices and Features

The D6020 Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

Smart Array P841 Controller

Smart Array P441 Controller

Smart HBA H241

Smart Array P741m Controller

Smart Array P408e-p Controller

Smart Array E208e-p Controller

Smart Array P408e-m Controller

HPE D6020 12Gb SAS Disk Enclosure ROM Flash Component for VMware (ESXi)

Version: 2.74 (I) (Recommended)

Filename: CP045969.compsig; CP045969.md5; CP045969.zip

Important Note!

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted. In single domain configuration, if user hosts an OS in D6020(or any storage box) and flash the SEPs, it will hang/crash everytime as SmartComponent will reset the SEPs after flash/codeload.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D6020.log and flash summary is logged to /var/cpq/Component.log.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D6020.log and flash summary is logged to /var/cpq/Component.log.

Fixes

The following fixes were incorporated in this version:

Temperature sensors logic inside gSEP model and SES database

When an IOM is pulled the surviving IOM reports false critical temperatures

Please refer to the Release Notes for the complete listing of fixes, enhancements, known issues and work-arounds corresponding to this firmware.

Supported Devices and Features

The D6020 Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

Smart Array P841 Controller

Smart Array P441 Controller

Smart HBA H241

Smart Array P741m Controller

Smart Array P408e-p Controller

Smart Array E208e-p Controller

Smart Array P408e-m Controller

HPE D6020 12Gb SAS Disk Enclosure ROM Flash Component for Windows (x64)

Version: 2.74 (I) (Recommended)

Filename: cp045968.compsig; cp045968.exe

Important Note!

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted. In single domain configuration, if user hosts an OS in D6020(or any storage box) and flash the SEPs, it will hang/crash everytime as SmartComponent will reset the SEPs after flash/codeload.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to %systemdrive%\CPQSYSTEM\Log\D6020.log and flash summary is logged to %systemdrive%\CPQSYSTEM\Log\cpqsetup.log.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to %systemdrive%\CPQSYSTEM\Log\D6020.log and flash summary is logged to %systemdrive%\CPQSYSTEM\Log\cpqsetup.log.

Fixes

The following fixes were incorporated in this version:

Temperature sensors logic inside gSEP model and SES database

When an IOM is pulled the surviving IOM reports false critical temperatures

Please refer to the Release Notes for the complete listing of fixes, enhancements, known issues and work-arounds corresponding to this firmware.

Supported Devices and Features

The D6020 Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

Smart Array P841 Controller

Smart Array P441 Controller

Smart HBA H241

Smart Array P741m Controller

Smart Array P408e-p Controller

Smart Array E208e-p Controller

Smart Array P408e-m Controller

HPE D8000 12Gb SAS Disk Enclosure ROM Flash Component for Linux (x64)

Version: 0111 (Recommended)

Filename: CP046459.md5; RPMS/x86_64/firmware-d8000-0111-1.1.x86_64.compsig; RPMS/x86_64/firmware-d8000-0111-1.1.x86_64.rpm

Important Note!

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted. In single domain configuration, if user hosts an OS in D8000(or any storage box) and flash the SEPs, it will hang/crash everytime as SmartComponent will reset the SEPs after flash/codeload.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D8000.log and flash summary is logged to /var/cpq/Component.log.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D8000.log and flash summary is logged to /var/cpq/Component.log.

Fixes

The following fixes were incorporated in this version:

Incorrect programming of the PHY ERROR COUNTERS parameter caused the amber LED to be lit, resulting in a false warning. The counter condition was corrected and the amber LED now functions correctly.

Please refer to the Release Notes for the complete listing of fixes, enhancements, known issues and work-arounds corresponding to this firmware.

Enhancements

The following enhancement has been added in this version:

Added support of RHEL 7.8

Added support of RHEL 8.2

Added support of SLES15 SP2

Supported Devices and Features

The D8000 Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

HPE Smart Array P408e-p Controller

HPE Smart Array E208e-p Controller

HPE D8000 12Gb SAS Disk Enclosure ROM Flash Component for VMware (ESXi)

Version: 0111 (Recommended)

Filename: CP046455.md5; CP046455.zip; CP046455_part1.compsig; CP046455_part2.compsig

Important Note!

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted. In single domain configuration, if user hosts an OS in D8000(or any storage box) and flash the SEPs, it will hang/crash everytime as SmartComponent will reset the SEPs after flash/codeload.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D8000.log and flash summary is logged to /var/cpq/Component.log.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D8000.log and flash summary is logged to /var/cpq/Component.log.

Fixes

The following fixes were incorporated in this version:

Incorrect programming of the PHY ERROR COUNTERS parameter caused the amber LED to be lit, resulting in a false warning. The counter condition was corrected and the amber LED now functions correctly.

Please refer to the Release Notes for the complete listing of fixes, enhancements, known issues and work-arounds corresponding to this firmware.

Supported Devices and Features

The D8000 Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

HPE Smart Array P408e-p Controller

HPE Smart Array E208e-p Controller

HPE D8000 12Gb SAS Disk Enclosure ROM Flash Component for Windows (x64)

Version: 0111 (Recommended)

Filename: cp046461.compsig; cp046461.exe

Important Note!

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted. In single domain configuration, if user hosts an OS in D8000(or any storage box) and flash the SEPs, it will hang/crash everytime as SmartComponent will reset the SEPs after flash/codeload.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to %systemdrive%\CPQSYSTEM\Log\D8000.log and flash summary is logged to %systemdrive%\CPQSYSTEM\Log\cpqsetup.log.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to %systemdrive%\CPQSYSTEM\Log\D8000.log and flash summary is logged to %systemdrive%\CPQSYSTEM\Log\cpqsetup.log.

Fixes

The following fixes were incorporated in this version:

Incorrect programming of the PHY ERROR COUNTERS parameter caused the amber LED to be lit, resulting in a false warning. The counter condition was corrected and the amber LED now functions correctly.

Please refer to the Release Notes for the complete listing of fixes, enhancements, known issues and work-arounds corresponding to this firmware.

Supported Devices and Features

The D8000 Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

HPE Smart Array P408e-p Controller

HPE Smart Array E208e-p Controller

HPE Smart Array MR216i-a Gen10+ Tri Mode Controller

Version: 52.16.3-3913 (Recommended)

Filename: HPE_MR216i-a_Gen10P_52.16.3-3913.fwpkg

Important Note!

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

Enhancements

Initial Release

HPE Smart Array MR216i-p Gen10+ Tri Mode Controller

Version: 52.16.3-3913 (Recommended)

Filename: HPE_MR216i-p_Gen10P_52.16.3-3913.fwpkg

Important Note!

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

Enhancements

Initial Release

HPE Smart Array MR416i-a Gen10+ Tri Mode Controller

Version: 52.16.3-3913 (Recommended)

Filename: HPE_MR416i-a_Gen10P_52.16.3-3913.fwpkg

Important Note!

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

Enhancements

Initial Release

HPE Smart Array MR416i-p Gen10+ Tri Mode Controller

Version: 52.16.3-3913 (Recommended)

Filename: HPE_MR416i-p_Gen10P_52.16.3-3913.fwpkg

Important Note!

This firmware version to be used on MR416i-pcontrollers.

Enhancements

Initial Release

HPE Smart Array SR932i-p and SR416i-a Gen10+ Controllers

Version: 03.01.00.006 (Recommended)

Filename: HPE_SRXXX_Gen10p_3.01.00.006.fwpkg

Enhancements

Initial Release

Supported Devices and Features

Supported Devices - SmartRAID SR932i-p and SR416i-a

Online Firmware Flash for ESXi - HPE NS204i-p, NS204i-d, NS204i-t, NS204i-r Gen10+ Boot Controller

Version: 1.0.14.1052 (Recommended)

Filename: CP044515.compsig; CP044515.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

Enhancements

added support to the Redfish Alerts feature

Online Firmware Flash for Linux(x64) - HPE NS204i-p, NS204i-d, NS204i-t, NS204i-r Gen10+ Boot Controller

Version: 1.0.14.1052 (Recommended)

Filename: CP044417.md5; CP044417.scexe; deb/firmware-9041739931_1.0.14.1052-1.1_amd64.deb;
rpm/RPMS/x86_64/firmware-9041739931-1.0.14.1052-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-
9041739931-1.0.14.1052-1.1.x86_64.rpm

Enhancements

added support to the Redfish Alerts feature

Online Firmware Flash for Windows - HPE NS204i-p, NS204i-d, NS204i-t, NS204i-r Gen10+ Boot Controller

Version: 1.0.14.1052 (Recommended)

Filename: cp044566.compsig; cp044566.exe; cp044566.md5

Enhancements

added support to the Redfish Alerts feature

Online ROM Flash Component for ESXi (x86) - HPE Smart Array P824i-p MR Gen10

Version: 24.23.0-0043 (B) (Recommended)

Filename: CP044443.compsig; CP044443.zip

Enhancements

Added support for VMware ESXi 7.0

Online ROM Flash Component for Linux (x64) – HPE Apollo 2000 Gen10 Backplane Expander Firmware

Version: 1.00 (B) (Optional)

Filename: rpm/RPMS/x86_64/firmware-smartarray-9f082dff4-1.00-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-smartarray-9f082dff4-1.00-2.1.x86_64.rpm

Important Note!

Note: If version 1.00 was previously installed, then it is not necessary to upgrade to version 1.00 (B).

Enhancements

Added support for SUSE Linux Enterprise Server 15 OS

Online ROM Flash Component for Linux (x64) – HPE Apollo 2000 Gen10 Plus Backplane Expander FW

Version: 1.27 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-smartarray-7b5e8400dd-1.27-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-smartarray-7b5e8400dd-1.27-1.1.x86_64.rpm

Enhancements

Initial Release

Online ROM Flash Component for Linux (x64) – HPE Apollo 4200 Gen10 Plus Backplane Expander Firmware

Version: 0.37 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-smartarray-f36d4ef431-0.37-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-smartarray-f36d4ef431-0.37-1.1.x86_64.rpm

Enhancements

Initial Release

Online ROM Flash Component for Linux (x64) - HPE SAS Expander Firmware for HPE D2500sb Storage Blade

Version: 2.00 (B) (Optional)

Filename: rpm/RPMS/x86_64/firmware-smartarray-1d0696d939-2.00-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-smartarray-1d0696d939-2.00-2.1.x86_64.rpm

Important Note!

Customers who already installed firmware version 2.00 do not need to update to 2.00 (B).

Enhancements

Added support for SUSE Linux Enterprise Server 15 OS

Online ROM Flash Component for Linux (x64) - HPE Smart Array P824i-p MR Gen10

Version: 24.23.0-0043 (B) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-cafee9b6e4-24.23.0_0043-2.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-cafee9b6e4-24.23.0_0043-2.1.x86_64.rpm

Fixes

CFI 24378: sum-8.5.1 "smartupdate upgrade" Not Installing the P824i Controller FW on RHEL7

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

Version: 5.08 (Recommended)

Filename: CP044962.compsig; CP044962.zip

Important Note!

Power cycle / cold reboot is required if firmware is upgraded from version 1.31 or earlier.

Fixes

Smart Carrier Authentication Failure issue

Enhancements

Added support for Gen10 plus UBM type 1/2/3 backplanes

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

Version: 1.00 (C) (Optional)

Filename: CP037611.compsig; CP037611.zip

Important Note!

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

Enhancements

Added support for VMware vSphere 6.7 OS

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

Version: 1.27 (Recommended)

Filename: CP046386.compsig; CP046386.zip

Enhancements

Initial Release

Online ROM Flash Component for VMware ESXi - HPE Apollo 4200 Gen10 Plus Backplane Expander Firmware

Version: 0.37 (Recommended)

Filename: CP044965.compsig; CP044965.zip

Enhancements

Initial Release

Online ROM Flash Component for VMware ESXi - HPE Apollo 45xx Gen10 Backplane Expander Firmware

Version: 1.56 (D) (Recommended)

Filename: CP038103.compsig; CP038103.zip

Enhancements

Added HPE Smart Array P824i-p controller support

Online ROM Flash Component for VMware ESXi - HPE SAS Expander Firmware for HPE D2500sb Storage Blade

Version: 2.00 (C) (Optional)

Filename: CP037690.compsig; CP037690.zip

Important Note!

Customers who already installed firmware version 2.00 do not need to update to 2.00 (C).

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

Prerequisites

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

Enhancements

Added support for VMware vSphere 6.7 OS

Online ROM Flash Component for VMware ESXi - 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

Version: 3.53 (Recommended)

Filename: CP046359.compsig; CP046359.zip

Fixes

An issue where the controller might become unresponsive while receiving periodic I/Os.

Host I/O timeouts might occur due to continuing firmware attempts to discover devices during an expander configuration.

A controller lockup problem (with code 0x1E10) might occur when a bad drive with unsupported block size.

A Controller hangs when multiple hot-plug and hot remove events (drives or JBODs) were being processed.

A Controller hangs on Flash Backed Write Cache enabled logical drives with sequential read towards the end of the logical drive.

A Controller hangs when hot-plug physical drive with outstanding I/Os.

A controller hangs if a host I/O and background consistency check simultaneously encounter a RAID-1 ADM or RAID-10 ADM stripe in which all drives have URE's on the same LBA.

A Controller hangs when a drive is failed from a RAID6/60 logical drive when the host issues a Clear Controller Configuration command or any other configuration change command.

The SSD data drive might be set offline (with reason code 0x37) when hot-remove and re-insert during a spare rebuild in progress.

A drive might not be exposed to the OS if the system is rebooted just after the sanitize erase finishes.

UBM backplanes are not detected properly when connected to specific ports (port 7 or above) in the 12Gb SAS Expander Card.

A controller might hang when idle followed by a short burst of I/Os.

The controller might return the previous drive firmware version, after a drive firmware update on SATA drives.

The controller might fail drives (with reason code 0x49, I/O freeze timeout) during expander firmware upgrade on a multi-expander enclosure configuration.

Hot-added drive LED control fails on specific fan-out expander type external enclosure models.

Smart Array Essential series controller might not be responsive when processing sequential I/Os and the firmware coalescing logic can't get the memory.

Filesystem or application might read old data when SmartCache configurations encounter intermittent write I/O errors to a primary logical drive.

Enhancements

Added UBM type3 backplane support

Added support for long device model/product ID for SATA drives.

Online ROM Flash Component for Windows (x64) - HPE 12Gb/s SAS Expander Firmware for HPE Smart Array Controllers and HPE HBA Controllers

Version: 5.08 (Recommended)

Filename: cp044964.compsig; cp044964.exe; cp044964.md5

Important Note!

Power cycle / cold reboot is required if firmware is upgraded from version 1.31 or earlier.

Fixes

Smart Carrier Authentication Failure issue

Enhancements

Added support for Gen10 plus UBM type 1/2/3 backplanes

Online ROM Flash Component for Windows (x64) - HPE Apollo 2000 Gen10 Backplane Expander Firmware

Version: 1.00 (B) (Optional)

Filename: cp037609.compsig; cp037609.exe; cp037609.md5

Important Note!

Note: If version 1.00 was previously installed, then it is not necessary to upgrade to version 1.00 (B).

Enhancements

Added support for Microsoft Windows Server 2019 OS

Online ROM Flash Component for Windows (x64) - HPE Apollo 2000 Gen10 Plus Backplane Expander FW

Version: 1.27 (Recommended)

Filename: cp046384.compsig; cp046384.exe; cp046384.md5

Enhancements

Initial Release

Online ROM Flash Component for Windows (x64) - HPE Apollo 4200 Gen10 Plus Backplane Expander Firmware

Version: 0.37 (Recommended)

Filename: cp044967.compsig; cp044967.exe; cp044967.md5

Enhancements

Initial Release

Online ROM Flash Component for Windows (x64) - HPE Apollo 45xx Gen10 Backplane Expander Firmware

Version: 1.56 (C) (Recommended)

Filename: cp037765.compsig; cp037765.exe; cp037765.md5

Enhancements

Added HPE Smart Array p824i-p controller support

Online ROM Flash Component for Windows (x64) - HPE SAS Expander Firmware for HPE D2500sb Storage Blade

Version: 2.00 (B) (Optional)

Filename: cp037679.compsig; cp037679.exe; cp037679.md5

Important Note!

Customers who already installed firmware version 2.00 do not need to update to 2.00 (B).

Enhancements

Added support for Microsoft Windows Server 2019 OS

Online ROM Flash Component for Windows (x64) - 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

Version: 3.53 (Recommended)

Filename: cp046357.compsig; cp046357.exe; cp046357.md5

Fixes

An issue where the controller might become unresponsive while receiving periodic I/Os.

Host I/O timeouts might occur due to continuing firmware attempts to discover devices during an expander configuration.

A controller lockup problem (with code 0x1E10) might occur when a bad drive with unsupported block size.

A Controller hangs when multiple hot-plug and hot remove events (drives or JBODs) were being processed.

A Controller hangs on Flash Backed Write Cache enabled logical drives with sequential read towards the end of the logical drive.

A Controller hangs when hot-plug physical drive with outstanding I/Os.

A controller hangs if a host I/O and background consistency check simultaneously encounter a RAID-1 ADM or RAID-10 ADM stripe in which all drives have URE's on the same LBA.

A Controller hangs when a drive is failed from a RAID6/60 logical drive when the host issues a Clear Controller Configuration command or any other configuration change command.

The SSD data drive might be set offline (with reason code 0x37) when hot-remove and re-insert during a spare rebuild in progress.

A drive might not be exposed to the OS if the system is rebooted just after the sanitize erase finishes.

UBM backplanes are not detected properly when connected to specific ports (port 7 or above) in the 12Gb SAS Expander Card.

A controller might hang when idle followed by a short burst of I/Os.

The controller might return the previous drive firmware version, after a drive firmware update on SATA drives.

The controller might fail drives (with reason code 0x49, I/O freeze timeout) during expander firmware upgrade on a multi-expander enclosure configuration.

Hot-added drive LED control fails on specific fan-out expander type external enclosure models.

Smart Array Essential series controller might not be responsive when processing sequential I/Os and the firmware coalescing logic can't get the memory.

Filesystem or application might read old data when SmartCache configurations encounter intermittent write I/O errors to a primary logical drive.

Enhancements

Added UBM type3 backplane support

Added support for long device model/product ID for SATA drives.

Online ROM Flash Component for Windows (x64) - HPE Smart Array P824i-p MR Gen10

Version: 24.23.0-0043 (A) (Recommended)

Filename: cp044919.compsig; cp044919.exe; cp044919.md5

Fixes

Over-temp issue was a false IML due to a $\geq 60^{\circ}\text{C}$ threshold, modified the threshold to $>65^{\circ}\text{C}$ in new version.

Please reference Customer Advisory a00101958en_us

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: 5.08 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-smartarray-2de15b6882-5.08-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-smartarray-2de15b6882-5.08-1.1.x86_64.rpm

Important Note!

Power cycle / cold reboot is required if firmware is upgraded from version 1.31 or earlier.

Fixes

Smart Carrier Authentication Failure issue

Enhancements

Added support for Gen10 plus UBM type 1/2/3 backplanes

Supplemental Update / Online ROM Flash Component for Linux (x64) - HPE Apollo 45xx Gen10 Backplane Expander Firmware

Version: 1.56 (C) (Recommended)

Filename: rpm/RPMS/x86_64/firmware-smartarray-815b1ae26d-1.56-3.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-smartarray-815b1ae26d-1.56-3.1.x86_64.rpm

Enhancements

Added HPE Smart Array P824i-p controller support

Supplemental Update / Online ROM Flash Component for Linux (x64) - 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

Version: 3.53 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-smartarray-f7c07bdbbd-3.53-1.1.x86_64.compsig;
rpm/RPMS/x86_64/firmware-smartarray-f7c07bdbbd-3.53-1.1.x86_64.rpm

Fixes

An issue where the controller might become unresponsive while receiving periodic I/Os.

Host I/O timeouts might occur due to continuing firmware attempts to discover devices during an expander configuration.

A controller lockup problem (with code 0x1E10) might occur when a bad drive with unsupported block size.

A Controller hangs when multiple hot-plug and hot remove events (drives or JBODs) were being processed.

A Controller hangs on Flash Backed Write Cache enabled logical drives with sequential read towards the end of the logical drive.

A Controller hangs when hot-plug physical drive with outstanding I/Os.

A controller hangs if a host I/O and background consistency check simultaneously encounter a RAID-1 ADM or RAID-10 ADM stripe in which all drives have URE's on the same LBA.

A Controller hangs when a drive is failed from a RAID6/60 logical drive when the host issues a Clear Controller Configuration command or any other configuration change command.

The SSD data drive might be set offline (with reason code 0x37) when hot-remove and re-insert during a spare rebuild in progress.

A drive might not be exposed to the OS if the system is rebooted just after the sanitize erase finishes.

UBM backplanes are not detected properly when connected to specific ports (port 7 or above) in the 12Gb SAS Expander Card.

A controller might hang when idle followed by a short burst of I/Os.

The controller might return the previous drive firmware version, after a drive firmware update on SATA drives.

The controller might fail drives (with reason code 0x49, I/O freeze timeout) during expander firmware upgrade on a multi-expander enclosure configuration.

Hot-added drive LED control fails on specific fan-out expander type external enclosure models.

Smart Array Essential series controller might not be responsive when processing sequential I/Os and the firmware coalescing logic can't get the memory.

Filesystem or application might read old data when SmartCache configurations encounter intermittent write I/O errors to a primary logical drive.

Enhancements

Added UBM type3 backplane support

Added support for long device model/product ID for SATA drives.

Firmware - Storage Fibre Channel

[Top](#)

HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters for Linux (x64)

Version: 2021.02.01 (Recommended)

Filename: RPMS/x86_64/firmware-fc-emulex-2021.02.01-1.23.x86_64.compsig; RPMS/x86_64/firmware-fc-emulex-2021.02.01-1.23.x86_64.rpm

Important Note!

Release Notes:

HPE Emulex Adapters Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:-

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

Adapter

Speed

Universal Boot Image

Firmware

UEFI

Boot Bios

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

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12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

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 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>.

The Enablement Kit requires that the target environment have the libHBAAPI package installed from your OS installation media.

Install the FC Driver Kit, reboot, and then install the Enablement Kit.

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)

Fixes

Fixed the following:

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Enhancements

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

Adapter

Speed

Universal Boot Image

Firmware

UEFI

Boot Bios

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

Supported Devices and Features

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

8Gb FC Adapter:

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 Microsoft Windows Server
2012R2/2016/2019 x64

Version: 2021.02.01 (Recommended)

Filename: cp044732.compsig; cp044732.exe

Important Note!

Release Notes:

HPE Emulex Adapters Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:-

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

Adapter

Speed

Universal Boot Image

Firmware

UEFI

Boot Bios

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

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HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

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12.8.352.5

HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

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/>

Fixes

Fixed the following:

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Enhancements

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

Adapter

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12.8.9.0

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

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12.8.352.5

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

Supported Devices and Features

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

8Gb FC Adapter:

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 6.5

Version: 2021.02.01 (Recommended)

Filename: CP044728.compsig; CP044728.zip

Important Note!

Release Notes:

HPE Emulex Adapter Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:-

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

Adapter

Speed

Universal Boot Image

Firmware

UEFI

Boot Bios

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

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12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

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12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

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 a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Enhancements

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

Adapter

Speed

Universal Boot Image

Firmware

UEFI

Boot Bios

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8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

Supported Devices and Features

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

8Gb FC Adapter:

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter
16Gb FC Adapter:

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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: 2021.02.01 (Recommended)
Filename: CP044729.compsig; CP044729.zip

Important Note!

Release Notes:

HPE Emulex Adapter Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:-

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

Adapter

Speed

Universal Boot Image

Firmware

UEFI

Boot Bios

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

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 a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Enhancements

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

Adapter

Speed

Universal Boot Image

Firmware

UEFI

Boot Bios

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

Supported Devices and Features

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

8Gb FC Adapter:

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 7.0
Version: 2021.02.01 (Recommended)
Filename: CP044730.compsig; CP044730.zip

Important Note!

Release Notes:

HPE Emulex Adapter Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:-

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

Adapter

Speed

Universal Boot Image

Firmware

UEFI

Boot Bios

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

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 a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Enhancements

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

Adapter

Speed

Universal Boot Image

Firmware

UEFI

Boot Bios

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

8Gb

12.80a3

2.10X6

12.8.183.0

12.8.9.0

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

16Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter

32Gb

12.8.352.12

12.8.352.12

12.8.352.10

12.8.352.5

Supported Devices and Features

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

8Gb FC Adapter:

HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 Mezzanine Fibre Channel Host Bus Adapters for Linux (x64)

Version: 2021.02.01 (Recommended)

Filename: RPMS/x86_64/firmware-fc-mezz-emulex-2021.02.01-1.13.x86_64.compsig; RPMS/x86_64/firmware-fc-mezz-emulex-2021.02.01-1.13.x86_64.rpm

Important Note!

Release Notes:

HPE Emulex Adapter Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) Host Bus adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:-

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class	16Gb	12.8.352.12		
		12.8.352.12	12.8.352.10	12.8.352.5

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 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>.

The Enablement Kit requires that the target environment have the libHBAAPI package installed from your OS installation media.

Install the FC Driver Kit, reboot, and then install the Enablement Kit.

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)

Fixes

Fixed the following:-

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Enhancements

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class	12.8.352.12	12.8.352.10	12.8.352.5	12.8.352.12

Supported Devices and Features

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

16Gb FC Adapter:

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

HPE Firmware Flash for Emulex Mezzanine Fibre Channel Host Bus Adapters for Microsoft Windows Server 2012R2/2016/2019 x64

Version: 2021.02.01 (Recommended)

Filename: cp044766.compsig; cp044766.exe

Important Note!

Release Notes:

HPE Emulex Adapter Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) Host Bus adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:-

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class	12.8.352.12	12.8.352.10	12.8.352.5	12.8.352.12

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/>

Fixes

Fixed the following:-

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Enhancements

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class	16Gb	12.8.352.12		
	12.8.352.12	12.8.352.10	12.8.352.5	

Supported Devices and Features

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

16Gb FC Adapter:

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

HPE Firmware Flash for Emulex Mezzanine Fibre Channel Host Bus Adapters for VMware vSphere 6.5

Version: 2021.02.01 (Recommended)

Filename: CP044762.compsig; CP044762.zip

Important Note!

Release Notes:

HPE Emulex Adapter Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) Host Bus adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:-

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class	12.8.352.12	12.8.352.10	12.8.352.5	16Gb 12.8.352.12

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 a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Enhancements

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class	16Gb	12.8.352.12		
	12.8.352.12	12.8.352.10	12.8.352.5	

Supported Devices and Features

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

16Gb FC Adapter:

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

HPE Firmware Flash for Emulex Mezzanine Fibre Channel Host Bus Adapters for VMware vSphere 6.7

Version: 2021.02.01 (Recommended)

Filename: CP044763.compsig; CP044763.zip

Important Note!

Release Notes:

HPE Emulex Adapter Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) Host Bus adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:-

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class	12.8.352.12	12.8.352.10	12.8.352.5	12.8.352.12

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 a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Enhancements

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class	12.8.352.12	12.8.352.10	12.8.352.5	12.8.352.12

Supported Devices and Features

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

16Gb FC Adapter:

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

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

Version: 2021.02.01 (Recommended)

Filename: CP044764.compsig; CP044764.zip

Important Note!

Release Notes:

HPE Emulex Adapter Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) Host Bus adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

Go to <http://www.hpe.com/support/manuals>

Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixed the following:-

Fixed a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed Universal Boot Image Firmware UEFI Boot Bios

HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class	16Gb	12.8.352.12
12.8.352.12	12.8.352.10	12.8.352.5

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 a behavior where the SN1600E would wrongly display an unwanted message when loading Unified Extensible Firmware Interface (UEFI) driver defaults

Enhancements

Added the following:-

Added support for Distributed Management Task Force (DMTF) – Platform Level Data Model (PLDM) Firmware Update to the SN1200E, SN1600E, and SN1610E

The adapter will now reset to defaults when the user activates Hewlett Packard Enterprise (HPE) Secure Erase from Hewlett Packard Enterprise (HPE) intelligent provisioning

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE 16Gb LPe1605 Fibre Channel Host Bus Adapter for BladeSystem c-Class	16Gb	12.8.352.12		
12.8.352.12	12.8.352.10	12.8.352.5		

Supported Devices and Features

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

16Gb FC Adapter:

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

HPE Firmware Flash for QLogic Fibre Channel Host Bus Adapters - Linux (x86_64)

Version: 2021.02.01 (Recommended)

Filename: RPMS/x86_64/firmware-fc-qlogic-2021.02.01-1.24.x86_64.compsig; RPMS/x86_64/firmware-fc-qlogic-2021.02.01-1.24.x86_64.rpm

Important Note!

Refer release notes available at:

HPE QLogic Adapter Release Notes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at

https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
HPE 81Q 8Gb PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56

HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE SN1000Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232		7.04
3.43				
HPE SN1000Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232		7.04
3.43				
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04		3.64
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04		3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04		3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04		3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	09.06.02	7.11
0.0				
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	09.06.02	
7.11 0.0				

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 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.

Fixes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at

https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Enhancements

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
HPE 81Q 8Gb PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE SN1000Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232		7.04
3.43				
HPE SN1000Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232		7.04
3.43				
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04		3.64
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04		3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04		3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04		3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	09.06.02	7.11
0.0				
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.04.07		09.06.02
7.11	0.0			

Supported Devices and Features

This firmware supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE SN1000Q 16Gb Single Port PCIe 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 2012R2/2016/2019 (x86_64)

Version: 2021.02.01 (Recommended)

Filename: cp044784.compsig; cp044784.exe

Important Note!

Refer release notes available at:

HPE QLogic Adapter Release Notes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at

https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios	
HPE 81Q 8Gb PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56	
HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56	
HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56	
HPE SN1000Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232	7.04		
3.43					
HPE SN1000Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232	7.04		
3.43					
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04	3.64		
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04	3.64		
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04	3.64		
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04	3.64		
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	09.06.02	7.11	
0.0					
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	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>.

Fixes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Enhancements

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
HPE 81Q 8Gb PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE SN1000Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232	7.04	
3.43				
HPE SN1000Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232	7.04	
3.43				
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04	3.64	
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04	3.64	
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04	3.64	
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04	3.64	

HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter 32Gb 0.0	02.04.07	09.06.02	7.11
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter 7.11 0.0	32Gb 02.04.07	09.06.02	

Supported Devices and Features

This firmware supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE SN1000Q 16Gb Single Port PCIe 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: 2021.02.01 (Recommended)

Filename: CP044780.compsig; CP044780.zip

Important Note!

Refer release notes available at:

HPE QLogic Adapter Release Notes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Firmware	UEFI	Boot	Bios
HPE 81Q 8Gb PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56		
HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56		
HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56		
HPE SN1000Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232	7.04			
3.43						
HPE SN1000Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232	7.04			
3.43						
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04	3.64			
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04	3.64			
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04	3.64			
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04	3.64			
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	09.06.02	7.11		
0.0						
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	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/>

Fixes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at

https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Enhancements

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
HPE 81Q 8Gb PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE SN1000Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232	7.04	
3.43				

HPE SN1000Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232	7.04
3.43			
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04	3.64
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04	3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04	3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04	3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	09.06.02
0.0			7.11
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	09.06.02
7.11 0.0			

Supported Devices and Features

This firmware supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE SN1000Q 16Gb Single Port PCIe 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 6.7

Version: 2021.02.01 (Recommended)

Filename: CP044781.compsig; CP044781.zip

Important Note!

Refer release notes available at:

HPE QLogic Adapter Release Notes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at

https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
HPE 81Q 8Gb PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE SN1000Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232	7.04	
3.43				
HPE SN1000Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232	7.04	
3.43				
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04	3.64	
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04	3.64	
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04	3.64	
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04	3.64	
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	09.06.02	7.11
0.0				

HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	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/>

Fixes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Enhancements

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
HPE 81Q 8Gb PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56

HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE SN1000Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232		7.04
3.43				
HPE SN1000Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232		7.04
3.43				
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04		3.64
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04		3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04		3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04		3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	09.06.02	7.11
0.0				
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	09.06.02	
7.11 0.0				

Supported Devices and Features

This firmware supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE SN1000Q 16Gb Single Port PCIe 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: 2021.02.01 (Recommended)

Filename: CP044782.compsig; CP044782.zip

Important Note!

Refer release notes available at:

HPE QLogic Adapter Release Notes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at

https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
HPE 81Q 8Gb PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter	8Gb	3.82.008.08.207	7.00	3.56
HPE SN1000Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232	7.04	
3.43				
HPE SN1000Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	6.04.048.08.232	7.04	
3.43				
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04	3.64	

HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	1.75.079.06.027.04	3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04	3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	1.75.079.06.027.04	3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	09.06.02
			7.11
		0.0	
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.04.07	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/>

Fixes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at

https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Enhancements

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Firmware	UEFI	Boot Bios		
HPE 81Q 8Gb PCIe Fibre Channel Host Bus Adapter	8Gb		3.82.008.08.207	7.00	3.56		
HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter	8Gb		3.82.008.08.207	7.00	3.56		
HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter	8Gb		3.82.008.08.207	7.00	3.56		
HPE SN1000Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb		6.04.048.08.232		7.04		
3.43							
HPE SN1000Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb		6.04.048.08.232		7.04		
3.43							
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb		1.75.079.06.027.04		3.64		
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb		1.75.079.06.027.04		3.64		
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb		1.75.079.06.027.04		3.64		
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb		1.75.079.06.027.04		3.64		
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb		02.04.07	09.06.02	7.11		
0.0							
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb		02.04.07	09.06.02			
7.11 0.0							

Supported Devices and Features

This firmware supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter

HPE SN1000Q 16Gb Single Port PCIe 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 Mezzanine Host Bus Adapters for VMware vSphere 7.0
Version: 2021.02.01 (Recommended)
Filename: CP044795.compsig; CP044795.zip

Important Note!

Release Notes:

HPE QLogic Adapter Release Notes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at
https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the Unified Extensible Firmware Interface (UEFI) driver would force the system to reboot if one or both ports of a mezzanine adapter were not connected to an interconnect module during boot.

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
HPE QMH2672	16Gb	Fibre Channel Host Bus Adapter for c-Class BladeSystem	16Gb	6.04.048.08.232
7.04	3.43			

Prerequisites

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

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

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

Fixes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at

https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the Unified Extensible Firmware Interface (UEFI) driver would force the system to reboot if one or both ports of a mezzanine adapter were not connected to an interconnect module during boot.

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Enhancements

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

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

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem	16Gb	6.04.048.08.232		
	7.04	3.43		

Supported Devices and Features

This version of the enablement kit supports the following devices:

16Gb Fibre Channel Host Bus Adapter:

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

HPE Firmware Flash for QLogic Mezzanine Fibre Channel Host Bus Adapters - Linux (x86_64)

Version: 2021.02.01 (Recommended)

Filename: RPMS/x86_64/firmware-fc-mezz-qlogic-2021.02.01-1.11.x86_64.compsig; RPMS/x86_64/firmware-fc-mezz-qlogic-2021.02.01-1.11.x86_64.rpm

Important Note!

Release Notes:

HPE QLogic Adapter Release Notes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the Unified Extensible Firmware Interface (UEFI) driver would force the system to reboot if one or both ports of a mezzanine adapter were not connected to an interconnect module during boot.

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
HPE QMH2672	16Gb	Fibre Channel Host Bus Adapter for c-Class BladeSystem	16Gb	6.04.048.08.232
7.04	3.43			

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 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.

Fixes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the Unified Extensible Firmware Interface (UEFI) driver would force the system to reboot if one or both ports of a mezzanine adapter were not connected to an interconnect module during boot.

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Enhancements

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

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

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
HPE QMH2672	16Gb	Fibre Channel Host Bus Adapter for c-Class BladeSystem	16Gb	6.04.048.08.232
7.04	3.43			

Supported Devices and Features

This version of the enablement kit supports the following devices:

16Gb Fibre Channel Host Bus Adapter:

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

HPE Firmware Flash for QLogic Mezzanine Fibre Channel Host Bus Adapters - Microsoft Windows Server 2012R2/2016/2019 (x86_64)

Version: 2021.02.01 (Recommended)

Filename: cp044797.compsig; cp044797.exe

Important Note!

Release Notes:

HPE QLogic Adapter Release Notes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at

https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the Unified Extensible Firmware Interface (UEFI) driver would force the system to reboot if one or both ports of a mezzanine adapter were not connected to an interconnect module during boot.

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
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HPE QMH2672	16Gb	Fibre Channel Host Bus Adapter for c-Class BladeSystem	16Gb	6.04.048.08.232
7.04	3.43			

Prerequisites

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

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

The OOB driver is available on the Service Pack for ProLiant (SPP) which is available at <http://www.hpe.com/servers/spp/download>.

Fixes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the Unified Extensible Firmware Interface (UEFI) driver would force the system to reboot if one or both ports of a mezzanine adapter were not connected to an interconnect module during boot.

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Enhancements

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

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

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
HPE QMH2672	16Gb	Fibre Channel Host Bus Adapter for c-Class BladeSystem	16Gb	6.04.048.08.232
7.04	3.43			

Supported Devices and Features

This version of the enablement kit supports the following devices:

16Gb Fibre Channel Host Bus Adapter:

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

HPE Firmware Flash for QLogic Mezzanine Fibre Channel Host Bus Adapters for VMware vSphere 6.5

Version: 2021.02.01 (Recommended)

Filename: CP044793.compsig; CP044793.zip

Important Note!

Release Notes:

HPE QLogic Adapter Release Notes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the Unified Extensible Firmware Interface (UEFI) driver would force the system to reboot if one or both ports of a mezzanine adapter were not connected to an interconnect module during boot.

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
--------------	-----	----------	------	-----------

HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem	16Gb	6.04.048.08.232		
	7.04	3.43		

Prerequisites

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

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

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

Fixes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the Unified Extensible Firmware Interface (UEFI) driver would force the system to reboot if one or both ports of a mezzanine adapter were not connected to an interconnect module during boot.

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Enhancements

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

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

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
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HPE QMH2672	16Gb	Fibre Channel Host Bus Adapter for c-Class BladeSystem	16Gb	6.04.048.08.232
7.04	3.43			

Supported Devices and Features

This version of the enablement kit supports the following devices:

16Gb Fibre Channel Host Bus Adapter:

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

HPE Firmware Flash for QLogic Mezzanine Fibre Channel Host Bus Adapters for VMware vSphere 6.7

Version: 2021.02.01 (Recommended)

Filename: CP044794.compsig; CP044794.zip

Important Note!

Release Notes:

HPE QLogic Adapter Release Notes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at

https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the Unified Extensible Firmware Interface (UEFI) driver would force the system to reboot if one or both ports of a mezzanine adapter were not connected to an interconnect module during boot.

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

This Firmware package contains following firmware versions:

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
HPE QMH2672	16Gb	Fibre Channel Host Bus Adapter for c-Class BladeSystem	16Gb	6.04.048.08.232
7.04	3.43			

Prerequisites

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

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

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

Fixes

Fixed the following:-

Enhancements have been made to the firmware to prevent and better recover from any stoppage as described in Customer Advisory available at

https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us

Fixed a behavior where the Unified Extensible Firmware Interface (UEFI) driver would force the system to reboot if one or both ports of a mezzanine adapter were not connected to an interconnect module during boot.

Fixed a behavior where the number of active Input/Output (IO) exchanges could be reduced under certain fabric conditions, resulting in reduced performance.

Enhancements

Added the following:-

Added support for Fabric Performance Impact Notifications (FPIN)

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

AdapterSpeed	MBI	Firmware	UEFI	Boot Bios
--------------	-----	----------	------	-----------

HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem	16Gb	6.04.048.08.232		
7.04	3.43			

Supported Devices and Features

This version of the enablement kit supports the following devices:

16Gb Fibre Channel Host Bus Adapter:

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

Firmware - System

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Firmware Package - Gen10 NVMe Backplane PIC Firmware

Version: 1.20 (Optional)

Filename: ISS_NVMe_BP_PIC_flashV1B20.fwpkg

Prerequisites

iLO 5 version 1.10 or later is required.

Enhancements

Initial release.

Firmware Package - Gen10Plus UBM2 Backplane PIC Firmware

Version: 1.16 (Recommended)

Filename: UBM2_V1.16.fwpkg

Prerequisites

iLO 5 version 2.10 or later is required.

Fixes

Fixed to correct the LED lighting condition

Online Flash Component for Linux - Gen10 NVMe Backplane PIC Firmware

Version: 1.20 (E) (Optional)

Filename: RPMS/x86_64/firmware-nvmebackplane-gen10-1.20-5.1.x86_64.compsig; RPMS/x86_64/firmware-nvmebackplane-gen10-1.20-5.1.x86_64.rpm

Important Note!

Note: If the target device was previously updated to firmware version 1.20, it is not necessary to apply firmware update 1.20(E).

Prerequisites

iLO 5 version 1.10 or later is required.

Enhancements

Added support for SUSE Linux Enterprise Server 15 OS

Online Flash Component for Linux - Gen10Plus UBM1 Backplane PIC Firmware

Version: 1.42 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-2e20068436-1.42-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-2e20068436-1.42-1.1.x86_64.rpm

Prerequisites

iLO 5 version 2.30 or later is required.

Fixes

Fixed to correct the NVMe drive functionality

Online Flash Component for Linux - Gen10Plus UBM2 Backplane PIC Firmware

Version: 1.16 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-smartarray-40023de47f-1.16-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-40023de47f-1.16-1.1.x86_64.rpm

Fixes

Fixed to correct the LED lighting condition

Online Flash Component for Linux - Gen10Plus UBM3 Backplane PIC Firmware

Version: 1.20 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-b249e2e715-1.20-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-b249e2e715-1.20-1.1.x86_64.rpm

Prerequisites

iLO 5 version 1.10 or later is required.

Enhancements

Initial Release

Online Flash Component for Linux - Gen10Plus UBM4 Backplane PIC Firmware

Version: 1.20 (Recommended)

Filename: rpm/RPMS/x86_64/firmware-b368ad032e-1.20-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-b368ad032e-1.20-1.1.x86_64.rpm

Prerequisites

iLO 5 version 1.10 or later is required.

Enhancements

Initial Release

Online Flash Component for VMware Esxi - Gen10Plus UBM1 Backplane PIC Firmware

Version: 1.42 (Recommended)

Filename: CP043712.compsig; CP043712.zip

Fixes

It is fixed to show the proper condition of PERST pin

Online Flash Component for VMware Esxi - Gen10Plus UBM2 Backplane PIC Firmware

Version: 1.16 (Recommended)

Filename: CP043320.compsig; CP043320.zip

Fixes

Fixed to correct the LED lighting condition

Online Flash Component for VMware Esxi - Gen10Plus UBM3 Backplane PIC Firmware

Version: 1.20 (Recommended)

Filename: CP045879.compsig; CP045879.zip

Enhancements

Initial release

Online Flash Component for VMware Esxi - Gen10Plus UBM4 Backplane PIC Firmware

Version: 1.20 (Recommended)

Filename: CP045880.compsig; CP045880.zip

Enhancements

Initial release

Online Flash Component for Windows x64 - Gen10 NVMe Backplane PIC Firmware

Version: 1.20 (D) (Optional)

Filename: cp037722.compsig; cp037722.exe

Important Note!

Note: If the target device was previously updated to firmware version 1.20, it is not necessary to apply firmware update 1.20(D).

Prerequisites

iLO 5 version 1.10 or later is required.

Enhancements

Added support for Microsoft Windows Server 2019 OS

Online Flash Component for Windows x64 - Gen10Plus UBM1 Backplane PIC Firmware

Version: 1.42 (Recommended)

Filename: cp041523.compsig; cp041523.exe; cp041523.md5

Prerequisites

iLO 5 version 2.30 or later is required.

Fixes

Fixed to correct the NVMe drive functionality

Online Flash Component for Windows x64 - Gen10Plus UBM2 Backplane PIC Firmware

Version: 1.16 (Recommended)

Filename: cp041524.compsig; cp041524.exe; cp041524.md5

Prerequisites

iLO 5 version 2.30 or later is required.

Fixes

Fixed to correct the LED lighting condition

Online Flash Component for Windows x64 - Gen10Plus UBM3 Backplane PIC Firmware

Version: 1.20 (Recommended)

Filename: cp042623.compsig; cp042623.exe; cp042623.md5

Prerequisites

iLO 5 version 1.10 or later is required.

Enhancements

Initial release

Online Flash Component for Windows x64 - Gen10Plus UBM4 Backplane PIC Firmware

Version: 1.20 (Recommended)

Filename: cp043315.compsig; cp043315.exe; cp043315.md5

Prerequisites

iLO 5 version 1.10 or later is required.

Enhancements

Initial release

Online ROM Flash Component for Windows x64 - Server Platform Services (SPS) Firmware for HPE Gen10 Servers

Version: 04.01.04.423 (Recommended)

Filename: cp045310.compsig; cp045310.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.2020.2 guidance.

Deliverable Name:

HPE Gen10 Server Platform Services (SPS) Firmware

Release Version:

04.01.04.423

Last Recommended or Critical Revision:

04.01.04.423

Previous Revision:

04.01.04.381(B)

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. This issue is not unique to HPE servers.

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).

Fixes

Important Notes:

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. 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 MicroServer Gen10 Plus

Version: 05.01.04.208 (Recommended)

Filename: cp045278.compsig; cp045278.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.2020.2 guidance.

Deliverable Name:

Server Platform Services (SPS) Firmware for HPE ProLiant MicroServer Gen10 Plus (U48) Servers

Release Version:

05.01.04.208

Last Recommended or Critical Revision:

05.01.04.208

Previous Revision:

05.01.04.113

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. 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.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. 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/ML30 Gen10

Version: 05.01.04.208 (Recommended)

Filename: cp045274.compsig; cp045274.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.2020.2 guidance.

Deliverable Name:

HPE DL20ML30Gen10SPS Server Platform Services (SPS) Firmware

Release Version:

05.01.04.208

Last Recommended or Critical Revision:

05.01.04.208

Previous Revision:

05.01.04.113

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. 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.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. This issue is not unique to HPE servers.

Known Issues:

None

Online ROM Flash for Linux - HPE Gen10 Innovation Engine Firmware for HPE Gen10 ServersVersion: 0.2.2.0 (**Optional**)Filename: RPMS/x86_64/firmware-iegen10-0.2.2.0-1.1.x86_64.compsig; RPMS/x86_64/firmware-iegen10-0.2.2.0-1.1.x86_64.rpm **Important Note!**

Important Notes:

None

Deliverable Name:

HPE Gen10 Innovation Engine (IE) Firmware

Release Version:

0.2.2.0

Last Recommended or Critical Revision:

0.1.5.2

Previous Revision:

0.2.1.2

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an extremely rare issue where Processor or Memory temperature reporting may not be collected properly by the platform and the system fans may be running faster than expected. This issue has been seen occasionally after a server reboot and is typically corrected with a subsequent server reboot.

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 extremely rare issue where Processor or Memory temperature reporting may not be collected properly by the platform and the system fans may be running faster than expected. This issue has been seen occasionally after a server reboot and is typically corrected with a subsequent server reboot.

Known Issues:

None

Online ROM Flash for Linux - Server Platform Services (SPS) Firmware for HPE Gen10 ServersVersion: 04.01.04.423 **(Recommended)**Filename: RPMS/x86_64/firmware-spsgen10-04.01.04.423-1.1.x86_64.compsig; RPMS/x86_64/firmware-spsgen10-04.01.04.423-1.1.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.2020.2 guidance.

Deliverable Name:

HPE Gen10 Server Platform Services (SPS) Firmware

Release Version:

04.01.04.423

Last Recommended or Critical Revision:

04.01.04.423

Previous Revision:

04.01.04.381(B)

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. This issue is not unique to HPE servers.

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.

Fixes

Important Notes:

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. This issue is not unique to HPE servers.

Known Issues:

None

Online ROM Flash for Linux - Server Platform Services (SPS) Firmware for HPE MicroServer Gen10 PlusVersion: 05.01.04.208 **(Recommended)**Filename: RPMS/x86_64/firmware-microservergen10plussps-05.01.04.208-1.1.x86_64.compsig; RPMS/x86_64/firmware-microservergen10plussps-05.01.04.208-1.1.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.2020.2 guidance.

Deliverable Name:

Server Platform Services (SPS) Firmware for HPE ProLiant MicroServer Gen10 Plus (U48) Servers

Release Version:

05.01.04.208

Last Recommended or Critical Revision:

05.01.04.208

Previous Revision:

05.01.04.113

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. 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.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. 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/ML30 Gen10Version: 05.01.04.208 **(Recommended)**Filename: RPMS/x86_64/firmware-dl20ml30gen10sps-05.01.04.208-1.1.x86_64.compsig; RPMS/x86_64/firmware-dl20ml30gen10sps-05.01.04.208-1.1.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.2020.2 guidance.

Deliverable Name:

HPE DL20ML30Gen10SPS Server Platform Services (SPS) Firmware

Release Version:

05.01.04.208

Last Recommended or Critical Revision:

05.01.04.208

Previous Revision:

05.01.04.113

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. 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.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. This issue is not unique to HPE servers.

Known Issues:

None

Online ROM Flash for Windows x64 - HPE Gen10 Innovation Engine Firmware for HPE Gen10 ServersVersion: 0.2.2.0 **(Optional)**Filename: cp043588.compsig; cp043588.exe **Important Note!**

Important Notes:

None

Deliverable Name:

HPE Gen10 Innovation Engine (IE) Firmware

Release Version:

0.2.2.0

Last Recommended or Critical Revision:

0.1.5.2

Previous Revision:

0.2.1.2

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an extremely rare issue where Processor or Memory temperature reporting may not be collected properly by the platform and the system fans may be running faster than expected. This issue has been seen occasionally after a server reboot and is typically corrected with a subsequent server reboot.

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 extremely rare issue where Processor or Memory temperature reporting may not be collected properly by the platform and the system fans may be running faster than expected. This issue has been seen occasionally after a server reboot and is typically corrected with a subsequent server reboot.

Known Issues:

None

ROM Flash Firmware Package - HPE Gen10 Innovation Engine Firmware for HPE Gen10 ServersVersion: 0.2.2.0 **(Optional)**Filename: IEGen10_0.2.2.0.fwpkg **Important Note!**

Important Notes:

None

Deliverable Name:

HPE Gen10 Innovation Engine (IE) Firmware

Release Version:

0.2.2.0

Last Recommended or Critical Revision:

0.1.5.2

Previous Revision:

0.2.1.2

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an extremely rare issue where Processor or Memory temperature reporting may not be collected properly by the platform and the system fans may be running faster than expected. This issue has been seen occasionally after a server reboot and is typically corrected with a subsequent server reboot.

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 extremely rare issue where Processor or Memory temperature reporting may not be collected properly by the platform and the system fans may be running faster than expected. This issue has been seen occasionally after a server reboot and is typically corrected with a subsequent server reboot.

Known Issues:

None

ROM Flash Firmware Package - Server Platform Services (SPS) Firmware for HPE Gen10 ServersVersion: 05.01.04.208 **(Recommended)**Filename: DL20ML30Gen10SPS_05.01.04.208.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.2020.2 guidance.

Deliverable Name:

HPE DL20ML30Gen10SPS Server Platform Services (SPS) Firmware

Release Version:

05.01.04.208

Last Recommended or Critical Revision:

05.01.04.208

Previous Revision:

05.01.04.113

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. 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.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. This issue is not unique to HPE servers.

Known Issues:

None

ROM Flash Firmware Package - Server Platform Services (SPS) Firmware for HPE MicroServer Gen10 PlusVersion: 05.01.04.208 **(Recommended)**Filename: MicroserverGen10PlusSPS_05.01.04.208.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.2020.2 guidance.

Deliverable Name:

Server Platform Services (SPS) Firmware for HPE ProLiant MicroServer Gen10 Plus (U48) Servers

Release Version:

05.01.04.208

Last Recommended or Critical Revision:

05.01.04.208

Previous Revision:

05.01.04.113

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. 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.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. This issue is not unique to HPE servers.

Known Issues:

None

ROM Flash Firmware Package - Server Platform Services (SPS) Firmware for HPE Gen10 ServersVersion: 04.01.04.423 **(Recommended)**Filename: SPSGen10_04.01.04.423.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.2020.2 guidance.

Deliverable Name:

HPE Gen10 Server Platform Services (SPS) Firmware

Release Version:

04.01.04.423

Last Recommended or Critical Revision:

04.01.04.423

Previous Revision:

04.01.04.381(B)

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. This issue is not unique to HPE servers.

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).

Fixes**Important Notes:**

This version of the Server Platform Services (SPS) Firmware contains updates aligned with the Intel Product Update (IPU) version IPU.2020.2 guidance.

Firmware Dependencies:

None

Problems Fixed:

This revision of the Server Platform Services Firmware provides mitigations for security vulnerability documented as CVE-2020-8755. This security vulnerability is documented in Intel Security Advisory INTEL-SA-00391. This issue is not unique to HPE servers.

Known Issues:

None

Filename: cp045275.compsig; cp045275.zip

Enhancements

This image contains the latest Intel Server Platform Services (SPS) Firmware which contains mitigations for a variety of security vulnerabilities. The following vulnerabilities have been addressed in this SPS release: CVE-2020-0545 and CVE-2020-0586. These issues are not unique to HPE Servers.

Server Platform Services (SPS) Firmware for Intel C242 and C246 PCH based systemsVersion: 05.01.04.208 **(Recommended)**

Filename: cp045271.compsig; cp045271.zip

Enhancements

See release doc

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 EditionsVersion: 5.5.0.0 (A) **(Optional)**Filename: cp046381.compsig; cp046381.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.

Fixes

Fixed an issue were HPONCFG Windows Smart Component was not installing when SW RAID configuration enabled in RBSU.

Software – Management

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

Add new supported servers

HPE SMX Provider Bundle Smart Component for ESXi 7.0Version: 2020.04.01 (A) **(Recommended)**Filename: cp044591.compsig; cp044591.zip **Enhancements**

Add new supported servers

Smart Storage Administrator (SSA) CLI Smart Component for ESXi 7.0Version: 2021.04.01 **(Recommended)**Filename: cp047031.compsig; cp047031.zip **Enhancements**

Adding support to the HPE SR Gen10 Plus Controllers.

Software - Storage Controller

[Top](#)

HPE MegaRAID Storage Administrator StorCLI for VMware6.7Version: 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 VMware7.0Version: 2021.04.00 (**Recommended**)Filename: cp044633.compsig; cp044633.zip **Enhancements**

initial release

HPE Smart Array SR Event Notification Service for Windows Server 64-bit EditionsVersion: 1.2.1.65 (**Recommended**)Filename: cp045133.compsig; cp045133.exe **Fixes**

Fixed for the version information

Software - Storage Fibre Channel

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HPE Blade Emulex(BRCM) Mezzanine Fibre Channel over Ethernet driver for VMware vSphere 6.5Version: 2021.02.01 (**Recommended**)

Filename: cp042231.compsig; cp042231.zip

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

If the server contains only CNA adapters and lpfc driver is already been installed, post the new driver update, please remove the lpfc driver using the following command:

```
#esxcli software vib remove lpfc
```

Updated to Driver version 12.0.1278.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
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This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

If the server contains only CNA adapters and lpfc driver is already been installed, post the new driver update, please remove the lpfc driver using the following command:

```
#esxcli software vib remove lpfc
```

Enhancements

Updated to Driver version 12.0.1278.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

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

HPE Blade Emulex(BRCM) Mezzanine Fibre Channel over Ethernet driver for VMware vSphere 6.7Version: 2021.02.01 **(Recommended)**Filename: cp042232.compsig; cp042232.zip **Important Note!**

Release Notes:

[HPE Emulex Adapters Release Notes](#)

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

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Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

If the server contains only CNA adapters and lpfc driver is already been installed, post the new driver update, please remove the lpfc driver using the following command:

```
#esxcli software vib remove lpfc
```

Updated to Driver version 12.0.1278.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

If the server contains only CNA adapters and lpfc driver is already been installed, post the new driver update, please remove the lpfc driver using the following command:

```
#esxcli software vib remove lpfc
```

Enhancements

Updated to Driver version 12.0.1278.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

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

HPE QLogic Fibre Channel driver component for VMware vSphere 6.5Version:
2021.02.01 **(Recommended)**Filename: cp044777.compsig; cp044777.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.

Fixed the following:

- Fixed a behavior where enabling VM-ID and SmartSAN on a boot from Storage Area Network (SAN) setup caused driver load incomplete

- Fixed a behavior where automatic attempts to recover from the behavior described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us would result in a Purple Screen of Death (PSoD)

Added the following:

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Driver version 2.1.101.0

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 a behavior where enabling VM-ID and SmartSAN on a boot from Storage Area Network (SAN) setup caused driver load incomplete
- Fixed a behavior where automatic attempts to recover from the behavior described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us would result in a Purple Screen of Death (PSoD)

Enhancements

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Driver version 2.1.101.0

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

- HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter

- HPE SN1000Q 16Gb Single Port PCIe 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 6.7Version:
2021.02.01 **(Recommended)**Filename: cp044778.compsig; cp044778.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.

Fixed the following:

- Fixed a behavior where enabling VM-ID and SmartSAN on a boot from Storage Area Network (SAN) setup caused driver load incomplete
- Fixed a behavior where automatic attempts to recover from the behavior described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us would result in a Purple Screen of Death (PSoD)

Added the following:

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

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 a behavior where enabling VM-ID and SmartSAN on a boot from Storage Area Network (SAN) setup caused driver load incomplete
- Fixed a behavior where automatic attempts to recover from the behavior described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us would result in a Purple Screen of Death (PSoD)

Enhancements

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Driver version 3.1.46.0

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

- HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000Q 16Gb Single Port PCIe 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 7.0Version:

2021.02.01 **(Recommended)**Filename: cp044779.compsig; cp044779.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.

Fixed the following:

- Fixed a behavior where enabling VM-ID and SmartSAN on a boot from Storage Area Network (SAN) setup caused driver load incomplete
- Fixed a behavior where automatic attempts to recover from the behavior described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us would result in a Purple Screen of Death (PSoD)

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Driver version 4.1.22.0

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 a behavior where enabling VM-ID and SmartSAN on a boot from Storage Area Network (SAN) setup caused driver load incomplete
- Fixed a behavior where automatic attempts to recover from the behavior described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us would result in a Purple Screen of Death (PSoD)

Enhancements**Added the following:-**

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Driver version 4.1.22.0

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb Fibre Channel Host Bus Adapter:

- HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000Q 16Gb Single Port PCIe 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 Mezzanine Fibre Channel driver component for VMware vSphere 6.5Version:
2021.02.01 **(Recommended)**Filename: cp044790.compsig; cp044790.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.

Fixed the following:-

- Fixed a behavior where enabling VM-ID and SmartSAN on a boot from Storage Area Network (SAN) setup caused driver load incomplete
- Fixed a behavior where automatic attempts to recover from the behavior described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us would result in a Purple Screen of Death (PSoD)

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Driver version 2.1.101.0

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 a behavior where enabling VM-ID and SmartSAN on a boot from Storage Area Network (SAN) setup caused driver load incomplete
- Fixed a behavior where automatic attempts to recover from the behavior described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us would result in a Purple Screen of Death (PSoD)

Enhancements

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Driver version 2.1.101.0

Supported Devices and Features

This version of the enablement kit supports the following devices:

16Gb Fibre Channel Host Bus Adapter:

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

HPE QLogic Mezzanine Fibre Channel driver component for VMware vSphere 6.7Version:
2021.02.01 **(Recommended)**

Filename: cp044791.compsig; cp044791.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.

Fixed the following:-

- Fixed a behavior where enabling VM-ID and SmartSAN on a boot from Storage Area Network (SAN) setup caused driver load incomplete
- Fixed a behavior where automatic attempts to recover from the behavior described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us would result in a Purple Screen of Death (PSoD)

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Driver version 3.1.46.0

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 a behavior where enabling VM-ID and SmartSAN on a boot from Storage Area Network (SAN) setup caused driver load incomplete
- Fixed a behavior where automatic attempts to recover from the behavior described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us would result in a Purple Screen of Death (PSoD)

Enhancements

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Driver version 3.1.46.0

Supported Devices and Features

This version of the enablement kit supports the following devices:

16Gb Fibre Channel Host Bus Adapter:

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

HPE QLogic Mezzanine Fibre Channel driver component for VMware vSphere 7.0

Version: 2021.02.01 **(Recommended)**

Filename: cp044792.compsig; cp044792.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.

Fixed the following:-

- Fixed a behavior where enabling VM-ID and SmartSAN on a boot from Storage Area Network (SAN) setup caused driver load incomplete
- Fixed a behavior where automatic attempts to recover from the behavior described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us would result in a Purple Screen of Death (PSoD)

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Driver version 4.1.22.0

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 a behavior where enabling VM-ID and SmartSAN on a boot from Storage Area Network (SAN) setup caused driver load incomplete
- Fixed a behavior where automatic attempts to recover from the behavior described in Customer Advisory available at https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00094722en_us would result in a Purple Screen of Death (PSoD)

Enhancements

Added the following:-

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) Capability
- Added support for Fabric Performance Impact Notifications (FPIN)

Driver version 4.1.22.0

Supported Devices and Features

This version of the enablement kit supports the following devices:

16Gb Fibre Channel Host Bus Adapter:

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

HPE Storage Emulex Fibre Channel driver component for VMware vSphere 6.5Version:
2021.02.01 **(Recommended)**

Filename: cp044735.compsig; cp044735.zip

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

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

Beginning with software release 11.2, Fibre Channel (LightPulse) host bus adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Added the following:-

- Changed the default Logical Unit Number (LUN) queue depth from 30 to 64
- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to Driver version 12.8.317.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) host bus adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>

2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Enhancements

Added the following:-

- Changed the default Logical Unit Number (LUN) queue depth from 30 to 64
- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to Driver version 12.8.317.0

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 Storage Emulex Fibre Channel driver component for VMware vSphere 6.7

Version: 2021.02.01

(Recommended)

Filename: cp044736.compsig; cp044736.zip

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Added the following:-

- Changed the default Logical Unit Number (LUN) queue depth from 30 to 64
- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to Driver version 12.8.317.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Enhancements

Added the following:-

- Changed the default Logical Unit Number (LUN) queue depth from 30 to 64
- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to Driver version 12.8.317.0

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 Storage Emulex Fibre Channel driver component for VMware vSphere 7.0

Version: 2021.02.01 **(Recommended)**

Filename: cp044737.compsig; cp044737.zip

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Added the following:-

- Changed the default Logical Unit Number (LUN) queue depth from 30 to 64
- Added support for ESXi 7.0 U1
- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to Driver version 12.8.329.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Enhancements

Added the following:-

- Changed the default Logical Unit Number (LUN) queue depth from 30 to 64
- Added support for ESXi 7.0 U1
- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to Driver version 12.8.329.0

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 NVMe driver component for VMware vSphere 7.0Version:
2021.02.01 **(Recommended)**

Filename: cp045822.compsig; cp045822.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.

Updated to Driver version 12.8.329.0

Prerequisites

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

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

Enhancements

Updated to Driver version 12.8.329.0

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 Storage Emulex Mezzanine Fibre Channel driver component for VMware vSphere 6.5

Version: 2021.02.01 (**Recommended**)

Filename: cp044769.compsig; cp044769.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.

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Added the following:-

- Changed the default Logical Unit Number (LUN) queue depth from 30 to 64
- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to Driver version 12.8.317.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
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Enhancements

Added the following:-

- Changed the default Logical Unit Number (LUN) queue depth from 30 to 64
- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

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

HPE Storage Emulex Mezzanine Fibre Channel driver component for VMware vSphere 6.7Version:
2021.02.01 **(Recommended)**

Filename: cp044770.compsig; cp044770.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.

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

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Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Added the following:-

- Changed the default Logical Unit Number (LUN) queue depth from 30 to 64
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Updated to Driver version 12.8.317.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

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This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Enhancements

Added the following:-

- Changed the default Logical Unit Number (LUN) queue depth from 30 to 64
- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

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

HPE Storage Emulex Mezzanine Fibre Channel driver component for VMware vSphere 7.0Version:
2021.02.01 **(Recommended)**

Filename: cp044771.compsig; cp044771.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.

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
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This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Added the following:-

- Added support for ESXi 7.0 U1
- Changed the default Logical Unit Number (LUN) queue depth from 30 to 64

- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to Driver version 12.8.329.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

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Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Enhancements

Added the following:-

- Added support for ESXi 7.0 U1
- Changed the default Logical Unit Number (LUN) queue depth from 30 to 64
- Added Non-volatile memory express (NVMe) over Fibre Channel (FC) capability

Updated to Driver version 12.8.329.0

Supported Devices and Features

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

16Gb FC Adapter:

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

Version: 2021.02.01 **(Recommended)**

Filename: cp045823.compsig; cp045823.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.

Updated to Driver version 12.8.329.0

Prerequisites

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

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

Enhancements

Updated to Driver version 12.8.329.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE Fibre Channel 16Gb LPe1605 Mezzanine Host Bus Adapter

HPE Storage Emulex(BRCM) Fibre Channel over Ethernet driver for VMware vSphere 6.5

Version: 2021.02.01 **(Recommended)**

Filename: cp042522.compsig; cp042522.zip

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

If the server contains only CNA adapters and lpfc driver is already been installed, post the new driver update, please remove the lpfc driver using the following command:

```
#esxcli software vib remove lpfc
```

Updated to Driver version 12.0.1278.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

If the server contains only CNA adapters and lpfc driver is already been installed, post the new driver update, please remove the lpfc driver using the following command:

```
#esxcli software vib remove lpfc
```

Enhancements

Updated to Driver version 12.0.1278.0

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

HPE Storage Emulex(BRCM) Fibre Channel over Ethernet driver for VMware vSphere 6.7Version:
2021.02.01 **(Recommended)**

Filename: cp042523.compsig; cp042523.zip

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

If the server contains only CNA adapters and lpfc driver is already been installed, post the new driver update, please remove the lpfc driver using the following command:

```
#esxcli software vib remove lpfc
```

Updated to Driver version 12.0.1278.0

Prerequisites

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

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

If the server contains only CNA adapters and lpfc driver is already been installed, post the new driver update, please remove the lpfc driver using the following command:

```
#esxcli software vib remove lpfc
```

Enhancements

Updated to Driver version 12.0.1278.0

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

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Fibreutils for HPE Storage Fibre Channel Host Bus Adapters for Linux -Red Hat Enterprise Linux (RHEL)

Version: 4.1-1 (c) **(Optional)**

Filename: fibreutils-4.1-1_rhel.x86_64.compsig; fibreutils-4.1-1_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) Distros

Supported Devices and Features

Supports the following:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter
- HPE LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Quad Port Fibre Channel Host Bus Adapter
- HPE LPe1605 16Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus 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 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter
- HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000Q 16Gb Single Port PCIe 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 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 CN1200E Dual Port Converged Network Adapter
- HPE CN1200E-T Converged Network Adapter
- HPE FlexFabric 20Gb 2-port 650FLB Adapter
- HPE FlexFabric 20Gb 2-port 650M Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HPE QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

Fibreutils for HPE Storage Fibre Channel Host Bus Adapters for Linux -SuSE Linux Enterprise Server(SLES)Version: 4.1-1 (c) **(Optional)**Filename: fibreutils-4.1-1_sles.x86_64.compsig; fibreutils-4.1-1_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

Supports the following:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
 - HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
 - HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter
 - HPE LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
 - HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
 - HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
 - HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
 - HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
 - HPE SN1100E 16Gb Quad Port Fibre Channel Host Bus Adapter
 - HPE LPe1605 16Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
 - HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
 - HPE SN1200E 16Gb Single Port Fibre Channel Host Bus 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 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
 - HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
 - HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter
 - HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter
 - HPE SN1000Q 16Gb Single Port PCIe Fibre Channel Host Bus Adapter
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 - HPE CN1200E-T Converged Network Adapter
 - HPE FlexFabric 20Gb 2-port 650FLB Adapter
 - HPE FlexFabric 20Gb 2-port 650M Adapter
 - HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
 - HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
 - HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
 - HPE QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
-

HPE Emulex Fibre Channel Enablement Kit for Host Bus Adapters and Mezzanine Host Bus Adapters for Red Hat Enterprise Linux 7 ServerVersion: 12.8.352.11 **(Recommended)**

Filename: HPE-CNA-FC-Emulex-Enablement-Kit-12.8.352.11-1.rhel7.x86_64.compsig; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.352.11-1.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.)

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

The Linux Enablement kit has been changed from "HP-CNA-FC-Emulex-Enablement-Kit" to "HPE-CNA-FC-Emulex-Enablement-Kit". Upgrade from the older released Enablement kit is supported. However downgrade to earlier version "HP-CNA-FC-Emulex-Enablement-Kit" may not be successful and may report conflicts.

Workaround : Please uninstall the Enablement kit and install the older versions

Updated to version 12.8.352.11

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.)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

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Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Enhancements

Updated to version 12.8.352.11

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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

Filename: HPE-CNA-FC-Emulex-Enablement-Kit-12.8.352.11-1.rhel8.x86_64.compsig; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.352.11-1.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.)

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

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This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

The Linux Enablement kit has been changed from "HP-CNA-FC-Emulex-Enablement-Kit" to "HPE-CNA-FC-Emulex-Enablement-Kit". Upgrade from the older released Enablement kit is supported. However downgrade to earlier version "HP-CNA-FC-Emulex-Enablement-Kit" may not be successful and may report conflicts.

Workaround : Please uninstall the Enablement kit and install the older versions

Updated to version 12.8.352.11

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.)

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Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Enhancements

Updated to version 12.8.352.11

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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

HPE Emulex Fibre Channel Enablement Kit for Host Bus Adapters and Mezzanine Host Bus Adapters for SUSE Linux Enterprise Server 12Version: 12.8.352.11 **(Recommended)**

Filename: HPE-CNA-FC-Emulex-Enablement-Kit-12.8.352.11-1.sles12sp4.x86_64.compsig; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.352.11-1.sles12sp4.x86_64.rpm; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.352.11-1.sles12sp5.x86_64.compsig; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.352.11-1.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.)

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

The Linux Enablement kit has been changed from "HP-CNA-FC-Emulex-Enablement-Kit" to "HPE-CNA-FC-Emulex-Enablement-Kit". Upgrade from the older released Enablement kit is supported. However downgrade to earlier version "HP-CNA-FC-Emulex-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-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>

Updated to version 12.8.352.11

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.)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Enhancements

Updated to version 12.8.352.11

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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

HPE Emulex Fibre Channel Enablement Kit for Host Bus Adapters and Mezzanine Host Bus Adapters for SUSE Linux Enterprise Server 15Version: 12.8.352.11 **(Recommended)**

Filename: HPE-CNA-FC-Emulex-Enablement-Kit-12.8.352.11-1.sles15sp1.x86_64.compsig; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.352.11-1.sles15sp1.x86_64.rpm; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.352.11-1.sles15sp2.x86_64.compsig; HPE-CNA-FC-Emulex-Enablement-Kit-12.8.352.11-1.sles15sp2.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.)

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

The Linux Enablement kit has been changed from "HP-CNA-FC-Emulex-Enablement-Kit" to "HPE-CNA-FC-Emulex-Enablement-Kit". Upgrade from the older released Enablement kit is supported. However downgrade to earlier version "HP-CNA-FC-Emulex-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 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-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>

Updated to version 12.8.352.11

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.)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Enhancements

Updated to version 12.8.352.11

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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

HPE Emulex NVMe Fibre Channel Enablement Kit for HPE Emulex Host Bus Adapters for Linux ServerVersion: 12.8.264.0 **(Optional)**

Filename: nvme-fc-connect-12.8.264.0-1.rhel7u8.noarch.compsig; nvme-fc-connect-12.8.264.0-1.rhel7u8.noarch.rpm; nvme-fc-connect-12.8.264.0-1.rhel7u9.noarch.compsig; nvme-fc-connect-12.8.264.0-1.rhel7u9.noarch.rpm; nvme-fc-connect-12.8.264.0-1.sles12sp4.noarch.compsig; nvme-fc-connect-12.8.264.0-1.sles12sp4.noarch.rpm

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

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

SUSE Linux Enterprise Server 12 service pack 4

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:

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb 1Single 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

HPE Emulex Smart SAN Enablement Kit for LinuxVersion: 1.0.0.0-4 (f) **(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.

To obtain the 3PAR Smart SAN User Guide to go the Storage Information Library at the following link:

[Storage Information Library](#)

(<http://www.hpe.com/info/storage/docs/>)

By default, **HP 3PAR Storage** is selected under

Products and Solutions.

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 Branded Emulex FC HBAs and mezz cards, version 11.1.183.21(minimum version supported) for RedHat 7, RedHat 8 and Novell 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 SLES15SP1

Updated to version 1.0.0.0-4

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 Microsoft Windows Server 64 bit operating systemsVersion: 1.0.0.1
(j) **(Recommended)**

Filename: cp042255.compsig; cp042255.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.

To obtain the 3PAR Smart SAN User Guide to go the Storage Information Library at the following link:

[Storage Information Library](#)

(<http://www.hpe.com/info/storage/docs/>)

By default, **HP 3PAR Storage** is selected under

Products and Solutions.

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 v11.1.145.16 cp030886.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

Updated to version 1.0.0.1

Supported Devices and Features

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

8Gb FC Adapter:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84E 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb FC Adapter:

- HPE SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1100E Quad Port 16Gb Fibre Channel Host Bus 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 Emulex(BRCM) Fibre Channel Over Ethernet Enablement Kit for Host Bus Adapters and Mezzanine Host Bus Adapters for Red Hat Enterprise Linux 7 ServerVersion: 12.0.1339.0

(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

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Updated to version: 12.0.1339.0

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.)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T 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 ServerVersion: 12.0.1339.0 **(Recommended)**

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

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Updated to version: 12.0.1339.0

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.)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T 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 12Version: 12.0.1339.0 **(Recommended)**

Filename: HPE-CNA-FC-Broadcom-Enablement-Kit-12.0.1339.0-1.sles12sp4.x86_64.compsig; HPE-CNA-FC-Broadcom-Enablement-Kit-12.0.1339.0-1.sles12sp4.x86_64.rpm; 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

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Updated to version: 12.0.1339.0

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.)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T 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 15Version: 12.0.1339.0

(Recommended)

Filename: HPE-CNA-FC-Broadcom-Enablement-Kit-12.0.1339.0-1.sles15sp1.x86_64.compsig; HPE-CNA-FC-Broadcom-Enablement-Kit-12.0.1339.0-1.sles15sp1.x86_64.rpm; 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

Important Note!

Release Notes:

[HPE Emulex Adapters Release Notes](#)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Updated to version: 12.0.1339.0

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.)

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to <http://www.hpe.com/support/manuals>
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

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 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HPE FlexFabric 20Gb 2-port 650FLB Adapter
- HPE FlexFabric 20Gb 2-port 650M Adapter

HPE QLogic Fibre Channel Enablement Kit for Host Bus Adapter and Mezzanine Host Bus Adapter for LinuxVersion: 6.0.0.0-16 **(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>

Updated the kit to version 6.0.0.0-16

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:

8Gb Fibre Channel Host Bus Adapter:

- HPE 81Q 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 8Gb Quad Port Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1000Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000Q 16Gb Single Port PCIe 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 LinuxVersion: 3.3-3 (h) **(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!

To obtain the 3PAR Smart SAN User Guide to go the Storage Information Library at the following link:

[Storage Information Library](#)

(<http://www.hpe.com/info/storage/docs/>)

By default, **HP 3PAR Storage** is selected under

Products and Solutions.

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 6 Server (x86-64) FCoE/FC Driver Kit for HPE Qlogic CNAs, HBAs and mezzanine HBAs, version 8.07.00.42.06.0-k1
- Red Hat Enterprise Linux 7 Server FCoE/FC Driver Kit for HPE QLogic CNAs, HBAs and mezzanine HBAs and CNAs, version 8.07.00.42.07.0-k1
- SUSE Linux Enterprise Server 11 (AMD64/EM64T) FCoE/FC Driver Kit for HPE Qlogic CNAs, HBAs and mezzanine HBAs, version 8.07.00.42.11.3-k
- SUSE Linux Enterprise Server 12 FCoE/FC Driver Kit for HPE QLogic CNAs, HBAs and mezzanine HBAs and CNAs version 8.07.00.42.12.0-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

Added Support to RHEL8 and SLES15SP1

Updated to version 3.3-3

Supported Devices and Features

This version of the enablement kit supports the following devices:

8Gb Fibre Channel Host Bus Adapter:

- HPE 81Q PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 4P 8Gb Fibre Channel HBA
- HPE QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb Fibre Channel Host Bus Adapter:

- HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HPE SN1000Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000Q 16GB Single Port PCIe 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 Microsoft Windows Server 64 bit operating systemsVersion: 1.0.0.1
(i) **(Recommended)**

Filename: cp039719.compsig; cp039719.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.

To obtain the 3PAR Smart SAN User Guide to go the Storage Information Library at the following link:

[Storage Information Library](#)

(<http://www.hpe.com/info/storage/docs/>)

By default, **HPE 3PAR Storage** is selected under

Products and Solutions.

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 QLogic Storport Driver v9.2.2.20, cp031252.exe
- HPE Storage Fibre Channel Adapter Kit for the QLogic Storport Driver for Windows Server 2012 and 2012 R2 v9.2.2.20, cp031253.exe
- HPE Storage Fibre Channel Adapter Kit for the QLogic Storport Driver for Windows Server 2016 version 9.2.2.20, cp031251.exe
- HPE Storage Fibre Channel Adapter Kit for the QLogic Storport Driver for Windows Server 2019 version 9.2.9.22, cp037397.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

Updated to version 1.0.0.1

Supported Devices and Features

This version of the enablement kit supports the following devices:

8Gb Fibre Channel Host Bus Adapter:

- HPE 81Q PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 4P 8Gb Fibre Channel HBA
- HPE QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb Fibre Channel Host Bus Adapter:

- HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HPE SN1000Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000Q 16GB Single Port PCIe 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 Microsoft Windows Server 64 bit operating systemsVersion:
1.0.0.1 (**Recommended**)

Filename: cp046397.compsig; cp046397.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.

To obtain the 3PAR Smart SAN User Guide to go the Storage Information Library at the following link:

[Storage Information Library](#)

(<http://www.hpe.com/info/storage/docs/>)

By default, **HPE 3PAR Storage** is selected under

Products and Solutions.

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.

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:

8Gb Fibre Channel Host Bus Adapter:

- HPE 81Q PCIe Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE 84Q 4P 8Gb Fibre Channel Host Bus Adapter

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000Q 16GB 1-port PCIe 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

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

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Agentless Management Service (iLO 5) for SUSE Linux Enterprise Server 15 Version: 2.4.1 **(Optional)**

Filename: amsd-2.4.1-1571.4.sles15.x86_64.compsig; amsd-2.4.1-1571.4.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:

- Addressed a small amount of memory leak as outlined in the Customer Advisory, [a00053824en_us](#)
- A customer may experience where smad may periodically report: No response from iLO for Hello. After losing connection with iLO, the subagent may experience high CPU utilization for trying the reconnection. This issue is documented in Customer Advisory https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00111063en_us.
- The cpqIde service not able to start while the AMSD configuration is agent mode.
- Addressed buffer overflow issues in select corner cases.

Enhancements

This release contains the following enhancements:

- Enhance the robust communication with iLO. The enhancement has a proper process exist and OS signal handling.
- Enhance the SMA logging system for better recording of the communication events.
- The AMSD reports the Open NIC controllers SN to align with iLO for avoiding the un-sync information.

Agentless Management Service for Windows x64Version: 2.41.0.0 **(Optional)**

Filename: cp046676.compsig; cp046676.exe

Important Note!

iLO Firmware Version:

- This version of AMS has been tested with iLO 5 firmware version 2.40. It is recommended to install AMS 2.40.0.0 on systems with iLO 5 firmware 2.40 or newer.

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

- Fixed IML was missing NIC link down record if the user unplugs many cables at the same time.

- Fixed iLO web GUI missing IPv6 address when Windows Hype-V switch is created.
- Fixed a crash issue when AMS is querying iSCSI information.
- Fixed incorrect drive status if IDE SATA drive is busy on access.
- Fixed incorrect drive status if Windows see the predictive failure drive.

Enhancements

- Added Logical Drive Trap 5023.
- Added support for new I/O cards.
- Changed IDE/SATA interval time from 120 seconds to 60 seconds.
- Redirect more iLO security logs to the Windows event system.

HPE Insight Management WBEM Providers for Windows Server x64 EditionsVersion: 11.0.0.0 **(Optional)**

Filename: cp045863.exe

Prerequisites

The HPE Insight Management WBEM Providers require the HPE ProLiant iLO 3/4 Channel Interface and Management Controller Drivers (version 3.4.0.0 or later) for Windows X64 to be installed prior to this component.

In addition, the System Management Homepage (SMH) component (version 7.2.2.9 or later) is required for a single server web-based user interface.

Make sure to apply all updates needed for the OS on the system by running Windows Update. Incomplete Windows Update may cause the HPE WBEM Providers installation failures.

Fixes

- Server provider
 - Fixed product dependency issue
 - Rebrand help information

HPE MegaRAID Storage Administrator (HPE MRSA) for Linux 64-bitVersion: 7.016.16.0 **(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

Important Note!

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Prerequisites

Enhancements

- Added support for Gen10+ MegaRAID Controllers.

HPE MegaRAID Storage Administrator (HPE MRSA) for Windows 64-bitVersion: 7.16.16.0 **(Recommended)**

Filename: cp046226.exe; cp046226_part1.compsig; cp046226_part2.compsig

Enhancements

- Supports Gen10+ MegaRAID Controllers.

HPE MegaRAID Storage Administrator StorCLI for Linux 64-bitVersion: 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-bitVersion: 007.1616.0000.0000 **(Optional)**

Filename: storcli-007.1616.0000.0000-1.x86_64.compsig; storcli-007.1616.0000.0000-1.x86_64.rpm

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 VMwareVersion: 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 VMwareVersion: 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 VMwareVersion: 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 Windows 64-bitVersion: 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-bitVersion: 7.1616.0.0 **(Optional)**

Filename: cp045859.compsig; cp045859.exe

Enhancements

- Supports maintaining and configuration of Gen10+ MegaRAID Controllers: MR416i-a, MR416i-p, MR216i-a, MR216i-p
-

HPE SMX Provider Component for ESXi 7.0Version: 3.16.00 **(Recommended)**

Filename: smxProvider_700.03.16.00__1_.12_14828939_signed_component_1567546.zip

Enhancements

Support for VMware ESXi 7.0

NVMe Drive Eject NMI Fix for Intel Xeon Processor Scalable Family for WindowsVersion: 1.1.0.0 (C) **(Optional)**

Filename: cp034635.compsig; cp034635.exe

Enhancements

- Added support for Windows Server 2019
- Added support for the HPE ProLiant XL270d Gen10 and the HPE ProLiant XL420 Gen10

Smart Storage Administrator (SSA) CLI for Linux 64-bit Version: 5.10.44.0 **(Recommended)**

Filename: ssaccli-5.10-44.0.x86_64.compsig; ssaccli-5.10-44.0.x86_64.rpm; ssaccli-5.10-44.0.x86_64.txt

Enhancements

Added support to the HPE SR932i-p and SR416-a Gen10+ Controllers.

Smart Storage Administrator (SSA) CLI for VMware 6.5 Version: 5.10.45.0 **(Recommended)**

Filename: MIS_bootbank_ssaccli-5.10.45.0-6.5.0.4240417.oem.vib

Enhancements

Adding support to the HPE SR Gen10 Plus Controllers.

Smart Storage Administrator (SSA) CLI for VMware 6.7 Version: 5.10.45.0

(Recommended)

Filename: MIS_bootbank_ssaccli-5.10.45.0-6.7.0.7535516.oem.vib

Enhancements

Adding support to the HPE SR Gen10 Plus Controllers.

Smart Storage Administrator (SSA) CLI for VMware 7.0 Version: 5.10.45.0 **(Recommended)**

Filename: ssaccli-component_5.10.45.0-7.0.0_17605318.zip

Enhancements

Adding support to the HPE SR Gen10 Plus Controllers.

Smart Storage Administrator (SSA) CLI for VMware 7.0 Version: 5.10.45.1 **(Recommended)**

Filename: hpressaccli-component_5.10.45.1-7.0.0_17771110.zip

Enhancements

Adding support to the HPE SR Gen10 Plus Controllers.

Smart Storage Administrator (SSA) CLI for Windows 64-bitVersion: 5.10.44.0 (**Recommended**)

Filename: cp041183.compsig; cp041183.exe

Enhancements

Added support to the HPE SR932i-p and SR416-a Gen10+ Controllers.

Smart Storage Administrator (SSA) for Linux 64-bitVersion: 5.10.44.0 (**Recommended**)

Filename: ssa-5.10-44.0.x86_64.compsig; ssa-5.10-44.0.x86_64.rpm; ssa-5.10-44.0.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

Added support to the HPE SR932i-p and SR416-a Gen10+ Controllers.

Smart Storage Administrator (SSA) for Windows 64-bitVersion: 5.10.44.0 (**Recommended**)

Filename: cp041182.compsig; cp041182.exe

Enhancements

Added support to the HPE SR932i-p and SR416-a Gen10+ Controllers.

Smart Storage Administrator Diagnostic Utility (SSADU) CLI for Linux 64-bitVersion:
5.10.44.0 (**Recommended**)

Filename: ssaduccli-5.10-44.0.x86_64.compsig; ssaduccli-5.10-44.0.x86_64.rpm; ssaduccli-5.10-44.0.x86_64.txt

Enhancements

Added support to the HPE SR932i-p and SR416-a Gen10+ Controllers.

Smart Storage Administrator Diagnostic Utility (SSADU) CLI for Windows 64-bitVersion:
5.10.44.0 (**Recommended**)

Filename: cp041184.compsig; cp041184.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).

Enhancements

Added support to the HPE SR932i-p and SR416-a Gen10 Plus Controllers.
