SPP 2019.09.0 Component Release Notes

BIOS - System ROM Top

Online ROM Flash Component for Linux - HPE ProLiant DL380 Gen9/DL360 Gen9 (P89) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-p89-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL360/DL380 Gen9 System ROM - P89

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL380 Gen9/DL360 Gen9 (P89) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040766.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL360/DL380 Gen9 System ROM - P89

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE Apollo 2000 Gen10/HPE ProLiant XL170r/XL190r Gen10 (U38) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: RPMS/x86_64/firmware-system-u38-2.10_2019_05_21-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u38-2.10_2019_05_21-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.08_05-23-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Problems Fixed:

None

Known Issues:

None

Prerequisites

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

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Known Issues:

None

Online ROM Flash Component for Linux - HPE Apollo 4200 Gen10/HPE ProLiant XL420 Gen10 (U39) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: RPMS/x86_64/firmware-system-u39-2.10_2019_05_21-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u39-2.10_2019_05_21-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

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Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Linux - HPE Apollo 4200 Gen9/HPE ProLiant XL420 Gen9 (U19) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-u19-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE Apollo 4200 Gen9/HPE ProLiant XL420 Gen9 System ROM - U19

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE Apollo 4510 Gen10/HPE ProLiant XL450 Gen10 (U40) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: RPMS/x86_64/firmware-system-u40-2.10_2019_05_21-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u40-2.10_2019_05_21-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

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Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy

for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Linux - HPE Apollo 6500 Gen10/HPE ProLiant XL270d Gen10 (U45) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: RPMS/x86_64/firmware-system-u45-2.10_2019_05_21-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u45-2.10_2019_05_21-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Linux - HPE ProLiant BL460c Gen10 (I41) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: RPMS/x86_64/firmware-system-i41-2.10_2019_05_21-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-i41-2.10_2019_05_21-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant BL460c Gen10 System ROM - I41

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

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Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Linux - HPE ProLiant BL460c Gen9/WS460c Gen9 (I36) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-i36-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant BL460c Gen9/WS460c Gen9 System ROM - I36

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant BL660c Gen9 (I38) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-i38-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant BL660c Gen9 System ROM - I38

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant DL120 Gen9 (P86) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-p86-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL120 Gen9 System ROM - P86

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant DL160 Gen10/DL180 Gen10 (U31) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: RPMS/x86_64/firmware-system-u31-2.10_2019_05_21-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u31-2.10_2019_05_21-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL160 Gen10/DL180 Gen10 System ROM - U31

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with

the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Linux - HPE ProLiant DL160 Gen9/DL180 Gen9 (U20) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-u20-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL160 Gen9/DL180 Gen9 System ROM - U20

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant DL20 Gen10 (U43) Servers
Version: 1.22_04-04-2019 **(Critical)**
Filename: RPMS/x86_64/firmware-system-u43-1.22_2019_04_04-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u43-1.22_2019_04_04-1.1.x86_64.rpm

Important Note!

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Deliverable Name:

HPE ProLiant DL20 Gen10 System ROM - U43

Release Version:

1.22_04-04-2019

Last Recommended or Critical Revision:

1.22_04-04-2019

Previous Revision:

1.20_02-02-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. 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 revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Online ROM Flash Component for Linux - HPE ProLiant DL20 Gen9 (U22) Servers
Version: 2.82_04-04-2019 **(Critical)**
Filename: RPMS/i386/firmware-system-u22-2.82_2019_04_04-1.1.i386.rpm

Important Note!

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Deliverable Name:

HPE ProLiant DL20 Gen9 System ROM - U22

Release Version:

2.82_04-04-2019

Last Recommended or Critical Revision:

2.82_04-04-2019

Previous Revision:

2.80_12-18-2018

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Online ROM Flash Component for Linux - HPE ProLiant DL325 Gen10 (A41) Servers
Version: 1.46_07-10-2019 **(Recommended)**
Filename: RPMS/x86_64/firmware-system-a41-1.46_2019_07_10-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-a41-1.46_2019_07_10-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL325 Gen10 System ROM - A41

Release Version:

1.46_07-10-2019

Last Recommended or Critical Revision:

1.46_07-10-2019

Previous Revision:

1.44_06-24-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue with rare occurrences of unpredictable system behavior. This issue is NOT unique to HPE servers and would impact any systems using AMD EPYC 7001 Series processors that do not contain latest AMD microcode. Note: this does not address any security vulnerability mitigations.

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 with rare occurrences of unpredictable system behavior. This issue is NOT unique to HPE servers and would impact any systems using AMD EPYC 7001 Series processors that do not contain latest AMD microcode. Note: this does not address any security vulnerability mitigations.

Known Issues:

None

Online ROM Flash Component for Linux - HPE ProLiant DL360 Gen10 (U32) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: RPMS/x86_64/firmware-system-u32-2.10_2019_05_21-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u32-2.10_2019_05_21-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL360 Gen10 System ROM - U32

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Linux - HPE ProLiant DL380 Gen10 (U30) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: RPMS/x86_64/firmware-system-u30-2.10_2019_05_21-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u30-2.10_2019_05_21-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL380 Gen10 System ROM - U30

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Linux - HPE ProLiant DL385 Gen10 (A40) Servers
Version: 1.46_07-10-2019 **(Recommended)**
Filename: RPMS/x86_64/firmware-system-a40-1.46_2019_07_10-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-a40-1.46_2019_07_10-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL385 Gen10 System ROM - A40

Release Version:

1.46_07-10-2019

Last Recommended or Critical Revision:

1.46_07-10-2019

Previous Revision:

1.44_06-24-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue with rare occurrences of unpredictable system behavior. This issue is NOT unique to HPE servers and would impact any systems using AMD EPYC 7001 Series processors that do not contain latest AMD microcode. Note: this does not address any security vulnerability mitigations.

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 with rare occurrences of unpredictable system behavior. This issue is NOT unique to HPE servers and would impact any systems using AMD EPYC 7001 Series processors that do not contain latest AMD microcode. Note: this does not address any security vulnerability mitigations.

Known Issues:

None

Online ROM Flash Component for Linux - HPE ProLiant DL560 Gen10/DL580 Gen10 (U34) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: RPMS/x86_64/firmware-system-u34-2.10_2019_05_21-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u34-2.10_2019_05_21-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL560 Gen10/DL580 Gen10 System ROM - U34

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where a system configured with 3 processors may not complete POST. This issue was introduced with the version 2.00 System ROM and did not previously occur. This issue is not unique to HPE servers.

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where a system configured with 3 processors may not complete POST. This issue was introduced with the version 2.00 System ROM and did not previously occur. This issue is not unique to HPE servers.

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Linux - HPE ProLiant DL560 Gen9 (P85) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-p85-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL560 Gen9 System ROM - P85

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant DL580 Gen9 (U17) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-u17-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL580 Gen9 System ROM - U17

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant DL60 Gen9/DL80 Gen9 (U15) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-u15-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL60 Gen9/ProLiant DL80 Gen9 System ROM - U15

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant EC200a (U26) Server/HPE ProLiant Thin Micro TM200 (U26) Server
Version: 2.66_07-19-2019 **(Recommended)**
Filename: RPMS/i386/firmware-system-u26-2.66_2019_07_19-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant Thin Micro TM200 System ROM - U26

Release Version:

2.66_07-19-2019

Last Recommended or Critical Revision:

2.66_07-19-2019

Previous Revision:

2.62_02-20-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.62 System ROM. This issue only impacts systems configured with Intel Xeon® D-1500 processors. 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:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.62 System ROM. This issue only impacts systems configured with Intel Xeon® D-1500 processors. This issue is not unique to HPE servers.

Known Issues:

None

Enhancements

None

Online ROM Flash Component for Linux - HPE ProLiant ML110 Gen10 (U33) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: RPMS/x86_64/firmware-system-u33-2.10_2019_05_21-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u33-2.10_2019_05_21-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML110 Gen10 System ROM - U33

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Linux - HPE ProLiant ML110 Gen9 (P99) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-p99-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML110 Gen9 System ROM - P99

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant ML150 Gen9 (P95) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-p95-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML150 Gen9 System ROM - P95

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant ML30 Gen10 (U44) Servers
Version: 1.22_04-04-2019 **(Critical)**
Filename: RPMS/x86_64/firmware-system-u44-1.22_2019_04_04-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u44-1.22_2019_04_04-1.1.x86_64.rpm

Important Note!

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Deliverable Name:

HPE ProLiant ML30 Gen10 System ROM - U44

Release Version:

1.22_04-04-2019

Last Recommended or Critical Revision:

1.22_04-04-2019

Previous Revision:

1.20_02-02-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. 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 revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Online ROM Flash Component for Linux - HPE ProLiant ML30 Gen9 (U23) Servers
Version: 2.82_04-04-2019 **(Critical)**
Filename: RPMS/i386/firmware-system-u23-2.82_2019_04_04-1.1.i386.rpm

Important Note!

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Deliverable Name:

HPE ProLiant ML30 Gen9 System ROM - U23

Release Version:

2.82_04-04-2019

Last Recommended or Critical Revision:

2.82_04-04-2019

Previous Revision:

2.80_12-18-2018

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Online ROM Flash Component for Linux - HPE ProLiant ML350 Gen10 (U41) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: RPMS/x86_64/firmware-system-u41-2.10_2019_05_21-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u41-2.10_2019_05_21-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML350 Gen10 System ROM - U41

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Linux - HPE ProLiant ML350 Gen9 (P92) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-p92-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML350 Gen9 System ROM - P92

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant XL170r/XL190r Gen9 (U14) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-u14-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL170r/XL190r Gen9 System ROM - U14

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions)

sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant XL230a/XL250a Gen9 (U13) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-u13-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL230a/250a Gen9 System ROM - U13

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant XL230k Gen10 (U37) Server
Version: 2.10_05-21-2019 **(Optional)**
Filename: RPMS/x86_64/firmware-system-u37-2.10_2019_05_21-1.1.x86_64.compsig; RPMS/x86_64/firmware-system-u37-2.10_2019_05_21-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL230k Gen10 System ROM - U37

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Linux - HPE ProLiant XL260a Gen9/XL2x260w (U24) Server
Version: 1.60_01-22-2018 (B) **(Critical)**
Filename: RPMS/i386/firmware-system-u24-1.60_2018_01_22-2.1.i386.rpm

Important Note!

Important Notes:

Ver. 1.60(B) contains updates to the component packaging and is functionally equivalent to ver. 1.60. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the firmware to version 1.60.

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system updates, provides mitigation for Variant 2 of the Side Channel Analysis vulnerability, also known as Spectre. The revision of the microcode included in this System ROM does NOT have issues with more frequent reboots and unpredictable system behavior which impacted the previous Intel microcode which was part of the Spectre Variant 2 mitigation. Additional information is available from Intel's Security Exploit Newsroom, https://newsroom.intel.com/press-kits/security-exploits-intel-products/.

Deliverable Name:

HPE ProLiant XL260a Gen9/XL2x260w System ROM - U24

Release Version:

1.60_01-22-2018

Last Recommended or Critical Revision:

1.60_01-22-2018

Previous Revision:

1.50_09-25-2017

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Updated the Intel processor microcode to the latest version.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) for Linux which is integrated into the standard Linux kernel.

Fixes

Important Notes:

Ver. 1.60(B) contains updates to the component packaging and is functionally equivalent to ver. 1.60. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the firmware to version 1.60.

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system updates, provides mitigation for Variant 2 of the Side Channel Analysis vulnerability, also known as Spectre. The revision of the microcode included in this System ROM does NOT have issues with more frequent reboots and unpredictable system behavior which impacted the previous Intel microcode which was part of the Spectre Variant 2 mitigation. Additional information is available from Intel's Security Exploit Newsroom, https://newsroom.intel.com/press-kits/security-exploits-intel-products/.

Firmware Dependencies:

None

Problems Fixed:

Updated the Intel processor microcode to the latest version.

Known Issues:

None

Online ROM Flash Component for Linux - HPE ProLiant XL270d (U25) Accelerator Tray
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-u25-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL270d Accelerator Tray System ROM - U25

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant XL450 Gen9 (U21) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-u21-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL450 Gen9 System ROM - U21

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Linux - HPE ProLiant XL730f/XL740f/XL750f Gen9 (U18) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: RPMS/i386/firmware-system-u18-2.74_2019_07_21-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL730f/XL740f/XL750f Gen9 System ROM - U18

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE Apollo 4200 Gen9/HPE ProLiant XL420 Gen9 (U19) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040836.compsig; CP040836.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE Apollo 4200 Gen9/HPE ProLiant XL420 Gen9 System ROM - U19

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.
1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.
The minimum iLO version for ESXi 5.1, ESXi 5.5, ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.
2. The "Compaq ROM Utility Driver" (CRU) must be installed and running
The minimum CRU version for 5.1 is 5.0.3.9.
The minimum CRU version for 5.5 is 5.5.4.1.
The minimum CRU version for 6.0 is 6.0.8.
The minimum CRU version for 6.5 is 6.5.8.
The minimum CRU version for 6.7 is 6.7.10.
Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from

the OS specific “HPE Agentless Management Service Offline Bundle” for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE ProLiant BL460c Gen9/WS460c Gen9 (I36) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040810.compsig; CP040810.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant BL460c Gen9/WS460c Gen9 System ROM - I36

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.
1. The "HPE ProLiant iLO 3/4 Channel Interface Driver” (CHIF) must be installed and running.
The minimum iLO version for ESXi 5.1, ESXi 5.5, ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.
2. The “Compaq ROM Utility Driver” (CRU) must be installed and running
The minimum CRU version for 5.1 is 5.0.3.9.
The minimum CRU version for 5.5 is 5.5.4.1.
The minimum CRU version for 6.0 is 6.0.8.
The minimum CRU version for 6.5 is 6.5.8.
The minimum CRU version for 6.7 is 6.7.10.
Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific “HPE Agentless Management Service Offline Bundle” for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE ProLiant BL660c Gen9 (I38) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040837.compsig; CP040837.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant BL660c Gen9 System ROM - I38

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.
1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.
The minimum iLO version for ESXi 5.1, ESXi 5.5, ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.
2. The "Compaq ROM Utility Driver" (CRU) must be installed and running
The minimum CRU version for 5.1 is 5.0.3.9.
The minimum CRU version for 5.5 is 5.5.4.1.
The minimum CRU version for 6.0 is 6.0.8.
The minimum CRU version for 6.5 is 6.5.8.
The minimum CRU version for 6.7 is 6.7.10.
Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE ProLiant DL120 Gen9 (P86) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040765.compsig; CP040765.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL120 Gen9 System ROM - P86

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.

1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.

The minimum iLO version for ESXi 5.1, 5.5 and ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.

2. The "Compaq ROM Utility Driver" (CRU) must be installed and running

The minimum CRU version for ESXi 5.1 is 5.0.3.9.

The minimum CRU version for ESXi 5.5 is 5.5.4.1.

The minimum CRU version for ESXi 6.0 is 6.0.8.

The minimum CRU version for 6.5 is 6.5.8.

The minimum CRU version for 6.7 is 6.7.10.

Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE ProLiant DL160 Gen9/DL180 Gen9 (U20) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040743.compsig; CP040743.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL160 Gen9/DL180 Gen9 System ROM - U20

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.
1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.
The minimum iLO version for ESXi 5.1, ESXi 5.5, ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.
2. The "Compaq ROM Utility Driver" (CRU) must be installed and running
The minimum CRU version for 5.1 is 5.0.3.9.
The minimum CRU version for 5.5 is 5.5.4.1.
The minimum CRU version for 6.0 is 6.0.8.
The minimum CRU version for 6.5 is 6.5.8.
The minimum CRU version for 6.7 is 6.7.10.
Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE ProLiant DL20 Gen9 (U22) Servers
Version: 2.82_04-04-2019 **(Critical)**
Filename: CP039456.compsig; CP039456.zip

Important Note!

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Deliverable Name:

HPE ProLiant DL20 Gen9 System ROM - U22

Release Version:

2.82_04-04-2019

Last Recommended or Critical Revision:

2.82_04-04-2019

Previous Revision:

2.80_12-18-2018

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.
1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.
The minimum iLO version for ESXi 5.5, ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.
2. The "Compaq ROM Utility Driver" (CRU) must be installed and running
The minimum CRU version for 5.5 is 5.5.4.1.
The minimum CRU version for 6.0 is 6.0.8.
The minimum CRU version for 6.5 is 6.5.8.

The minimum CRU version for 6.7 is 6.7.10.

Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, and 5.5 on vibsdepot.hpe.com.

Fixes

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Online ROM Flash Component for VMware - HPE ProLiant DL380 Gen9/DL360 Gen9 (P89) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040768.compsig; CP040768.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL360/DL380 Gen9 System ROM - P89

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.

1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.

The minimum iLO version for ESXi 5.1, 5.5 and ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.

2. The "Compaq ROM Utility Driver" (CRU) must be installed and running

The minimum CRU version for ESXi 5.1 is 5.0.3.9.

The minimum CRU version for ESXi 5.5 is 5.5.4.1.

The minimum CRU version for ESXi 6.0 is 6.0.8.

The minimum CRU version for 6.5 is 6.5.8.

The minimum CRU version for 6.7 is 6.7.10.

Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE ProLiant DL560 Gen9 (P85) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040749.compsig; CP040749.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL560 Gen9 System ROM - P85

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.
1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.
The minimum iLO version for ESXi 5.1, ESXi 5.5, ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.
2. The "Compaq ROM Utility Driver" (CRU) must be installed and running
The minimum CRU version for 5.1 is 5.0.3.9.
The minimum CRU version for 5.5 is 5.5.4.1.
The minimum CRU version for 6.0 is 6.0.8.
The minimum CRU version for 6.5 is 6.5.8.
The minimum CRU version for 6.7 is 6.7.10.
Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE ProLiant DL580 Gen9 (U17) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040752.compsig; CP040752.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL580 Gen9 System ROM - U17

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.

1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.

The minimum iLO version for ESXi 5.5 and ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.

2. The "Compaq ROM Utility Driver" (CRU) must be installed and running

The minimum CRU version for ESXi 5.5 is 5.5.4.1.

The minimum CRU version for ESXi 6.0 is 6.0.8.

The minimum CRU version for 6.5 is 6.5.8.

The minimum CRU version for 6.7 is 6.7.10.

Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may

experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE ProLiant DL60 Gen9/DL80 Gen9 (U15) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040926.compsig; CP040926.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL60 Gen9/ProLiant DL80 Gen9 System ROM - U15

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.

1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.

The minimum iLO version for ESXi 5.1, 5.5 and ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.

2. The "Compaq ROM Utility Driver" (CRU) must be installed and running

The minimum CRU version for ESXi 5.1 is 5.0.3.9.

The minimum CRU version for ESXi 5.5 is 5.5.4.1.

The minimum CRU version for ESXi 6.0 is 6.0.8.

The minimum CRU version for 6.5 is 6.5.8.

The minimum CRU version for 6.7 is 6.7.10.

Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE ProLiant EC200a (U26) Server/HPE ProLiant Thin Micro TM200 (U26) Server
Version: 2.66_07-19-2019 **(Recommended)**
Filename: CP040773.compsig; CP040773.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant Thin Micro TM200 System ROM - U26

Release Version:

2.66_07-19-2019

Last Recommended or Critical Revision:

2.66_07-19-2019

Previous Revision:

2.62_02-20-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.62 System ROM. This issue only impacts systems configured with Intel Xeon® D-1500 processors. This issue is not unique to HPE servers.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.

1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.

The minimum iLO version for ESXi 5.5 and ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.

2. The "Compaq ROM Utility Driver" (CRU) must be installed and running

The minimum CRU version for ESXi 5.5 is 5.5.4.1.

The minimum CRU version for ESXi 6.0 is 6.0.8.

The minimum CRU version for 6.5 is 6.5.8.

The minimum CRU version for 6.7 is 6.7.10.

Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5 on vibsdepot.hpe.com.

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 mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.62 System ROM. This issue only impacts systems configured with Intel Xeon® D-1500 processors. This issue is not unique to HPE servers.

Known Issues:

None

Enhancements

None

Online ROM Flash Component for VMware - HPE ProLiant ML110 Gen9 (P99) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040801.compsig; CP040801.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML110 Gen9 System ROM - P99

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.
1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.
The minimum iLO version for ESXi 5.1, ESXi 5.5, ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.
2. The "Compaq ROM Utility Driver" (CRU) must be installed and running
The minimum CRU version for 5.1 is 5.0.3.9.
The minimum CRU version for 5.5 is 5.5.4.1.
The minimum CRU version for 6.0 is 6.0.8.
The minimum CRU version for 6.5 is 6.5.8.
The minimum CRU version for 6.7 is 6.7.10.
Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE ProLiant ML150 Gen9 (P95) Servers
Version: 2.74_07-21-2019 **(Optional)**

Filename: CP040762.compsig; CP040762.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML150 Gen9 System ROM - P95

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.
1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.
The minimum iLO version for ESXi 5.1, ESXi 5.5, ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.
2. The "Compaq ROM Utility Driver" (CRU) must be installed and running
The minimum CRU version for 5.1 is 5.0.3.9.
The minimum CRU version for 5.5 is 5.5.4.1.
The minimum CRU version for 6.0 is 6.0.8.
The minimum CRU version for 6.5 is 6.5.8.
The minimum CRU version for 6.7 is 6.7.10.
Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE ProLiant ML30 Gen9 (U23) Servers
Version: 2.82_04-04-2019 **(Critical)**
Filename: CP039459.compsig; CP039459.zip

Important Note!

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Deliverable Name:

HPE ProLiant ML30 Gen9 System ROM - U23

Release Version:

2.82_04-04-2019

Last Recommended or Critical Revision:

2.82_04-04-2019

Previous Revision:

2.80_12-18-2018

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.
1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.
The minimum iLO version for ESXi 5.5, ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.
2. The "Compaq ROM Utility Driver" (CRU) must be installed and running
The minimum CRU version for 5.5 is 5.5.4.1.
The minimum CRU version for 6.0 is 6.0.8.
The minimum CRU version for 6.5 is 6.5.8.

The minimum CRU version for 6.7 is 6.7.10.

Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, and 5.5 on vibsdepot.hpe.com.

Fixes

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Online ROM Flash Component for VMware - HPE ProLiant ML350 Gen9 (P92) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040717.compsig; CP040717.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML350 Gen9 System ROM - P92

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.
1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.
The minimum iLO version for ESXi 5.1, ESXi 5.5, ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.
2. The "Compaq ROM Utility Driver" (CRU) must be installed and running
The minimum CRU version for 5.1 is 5.0.3.9.
The minimum CRU version for 5.5 is 5.5.4.1.
The minimum CRU version for 6.0 is 6.0.8.
The minimum CRU version for 6.5 is 6.5.8.
The minimum CRU version for 6.7 is 6.7.10.
Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE ProLiant XL170r/XL190r Gen9 (U14) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040842.compsig; CP040842.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL170r/XL190r Gen9 System ROM - U14

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.

1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.

The minimum iLO version for ESXi 5.1, 5.5 and ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.

2. The "Compaq ROM Utility Driver" (CRU) must be installed and running

The minimum CRU version for ESXi 5.1 is 5.0.3.9.

The minimum CRU version for ESXi 5.5 is 5.5.4.1.

The minimum CRU version for ESXi 6.0 is 6.0.8.

The minimum CRU version for 6.5 is 6.5.8.

The minimum CRU version for 6.7 is 6.7.10.

Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware - HPE ProLiant XL450 Gen9 (U21) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040721.compsig; CP040721.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL450 Gen9 System ROM - U21

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.
1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.
The minimum iLO version for ESXi 5.1, ESXi 5.5, ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.
2. The "Compaq ROM Utility Driver" (CRU) must be installed and running
The minimum CRU version for 5.1 is 5.0.3.9.
The minimum CRU version for 5.5 is 5.5.4.1.
The minimum CRU version for 6.0 is 6.0.8.
The minimum CRU version for 6.5 is 6.5.8.
The minimum CRU version for 6.7 is 6.7.10.
Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for VMware ESXi- HPE ProLiant XL230a/XL250a Gen9 (U13) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: CP040805.compsig; CP040805.zip

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL230a/250a Gen9 System ROM - U13

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.
1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.
The minimum iLO version for ESXi 5.1, ESXi 5.5, ESXi 6.0 and ESXi 6.5 is 1.4. The minimum iLO version for ESXi 6.7 is 10.1.0.
2. The "Compaq ROM Utility Driver" (CRU) must be installed and running
The minimum CRU version for 5.1 is 5.0.3.9.
The minimum CRU version for 5.5 is 5.5.4.1.
The minimum CRU version for 6.0 is 6.0.8.
The minimum CRU version for 6.5 is 6.5.8.
The minimum CRU version for 6.7 is 6.7.10.
Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.7, 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE Apollo 2000 Gen10/HPE ProLiant XL170r/XL190r Gen10 (U38) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: cp038572.compsig; cp038572.exe

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.08_05-23-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Problems Fixed:

None

Known Issues:

None

Prerequisites

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

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE Apollo 4200 Gen10/HPE ProLiant XL420 Gen10 (U39) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: cp038552.compsig; cp038552.exe

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Windows x64 - HPE Apollo 4200 Gen9/HPE ProLiant XL420 Gen9 (U19) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040832.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE Apollo 4200 Gen9/HPE ProLiant XL420 Gen9 System ROM - U19

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions)

sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE Apollo 4510 Gen10/HPE ProLiant XL450 Gen10 (U40) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: cp038581.compsig; cp038581.exe

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An

internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Windows x64 - HPE Apollo 6500 Gen10/HPE ProLiant XL270d Gen10 (U45) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: cp038569.compsig; cp038569.exe

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Windows x64 - HPE ProLiant BL460c Gen10 (I41) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: cp038590.compsig; cp038590.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant BL460c Gen10 System ROM - I41

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Windows x64 - HPE ProLiant BL460c Gen9/WS460c Gen9 (I36) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040808.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant BL460c Gen9/WS460c Gen9 System ROM - I36

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant BL660c Gen9 (I38) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040833.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant BL660c Gen9 System ROM - I38

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL120 Gen9 (P86) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040763.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL120 Gen9 System ROM - P86

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL160 Gen10/DL180 Gen10 (U31) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: cp038575.compsig; cp038575.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL160 Gen10/DL180 Gen10 System ROM - U31

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Filename: cp040741.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL160 Gen9/DL180 Gen9 System ROM - U20

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL20 Gen10 (U43) Servers
Version: 1.22_04-04-2019 **(Critical)**
Filename: cp039487.compsig; cp039487.exe

Important Note!

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Deliverable Name:

HPE ProLiant DL20 Gen10 System ROM - U43

Release Version:

1.22_04-04-2019

Last Recommended or Critical Revision:

1.22_04-04-2019

Previous Revision:

1.20_02-02-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. 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 revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE ProLiant DL20 Gen9 (U22) Servers
Version: 2.82_04-04-2019 **(Critical)**
Filename: cp039454.exe

Important Note!

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Deliverable Name:

HPE ProLiant DL20 Gen9 System ROM - U22

Release Version:

2.82_04-04-2019

Last Recommended or Critical Revision:

2.82_04-04-2019

Previous Revision:

2.80_12-18-2018

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE ProLiant DL325 Gen10 (A41) Servers
Version: 1.46_07-10-2019 **(Recommended)**
Filename: cp040608.compsig; cp040608.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL325 Gen10 System ROM - A41

Release Version:

1.46_07-10-2019

Last Recommended or Critical Revision:

1.46_07-10-2019

Previous Revision:

1.44_06-24-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue with rare occurrences of unpredictable system behavior. This issue is NOT unique to HPE servers and would impact any systems using AMD EPYC 7001 Series processors that do not contain latest AMD microcode. Note: this does not address any security vulnerability mitigations.

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 with rare occurrences of unpredictable system behavior. This issue is NOT unique to HPE servers and would impact any systems using AMD EPYC 7001 Series processors that do not contain latest AMD microcode. Note: this does not address any security vulnerability mitigations.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE ProLiant DL360 Gen10 (U32) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: cp038540.compsig; cp038540.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL360 Gen10 System ROM - U32

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL380 Gen10 (U30) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: cp038505.compsig; cp038505.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL380 Gen10 System ROM - U30

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL385 Gen10 (A40) Servers
Version: 1.46_07-10-2019 **(Recommended)**
Filename: cp040605.compsig; cp040605.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL385 Gen10 System ROM - A40

Release Version:

1.46_07-10-2019

Last Recommended or Critical Revision:

1.46_07-10-2019

Previous Revision:

1.44_06-24-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue with rare occurrences of unpredictable system behavior. This issue is NOT unique to HPE servers and would impact any systems using AMD EPYC 7001 Series processors that do not contain latest AMD microcode. Note: this does not address any security vulnerability mitigations.

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 with rare occurrences of unpredictable system behavior. This issue is NOT unique to HPE servers and would impact any systems using AMD EPYC 7001 Series processors that do not contain latest AMD microcode. Note: this does not address any security vulnerability mitigations.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE ProLiant DL560 Gen10/DL580 Gen10 (U34) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: cp038586.compsig; cp038586.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL560 Gen10/DL580 Gen10 System ROM - U34

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where a system configured with 3 processors may not complete POST. This issue was introduced with the version 2.00 System ROM and did not previously occur. This issue is not unique to HPE servers.

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where a system configured with 3 processors may not complete POST. This issue was introduced with the version 2.00 System ROM and did not previously occur. This issue is not unique to HPE servers.

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL560 Gen9 (P85) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040747.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL560 Gen9 System ROM - P85

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL580 Gen9 (U17) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040750.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL580 Gen9 System ROM - U17

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant DL60 Gen9/DL80 Gen9 (U15) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040924.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL60 Gen9/ProLiant DL80 Gen9 System ROM - U15

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant EC200a (U26) Server/HPE ProLiant Thin Micro TM200 (U26) Server
Version: 2.66_07-19-2019 **(Recommended)**
Filename: cp040771.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant Thin Micro TM200 System ROM - U26

Release Version:

2.66_07-19-2019

Last Recommended or Critical Revision:

2.66_07-19-2019

Previous Revision:

2.62_02-20-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.62 System ROM. This issue only impacts systems configured with Intel Xeon® D-1500 processors. This issue is not unique to HPE servers.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions)

sightings. The previous microcode was first introduced in the v2.62 System ROM. This issue only impacts systems configured with Intel Xeon® D-1500 processors. This issue is not unique to HPE servers.

Known Issues:

None

Enhancements

None

Online ROM Flash Component for Windows x64 - HPE ProLiant ML110 Gen10 (U33) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: cp038600.compsig; cp038600.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML110 Gen10 System ROM - U33

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Windows x64 - HPE ProLiant ML110 Gen9 (P99) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040799.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML110 Gen9 System ROM - P99

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant ML150 Gen9 (P95) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040760.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML150 Gen9 System ROM - P95

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series

processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant ML30 Gen10 (U44) Servers
Version: 1.22_04-04-2019 **(Critical)**
Filename: cp039478.compsig; cp039478.exe

Important Note!

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Deliverable Name:

HPE ProLiant ML30 Gen10 System ROM - U44

Release Version:

1.22_04-04-2019

Last Recommended or Critical Revision:

1.22_04-04-2019

Previous Revision:

1.20_02-02-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. 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 revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE ProLiant ML30 Gen9 (U23) Servers
Version: 2.82_04-04-2019 **(Critical)**
Filename: cp039457.exe

Important Note!

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates,

provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Deliverable Name:

HPE ProLiant ML30 Gen9 System ROM - U23

Release Version:

2.82_04-04-2019

Last Recommended or Critical Revision:

2.82_04-04-2019

Previous Revision:

2.80_12-18-2018

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) for Windows which is available from Service Pack for ProLiant (SPP).

Fixes

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Online ROM Flash Component for Windows x64 - HPE ProLiant ML350 Gen10 (U41) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: cp038546.compsig; cp038546.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML350 Gen10 System ROM - U41

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Windows x64 - HPE ProLiant ML350 Gen9 (P92) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040715.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML350 Gen9 System ROM - P92

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant XL170r/XL190r Gen9 (U14) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040840.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL170r/XL190r Gen9 System ROM - U14

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant XL230a/XL250a Gen9 (U13) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040803.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL230a/250a Gen9 System ROM - U13

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions)

sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant XL230k Gen10 (U37) Server
Version: 2.10_05-21-2019 **(Optional)**
Filename: cp038550.compsig; cp038550.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL230k Gen10 System ROM - U37

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An

internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

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

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Online ROM Flash Component for Windows x64 - HPE ProLiant XL270d (U25) Accelerator Tray
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040838.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL270d Accelerator Tray System ROM - U25

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Online ROM Flash Component for Windows x64 - HPE ProLiant XL450 Gen9 (U21) Servers
Version: 2.74_07-21-2019 **(Optional)**
Filename: cp040719.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL450 Gen9 System ROM - U21

Release Version:

2.74_07-21-2019

Last Recommended or Critical Revision:

2.72_03-25-2019

Previous Revision:

2.72_03-25-2019

Firmware Dependencies:

None

Enhancements/New Features:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Problems Fixed:

Addressed an extremely rare issue where a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 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 a system booting to VMware may experience a PSOD in legacy boot mode. This issue does not impact systems in UEFI boot mode or other operating systems.

Known Issues:

None

Enhancements

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the v2.70 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

ROM Flash Firmware Package - HPE Apollo 2000 Gen10/HPE ProLiant XL170r/XL190r Gen10 (U38) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: U38_2.10_05_21_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.08_05-23-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Known Issues:

None

ROM Flash Firmware Package - HPE Apollo 4200 Gen10/HPE ProLiant XL420 Gen10 (U39) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: U39_2.10_05_21_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

ROM Flash Firmware Package - HPE Apollo 4510 Gen10/HPE ProLiant XL450 Gen10 (U40) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: U40_2.10_05_21_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

ROM Flash Firmware Package - HPE Apollo 6500 Gen10/HPE ProLiant XL270d Gen10 (U45) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: U45_2.10_05_21_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to

support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

ROM Flash Firmware Package - HPE ProLiant BL460c Gen10 (I41) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: I41_2.10_05_21_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant BL460c Gen10 System ROM - I41

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

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Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

ROM Flash Firmware Package - HPE ProLiant DL160 Gen10/DL180 Gen10 (U31) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: U31_2.10_05_21_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL160 Gen10/DL180 Gen10 System ROM - U31

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

ROM Flash Firmware Package - HPE ProLiant DL20 Gen10 (U43) Servers
Version: 1.22_04-04-2019 **(Critical)**
Filename: U43_1.22_04_04_2019.fwpkg

Important Note!

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Deliverable Name:

HPE ProLiant DL20 Gen10 System ROM - U43

Release Version:

1.22_04-04-2019

Last Recommended or Critical Revision:

1.22_04-04-2019

Previous Revision:

1.20_02-02-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Fixes

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant DL325 Gen10 (A41) Servers
Version: 1.46_07-10-2019 **(Recommended)**
Filename: A41_1.46_07_10_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL325 Gen10 System ROM - A41

Release Version:

1.46_07-10-2019

Last Recommended or Critical Revision:

1.46_07-10-2019

Previous Revision:

1.44_06-24-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue with rare occurrences of unpredictable system behavior. This issue is NOT unique to HPE servers and would impact any systems using AMD EPYC 7001 Series processors that do not contain latest AMD microcode. Note: this does not address any security vulnerability mitigations.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue with rare occurrences of unpredictable system behavior. This issue is NOT unique to HPE servers and would impact any systems using AMD EPYC 7001 Series processors that do not contain latest AMD microcode. Note: this does not address any security vulnerability mitigations.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant DL360 Gen10 (U32) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: U32_2.10_05_21_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL360 Gen10 System ROM - U32

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

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Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

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Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

ROM Flash Firmware Package - HPE ProLiant DL380 Gen10 (U30) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: U30_2.10_05_21_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL380 Gen10 System ROM - U30

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

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Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

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Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

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Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Version: 1.46_07-10-2019 **(Recommended)**
Filename: A40_1.46_07_10_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL385 Gen10 System ROM - A40

Release Version:

1.46_07-10-2019

Last Recommended or Critical Revision:

1.46_07-10-2019

Previous Revision:

1.44_06-24-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue with rare occurrences of unpredictable system behavior. This issue is NOT unique to HPE servers and would impact any systems using AMD EPYC 7001 Series processors that do not contain latest AMD microcode. Note: this does not address any security vulnerability mitigations.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue with rare occurrences of unpredictable system behavior. This issue is NOT unique to HPE servers and would impact any systems using AMD EPYC 7001 Series processors that do not contain latest AMD microcode. Note: this does not address any security vulnerability mitigations.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant DL560 Gen10/DL580 Gen10 (U34) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: U34_2.10_05_21_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL560 Gen10/DL580 Gen10 System ROM - U34

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the

Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where a system configured with 3 processors may not complete POST. This issue was introduced with the version 2.00 System ROM and did not previously occur. This issue is not unique to HPE servers.

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where a system configured with 3 processors may not complete POST. This issue was introduced with the version 2.00 System ROM and did not previously occur. This issue is not unique to HPE servers.

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

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Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

ROM Flash Firmware Package - HPE ProLiant ML110 Gen10 (U33) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: U33_2.10_05_21_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML110 Gen10 System ROM - U33

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority

cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

ROM Flash Firmware Package - HPE ProLiant ML30 Gen10 (U44) Servers
Version: 1.22_04-04-2019 **(Critical)**
Filename: U44_1.22_04_04_2019.fwpkg

Important Note!

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Deliverable Name:

HPE ProLiant ML30 Gen10 System ROM - U44

Release Version:

1.22_04-04-2019

Last Recommended or Critical Revision:

1.22_04-04-2019

Previous Revision:

1.20_02-02-2019

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

Fixes

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Firmware Dependencies:

None

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities: CVE-2018-12126 – Microarchitectural Store Buffer Data Sampling, CVE-2018-12130 – Microarchitectural Fill Buffer Data Sampling, CVE-2018-12127 – Microarchitectural Load Port Data Sampling, and CVE-2019-11091 – Microarchitectural Data Sampling Uncacheable Memory. These issues are not unique to HPE servers.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant ML350 Gen10 (U41) Servers
Version: 2.10_05-21-2019 **(Optional)**
Filename: U41_2.10_05_21_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant ML350 Gen10 System ROM - U41

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the

Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

ROM Flash Firmware Package - HPE ProLiant XL230k Gen10 (U37) Server
Version: 2.10_05-21-2019 **(Optional)**
Filename: U37_2.10_05_21_2019.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant XL230k Gen10 System ROM - U37

Release Version:

2.10_05-21-2019

Last Recommended or Critical Revision:

2.04_04-18-2019

Previous Revision:

2.04_04-18-2019

Firmware Dependencies:

None

Enhancements/New Features:

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the Server Backup and Restore functionality may not work properly if initiated through the HPE RESTful API returning a message "An internal error occurred during RIS operation".

Addressed an issue where configuring memory to run at 2x refresh rate would still actually operate memory at 1x refresh rate. This issue was introduced with the v2.00 System ROM and did not impact earlier versions of the System ROM. This issue is not unique to HPE servers.

Addressed an issue where the NVMe PCIe Resource Padding option in BIOS/Platform Configuration (RBSU) would not properly allocated sufficient resources to support a NVMe hot add event. In certain configurations, an insufficient amount of resources would have been reserved and a reboot would have been required to detect the presence of the newly added drive.

Addressed an issue where the system would not boot to a USB drive when a non-bootable (non-formatted) drive was also present in the system. This issue only impacts systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a new BIOS/Platform Configuration (RBSU) option called Intel Priority Based Frequency to support enabling Intel Speed Select - Base Frequency support on select 2nd Generation Xeon Scalable Family Processors that are optimized for NFV workloads. This option, which is disabled by default, is located in the Processor Options menu and visible only when NFV optimized SKUs are installed (denoted by the N in the SKU model). On supported Operating Systems, Intel Speed Select - Based Frequency functionality allows high priority cores to operate at a higher frequency than the nominal base frequency while lower priority cores will run at a slower frequency.

Added a new BIOS/Platform Configuration (RBSU) I/O Direct Cache (IODC) menu to the Power and Performance Menu. This option allows for tuning the policy for which I/O transactions interact with the processor cache. The caching policy may have a slight impact on cross socket latency. Workloads where this option would need to be modified from its default value for optimum performance are extremely rare.

Added support for HPE Fast Fault Tolerant Memory (ADDDC) to operate when a single memory rank is only available on a given memory channel. Previous versions of the System ROM required two or more memory ranks to be available on each memory channel. After updating to this version of the System ROM the server will automatically configure the system for HPE Fast Fault Tolerant Memory Mode if the memory configuration supports this option.

Updated the UEFI OpenSSL support to version 1.0.2r to address security vulnerability CVE-2019-1559.

Driver - Chipset Top

Identifiers for AMD EPYC Processors for Windows
Version: 3.0.0.0 **(Optional)**
Filename: cp038840.compsig; cp038840.exe

Enhancements

Add support for AMD EPYC 7002 Generation Processors.

Identifiers for Intel Xeon E-21xx Processor for Windows Server 2016 and Server 2019
Version: 10.1.17861.8101 **(Optional)**
Filename: cp037924.compsig; cp037924.exe

Enhancements

Add support for Windows Server 2019.

Identifiers for Intel Xeon Processor Scalable Family for Windows Server 2012 R2 to Server 2019
Version: 10.1.17861.8101 (B) **(Optional)**
Filename: cp038754.compsig; cp038754.exe

Enhancements

Updated to support deployment on HPE Superdome Flex through Smart Update Manager.

Driver - Network Top

HPE Broadcom NetXtreme-E Driver for VMware vSphere 6.0
Version: 2018.09.00 **(Optional)**
Filename: cp035284.compsig; cp035284.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 Broadcom NetXtreme-E Online Firmware Upgrade Utility for VMware*, version 5.5.0 or later, for use with this driver.

Enhancements

This product now supports Gen10 servers.

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 Broadcom NetXtreme-E Driver for Windows Server 2012 R2
Version: 214.0.177.0 **(Optional)**
Filename: cp035576.compsig; cp035576.exe

Important Note!

HPE recommends the firmware provided in *HPE Broadcom NetXtreme-E Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Fixes

This driver corrects an issue where RSSv2 table updates are lost.
This driver corrects an issue where ping fails when using non-zero VLANs.
The driver corrects an issue where RDMA connections between virtual function and physical functions fail if VLAN is configured.
This driver corrects a Windows Stop Error (BSOD) seen when RSS indirection table entries are changed.

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 Broadcom NetXtreme-E Driver for Windows Server 2016
Version: 214.0.177.0 **(Optional)**
Filename: cp035577.compsig; cp035577.exe

Important Note!

HPE recommends the firmware provided in *HPE Broadcom NetXtreme-E Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Fixes

This driver corrects an issue where RSSv2 table updates are lost.
This driver corrects an issue where ping fails when using non-zero VLANs.
The driver corrects an issue where RDMA connections between virtual function and physical functions fail if VLAN is configured.
This driver corrects a Windows Stop Error (BSOD) seen when RSS indirection table entries are changed.

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 Broadcom NetXtreme-E Driver for Windows Server 2019
Version: 214.0.177.0 **(Optional)**
Filename: cp037790.compsig; cp037790.exe

Important Note!

HPE recommends the firmware provided in *HPE Broadcom NetXtreme-E Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Enhancements

Initial release.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 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 Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 6
Version: 1.9.2-214.0.182.0 **(Optional)**
Filename: kmod-bnxt_en-1.9.2-214.0.182.0.rhel6u10.x86_64.compsig; kmod-bnxt_en-1.9.2-214.0.182.0.rhel6u10.x86_64.rpm; kmod-bnxt_en-1.9.2-214.0.182.0.rhel6u9.x86_64.compsig; kmod-bnxt_en-1.9.2-214.0.182.0.rhel6u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Broadcom NetXtreme-E Online Firmware Upgrade Utility for Linux x86_64*, version 1.5.8 or later, for use with

these drivers.

Fixes

This product is updated to maintain compatibility with firmware version 1.5.x.

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 Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 7
Version: 1.9.2-214.0.182.0 **(Optional)**
Filename: kmod-bnxt_en-1.9.2-214.0.182.0.rhel7u5.x86_64.compsig; kmod-bnxt_en-1.9.2-214.0.182.0.rhel7u5.x86_64.rpm; kmod-bnxt_en-1.9.2-214.0.182.0.rhel7u6.x86_64.compsig; kmod-bnxt_en-1.9.2-214.0.182.0.rhel7u6.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Broadcom NetXtreme-E Online Firmware Upgrade Utility for Linux x86_64*, version 1.5.8 or later, for use with these drivers.

Fixes

This product is updated to maintain compatibility with firmware version 1.5.x.

Enhancements

This product now supports Red Hat Enterprise Linux 7 Update 6.

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 Broadcom NetXtreme-E Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 1.9.2-214.0.182.0 **(Optional)**
Filename: bnxt_en-kmp-default-1.9.2_k4.12.14_94.41-214.0.182.0.sles12sp4.x86_64.compsig; bnxt_en-kmp-default-1.9.2_k4.12.14_94.41-214.0.182.0.sles12sp4.x86_64.rpm; bnxt_en-kmp-default-1.9.2_k4.4.73_5-214.0.182.0.sles12sp3.x86_64.compsig; bnxt_en-kmp-default-1.9.2_k4.4.73_5-214.0.182.0.sles12sp3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Broadcom NetXtreme-E Online Firmware Upgrade Utility for Linux x86_64*, version 1.5.8 or later, for use with these drivers.

Fixes

This product is updated to maintain compatibility with firmware version 1.5.x.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 SP4.

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 Broadcom NetXtreme-E Drivers for SUSE Linux Enterprise Server 15
Version: 1.9.2-214.0.182.0 **(Optional)**
Filename: bnxt_en-kmp-default-1.9.2_k4.12.14_23-214.0.182.0.sles15.x86_64.compsig; bnxt_en-kmp-default-1.9.2_k4.12.14_23-214.0.182.0.sles15.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Broadcom NetXtreme-E Online Firmware Upgrade Utility for Linux x86_64*, version 1.5.8 or later, for use with these drivers.

Fixes

This product is updated to maintain compatibility with firmware version 1.5.x.

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 Broadcom NetXtreme-E Drivers for VMware vSphere 6.5
Version: 2018.09.00 **(Optional)**
Filename: cp035285.compsig; cp035285.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 Broadcom NetXtreme-E Online Firmware Upgrade Utility for VMware*, version 5.5.0 or later, for use with this driver.

Enhancements

This product now supports Gen10 servers.

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 Broadcom NetXtreme-E Drivers for VMware vSphere 6.7
Version: 2018.11.13 **(Optional)**
Filename: cp035286.compsig; cp035286.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 Broadcom NetXtreme-E Online Firmware Upgrade Utility for VMware*, version 5.6.3 or later, for use with this driver.

Enhancements

This product now supports Gen10 servers.

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 Broadcom NetXtreme-E RoCE Library for Red Hat Enterprise Linux 6 Update 10
Version: 214.0.181.0 **(Optional)**
Filename: libbnxtre-214.0.181.0-rhel6u10.x86_64.compsig; libbnxtre-214.0.181.0-rhel6u10.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 6, version 1.9.2-214.0.182.0 or later, must be installed before installing this product.

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

Enhancements

This product is updated to maintain compatibility with driver version 1.9.2-214.0.182.0.

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 Broadcom NetXtreme-E RoCE Library for Red Hat Enterprise Linux 6 Update 9
Version: 214.0.181.0 **(Optional)**
Filename: libbnxtre-214.0.181.0-rhel6u9.x86_64.compsig; libbnxtre-214.0.181.0-rhel6u9.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 6, version 1.9.2-214.0.182.0 or later, must be installed before installing this product.

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

Enhancements

This product is updated to maintain compatibility with driver version 1.9.2-214.0.182.0.

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 Broadcom NetXtreme-E RoCE Library for Red Hat Enterprise Linux 7 Update 5
Version: 214.0.181.0 **(Optional)**
Filename: libbnxt_re-214.0.181.0-rhel7u5.x86_64.compsig; libbnxt_re-214.0.181.0-rhel7u5.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 7, version 1.9.2-214.0.182.0 or later, must be installed before installing this product.

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

Enhancements

This product is updated to maintain compatibility with driver version 1.9.2-214.0.182.0.

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 Broadcom NetXtreme-E RoCE Library for Red Hat Enterprise Linux 7 Update 6
Version: 214.0.181.0 **(Optional)**
Filename: libbnxt_re-214.0.181.0-rhel7u6.x86_64.compsig; libbnxt_re-214.0.181.0-rhel7u6.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for Red Hat Enterprise Linux 7, version 1.9.2-214.0.182.0 or later, must be installed before installing this product.

The libibverb package must be installed on the target system prior to the installation of the RoCE library. If not already present, the libibverb package 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 10/25Gb 2-port 631FLR-SFP28 Adapter
- HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter

HPE Broadcom NetXtreme-E RoCE Library for SUSE Linux Enterprise Server 12 SP3
Version: 214.0.181.0 **(Optional)**
Filename: libbnxt_re-214.0.181.0-sles12sp3.x86_64.compsig; libbnxt_re-214.0.181.0-sles12sp3.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for SUSE Linux Enterprise Server 12, version 1.9.2-214.0.182.0 or later, must be installed before installing this product.

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

Enhancements

This product is updated to maintain compatibility with driver version 1.9.2-214.0.182.0.

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 Broadcom NetXtreme-E RoCE Library for SUSE Linux Enterprise Server 12 SP4
Version: 214.0.181.0 **(Optional)**
Filename: libbnxt_re-214.0.181.0-sles12sp4.x86_64.compsig; libbnxt_re-214.0.181.0-sles12sp4.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for SUSE Linux Enterprise Server 12, version 1.9.2-214.0.182.0 or later, must be installed before installing this product.

The libibverb package must be installed on the target system prior to the installation of the RoCE library. If not already present, the libibverb package 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 10/25Gb 2-port 631FLR-SFP28 Adapter
- HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter

HPE Broadcom NetXtreme-E RoCE Library for SUSE Linux Enterprise Server 15
Version: 214.0.181.0 **(Optional)**
Filename: libbnxt_re-214.0.181.0-sles15.x86_64.compsig; libbnxt_re-214.0.181.0-sles15.x86_64.rpm; README

Prerequisites

HPE Broadcom NetXtreme-E Drivers for SUSE Linux Enterprise Server 15, version 1.9.2-214.0.182.0 or later, must be installed before installing this product.

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

Enhancements

This product is updated to maintain compatibility with driver version 1.9.2-214.0.182.0.

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 Broadcom NX1 1Gb Driver for Windows Server x64 Editions
Version: 214.0.0.0 (B) **(Optional)**
Filename: cp036186.compsig; cp036186.exe

Important Note!

HPE recommends the firmware provided in *HPE Broadcom NX1 Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Enhancements

This driver inf file is updated to sync with latest device support list.

Supported Devices and Features

This driver supports the following network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (22BD)

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

HPE Broadcom tg3 Ethernet Drivers for Red Hat Enterprise Linux 6 x86_64
Version: 3.137y-1 **(Optional)**
Filename: kmod-tg3-3.137y-1.rhel6u10.x86_64.compsig; kmod-tg3-3.137y-1.rhel6u10.x86_64.rpm; kmod-tg3-3.137y-1.rhel6u9.x86_64.compsig; kmod-tg3-3.137y-1.rhel6u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE NX1 Broadcom Online Firmware Upgrade Utility for Linux x86_64,* version 2.23.10 or later, for use with these drivers.

Fixes

This product fixes an issue of vunmap() BUG_ON() triggered from tg3_free_consistent().
This product now prevents scheduling while running atomic splat.

Supported Devices and Features

These drivers support the following network adapters:

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

HPE Broadcom tg3 Ethernet Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 3.137y-1 **(Optional)**
Filename: kmod-tg3-3.137y-1.rhel7u5.x86_64.compsig; kmod-tg3-3.137y-1.rhel7u5.x86_64.rpm; kmod-tg3-3.137y-1.rhel7u6.x86_64.compsig; kmod-tg3-3.137y-1.rhel7u6.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE NX1 Broadcom Online Firmware Upgrade Utility for Linux x86_64,* version 2.23.10 or later, for use with these drivers.

Fixes

This product fixes an issue of vunmap() BUG_ON() triggered from tg3_free_consistent().
This product now prevents scheduling while running atomic splat.

Enhancements

This product now supports Red Hat Enterprise Linux 7 Update 6.

Supported Devices and Features

These drivers support the following network adapters:

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

HPE Broadcom tg3 Ethernet Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 3.137y-2 **(Optional)**
Filename: README; tg3-kmp-default-3.137y_k4.12.14_94.41-2.sles12sp4.x86_64.compsig; tg3-kmp-default-3.137y_k4.12.14_94.41-2.sles12sp4.x86_64.rpm; tg3-kmp-default-3.137y_k4.4.73_5-2.sles12sp3.x86_64.compsig; tg3-kmp-default-3.137y_k4.4.73_5-2.sles12sp3.x86_64.rpm

Important Note!

HPE recommends the firmware provided in *HPE NX1 Broadcom Online Firmware Upgrade Utility for Linux x86_64,* version 2.23.10 or later, for use with these drivers.

Fixes

This product fixes an issue of vunmap() BUG_ON() triggered from tg3_free_consistent().
This product now prevents scheduling while running atomic splat.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 SP4.

Supported Devices and Features

These drivers support the following network adapters:

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

HPE Broadcom tg3 Ethernet Drivers for SUSE Linux Enterprise Server 15
Version: 3.137y-2 **(Optional)**
Filename: README; tg3-kmp-default-3.137y_k4.12.14_23-2.sles15.x86_64.compsig; tg3-kmp-default-3.137y_k4.12.14_23-2.sles15.x86_64.rpm

Important Note!

HPE recommends the firmware provided in *HPE NX1 Broadcom Online Firmware Upgrade Utility for Linux x86_64,* version 2.23.10 or later, for use with these drivers.

Fixes

This product fixes an issue of vunmap() BUG_ON() triggered from tg3_free_consistent().
This product now prevents scheduling while running atomic splat.

Supported Devices and Features

These drivers support the following network adapters:

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

HPE Broadcom tg3 Ethernet Drivers for VMware vSphere 6.0
Version: 2018.09.00 **(Optional)**
Filename: cp035307.compsig; cp035307.zip

Important Note!

HP recommends the firmware provided in *HPE Broadcom NX1 Online Firmware Upgrade Utility for VMware*, version 1.22.1, for use with this driver.

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.

Enhancements

This product now supports Gen10 servers.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter (2133)
- HP Ethernet 1Gb 2-port 332i Adapter (22E8)
- HP Ethernet 1Gb 2-port 332T Adapter

HPE Emulex 10/20 GbE Driver for VMware vSphere 6.5
Version: 2018.09.00 **(Optional)**
Filename: cp035290.compsig; cp035290.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 2018.09.01 or later, for use with this driver.

Enhancements

This product now supports Gen10 servers.

Supported Devices and Features

This driver supports the following network adapters:

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

- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HP Ethernet 10Gb 2-port 557SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20 GbE Driver for VMware vSphere 6.7
Version: 2018.11.13 **(Optional)**
Filename: cp035291.compsig; cp035291.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 2018.06.01 or later, for use with this driver.

Enhancements

This product now supports Gen10 servers.

Supported Devices and Features

This driver supports the following network adapters:

- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HP Ethernet 10Gb 2-port 557SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20 GbE Driver for Windows Server 2012
Version: 12.0.1195.0 **(Optional)**
Filename: cp037002.compsig; cp037002.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.

Fixes

This driver corrects an issue which results in low transfer rates with the HP FlexFabric 20Gb 2-port 650FLB Adapter.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20 GbE Driver for Windows Server 2012 R2
Version: 12.0.1195.0 **(Optional)**
Filename: cp037003.compsig; cp037003.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.

Fixes

This driver corrects an issue which results in low transfer rates with the HP FlexFabric 20Gb 2-port 650FLB Adapter.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20 GbE Driver for Windows Server 2016
Version: 12.0.1195.0 **(Optional)**

Filename: cp037004.compsig; cp037004.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.

Fixes

This driver corrects an issue which results in low transfer rates with the HP FlexFabric 20Gb 2-port 650FLB Adapter.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20 GbE Driver for Windows Server 2019
Version: 12.0.1195.0 **(Optional)**
Filename: cp037474.compsig; cp037474.exe

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Windows (x64),* version 2018.06.01 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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20 GbE iSCSI Driver for VMware vSphere 6.0
Version: 2018.09.00 **(Optional)**
Filename: cp035283.compsig; cp035283.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 6.0*, version 2018.09.01 or later, for use with this driver.

Enhancements

This product now supports Gen10 servers.

Supported Devices and Features

This driver supports the following network adapters:

- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20 GbE iSCSI Driver for Windows Server 2012
Version: 12.0.1171.0 **(Optional)**
Filename: cp037005.compsig; cp037005.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 is updated to maintain compatibility with firmware version 12.0.1216.x.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20 GbE iSCSI Driver for Windows Server 2012 R2
Version: 12.0.1171.0 **(Optional)**
Filename: cp037006.compsig; cp037006.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 is updated to maintain compatibility with firmware version 12.0.1216.x.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20 GbE iSCSI Driver for Windows Server 2016
Version: 12.0.1171.0 **(Optional)**
Filename: cp037007.compsig; cp037007.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 is updated to maintain compatibility with firmware version 12.0.1216.x.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20 GbE iSCSI Driver for Windows Server 2019
Version: 12.0.1171.0 **(Optional)**
Filename: cp037473.compsig; cp037473.exe

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Windows (x64),* version 2018.06.01 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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20GbE Drivers for Red Hat Enterprise Linux 6 x86_64
Version: 12.0.1216.1-1 **(Optional)**
Filename: kmod-be2net-12.0.1216.1-1.rhel6u10.x86_64.compsig; kmod-be2net-12.0.1216.1-1.rhel6u10.x86_64.rpm; kmod-be2net-12.0.1216.1-1.rhel6u9.x86_64.compsig; kmod-be2net-12.0.1216.1-1.rhel6u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2019.03.01 for use with these drivers.

Enhancements

This product is updated to maintain compatibility with firmware version 1.4.0.x.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20GbE Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 12.0.1216.1-1 **(Optional)**
Filename: kmod-be2net-12.0.1216.1-1.rhel7u5.x86_64.compsig; kmod-be2net-12.0.1216.1-1.rhel7u5.x86_64.rpm; kmod-be2net-12.0.1216.1-1.rhel7u6.x86_64.compsig; kmod-be2net-12.0.1216.1-1.rhel7u6.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2019.03.01 for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 7 Update 6.

This product is updated to maintain compatibility with firmware version 1.4.0.x.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20GbE Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 12.0.1216.1-1 **(Optional)**
Filename: be2net-kmp-default-12.0.1216.1_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; be2net-kmp-default-12.0.1216.1_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; be2net-kmp-default-12.0.1216.1_k4.4.103_6.38-1.sles12sp3MU5.x86_64.compsig; be2net-kmp-default-12.0.1216.1_k4.4.103_6.38-1.sles12sp3MU5.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2019.03.01 for use with these drivers.

Enhancements

This product is updated to maintain compatibility with firmware version 1.4.0.x.

This product now supports SUSE Linux Enterprise Server 12 SP4.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20GbE Drivers for SUSE Linux Enterprise Server 15
Version: 12.0.1216.1-1 **(Optional)**
Filename: be2net-kmp-default-12.0.1216.1_k4.12.14_23-1.sles15sp0.x86_64.compsig; be2net-kmp-default-12.0.1216.1_k4.12.14_23-1.sles15sp0.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2019.03.01 for use with these drivers.

Enhancements

This product is updated to maintain compatibility with firmware version 1.4.0.x.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20GbE Drivers for VMware vSphere 6.0
Version: 2018.09.00 **(Optional)**
Filename: cp035289.compsig; cp035289.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 6.0*, version 2018.09.01 or later, for use with this driver.

Enhancements

This product now supports Gen10 servers.

Supported Devices and Features

This driver supports the following network adapters:

- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HP Ethernet 10Gb 2-port 557SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20GbE iSCSI Driver for VMware vSphere 6.5
Version: 2018.09.00 **(Optional)**
Filename: cp035287.compsig; cp035287.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 2018.09.01 or later, for use with this driver.

Enhancements

This product now supports Gen10 servers.

Supported Devices and Features

This driver supports the following network adapters:

- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20GbE iSCSI Driver for VMware vSphere 6.7
Version: 2019.03.11 **(Optional)**
Filename: cp037803.compsig; cp037803.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.

Fixes

This product addresses an iscsi driver installation issue seen when upgrading from ESXi 6.5 to ESXi 6.7 due to both versions using the same library name.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20GbE iSCSI Drivers for Red Hat Enterprise Linux 6 x86_64
Version: 12.0.1216.1-1 **(Optional)**
Filename: kmod-be2iscsi-12.0.1216.1-1.rhel6u10.x86_64.compsig; kmod-be2iscsi-12.0.1216.1-1.rhel6u10.x86_64.rpm; kmod-be2iscsi-12.0.1216.1-1.rhel6u9.x86_64.compsig; kmod-be2iscsi-12.0.1216.1-1.rhel6u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2019.03.01 for use with these drivers.

Fixes

This product addresses a kernel crash (lpfc_hba_clean_txcmplq) observed during storage failover.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20GbE iSCSI Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 12.0.1216.1-1 **(Optional)**
Filename: kmod-be2iscsi-12.0.1216.1-1.rhel7u5.x86_64.compsig; kmod-be2iscsi-12.0.1216.1-1.rhel7u5.x86_64.rpm; kmod-be2iscsi-12.0.1216.1-1.rhel7u6.x86_64.compsig; kmod-be2iscsi-12.0.1216.1-1.rhel7u6.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2019.03.01 for use with these drivers.

Fixes

This product addresses a kernel crash (lpfc_hba_clean_txcmplq) observed during storage failover.

Enhancements

This product now supports Red Hat Enterprise Linux 7 Update 6.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20GbE iSCSI Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 12.0.1216.1-1 **(Optional)**
Filename: be2iscsi-kmp-default-12.0.1216.1_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; be2iscsi-kmp-default-12.0.1216.1_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; be2iscsi-kmp-default-12.0.1216.1_k4.4.103_6.38-1.sles12sp3MU5.x86_64.compsig; be2iscsi-kmp-default-12.0.1216.1_k4.4.103_6.38-1.sles12sp3MU5.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2019.03.01 for use with these drivers.

Fixes

This product addresses a kernel crash (lpfc_hba_clean_txcmplq) observed during storage failover.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 SP4.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20GbE iSCSI Drivers for SUSE Linux Enterprise Server 15
Version: 12.0.1216.1-1 **(Optional)**
Filename: be2iscsi-kmp-default-12.0.1216.1_k4.12.14_23-1.sles15sp0.x86_64.compsig; be2iscsi-kmp-default-12.0.1216.1_k4.12.14_23-1.sles15sp0.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters - Linux (x64)*, version 2019.03.01 for use with these drivers.

Fixes

This product addresses a kernel crash (lpfc_hba_clean_txcmplq) observed during storage failover.

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
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Intel E1R Driver for Windows Server 2012
Version: 12.14.8.0 **(Optional)**
Filename: cp028837.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.0.0.25 or later, for use with this driver.

Fixes

This driver addresses an issue that results in the failure of a Powershell command that contains an adapter name.

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 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 4-port 366T Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

HPE Intel E1R Driver for Windows Server 2012 R2
Version: 12.14.8.0 (B) **(Optional)**
Filename: cp037767.compsig; cp037767.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Enhancements

This product now supports Gen10 servers.

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 361FLB 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
- HP Ethernet 1Gb 4-port 366T Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

HPE Intel E1R Driver for Windows Server 2016
Version: 12.15.184.0 (C) **(Optional)**
Filename: cp037389.compsig; cp037389.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.3.0(B) or later, for use with this driver.

Enhancements

This product has been built with a new installer that prevents its installation on systems running Windows Server 2019.

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: 12.15.184.1 **(Optional)**
Filename: cp037757.compsig; cp037757.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Enhancements

Initial release.

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 6 x86_64
Version: 2.7.12-1 **(Optional)**
Filename: kmod-hp-i40e-2.7.12-1.rhel6u10.x86_64.compsig; kmod-hp-i40e-2.7.12-1.rhel6u10.x86_64.rpm; kmod-hp-i40e-2.7.12-1.rhel6u9.x86_64.compsig; kmod-hp-i40e-2.7.12-1.rhel6u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Fixes

This product fixes an issue with restoring all VF -d config on a VF reset.
This product fixes an issue with mirror rule via VF -d.
This product fixes an issue with VFD handler function prototypes.
This product fixes the issue of assuming hardware is at default settings.
This product fixes an issue of not re-initializing properly in the case of a CORE reset following a PF reset timeout.
This product fixes an issue where an unknown NMI is received and the kernel crashes when adding/removing a VF to namespace repeatedly.
This product fixes an issue where running 'ifconfig ethX mtu 2000' causes a physical link down and fails to auto-recover when 'ethtool --set-priv-flags eth2 link-down-on-close on' is set.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

This product now provides the allow_untagged VF -d attribute.
This product now has a helper function to validate a vf based on the vf id.
This product now has a macro for checking if prog_attached exists.
This product now provides client register/unregister to prevent vsi.

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 Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel i40e Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 2.7.12-1 **(Optional)**
Filename: kmod-hp-i40e-2.7.12-1.rhel7u5.x86_64.compsig; kmod-hp-i40e-2.7.12-1.rhel7u5.x86_64.rpm; kmod-hp-i40e-2.7.12-1.rhel7u6.x86_64.compsig; kmod-hp-i40e-2.7.12-1.rhel7u6.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Fixes

This product fixes an issue with restoring all VF -d config on a VF reset.
This product fixes an issue with mirror rule via VF -d.
This product fixes an issue with VFD handler function prototypes.
This product fixes the issue of assuming hardware is at default settings.
This product fixes an issue of not re-initializing properly in the case of a CORE reset following a PF reset timeout.
This product fixes an issue where an unknown NMI is received and the kernel crashes when adding/removing a VF to namespace repeatedly.
This product fixes an issue where running 'ifconfig ethX mtu 2000' causes a physical link down and fails to auto-recover when 'ethtool --set-priv-flags eth2 link-down-on-close on' is set.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

This product now supports Red Hat Enterprise Linux 7 Update 6.

This product now provides the allow_untagged VF -d attribute.
This product now has a helper function to validate a vf based on the vf id.
This product now has a macro for checking if prog_attached exists.
This product now provides client register/unregister to prevent vsi.

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 Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel i40e Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 2.7.12-1 (B) **(Optional)**
Filename: hp-i40e-kmp-default-2.7.12_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; hp-i40e-kmp-default-2.7.12_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; hp-i40e-kmp-default-2.7.12_k4.4.73_5-1.sles12sp3.x86_64.compsig; hp-i40e-kmp-default-2.7.12_k4.4.73_5-1.sles12sp3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Fixes

This product fixes an issue with restoring all VF -d config on a VF reset.
This product fixes an issue with mirror rule via VF -d.
This product fixes an issue with VFD handler function prototypes.
This product fixes the issue of assuming hardware is at default settings.
This product fixes an issue of not re-initializing properly in the case of a CORE reset following a PF reset timeout.
This product fixes an issue where an unknown NMI is received and the kernel crashes when adding/removing a VF to namespace repeatedly.
This product fixes an issue where running 'ifconfig ethX mtu 2000' causes a physical link down and fails to auto-recover when 'ethtool --set-priv-flags eth2 link-down-on-close on' is set.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

This product now supports SUSE Linux Enterprise Server 12 SP4.

This product now provides the allow_untagged VF -d attribute.
This product now has a helper function to validate a vf based on the vf id.
This product now has a macro for checking if prog_attached exists.
This product now provides client register/unregister to prevent vsi.

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 Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel i40e Drivers for SUSE Linux Enterprise Server 15
Version: 2.7.12-1 (B) **(Optional)**
Filename: hp-i40e-kmp-default-2.7.12_k4.12.14_23-1.sles15sp0.x86_64.compsig; hp-i40e-kmp-default-2.7.12_k4.12.14_23-1.sles15sp0.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Fixes

This product fixes an issue with restoring all VF -d config on a VF reset.
This product fixes an issue with mirror rule via VF -d.
This product fixes an issue with VFD handler function prototypes.
This product fixes the issue of assuming hardware is at default settings.
This product fixes an issue of not re-initializing properly in the case of a CORE reset following a PF reset timeout.
This product fixes an issue where an unknown NMI is received and the kernel crashes when adding/removing a VF to namespace repeatedly.
This product fixes an issue where running 'ifconfig ethX mtu 2000' causes a physical link down and fails to auto-recover when 'ethtool --set-priv-flags eth2 link-down-on-close on' is set.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

This product now provides the allow_untagged VF -d attribute.
This product now has a helper function to validate a vf based on the vf id.
This product now has a macro for checking if prog_attached exists.
This product now provides client register/unregister to prevent vsi.

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 Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel i40ea Driver for Windows Server 2012
Version: 1.9.221.0 **(Optional)**
Filename: cp036336.compsig; cp036336.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Fixes

This product corrects an issue which prevents recovery of RDMA connections.
This product corrects a Windows Stop Error (BSOD) seen when RSS and the driver verifier are both enabled.
This product corrects an issue which results in a failure to correctly set up ROCEv2 connections.
This product corrects an issue which results in a BSOD in systems with more than 256 cores.

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 2012 R2
Version: 1.9.221.0 **(Optional)**

Filename: cp036337.compsig; cp036337.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Fixes

This product corrects an issue which prevents recovery of RDMA connections.
This product corrects a Windows Stop Error (BSOD) seen when RSS and the driver verifier are both enabled.
This product corrects an issue which results in a failure to correctly set up ROCEv2 connections.
This product corrects an issue which results in a BSOD in systems with more than 256 cores.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

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 Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel i40ea Driver for Windows Server 2016
Version: 1.9.221.0 **(Critical)**
Filename: cp036338.compsig; cp036338.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Fixes

This product corrects an issue which prevents recovery of RDMA connections.

This product corrects a Windows Stop Error (BSOD) seen when RSS and the driver verifier are both enabled.

This product corrects an issue which results in a failure to correctly set up ROCEv2 connections.

This product corrects an issue which results in a BSOD in systems with more than 256 cores.

This product addresses an issue where the HPE Intel i40ea Driver for Windows Server 2016, versions 1.8.83.0 or 1.8.94.0, causes NTFS file corruption to iSCSI mounted volumes when jumbo frames are enabled on systems containing the HPE Intel Ethernet 10Gb 562SFP+ Adapter. For more information see the Customer Advisory at https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00074697en_us.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

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 Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel i40ea Driver for Windows Server 2019
Version: 1.9.230.0 **(Optional)**
Filename: cp037752.compsig; cp037752.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Enhancements

Initial release.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 562SFP+ Adapter
- HPE Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel i40eb Driver for Windows Server 2012 R2
Version: 1.9.221.0 **(Optional)**
Filename: cp036339.compsig; cp036339.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Fixes

This product corrects an issue which prevents recovery of RDMA connections.
This product corrects a Windows Stop Error (BSOD) seen when RSS and the driver verifier are both enabled.
This product corrects an issue which results in a failure to correctly set up ROCEv2 connections.
This product corrects an issue which results in a BSOD in systems with more than 256 cores.
This prodcut corrects an issue which results in connectivity loss if the device was only allocated 1 interrupt.
This product corrects an issue which results in a BSOD during shutdown if the device was only allocated 1 interrupt.
This product corrects an issue which results in a BSOD during RDMA traffic when the system has high memory utilization.

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: 1.9.221.0 **(Optional)**
Filename: cp036340.compsig; cp036340.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Fixes

This product corrects an issue which prevents recovery of RDMA connections.
This product corrects a Windows Stop Error (BSOD) seen when RSS and the driver verifier are both enabled.
This product corrects an issue which results in a failure to correctly set up ROCEv2 connections.
This product corrects an issue which results in a BSOD in systems with more than 256 cores.
This prodcut corrects an issue which results in connectivity loss if the device was only allocated 1 interrupt.
This product corrects an issue which results in a BSOD during shutdown if the device was only allocated 1 interrupt.
This product corrects an issue which results in a BSOD during RDMA traffic when the system has high memory utilization.

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: 1.9.230.0 **(Optional)**
Filename: cp037753.compsig; cp037753.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Enhancements

Initial release.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 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 6.0
Version: 2019.03.11 **(Optional)**
Filename: cp037484.compsig; cp037484.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 3.10.16 or later, for use with this driver.

Fixes

This product address an issue with handling Malicious Driver Detection (MDD) events.
This product fixes an issue where SR-IOV cannot be enabled via Web Client when the driver fails to load all PFs.

Enhancements

This product now provides support for VLAN Tag Stripping Conrol for VF drivers.

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 6.5
Version: 2019.03.11 **(Optional)**
Filename: cp036872.compsig; cp036872.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 3.10.16 or later, for use with this driver.

Fixes

This product address an issue with handling Malicious Driver Detection (MDD) events.
This product fixes an issue where SR-IOV cannot be enabled via Web Client when the driver fails to load all PFs.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

This product now provides support for VLAN Tag Stripping Conrol for VF drivers.

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 Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel i40en Driver for VMware vSphere 6.7
Version: 2019.03.11 **(Optional)**
Filename: cp036700.compsig; cp036700.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 3.10.16 or later, for use with this driver.

Fixes

This product address an issue with handling Malicious Driver Detection (MDD) events.
This product fixes an issue where SR-IOV cannot be enabled via Web Client when the driver fails to load all PFs.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

This product now provides support for VLAN Tag Stripping Conrol for VF drivers.

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 Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel i40evf Drivers for Red Hat Enterprise Linux 6 x86_64
Version: 3.6.15-1 **(Optional)**
Filename: kmod-hp-i40evf-3.6.15-1.rhel6u10.x86_64.compsig; kmod-hp-i40evf-3.6.15-1.rhel6u10.x86_64.rpm; kmod-hp-i40evf-3.6.15-1.rhel6u9.x86_64.compsig; kmod-hp-i40evf-3.6.15-1.rhel6u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Fixes

This product addresses a version number bump issue.
This product addresses an issue where the i40e handler of VIRTCHNL_OP_ENABLE_QUEUES does not use rx_queues/tx_queues correctly.
This product addresses an issue where there is no Ethtool Stats Counter for rx_packets or tx_packets available.
This product addresses an issue where the Flow Director ATR doesn't switch properly when a side band SCTP rule is created.
This product addresses an issue where the VF port vlan is set with a wrong qos value and the CFI bit is incorrecty set.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

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 Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel i40evf Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 3.6.15-1 **(Optional)**
Filename: kmod-hp-i40evf-3.6.15-1.rhel7u5.x86_64.compsig; kmod-hp-i40evf-3.6.15-1.rhel7u5.x86_64.rpm; kmod-hp-i40evf-3.6.15-1.rhel7u6.x86_64.compsig; kmod-hp-i40evf-3.6.15-1.rhel7u6.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Fixes

This product addresses a version number bump issue.
This product addresses an issue where the i40e handler of VIRTCHNL_OP_ENABLE_QUEUES does not use rx_queues/tx_queues correctly.
This product addresses an issue where there is no Ethtool Stats Counter for rx_packets or tx_packets available.
This product addresses an issue where the Flow Director ATR doesn't switch properly when a side band SCTP rule is created.
This product addresses an issue where the VF port vlan is set with a wrong qos value and the CFI bit is incorrecty set.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

This product now supports Red Hat Linux 7 Update 6.

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 Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel i40evf Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 3.6.15-1 (B) **(Optional)**
Filename: hp-i40evf-kmp-default-3.6.15_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; hp-i40evf-kmp-default-3.6.15_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; hp-i40evf-kmp-default-3.6.15_k4.4.73_5-1.sles12sp3.x86_64.compsig; hp-i40evf-kmp-default-3.6.15_k4.4.73_5-1.sles12sp3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Fixes

This product addresses a version number bump issue.
This product addresses an issue where the i40e handler of VIRTCHNL_OP_ENABLE_QUEUES does not use rx_queues/tx_queues correctly.
This product addresses an issue where there is no Ethtool Stats Counter for rx_packets or tx_packets available.
This product addresses an issue where the Flow Director ATR doesn't switch properly when a side band SCTP rule is created.
This product addresses an issue where the VF port vlan is set with a wrong qos value and the CFI bit is incorrecty set.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

This product now supports SUSE Linux Enterprise Server 12 SP4.

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 Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel i40evf Drivers for SUSE Linux Enterprise Server 15
Version: 3.6.15-1 (B) **(Optional)**
Filename: hp-i40evf-kmp-default-3.6.15_k4.12.14_23-1.sles15sp0.x86_64.compsig; hp-i40evf-kmp-default-3.6.15_k4.12.14_23-1.sles15sp0.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Fixes

This product addresses a version number bump issue.
This product addresses an issue where the i40e handler of VIRTCHNL_OP_ENABLE_QUEUES does not use rx_queues/tx_queues correctly.
This product addresses an issue where there is no Ethtool Stats Counter for rx_packets or tx_packets available.
This product addresses an issue where the Flow Director ATR doesn't switch properly when a side band SCTP rule is created.
This product addresses an issue where the VF port vlan is set with a wrong qos value and the CFI bit is incorrecty set.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

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 Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel igb Drivers for Red Hat Enterprise Linux 6 x86_64

Version: 5.3.5.22-1 **(Optional)**
Filename: kmod-hp-igb-5.3.5.22-1.rhel6u10.x86_64.compsig; kmod-hp-igb-5.3.5.22-1.rhel6u10.x86_64.rpm; kmod-hp-igb-5.3.5.22-1.rhel6u9.x86_64.compsig; kmod-hp-igb-5.3.5.22-1.rhel6u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Fixes

This product addresses a driver crash with ethtool command.
This product fixes an issue with Klocwork hits.

Supported Devices and Features

These drivers support the following Intel 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 366FLR Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HP Ethernet 1Gb 4-port 366T Adapter

HPE Intel igb Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 5.3.5.22-1 **(Optional)**
Filename: kmod-hp-igb-5.3.5.22-1.rhel7u5.x86_64.compsig; kmod-hp-igb-5.3.5.22-1.rhel7u5.x86_64.rpm; kmod-hp-igb-5.3.5.22-1.rhel7u6.x86_64.compsig; kmod-hp-igb-5.3.5.22-1.rhel7u6.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Fixes

This product addresses a driver crash with ethtool command.
This product fixes an issue with Klocwork hits.

Enhancements

This product now supports Red Hat Enterprise Linux 7 Update 6.

Supported Devices and Features

These drivers support the following Intel 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 366FLR Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HP Ethernet 1Gb 4-port 366T Adapter

HPE Intel igb Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 5.3.5.22-1 (B) **(Optional)**
Filename: hp-igb-kmp-default-5.3.5.22_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; hp-igb-kmp-default-5.3.5.22_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; hp-igb-kmp-default-5.3.5.22_k4.4.73_5-1.sles12sp3.x86_64.compsig; hp-igb-kmp-default-5.3.5.22_k4.4.73_5-1.sles12sp3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Fixes

This product addresses a driver crash with ethtool command.
This product fixes an issue with Klocwork hits.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 SP4.

Supported Devices and Features

These drivers support the following Intel 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 366FLR Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HP Ethernet 1Gb 4-port 366T Adapter

HPE Intel igb Drivers for SUSE Linux Enterprise Server 15
Version: 5.3.5.22-1 (B) **(Optional)**
Filename: hp-igb-kmp-default-5.3.5.22_k4.12.14_23-1.sles15sp0.x86_64.compsig; hp-igb-kmp-default-5.3.5.22_k4.12.14_23-1.sles15sp0.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Fixes

This product addresses a driver crash with ethtool command.
This product fixes an issue with Klocwork hits.

Supported Devices and Features

These drivers support the following Intel 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 366FLR Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HP Ethernet 1Gb 4-port 366T Adapter

HPE Intel igbn Driver for VMware vSphere 6.0
Version: 2019.03.11 **(Optional)**
Filename: cp038023.compsig; cp038023.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 3.10.16 or later, for use with this driver.

Fixes

This product addresses a driver status reporting issue which results in 3rd party management tools not detecting the driver being loaded.

This product now correctly loads on the 16th port when 16 igbn device ports are present.

Enhancements

This product adds support for receive/transmit hang detection and recovery procedures.

Supported Devices and Features

These drivers support the following 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 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HP Ethernet 1Gb 4-port 366T Adapter

HPE Intel igbn Driver for VMware vSphere 6.5
Version: 2019.03.11 **(Optional)**
Filename: cp038024.compsig; cp038024.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 3.10.16 or later, for use with this driver.

Fixes

This product addresses a driver status reporting issue which results in 3rd party management tools not detecting the driver being loaded.

This product now correctly loads on the 16th port when 16 igbn device ports are present.

Enhancements

This product adds support for receive/transmit hang detection and recovery procedures.

Supported Devices and Features

These drivers support the following 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 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HP Ethernet 1Gb 4-port 366T Adapter

HPE Intel igbn Driver for VMware vSphere 6.7
Version: 2019.03.11 **(Optional)**
Filename: cp038025.compsig; cp038025.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 3.10.16 or later, for use with this driver.

Fixes

This product addresses a driver status reporting issue which results in 3rd party management tools not detecting the driver being loaded.

This product now correctly loads on the 16th port when 16 igbn device ports are present.

Enhancements

This product adds support for receive/transmit hang detection and recovery procedures.

Supported Devices and Features

These drivers support the following 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 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HP Ethernet 1Gb 4-port 366T Adapter

HPE Intel ixgbe Drivers for Red Hat Enterprise Linux 6 x86_64
Version: 5.5.2-1 **(Optional)**
Filename: kmod-hp-ixgbe-5.5.2-1.rhel6u10.x86_64.compsig; kmod-hp-ixgbe-5.5.2-1.rhel6u10.x86_64.rpm; kmod-hp-ixgbe-5.5.2-1.rhel6u9.x86_64.compsig; kmod-hp-ixgbe-5.5.2-1.rhel6u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Enhancements

This product is updated to maintain compatibility with firmware version 1.17.x.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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 ixgbe Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 5.5.2-1 **(Optional)**
Filename: kmod-hp-ixgbe-5.5.2-1.rhel7u5.x86_64.compsig; kmod-hp-ixgbe-5.5.2-1.rhel7u5.x86_64.rpm; kmod-hp-ixgbe-5.5.2-1.rhel7u6.x86_64.compsig; kmod-hp-ixgbe-5.5.2-1.rhel7u6.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 7 Update 6.

This product is updated to maintain compatibility with firmware version 1.17.x.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter

- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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 ixgbe Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 5.5.2-1 (B) **(Optional)**
Filename: hp-ixgbe-kmp-default-5.5.2_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; hp-ixgbe-kmp-default-5.5.2_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; hp-ixgbe-kmp-default-5.5.2_k4.4.73_5-1.sles12sp3.x86_64.compsig; hp-ixgbe-kmp-default-5.5.2_k4.4.73_5-1.sles12sp3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 SP4.

This product is updated to maintain compatibility with firmware version 1.17.x.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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 ixgbe Drivers for SUSE Linux Enterprise Server 15
Version: 5.5.2-1 (B) **(Optional)**
Filename: hp-ixgbe-kmp-default-5.5.2_k4.12.14_23-1.sles15sp0.x86_64.compsig; hp-ixgbe-kmp-default-5.5.2_k4.12.14_23-1.sles15sp0.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Enhancements

This product is updated to maintain compatibility with firmware version 1.17.x.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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 6.0
Version: 2019.03.11 **(Optional)**
Filename: cp037707.compsig; cp037707.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 3.10.16 or later, for use with this driver.

Fixes

This product corrects a problem where excessive logging of an issue “(unsupported) Device 10fb does not support flow control autoneg” crashes the vCenter.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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 6.5
Version: 2019.03.11 **(Optional)**
Filename: cp037708.compsig; cp037708.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 3.10.16 or later, for use with this driver.

Fixes

This product corrects a problem where excessive logging of an issue "(unsupported) Device 10fb does not support flow control autoneg" crashes the vCenter.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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: 2019.03.11 **(Optional)**
Filename: cp037709.compsig; cp037709.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 3.10.16 or later, for use with this driver.

Fixes

This product corrects a problem where excessive logging of an issue "(unsupported) Device 10fb does not support flow control autoneg" crashes the vCenter.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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 6 x86_64
Version: 4.5.1-1 **(Optional)**
Filename: kmod-hp-ixgbevf-4.5.1-1.rhel6u10.x86_64.compsig; kmod-hp-ixgbevf-4.5.1-1.rhel6u10.x86_64.rpm; kmod-hp-ixgbevf-4.5.1-1.rhel6u9.x86_64.compsig; kmod-hp-ixgbevf-4.5.1-1.rhel6u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Enhancements

This product is updated to maintain compatibility with firmware version 1.17.x.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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: 4.5.1-1 **(Optional)**
Filename: kmod-hp-ixgbevf-4.5.1-1.rhel7u5.x86_64.compsig; kmod-hp-ixgbevf-4.5.1-1.rhel7u5.x86_64.rpm; kmod-hp-ixgbevf-4.5.1-1.rhel7u6.x86_64.compsig; kmod-hp-ixgbevf-4.5.1-1.rhel7u6.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 7 Update 6.

This product is updated to maintain compatibility with firmware version 1.17.x.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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 SUSE Linux Enterprise Server 12 x86_64
Version: 4.5.1-1 (B) **(Optional)**
Filename: hp-ixgbevf-kmp-default-4.5.1_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; hp-ixgbevf-kmp-default-4.5.1_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; hp-ixgbevf-kmp-default-4.5.1_k4.4.73_5-1.sles12sp3.x86_64.compsig; hp-ixgbevf-kmp-default-4.5.1_k4.4.73_5-1.sles12sp3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 SP4.

This product is updated to maintain compatibility with firmware version 1.17.x.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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 SUSE Linux Enterprise Server 15
Version: 4.5.1-1 (B) **(Optional)**
Filename: hp-ixgbevf-kmp-default-4.5.1_k4.12.14_23-1.sles15sp0.x86_64.compsig; hp-ixgbevf-kmp-default-4.5.1_k4.12.14_23-1.sles15sp0.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.17.17 or later, for use with these drivers.

Enhancements

This product is updated to maintain compatibility with firmware version 1.17.x.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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 ixn Driver for Windows Server 2012
Version: 3.14.78.0 **(Optional)**
Filename: cp033707.compsig; cp033707.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.2.2 or later, for use with this driver.

Fixes

This driver corrects an issue which results in a link flap with the 1G passthru module.

Supported Devices and Features

This component supports the following network adapters:

- HPE Ethernet 10Gb 2-port 560FLB Adapter
- HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560M Adapter

HPE Intel ixn Driver for Windows Server 2012 R2
Version: 3.14.132.0 **(Optional)**
Filename: cp037915.compsig; cp037915.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Fixes

This driver corrects an issue which results in incorrect counters when LSO is enabled.
This driver corrects an issue which results in spurious event log messages during firmware recovery.

Supported Devices and Features

This component supports the following network adapters:

- HPE Ethernet 10Gb 2-port 560FLB Adapter
- HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560M Adapter

HPE Intel ixn Driver for Windows Server 2016
Version: 4.1.131.0 **(Optional)**
Filename: cp037916.compsig; cp037916.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Fixes

This driver corrects an issue which results in incorrect counters when LSO is enabled.
This driver corrects an issue which results in spurious event log messages during firmware recovery.

Supported Devices and Features

This component supports the following network adapters:

- HPE Ethernet 10Gb 2-port 560FLB Adapter
- HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560M Adapter

HPE Intel ixn Driver for Windows Server 2019
Version: 4.1.143.0 **(Optional)**
Filename: cp037754.compsig; cp037754.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Enhancements

Initial release.

Supported Devices and Features

This component supports the following network adapters:

- HPE Ethernet 10Gb 2-port 560FLB Adapter
- HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560M Adapter

HPE Intel ixs Driver for Windows Server 2012 R2
Version: 3.14.132.0 **(Optional)**
Filename: cp037943.compsig; cp037943.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Fixes

This driver corrects an issue which results in incorrect counters when LSO is enabled.
This driver corrects an issue which results in spurious event log messages during firmware recovery.

Enhancements

The virtual driver for the supported devices has been moved into a separate component: *HPE Intel vxs Driver for Windows Server 2012 R2*.

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: 4.1.131.0 **(Optional)**
Filename: cp037945.compsig; cp037945.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Fixes

This driver corrects an issue which results in incorrect counters when LSO is enabled.
This driver corrects an issue which results in spurious event log messages during firmware recovery.

Enhancements

The virtual driver for the supported devices has been moved into a separate component: *HPE Intel vxs Driver for Windows Server 2016*.

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: 4.1.143.0 **(Optional)**
Filename: cp037755.compsig; cp037755.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Enhancements

Inital release.

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 ixt Driver for Windows Server 2012
Version: 3.14.78.0 **(Optional)**
Filename: cp033711.compsig; cp033711.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.2.2 or later, for use with this driver.

Fixes

This driver corrects an issue which results in a link flap with the 1G passthru module.

Supported Devices and Features

This component supports the following network adapters:

- HPE Ethernet 10Gb 2-port 561FLR-T Adapter
- HPE Ethernet 10Gb 2-port 561T Adapter

HPE Intel ixt Driver for Windows Server 2012 R2
Version: 3.14.78.0 **(Optional)**
Filename: cp033712.compsig; cp033712.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.2.2 or later, for use with this driver.

Fixes

This driver corrects an issue which results in a link flap with the 1G passthru module.

Supported Devices and Features

This component supports the following network adapters:

- HPE Ethernet 10Gb 2-port 561FLR-T Adapter
- HPE Ethernet 10Gb 2-port 561T Adapter

HPE Intel ixt Driver for Windows Server 2016
Version: 4.1.76.0 (B) **(Optional)**
Filename: cp037513.compsig; cp037513.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.3.0(B) or later, for use with this driver.

Enhancements

This product has been built with a new installer that prevents its installation on systems running Windows Server 2019.

Supported Devices and Features

This component supports the following network adapters:

- HPE Ethernet 10Gb 2-port 561FLR-T Adapter
- HPE Ethernet 10Gb 2-port 561T Adapter

HPE Intel v40e Driver for Windows Server 2012
Version: 1.5.86.1 **(Optional)**
Filename: cp036341.compsig; cp036341.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 1.9.221.0 or later.

Fixes

TBD

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

HPE Intel v40e Driver for Windows Server 2012 R2
Version: 1.5.86.2 **(Optional)**
Filename: cp036342.compsig; cp036342.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 1.9.221.0 or later.

Fixes

TBD

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
- HPE Synergy 4610C 10/25Gb Ethernet 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 v40e Driver for Windows Server 2016
Version: 1.5.86.2 **(Optional)**
Filename: cp036343.compsig; cp036343.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 1.9.221.0 or later.

Fixes

TBD

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
- HPE Synergy 4610C 10/25Gb Ethernet 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 v40e Driver for Windows Server 2019
Version: 1.6.215.0 **(Optional)**
Filename: cp037756.compsig; cp037756.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 1.9.230.0 or later.

Enhancements

Initial release.

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
- HPE Synergy 4610C 10/25Gb Ethernet 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 vxn Driver for Windows Server 2012
Version: 1.0.15.4 **(Optional)**
Filename: cp032567.compsig; cp032567.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.1.0 or later, for use with this driver.

Enhancements

Initial release.

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 560FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560M 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 2012 R2
Version: 1.0.16.1 **(Optional)**
Filename: cp032568.compsig; cp032568.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.1.0 or later, for use with this driver.

Enhancements

Initial release.

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 560FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560M 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: 2.0.210.0 (C) **(Optional)**
Filename: cp037390.compsig; cp037390.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.3.0(B) or later, for use with this driver.

Enhancements

This product has been built with a new installer that prevents its installation on systems running Windows Server 2019.

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 560FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560M 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: 2.1.138.0 **(Optional)**
Filename: cp037758.compsig; cp037758.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 4.1.143.0 or later.

Enhancements

Inital release.

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 560FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560M Adapter

HPE Intel vxs Driver for Windows Server 2012 R2
Version: 1.2.131.0 **(Optional)**
Filename: cp037942.compsig; cp037942.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 3.14.132.0 or later.

Fixes

This driver corrects an issue which results in incorrect counters when LSO is enabled.
This driver corrects an issue which results in spurious event log messages during firmware recovery.
This driver corrects an issue where the driver shows an incorrect link speed.
This driver corrects an issue where the MSIX mapping does not properly support 16 CPUs.

Enhancements

Initial release.

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: 2.1.133.0 **(Optional)**
Filename: cp037941.compsig; cp037941.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 4.1.131.0 or later.

Fixes

This driver corrects an issue which results in incorrect counters when LSO is enabled.
This driver corrects an issue which results in spurious event log messages during firmware recovery.
This driver corrects an issue where the driver shows an incorrect link speed.
This driver corrects an issue where the MSIX mapping does not properly support 16 CPUs.

Enhancements

Initial release.

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: 2.1.138.0 **(Optional)**
Filename: cp037944.compsig; cp037944.exe

Important Note!

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with this driver.

Prerequisites

This driver requires host driver version 4.1.143.0 or later.

Enhancements

Initial release.

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 CX3 Driver for Windows Server 2012
Version: 5.35.12978.0 **(Optional)**
Filename: cp031560.compsig; cp031560.exe

Fixes

Fixed an issue where the link speed of an IPoIB adapter was the actual speed and not the official speed (i.e. 54.3GB/s instead of 56 GB/s).
Fixed an issue where firmware burning failed on servers with Connectx-3 and Connectx-4 devices.
Fixed an issue were Mellanox counters in Perfmon did not work over HPE devices.
Fixed an issue that caused the installation process to hang while checking if the RDSH service is installed.
Fixed an issue where a SR-IOV team failure was caused by an unsuccessful adapter parameters update.
Fixed a crash in the driver properties dialog in the case where more than 8 teaming ports were defined.
Fixed an issue which reported a false error for successful netsh tcp settings via performance tuning.
Fixed a crash which could occur during virtual function initialization.
Deactivated the RDMA statistics counters query for vPorts for which RDMA is not enabled.
Fixed the issue which caused the failure of the powershell command Get_MLNXNetAdapterSettings and the command Get_MLNXNetAdapterFlowControlSettings on servers with Connectx3/Pro and ConnectX4/LX devices.
Fixed a crash which could occur during driver initializtion.
Fixed an issue that generated and sent an erroneous message to the Windows event log when using firmware 2.36.5000 whenever "Mellanox WinOF Bus Counters" was selected in Perfmon.
Fixed an issue that occasionally caused system-hang when TCP offload parameters were updated dynamically while SR-IOV was enabled.
Fixed an issue that occasionally caused system-hang upon bus driver disabling, when the encapsulation parameters were updated dynamically while SR-IOV was enabled.
Fixed an issue where the virtual function RDMA was not functional when vSwitch was attached to port 2. Now RDMA over VF is supported only when the vSwitch is attached to port 1.
Fixed an issue which caused the driver to hang during installation process.

Supported Devices and Features

This driver supports the following HPE Mellanox CX3 network adapters:

- HP Ethernet 10G 2-port 546FLR-SFP+ Adapter
- HP Ethernet 10G 2-port 546SFP+ Adapter
- HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter
- HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter
- HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+M Adapter
- HP InfiniBand QDR/Ethernet 10Gb 2-port 544+FLR-QSFP Adapter
- HP InfiniBand QDR/Ethernet 10Gb 2-port 544+M Adapter
- HP InfiniBand QDR/EN 10Gb Dual Port 544FLR-QSFP Adapter
- HP InfiniBand FDR/EN 10/40Gb Dual Port 544QSFP Adapter
- HP InfiniBand FDR/EN 10/40Gb Dual Port 544FLR-QSFP Adapter
- HP InfiniBand FDR/EN 10/40Gb Dual Port 544M Adapter
- HP InfiniBand QDR/EN 10Gb Dual Port 544M Adapter
- HP Infiniband QDR/Ethernet 10Gb 2P 544i Adapter

HPE Mellanox CX3 Driver for Windows Server 2012 R2
Version: 5.35.12978.0 **(Optional)**
Filename: cp031561.compsig; cp031561.exe

Fixes

Fixed an issue where the link speed of an IPoIB adapter was the actual speed and not the official speed (i.e. 54.3GB/s instead of 56 GB/s).

Fixed an issue where firmware burning failed on servers with Connectx-3 and Connectx-4 devices.
Fixed an issue were Mellanox counters in Perfmon did not work over HPE devices.
Fixed an issue that caused the installation process to hang while checking if the RDSH service is installed.
Fixed an issue where a SR-IOV team failure was caused by an unsuccessful adapter parameters update.
Fixed a crash in the driver properties dialog in the case where more than 8 teaming ports were defined.
Fixed an issue which reported a false error for successful netsh tcp settings via performance tuning.
Fixed a crash which could occur during virtual function initialization.
Deactivated the RDMA statistics counters query for vPorts for which RDMA is not enabled.
Fixed the issue which caused the failure of the powershell command Get_MLNXNetAdapterSettings and the command Get_MLNXNetAdapterFlowControlSettings on servers with Connectx3/Pro and ConnectX4/LX devices.
Fixed a crash which could occur during driver initialization.
Fixed an issue that generated and sent an erroneous message to the Windows event log when using firmware 2.36.5000 whenever "Mellanox WinOF Bus Counters" was selected in Perfmon.
Fixed an issue that occasionally caused system-hang when TCP offload parameters were updated dynamically while SR-IOV was enabled.
Fixed an issue that occasionally caused system-hang upon bus driver disabling, when the encapsulation parameters were updated dynamically while SR-IOV was enabled.
Fixed an issue where the virtual function RDMA was not functional when vSwitch was attached to port 2. Now RDMA over VF is supported only when the vSwitch is attached to port 1.
Fixed an issue which caused the driver to hang during installation process.

Supported Devices and Features

This driver supports the following HPE Mellanox CX3 network adapters:

- HP Ethernet 10G 2-port 546FLR-SFP+ Adapter
- HP Ethernet 10G 2-port 546SFP+ Adapter
- HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter
- HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter
- HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+M Adapter
- HP InfiniBand QDR/Ethernet 10Gb 2-port 544+FLR-QSFP Adapter
- HP InfiniBand QDR/Ethernet 10Gb 2-port 544+M Adapter
- HP InfiniBand QDR/EN 10Gb Dual Port 544FLR-QSFP Adapter
- HP InfiniBand FDR/EN 10/40Gb Dual Port 544QSFP Adapter
- HP InfiniBand FDR/EN 10/40Gb Dual Port 544FLR-QSFP Adapter
- HP InfiniBand FDR/EN 10/40Gb Dual Port 544M Adapter
- HP InfiniBand QDR/EN 10Gb Dual Port 544M Adapter
- HP Infiniband QDR/Ethernet 10Gb 2P 544i Adapter

HPE Mellanox CX3 Driver for Windows Server 2016
Version: 5.35.12978.0 (C) **(Optional)**
Filename: cp038705.compsig; cp038705.exe

Enhancements

This product restores support for the following network adapters:

- HP Ethernet 10G 2-port 546FLR-SFP+ Adapter
- HP Ethernet 10G 2-port 546SFP+ Adapter

Supported Devices and Features

This driver supports the following HP Mellanox CX3 network adapters:

- HP Ethernet 10G 2-port 546FLR-SFP+ Adapter
- HP Ethernet 10G 2-port 546SFP+ Adapter
- HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter
- HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter
- HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+M Adapter

HPE Mellanox CX4LX and CX5 Driver for Windows Server 2012
Version: 2.0.19824.0 **(Optional)**
Filename: cp036710.compsig; cp036710.exe

Fixes

This driver corrects an issue where the driver is reported as hung when heavy receive and send UDP multicast traffic is detected.
The driver corrects an issue that causes the driver to load with a yellow bang on machines with more than 256 cores.
The driver corrects an issue where the RoCE connection fails as a result of an incorrect GID when the Universal/Local (U/L) bit in the MAC is set to 1.

Supported Devices and Features

This driver supports the following network adapters:

- HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter
- HPE Ethernet 25Gb 2-port 640SFP28 Adapter
- HPE Synergy 6410C 25/50Gb Ethernet Adapter
- HPE Infiniband FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter
- HPE Infiniband EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter
- HPE Ethernet 100Gb 1-port 842QSFP28 Adapter

HPE Mellanox CX4LX and CX5 Driver for Windows Server 2012 R2
Version: 2.0.19824.0 **(Optional)**

Filename: cp036711.compsig; cp036711.exe

Fixes

This driver corrects an issue where the driver is reported as hung when heavy receive and send UDP multicast traffic is detected.
The driver corrects an issue that causes the driver to load with a yellow bang on machines with more than 256 cores.
The driver corrects an issue where the RoCE connection fails as a result of an incorrect GID when the Universal/Local (U/L) bit in the MAC is set to 1.

Supported Devices and Features

This driver supports the following network adapters:

- HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter
- HPE Ethernet 25Gb 2-port 640SFP28 Adapter
- HPE Synergy 6410C 25/50Gb Ethernet Adapter
- HPE Infiniband FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter
- HPE Infiniband EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter
- HPE Ethernet 100Gb 1-port 842QSFP28 Adapter

HPE Mellanox CX4LX and CX5 Driver for Windows Server 2016
Version: 2.0.19824.0 **(Optional)**
Filename: cp036712.compsig; cp036712.exe

Fixes

This driver corrects an issue where the driver is reported as hung when heavy receive and send UDP multicast traffic is detected.
The driver corrects an issue that causes the driver to load with a yellow bang on machines with more than 256 cores.
The driver corrects an issue where the RoCE connection fails as a result of an incorrect GID when the Universal/Local (U/L) bit in the MAC is set to 1.

Supported Devices and Features

This driver supports the following network adapters:

- HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter
- HPE Ethernet 25Gb 2-port 640SFP28 Adapter
- HPE Synergy 6410C 25/50Gb Ethernet Adapter
- HPE Infiniband FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter
- HPE Infiniband EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter
- HPE Ethernet 100Gb 1-port 842QSFP28 Adapter

HPE Mellanox CX4LX and CX5 Driver for Windows Server 2019
Version: 2.0.19824.0 **(Optional)**
Filename: cp037704.compsig; cp037704.exe

Enhancements

Initial release.

Supported Devices and Features

This driver supports the following network adapters:

- HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter
- HPE Ethernet 25Gb 2-port 640SFP28 Adapter
- HPE Synergy 6410C 25/50Gb Ethernet Adapter
- HPE Infiniband FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter
- HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter
- HPE Infiniband EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter
- HPE Ethernet 100Gb 1-port 842QSFP28 Adapter

HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for Red Hat Enterprise Linux 6 Update 10 (x86_64)
Version: 4.4 **(Recommended)**
Filename: kmod-mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.rhel6u10.x86_64.compsig; kmod-mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.rhel6u10.x86_64.rpm; mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.1.rhel6u10.x86_64.compsig; mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.1.rhel6u10.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/).

Fixes

The following issues have been fixed in version 4.4:

- Removed the following prints on server shutdown: "mlx5_core 0005:81:00.1: mlx5_enter_error_state:96:(pid1): start mlx5_core 0005:81:00.1: mlx-5_enter_error_state:109:(pid1): end"
- When bringing mlx4/mlx5 devices up or down, a call trace in "nvme_rdma_remove_one" or "nvmet_rdma_remove_one" occured occassionally.

Enhancements

hanges and new features in HPE Mellanox RoCE driver version 4.4:

- Added support for additional Operating Systems:
  - Red Hat Enterprise Linux 6 Update 10
  - Red Hat Enterprise Linux 7 Update 5
  - SuSE Linux Enterprise Server 15

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 Update 10 (x86_64) supported by this binary rpm are:
2.6.32-754.el6 - (x86_64) and future update kernels.

HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for Red Hat Enterprise Linux 6 Update 9 (x86_64)
Version: 4.4 **(Recommended)**
Filename: kmod-mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.rhel6u9.x86_64.compsig; kmod-mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.rhel6u9.x86_64.rpm; mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.1.rhel6u9.x86_64.compsig; mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.1.rhel6u9.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/).

Fixes

The following issues have been fixed in version 4.4:

- Removed the following prints on server shutdown: "mlx5_core 0005:81:00.1: mlx5_enter_error_state:96:(pid1): start mlx5_core 0005:81:00.1: mlx-5_enter_error_state:109:(pid1): end"
- When bringing mlx4/mlx5 devices up or down, a call trace in "nvme_rdma_remove_one" or "nvmet_rdma_remove_one" occured occassionally.

Enhancements

hanges and new features in HPE Mellanox RoCE driver version 4.4:

- Added support for additional Operating Systems:
  - Red Hat Enterprise Linux 6 Update 10
  - Red Hat Enterprise Linux 7 Update 5
  - SuSE Linux Enterprise Server 15

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 Update 9 (x86_64) supported by this binary rpm are:
2.6.32-696.el6 - (x86_64) and future update kernels.

HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for Red Hat Enterprise Linux 7 Update 5 (x86_64)
Version: 4.4 **(Recommended)**
Filename: kmod-mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.rhel7u5.x86_64.compsig; kmod-mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.rhel7u5.x86_64.rpm; mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.1.rhel7u5.x86_64.compsig; mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.1.rhel7u5.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/).

Fixes

The following issues have been fixed in version 4.4:

- Removed the following prints on server shutdown: "mlx5_core 0005:81:00.1: mlx5_enter_error_state:96:(pid1): start mlx5_core 0005:81:00.1: mlx-5_enter_error_state:109:(pid1): end"
- When bringing mlx4/mlx5 devices up or down, a call trace in "nvme_rdma_remove_one" or "nvmet_rdma_remove_one" occured occassionally.

Enhancements

Changes and new features in HPE Mellanox RoCE driver version 4.4:

- Added support for additional Operating Systems:
  - Red Hat Enterprise Linux 6 Update 10
  - Red Hat Enterprise Linux 7 Update 5
  - SuSE Linux Enterprise Server 15

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 7 Update 5 (x86_64) supported by this binary rpm are:

3.10.0-862.el7 - (x86_64) and future update kernels.

HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for Red Hat Enterprise Linux 7 Update 6 (x86_64)
Version: 4.5 **(Recommended)**
Filename: kmod-mlnx-ofa_kernel-4.5-OFED.4.5.1.0.1.1.gb4fdfac.rhel7u6.x86_64.compsig; kmod-mlnx-ofa_kernel-4.5-OFED.4.5.1.0.1.1.gb4fdfac.rhel7u6.x86_64.rpm; mlnx-ofa_kernel-4.5-OFED.4.5.1.0.1.1.gb4fdfac.rhel7u6.x86_64.compsig; mlnx-ofa_kernel-4.5-OFED.4.5.1.0.1.1.gb4fdfac.rhel7u6.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/).

Fixes

The following issues have been fixed in version 4.5:

- When the number of channels configured was less than the number of CPUs available, part of the CPUs would not be used by Tx queues.
- Establishing TCP connection took too long due to failure of SA PathRecord query callback handler.
- Lack of high order allocations caused driver load failure. All high order allocations are now changed to order-0 allocations.
- When performing configuration changes, mlx5e counters values were reset.
- Attempting to establish a RoCE connection on the default GID or on IPv6 link-local address failed when two or more netdevices that belong to HCA ports were slaves under a bonding master. This also resulted in the following error message in the kernel log: “__ib_- cache_gid_add: unable to add gid fe80:0000:0000:0000:f652:14ff:fe46:7391 error=-28”.

The following issues have been fixed in version 4.4:

- Removed the following prints on server shutdown: "mlx5_core 0005:81:00.1: mlx5_enter_error_state:96:(pid1): start mlx5_core 0005:81:00.1: mlx-5_enter_error_state:109:(pid1): end"
- When bringing mlx4/mlx5 devices up or down, a call trace in "nvme_rdma_remove_one" or "nvmet_rdma_remove_one" occured occassionally.

Enhancements

Changes and new features in HPE Mellanox RoCE driver version 4.5:

For ConnectX-5 based adapters:

- Increased the amount of maximum virtual functions (VF) that can be allocated to a physical function (PF) to 127 VFs.

For ConnectX-4/ConnectX-4 Lx/ConnectX-5 based adapters:

- UDP source port for RoCE v2 packets is now calculated by the driver rather than the firmware, achieving better distribution and less congestion. This mechanism works for RDMACM QPs only, and ensures that RDMA connection messages and data messages have the same UDP source port value.

For "mlx5 Driver":

- Added the ability to manually disable Local Loopback regardless of the number of open user-space transport domains.

Changes and new features in HPE Mellanox RoCE driver version 4.4:

- Added support for additional Operating Systems:
  - Red Hat Enterprise Linux 6 Update 10
  - Red Hat Enterprise Linux 7 Update 5
  - SuSE Linux Enterprise Server 15

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 7 Update 6 (x86_64) supported by this binary rpm are:
3.10.0-957.el7 - (x86_64) and future update kernels.

HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for SUSE LINUX Enterprise Server 12 SP3 (AMD64/EM64T)
Version: 4.4 **(Recommended)**
Filename: mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.1.sles12sp3.x86_64.compsig; mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.1.sles12sp3.x86_64.rpm; mlnx-ofa_kernel-kmp-default-4.4_k4.4.73_5-OFED.4.4.2.0.8.1.gee7aa0e.sles12sp3.x86_64.compsig; mlnx-ofa_kernel-kmp-default-4.4_k4.4.73_5-OFED.4.4.2.0.8.1.gee7aa0e.sles12sp3.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/).

Fixes

The following issues have been fixed in version 4.4:

- Removed the following prints on server shutdown: "mlx5_core 0005:81:00.1: mlx5_enter_error_state:96:(pid1): start mlx5_core 0005:81:00.1: mlx-5_enter_error_state:109:(pid1): end"
- When bringing mlx4/mlx5 devices up or down, a call trace in "nvme_rdma_remove_one" or "nvmet_rdma_remove_one" occured occassionally.

Enhancements

hanges and new features in HPE Mellanox RoCE driver version 4.4:

- Added support for additional Operating Systems:

- Red Hat Enterprise Linux 6 Update 10
- Red Hat Enterprise Linux 7 Update 5
- SuSE Linux Enterprise Server 15

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 12 SP3 (AMD64/EM64T) supported by this binary rpm are:
4.4.73-5-default - (AMD64/EM64T) and future update kernels.

HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for SUSE LINUX Enterprise Server 12 SP4 (AMD64/EM64T)
Version: 4.5 **(Recommended)**
Filename: mlnx-ofa_kernel-4.5-OFED.4.5.1.0.1.1.gb4fdfac.sles12sp4.x86_64.compsig; mlnx-ofa_kernel-4.5-OFED.4.5.1.0.1.1.gb4fdfac.sles12sp4.x86_64.rpm; mlnx-ofa_kernel-kmp-default-4.5_k4.12.14_94.41-OFED.4.5.1.0.1.1.gb4fdfac.sles12sp4.x86_64.compsig; mlnx-ofa_kernel-kmp-default-4.5_k4.12.14_94.41-OFED.4.5.1.0.1.1.gb4fdfac.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/).

Fixes

The following issues have been fixed in version 4.5:

- When the number of channels configured was less than the number of CPUs available, part of the CPUs would not be used by Tx queues.
- Establishing TCP connection took too long due to failure of SA PathRecord query callback handler.
- Lack of high order allocations caused driver load failure. All high order allocations are now changed to order-0 allocations.
- When performing configuration changes, mlx5e counters values were reset.
- Attempting to establish a RoCE connection on the default GID or on IPv6 link-local address failed when two or more netdevices that belong to HCA ports were slaves under a bonding master. This also resulted in the following error message in the kernel log: “__ib_- cache_gid_add: unable to add gid fe80:0000:0000:0000:f652:14ff:fe46:7391 error=-28”.

The following issues have been fixed in version 4.4:

- Removed the following prints on server shutdown: "mlx5_core 0005:81:00.1: mlx5_enter_error_state:96:(pid1): start mlx5_core 0005:81:00.1: mlx-5_enter_error_state:109:(pid1): end"
- When bringing mlx4/mlx5 devices up or down, a call trace in "nvme_rdma_remove_one" or "nvmet_rdma_remove_one" occured occassionally.

Enhancements

Changes and new features in HPE Mellanox RoCE driver version 4.5:

For ConnectX-5 based adapters:

- Increased the amount of maximum virtual functions (VF) that can be allocated to a physical function (PF) to 127 VFs.

For ConnectX-4/ConnectX-4 Lx/ConnectX-5 based adapters:

- UDP source port for RoCE v2 packets is now calculated by the driver rather than the firmware, achieving better distribution and less congestion. This mechanism works for RDMACM QPs only, and ensures that RDMA connection messages and data messages have the same UDP source port value.

For "mlx5 Driver":

- Added the ability to manually disable Local Loopback regardless of the number of open user-space transport domains.

Changes and new features in HPE Mellanox RoCE driver version 4.4:

- Added support for additional Operating Systems:
  - Red Hat Enterprise Linux 6 Update 10
  - Red Hat Enterprise Linux 7 Update 5
  - SuSE Linux Enterprise Server 15

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 15 SP0 (AMD64/EM64T)
Version: 4.4 **(Recommended)**
Filename: mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.1.sles15sp0.x86_64.compsig; mlnx-ofa_kernel-4.4-OFED.4.4.2.0.8.1.gee7aa0e.1.sles15sp0.x86_64.rpm; mlnx-ofa_kernel-kmp-default-4.4_k4.12.14_23-OFED.4.4.2.0.8.1.gee7aa0e.sles15sp0.x86_64.compsig; mlnx-ofa_kernel-kmp-default-4.4_k4.12.14_23-OFED.4.4.2.0.8.1.gee7aa0e.sles15sp0.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/).

Fixes

The following issues have been fixed in version 4.4:

- Removed the following prints on server shutdown: "mlx5_core 0005:81:00.1: mlx5_enter_error_state:96:(pid1): start mlx5_core 0005:81:00.1: mlx-5_enter_error_state:109:(pid1): end"
- When bringing mlx4/mlx5 devices up or down, a call trace in "nvme_rdma_remove_one" or "nvmet_rdma_remove_one" occured occassionally.

Enhancements

hanges and new features in HPE Mellanox RoCE driver version 4.4:

- Added support for additional Operating Systems:
  - Red Hat Enterprise Linux 6 Update 10
  - Red Hat Enterprise Linux 7 Update 5
  - SuSE Linux Enterprise Server 15

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 15 SP0 (AMD64/EM64T) supported by this binary rpm are:
4.12.14-23-default - (AMD64/EM64T) and future update kernels.

HPE QLogic FastLinQ 10/25/50 GbE Drivers for Red Hat Enterprise Linux 6 x86_64
Version: 8.37.31.0-2 **(Optional)**
Filename: kmod-qlgc-fastlinq-8.37.31.0-2.rhel6u10.x86_64.compsig; kmod-qlgc-fastlinq-8.37.31.0-2.rhel6u10.x86_64.rpm; kmod-qlgc-fastlinq-8.37.31.0-2.rhel6u9.x86_64.compsig; kmod-qlgc-fastlinq-8.37.31.0-2.rhel6u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE QLogic FastLinQ Online Firmware Upgrade Utility for Linux x86_64, version 1.6.26 or later, for use with these drivers.

Fixes

This product fixes an issue where qed_reg_read_test messages appear while flashing firmware.
This product addresses connection drops observed in RoCE traffic when neither rocev1 nor rocev2 TLVs are defined on an Arista switch.
This product fixes an issue where the FCoE initiator does not login to a switch once the system comes up from hibernation.
This product addresses a one time system crash seen while disabling/enabling NDIS devices.
This product fixes an issue where packets with incorrect checksums are dropped.
This product fixes an issue where the recovery process with active VFs leads to a deadlock.
This product fixes an issue where LACP TX packets from a VF bond are dropped with tx_error_drop.
This product fixes an issue where ethtool statistics are corrupted when the interface is down.
This product fixes an issue where the scan command cannot be executed when the target ID is 8 or more.
This product fixes an issue where qedf_initiate_abts crashes when accessing a stale io_req.
This product fixes an L4 iSCSI BFS LUN detection failure.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ 10/25/50 GbE Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 8.37.31.0-2 **(Optional)**
Filename: kmod-qlgc-fastlinq-8.37.31.0-2.rhel7u5.x86_64.compsig; kmod-qlgc-fastlinq-8.37.31.0-2.rhel7u5.x86_64.rpm; kmod-qlgc-fastlinq-8.37.31.0-2.rhel7u6.x86_64.compsig; kmod-qlgc-fastlinq-8.37.31.0-2.rhel7u6.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE QLogic FastLinQ Online Firmware Upgrade Utility for Linux x86_64, version 1.6.26 or later, for use with these drivers.

Fixes

This product fixes an issue where qed_reg_read_test messages appear while flashing firmware.
This product addresses connection drops observed in RoCE traffic when neither rocev1 nor rocev2 TLVs are defined on an Arista switch.
This product fixes an issue where the FCoE initiator does not login to a switch once the system comes up from hibernation.
This product addresses a one time system crash seen while disabling/enabling NDIS devices.
This product fixes an issue where packets with incorrect checksums are dropped.
This product fixes an issue where the recovery process with active VFs leads to a deadlock.
This product fixes an issue where LACP TX packets from a VF bond are dropped with tx_error_drop.
This product fixes an issue where ethtool statistics are corrupted when the interface is down.
This product fixes an issue where the scan command cannot be executed when the target ID is 8 or more.
This product fixes an issue where qedf_initiate_abts crashes when accessing a stale io_req.
This product fixes an L4 iSCSI BFS LUN detection failure.

Enhancements

This product now supports Red Hat Enterprise Linux 7 Update 6.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 4820C 10/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ 10/25/50 GbE Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 8.37.31.0-2 **(Optional)**
Filename: qlgc-fastlinq-kmp-default-8.37.31.0_k4.12.14_94.41-2.sles12sp4.x86_64.compsig; qlgc-fastlinq-kmp-default-8.37.31.0_k4.12.14_94.41-2.sles12sp4.x86_64.rpm; qlgc-fastlinq-kmp-default-8.37.31.0_k4.4.73_5-2.sles12sp3.x86_64.compsig; qlgc-fastlinq-kmp-default-8.37.31.0_k4.4.73_5-2.sles12sp3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE QLogic FastLinQ Online Firmware Upgrade Utility for Linux x86_64, version 1.6.26 or later, for use with these drivers.

Fixes

This product fixes an issue where qed_reg_read_test messages appear while flashing firmware.
This product addresses connection drops observed in RoCE traffic when neither rocev1 nor rocev2 TLVs are defined on an Arista switch.
This product fixes an issue where the FCoE initiator does not login to a switch once the system comes up from hibernation.
This product addresses a one time system crash seen while disabling/enabling NDIS devices.
This product fixes an issue where packets with incorrect checksums are dropped.
This product fixes an issue where the recovery process with active VFs leads to a deadlock.
This product fixes an issue where LACP TX packets from a VF bond are dropped with tx_error_drop.
This product fixes an issue where ethtool statistics are corrupted when the interface is down.
This product fixes an issue where the scan command cannot be executed when the target ID is 8 or more.
This product fixes an issue where qedf_initiate_abts crashes when accessing a stale io_req.
This product fixes an L4 iSCSI BFS LUN detection failure.

Enhancements

This product now supports 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 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 Synergy 4820C 10/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ 10/25/50 GbE Drivers for SUSE Linux Enterprise Server 15
Version: 8.37.31.0-2 **(Optional)**
Filename: qlgc-fastlinq-kmp-default-8.37.31.0_k4.12.14_23-2.sles15sp0.x86_64.compsig; qlgc-fastlinq-kmp-default-8.37.31.0_k4.12.14_23-2.sles15sp0.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in HPE QLogic FastLinQ Online Firmware Upgrade Utility for Linux x86_64, version 1.6.26 or later, for use with these drivers.

Fixes

This product fixes an issue where qed_reg_read_test messages appear while flashing firmware.
This product addresses connection drops observed in RoCE traffic when neither rocev1 nor rocev2 TLVs are defined on an Arista switch.
This product fixes an issue where the FCoE initiator does not login to a switch once the system comes up from hibernation.
This product addresses a one time system crash seen while disabling/enabling NDIS devices.
This product fixes an issue where packets with incorrect checksums are dropped.
This product fixes an issue where the recovery process with active VFs leads to a deadlock.
This product fixes an issue where LACP TX packets from a VF bond are dropped with tx_error_drop.
This product fixes an issue where ethtool statistics are corrupted when the interface is down.
This product fixes an issue where the scan command cannot be executed when the target ID is 8 or more.
This product fixes an issue where qedf_initiate_abts crashes when accessing a stale io_req.
This product fixes an L4 iSCSI BFS LUN detection failure.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 4820C 10/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ 10/25/50 GbE Drivers for Windows Server x64 Editions
Version: 8.37.37.0 **(Optional)**
Filename: cp035071.exe; cp035071.compsig

Important Note!

HPE recommends the firmware provided in *HPE QLogic FastLinQ Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with these drivers.

Fixes

This driver corrects an issue which results in a pause flood when bringing up all ports.
This driver corrects an issue which results in a connection drop while using the iWARP protocol.
This driver addresses a system crash in Windows Server 2019 which occurs during chipset driver installation.
This driver corrects an issue where no FCoE npiv devices are enumerated.
This driver corrects an issue which prevents storage devices from enumerating on systems with more than 256 cores.
This driver corrects an issue which results in an incorrect processor being selected for queue affinity with RSSv2.
This driver corrects an issue which the FCoE initiator does not login to the switch after the system comes up from hibernation.
This driver corrects an issue where the value of "IovQueuePairsInUse" is greater than "IovQueuePairCount" in Get-vmswitch cmdlet output.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 4820C 10/20/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ 10/25/50 GbE Multifunction Driver for VMware vSphere 6.0
Version: 2019.03.11 **(Optional)**
Filename: cp035084.compsig; cp035084.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 4.9.26 or later, for use with this driver.

Fixes

This product addresses an issue where a PSOD occurs while collecting a grcdump using the esxcli utility.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 4820C 10/20/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ 10/25/50 GbE Multifunction Driver for VMware vSphere 6.5
Version: 2019.03.11 **(Optional)**
Filename: cp035085.compsig; cp035085.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 4.9.26 or later, for use with this driver.

Fixes

This product addresses an issue where an SR-IOV adapter fails when running on a Windows Virtual Machine.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 4820C 10/20/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ 10/25/50 GbE Multifunction Driver for VMware vSphere 6.7
Version: 2019.03.11 **(Optional)**
Filename: cp036789.compsig; cp036789.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 4.9.26 or later, for use with this driver.

Fixes

This product addresses an issue where an SR-IOV adapter fails when running on a Windows Virtual Machine.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 4820C 10/20/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ Open-iSCSI Driver for Red Hat Enterprise Linux 6 Update 10
Version: 2.0-873.113-1 **(Optional)**
Filename: qlgc-open-iscsi-2.0_873.113.rhel6u10-1.x86_64.compsig; qlgc-open-iscsi-2.0_873.113.rhel6u10-1.x86_64.rpm; README

Fixes

This product addresses a race condition in the INVALID_HOST path.
This product addresses an endless loop seen when pollhup is returned.
This product addresses a MAC mismatch that results in a bnx2i boot failure.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ Open-iSCSI Driver for Red Hat Enterprise Linux 6 Update 9 x86_64
Version: 2.0-873.113-1 **(Optional)**
Filename: qlgc-open-iscsi-2.0_873.113.rhel6u9-1.x86_64.compsig; qlgc-open-iscsi-2.0_873.113.rhel6u9-1.x86_64.rpm; README

Fixes

This product addresses a race condition in the INVALID_HOST path.
This product addresses an endless loop seen when pollhup is returned.
This product addresses a MAC mismatch that results in a bnx2i boot failure.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ Open-iSCSI Driver for Red Hat Enterprise Linux 7 Update 5
Version: 2.0-873.113-1 **(Optional)**
Filename: qlgc-open-iscsi-2.0_873.113.rhel7u5-1.x86_64.compsig; qlgc-open-iscsi-2.0_873.113.rhel7u5-1.x86_64.rpm; README

Fixes

This product addresses a race condition in the INVALID_HOST path.

This product addresses an endless loop seen when pollhup is returned.
This product addresses a MAC mismatch that results in a bnx2i boot failure.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 4820C 10/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ Open-iSCSI Driver for Red Hat Enterprise Linux 7 Update 6
Version: 2.0-873.113-1 **(Optional)**
Filename: qlgc-open-iscsi-2.0_873.113.rhel7u6-1.x86_64.compsig; qlgc-open-iscsi-2.0_873.113.rhel7u6-1.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 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 Synergy 4820C 10/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ Open-iSCSI Driver for SUSE Linux Enterprise Server 12 SP3
Version: 2.0-873.113-1 **(Optional)**
Filename: qlgc-open-iscsi-2.0_873.113.sles12sp3-1.x86_64.compsig; qlgc-open-iscsi-2.0_873.113.sles12sp3-1.x86_64.rpm; README

Fixes

This product addresses a race condition in the INVALID_HOST path.
This product addresses an endless loop seen when pollhup is returned.
This product addresses a MAC mismatch that results in a bnx2i boot failure.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 4820C 10/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ Open-iSCSI Driver for SUSE Linux Enterprise Server 12 SP4
Version: 2.0-873.113-1 **(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

Initial release.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 4820C 10/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ Open-iSCSI Driver for SUSE Linux Enterprise Server 15 SP0
Version: 2.0-873.113-1 **(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

Fixes

This product addresses a race condition in the INVALID_HOST path.
This product addresses an endless loop seen when pollhup is returned.
This product addresses a MAC mismatch that results in a bnx2i boot failure.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 4820C 10/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ RoCE Library for Red Hat Enterprise Linux 6 Update 10
Version: 8.37.0.0-1 **(Optional)**
Filename: qlgc-libqedr-8.37.0.0-1.rhel6u10.x86_64.compsig; qlgc-libqedr-8.37.0.0-1.rhel6u10.x86_64.rpm; README

Prerequisites

HPE QLogic FastLinQ 10/25/50GbE Drivers for Red Hat Enterprise Linux 6 x86_64, version 8.20.4.0-1 or later, must be installed before installing this product.

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

Enhancements

This product is updated to maintain compatibility with RoCE driver (qedr) version 8.37.25.x.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ RoCE Library for Red Hat Enterprise Linux 6 Update 9
Version: 8.37.0.0-1 **(Optional)**
Filename: qlgc-libqedr-8.37.0.0-1.rhel6u9.x86_64.compsig; qlgc-libqedr-8.37.0.0-1.rhel6u9.x86_64.rpm; README

Prerequisites

HPE QLogic FastLinQ 10/25/50GbE Drivers for Red Hat Enterprise Linux 6 x86_64, version 8.20.4.0-1 or later, must be installed before installing this product.

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

Enhancements

This product is updated to maintain compatibility with RoCE driver (qedr) version 8.37.25.x.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic iSCSI Offload IO Daemon for Red Hat Enterprise Linux 6 Update 10
Version: 2.11.5.10-3 **(Optional)**
Filename: iscsiuio-2.11.5.10-3.rhel6u10.x86_64.compsig; iscsiuio-2.11.5.10-3.rhel6u10.x86_64.rpm; README

Fixes

This product fixes an issue where I/O fails to resume on multipath LUN during port toggle.
This product addresses an iscsiuio segmentation fault seen when shutting down.
This product addresses an iSCSI BFS failure seen with IPv6 DHCP config.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB 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 FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Ethernet Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic iSCSI Offload IO Daemon for Red Hat Enterprise Linux 6 Update 9
Version: 2.11.5.10-3 **(Optional)**
Filename: iscsiuio-2.11.5.10-3.rhel6u9.x86_64.compsig; iscsiuio-2.11.5.10-3.rhel6u9.x86_64.rpm; README

Fixes

This product fixes an issue where I/O fails to resume on multipath LUN during port toggle.
This product addresses an iscsiuio segmentation fault seen when shutting down.
This product addresses an iSCSI BFS failure seen with IPv6 DHCP config.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB 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 FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Ethernet Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic iSCSI Offload IO Daemon for Red Hat Enterprise Linux 7 Update 5
Version: 2.11.5.10-3 **(Optional)**
Filename: iscsiuio-2.11.5.10-3.rhel7u5.x86_64.compsig; iscsiuio-2.11.5.10-3.rhel7u5.x86_64.rpm; README

Fixes

This product fixes an issue where I/O fails to resume on multipath LUN during port toggle.
This product addresses an iscsiuio segmentation fault seen when shutting down.
This product addresses an iSCSI BFS failure seen with IPv6 DHCP config.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB 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 FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Ethernet Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter
- HPE Synergy 4820C 10/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic iSCSI Offload IO Daemon for Red Hat Enterprise Linux 7 Update 6
Version: 2.11.5.10-3 **(Optional)**

Filename: iscsiuio-2.11.5.10-3.rhel7u6.x86_64.compsig; iscsiuio-2.11.5.10-3.rhel7u6.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
- 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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB 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 FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Ethernet Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter
- HPE Synergy 4820C 10/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 12 SP3 x86_64
Version: 2.11.5.10-3 **(Optional)**
Filename: iscsiuio-2.11.5.10-3.sles12sp3.x86_64.compsig; iscsiuio-2.11.5.10-3.sles12sp3.x86_64.rpm; README

Fixes

This product fixes an issue where I/O fails to resume on multipath LUN during port toggle.
This product addresses an iscsiuio segmentation fault seen when shutting down.
This product addresses an iSCSI BFS failure seen with IPv6 DHCP config.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB 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 FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Ethernet Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter
- HPE Synergy 4820C 10/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 12 SP4
Version: 2.11.5.10-3 **(Optional)**
Filename: iscsiuio-2.11.5.10-3.sles12sp4.x86_64.compsig; iscsiuio-2.11.5.10-3.sles12sp4.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
- 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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB 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 FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter

- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Ethernet Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter
- HPE Synergy 4820C 10/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 15 SP0
Version: 2.11.5.10-3 **(Optional)**
Filename: iscsiuio-2.11.5.10-3.sles15sp0.x86_64.compsig; iscsiuio-2.11.5.10-3.sles15sp0.x86_64.rpm; README

Fixes

This product fixes an issue where I/O fails to resume on multipath LUN during port toggle.
This product addresses an iscsiuio segmentation fault seen when shutting down.
This product addresses an iSCSI BFS failure seen with IPv6 DHCP config.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB 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 FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Ethernet Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter
- HPE Synergy 4820C 10/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 6.0
Version: 2019.03.11 **(Optional)**
Filename: cp036344.compsig; cp036344.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 1.24.16 or later, for use with this driver.

Enhancements

This product adds support for VLAN modes.

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
- 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 StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Dual Port Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Network Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter

HPE QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 6.5
Version: 2019.03.11 **(Optional)**
Filename: cp036345.compsig; cp036345.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 1.24.16 or later, for use with this driver.

Fixes

This product addresses excessive logging to vmkernel logs.

This product addresses an SR-IOV issue with VMware where a Windows virtual machine reports "This Device Cannot Start (code 10)."

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
- 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 StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Dual Port Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Network Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter

HPE QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 6.7
Version: 2019.03.11 **(Optional)**
Filename: cp036346.compsig; cp036346.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 1.24.16 or later, for use with this driver.

Fixes

This product addresses excessive logging to vmkernel logs.

This product addresses an SR-IOV issue with VMware where a Windows virtual machine reports "This Device Cannot Start (code 10)."

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
- 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 StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Dual Port Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Network Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter

HPE QLogic NX2 10/20 GbE Multifunction Drivers for Red Hat Enterprise Linux 6 x86_64
Version: 7.14.54-1 **(Optional)**
Filename: kmod-netxtreme2-7.14.54-1.rhel6u10.x86_64.compsig; kmod-netxtreme2-7.14.54-1.rhel6u10.x86_64.rpm; kmod-netxtreme2-7.14.54-1.rhel6u9.x86_64.compsig; kmod-netxtreme2-7.14.54-1.rhel6u9.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64,* version 2.24.15 or later, for use with these drivers.

Fixes

This product fixes an issue where VP-LAG shows down due to a STAG value of 0.
This product addresses a kernel panic seen with Rx function hash config on a disabled port.

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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB Adapter
- HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter

- HPE Synergy 2820C 10Gb Converged Ethernet Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter

HPE QLogic NX2 10/20 GbE Multifunction Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 7.14.54-1 **(Optional)**
Filename: kmod-netxtreme2-7.14.54-1.rhel7u5.x86_64.compsig; kmod-netxtreme2-7.14.54-1.rhel7u5.x86_64.rpm; kmod-netxtreme2-7.14.54-1.rhel7u6.x86_64.compsig; kmod-netxtreme2-7.14.54-1.rhel7u6.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64,* version 2.24.15 or later, for use with these drivers.

Fixes

This product fixes an issue where VP-LAG shows down due to a STAG value of 0.
This product addresses a kernel panic seen with Rx function hash config on a disabled port.

Enhancements

This product now supports Red Hat Enterprise Linux 7 Update 6.

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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB Adapter
- HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Ethernet Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter

HPE QLogic NX2 10/20 GbE Multifunction Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 7.14.54-1 **(Optional)**
Filename: netxtreme2-kmp-default-7.14.54_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; netxtreme2-kmp-default-7.14.54_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; netxtreme2-kmp-default-7.14.54_k4.4.73_5-1.sles12sp3.x86_64.compsig; netxtreme2-kmp-default-7.14.54_k4.4.73_5-1.sles12sp3.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64,* version 2.24.15 or later, for use with these drivers.

Fixes

This product fixes an issue where VP-LAG shows down due to a STAG value of 0.
This product addresses a kernel panic seen with Rx function hash config on a disabled port.

Enhancements

This product now supports SUSE Linux Enterprise Server 12 SP4.

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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB Adapter
- HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Ethernet Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter

HPE QLogic NX2 10/20 GbE Multifunction Drivers for SUSE Linux Enterprise Server 15 SP0
Version: 7.14.54-1 **(Optional)**
Filename: netxtreme2-kmp-default-7.14.54_k4.12.14_23-1.sles15sp0.x86_64.compsig; netxtreme2-kmp-default-7.14.54_k4.12.14_23-1.sles15sp0.x86_64.rpm; README

Important Note!

HPE recommends the firmware provided in *HPE QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64,* version 2.24.15 or later, for use with these drivers.

Fixes

This product fixes an issue where VP-LAG shows down due to a STAG value of 0.
This product addresses a kernel panic seen with Rx function hash config on a disabled port.

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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB Adapter
- HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Ethernet Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter

HPE QLogic NX2 10/20 GbE Multifunction Drivers for Windows Server x64 Editions
Version: 7.13.161.0 **(Optional)**
Filename: cp036669.compsig; cp036669.exe

Important Note!

HP recommends the firmware provided in *HPE QLogic NX2 Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.1.4.0 or later, for use with these drivers.

Fixes

This driver corrects an issue where warning event identifier 61 is logged after starting the OS.
This driver corrects an issue where Get-netadapterVMQ output shows the number of receive queues as 0.
This driver addresses a system crash which occurs during an iSCSI session recovery.

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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB Adapter
- HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 10Gb 2820C Ethernet Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter

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net-mst kernel module driver component for VMware 6.0
Version: 2018.07.06 **(Recommended)**
Filename: cp036991.compsig; cp036991.zip

Important Note!

This component is intended to be used by HP applications. It is a zip that contains the same driver deliverable available from the HP vibsdepot.hp.com webpage, plus an HP specific CPXXXX.xml file.

Prerequisites

NA

Fixes

NMST version 4.10.0.302

Enhancements

NMST version 4.10.0.302

net-mst kernel module driver component for VMware ESXi 6.5 and 6.7
Version: 2018.07.06 **(Recommended)**
Filename: cp036992.compsig; cp036992.zip

Important Note!

This component is intended to be used by HP applications. It is a zip that contains the same driver deliverable available from the HP vibsdepot.hp.com webpage, plus an HP specific CPXXXX.xml file.

Prerequisites

NA

Fixes

NMST version 4.10.0.302

Enhancements

NMST version 4.10.0.302

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nmlx4_en driver component for VMware 6.0
Version: 2018.10.30 **(Recommended)**
Filename: cp038032.zip; cp038032_part1.compsig; cp038032_part2.compsig

Important Note!

Known Issues:

- PFC related priority counters are always set to 0, even if the PFC mode is enabled.
- The command "esxcli network sriovnic vf stats" is not supported.
- 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.
- Managment interface port type field reports SFP-to-RJ45 cable as FIBER.
- Management interface auto negotiation field is equivalent to "esxcli network nic get -n vmnicX" field "Pause Autonegotiate".

Fixes

The following issues have been fixed in version 3.15.11.6 included in this driver smart component:

- Internal multicast loopback issue that broke LACP bonding protocol.

Enhancements

Changes and New Features in smart component version 2018.10.30:

- Added Gen10 remote online deployment support.

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nmlx4_en driver component for VMware 6.5
Version: 2018.10.30 **(Recommended)**
Filename: cp038008.zip; cp038008_part1.compsig; cp038008_part2.compsig; cp038008_part3.compsig

Important Note!

Known Issues:

- PFC related priority counters are always set to 0, even if the PFC mode is enabled.
- The command "esxcli network sriovnic vf stats" is not supported.
- 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.
- Managment interface port type field reports SFP-to-RJ45 cable as FIBER.
- Management interface auto negotiation field is equivalent to "esxcli network nic get -n vmnicX" field "Pause Autonegotiate".

Enhancements

Changes and New Features in smart component version 2018.10.30:

- Added Gen10 remote online deployment support.

Changes and New Features in driver version 3.16.11.6 included in this Smart Component:

- Updated Management Interface APIs.
- Added support for the following features:
  - VXLAN hardware offload. VXLAN hardware offload enables the traditional offloads to be performed on the encapsulated traffic. With ConnectX®-3 Pro, data center operators can decouple the overlay network layer from the physical NIC performance, thus achieving native performance in the new network architecture.
  - Packet Capture Utility: This utility duplicates all traffic, including RDMA, in its raw Ethernet form (before stripping) to a dedicated "sniffing" QP, and then passes it to an ESX drop capture point.
  - Large Send Offload (TCP Segmentation Offload)
  - Wake-On-LAN (only on supported hardware)
  - Receive Side Scaling (RSS) Queues
  - Multiple Tx/Rx rings
  - NetQueue support

- Fixed Pass-Through
- MSI-X

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nmlx5_en driver component for VMware ESXi 6.0
Version: 2018.10.30 **(Recommended)**
Filename: cp038033.compsig; cp038033.zip

Important Note!

Known Issues:

- On rare occasions, a Purple Screen of Death (PSOD) may occur when changing MTU during traffic.
- 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.
- Traffic cannot be sent between PV and SR-IOV Virtual Functions 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.
- Although ‘drss’ and ‘rss’ parameters are disabled by default, the displayed default values of drss/drss is "4" when querying the nmlx5_core module parameter.
- VST mode ConnectX-5 SR-IOV is currently not functional.
- While running "stress ipv6 all2all traffic", the MTU is changed several times and PSOD is excepted.
- 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 are displayed in vCenter.
- Operations on vmnics which are in passthrough 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.
- Multicast and IPv6 traffic might be unstable over SR-IOV.
- Reboot is required after any SR-IOV configuration change.
- Firmware VF configuration must be N+1 (while N is the required VF number). For example: If your configuration requires 10 VFs, the firmware must be set to support 16 VFs (ESXi Limitation).
- 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.
- Call trace might occur after running VGT with heavy traffic.
- VMs can get Call Trace upon MTU change during heavy traffic.
- Reloading the driver when the SR-IOV VFs are ON, will result in Purple Screen of Death (PSOD).
- VGT traffic over VXLAN interfaces is currently not supported.
- The adapter card might get stuck in Down state after setting the ring size to 8192.
- VMs with SR-IOV cannot be powered on when running low on available vectors.
- Occasionally, untagged traffic can pass between VMs with SR-IOV enabled when portgroup is configured for VLAN trunk range.

Fixes

The following issues have been fixed in driver version 4.15.13.2 included in this Smart Component:

- Disabled multicast loopback to avoid a scenario that prevented MAC learning in some configurations.
- Encapsulated traffic (VXLAN/Geneve) directed to NetQ RSS queue was not distributed through all queues' channels, thus did not utilize the RSS feature.

Enhancements

Changes and New Features in smart component version 2018.10.30:

- Added Gen10 remote online deployment support.

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nmlx5_en driver component for VMware ESXi 6.5
Version: 2018.07.06 **(Recommended)**
Filename: cp036946.zip; cp036946_part1.compsig; cp036946_part2.compsig

Important Note!

Known Issues in version 4.16.13.5:

- 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 maximum value of RSS must be lower than the number of CPU cores.
- 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.
- VST mode in ConnectX-5 SR-IOV is currently not functional.
- 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
- Operations on vmnics in passthrough mode are not supported.
- The 'esxcli mellanox uplink link info -u <vmnic_name>' command reports the 'Auto negotiation' capability always as 'true'.
- Multicast and IPv6 traffic might be unstable over SR-IOV.
- Reboot is required after any SR-IOV configuration change.
- Firmware VF configuration must be N+1 (while N is the required VF number). For example: If your configuration requires 10 VFs, the firmware must be set to support 16 VFs (ESXi Limitation).
- 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.
- VMs can get Call Trace upon MTU change during heavy traffic.
- Reloading the driver when the SR-IOV VFs are ON, will result in Purple Screen of Death (PSOD).
- VGT traffic over VXLAN interfaces is currently not supported.
- VMs with SR-IOV cannot be powered on when running low on available vectors.
- Occasionally, untagged traffic can pass between VMs with SR-IOV enabled when portgroup is configured for VLAN trunk range.

Fixes

The following issues have been fixed in version in 4.16.13.5:

- Disabled multicast loopback to avoid a scenario that prevented MAC learning in some configurations.

Enhancements

Changes and New Features in smart component version 2018.07.06:

- Added Gen10 remote online deployment support.

New features and changes in version 4.16.13.5:

- Added support for Explicit Congestion Notification (ECN). ECN is an extension to the Internet Protocol and to the Transmission Control Protocol that allows end-to-end notification of network congestion without dropping packets.

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nmlx5_en driver component for VMware ESXi 6.7
Version: 2018.07.06 **(Recommended)**
Filename: cp035113.zip; cp035113_part1.compsig; cp035113_part2.compsig

Important Note!

Known Issues in version 4.17.13.8:

- 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 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.
- Multicast and IPv6 traffic might be unstable over SR-IOV.
- Reboot is required after any SR-IOV configuration change.
- Firmware VF configuration must be N+1 (while N is the required VF number). For example: If your configuration requires 10 VFs, the firmware must be set to support 16 VFs (ESXi Limitation).
- 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.
- VMs can get Call Trace upon MTU change during heavy traffic.
- Reloading the driver when the SR-IOV VFs are ON, will result in Purple Screen of Death (PSOD).
- VGT traffic over VXLAN interfaces is currently not supported.
- VMs with SR-IOV cannot be powered on when running low on available vectors.
- Occasionally, untagged traffic can pass between VMs with SR-IOV enabled when portgroup is configured for VLAN trunk range.

Fixes

Inital version.

Enhancements

Inital version.

VMware ESX 6.0 MST Drivers Offline Bundle for Mellanox Adapters
Version: 4.10.0.302 **(Recommended)**
Filename: MLNX-NMST-ESX-6.0.0-4.10.0.302.zip

Prerequisites

NA

Enhancements

VM60 nmst 4.10.0.302

VMware ESXi 6.5 and 6.7 MST Drivers Offline Bundle for Mellanox Adapters
Version: 4.10.0.302 **(Recommended)**
Filename: MLNX-NMST-ESX-6.5.0-4.10.0.302.zip

Prerequisites

NA

Enhancements

VM65/67 nmst 4.10.0.302

Driver - Storage Top

Dynamic Smart Array B140i Controller Driver for 64-bit Microsoft Windows Server 2012/2012 R2/2016/2019 Editions
Version: 62.12.0.64 (B) **(Recommended)**
Filename: cp038272.exe

Enhancements

Improved integration with Smart Update Manager.

HPE Smart Array S100i SR Gen10 SW RAID Driver for Windows Server 2012 R2, Windows Server 2016, and Windows Server 2019
Version: 106.12.4.0 **(Recommended)**
Filename: cp036435.compsig; cp036435.exe

Enhancements

Added support for AMD.

Driver - Storage Controller Top

HPE Dynamic Smart Array B140i Controller Driver for VMware vSphere 6.0 (Driver Component).
Version: 2019.05.01 **(Recommended)**
Filename: cp039787.compsig; cp039787.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

Fixes an issue where the driver will not upgrade due to the AHCI driver taking priority.

This issue is only encounter when upgrading to version 2018.09.31 (5.5.0.66-1). All other versions are not affected.

HPE Dynamic Smart Array B140i Controller Driver for VMware vSphere 6.5 (Driver Component).
Version: 2019.05.01 **(Recommended)**
Filename: cp039786.compsig; cp039786.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

Fixes an issue where the driver will not upgrade due to the AHCI driver taking priority.

This issue is only encounter when upgrading to version 2018.09.31 (5.5.0.66-1). All other versions are not affected.

HPE Dynamic Smart Array B140i Controller Driver for VMware vSphere 6.7 (Driver Component).
Version: 2019.05.01 **(Recommended)**
Filename: cp039788.compsig; cp039788.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

Fixes an issue where the driver will not upgrade due to the AHCI driver taking priority.

This issue is only encounter when upgrading to version 2018.09.31 (5.5.0.66-1). All other versions are not affected.

HPE Dynamic Smart Array B140i SATA RAID Controller Driver for Red Hat Enterprise Linux 6 (64-bit)
Version: 1.2.10-162 **(Recommended)**
Filename: kmod-hpdsa-1.2.10-162.rhel6u10.x86_64.compsig; kmod-hpdsa-1.2.10-162.rhel6u10.x86_64.rpm; kmod-hpdsa-1.2.10-162.rhel6u9.x86_64.compsig; kmod-hpdsa-1.2.10-162.rhel6u9.x86_64.rpm

Enhancements

Version value was updated to be consistent with the hpdsa driver packages released for other OSes as version 1.2.10-162. Hpdsa driver functionality is the same as previous version 1.2.10-139. If target device was previously updated to version 1.2.10-139, it is not necessary to update to 1.2.10-162.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (64-bit) supported by this binary rpm are:
2.6.32-696.el6 - Red Hat Enterprise Linux 6 Update 9(64-bit) and future errata kernels for update 9.
2.6.32-754 - Red Hat Enterprise Linux 6 Update 10(64-bit) and future errata kernels for update 10.

HPE Dynamic Smart Array B140i SATA RAID Controller Driver for Red Hat Enterprise Linux 7 (64-bit)
Version: 1.2.10-167 **(Recommended)**
Filename: kmod-hpdsa-1.2.10-167.rhel7u6.x86_64.compsig; kmod-hpdsa-1.2.10-167.rhel7u6.x86_64.rpm; kmod-hpdsa-1.2.10-167.rhel7u7.x86_64.compsig; kmod-hpdsa-1.2.10-167.rhel7u7.x86_64.rpm

Enhancements

Add support for Red Hat Enterprise Linux 7u7

HPE Dynamic Smart Array B140i SATA RAID Controller Driver for Red Hat Enterprise Linux 8 (64-bit)
Version: 1.2.10-162 **(Recommended)**
Filename: kmod-hpdsa-1.2.10-162.rhel8u0.x86_64.compsig; kmod-hpdsa-1.2.10-162.rhel8u0.x86_64.rpm

Enhancements

Version value was updated to be consistent with the hpdsa driver packages released for other OSes as version 1.2.10-162. Hpdsa driver functionality is the same as previous version 1.2.10-160. If target device was previously updated to version 1.2.10-160, it is not necessary to update to 1.2.10-162.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 8 (64-bit) supported by this binary rpm are:
default- Red Hat Enterprise Linux 8 Update 6 (64-bit)

HPE Dynamic Smart Array B140i SATA RAID Controller Driver for SUSE LINUX Enterprise Server 12 (64-bit)
Version: 1.2.10-162 **(Recommended)**
Filename: hpdsa-kmp-default-1.2.10-162.sles12sp3.x86_64.compsig; hpdsa-kmp-default-1.2.10-162.sles12sp3.x86_64.rpm; hpdsa-kmp-default-1.2.10-162.sles12sp4.x86_64.compsig; hpdsa-kmp-default-1.2.10-162.sles12sp4.x86_64.rpm

Enhancements

Version value was updated to be consistent with the hpdsa driver packages released for other OSes as version 1.2.10-162. Hpdsa driver functionality is the same as previous version 1.2.10-142. If target device was previously updated to version 1.2.10-142, it is not necessary to update to 1.2.10-162.

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.
- SUSE LINUX Enterprise Server 12 (64-bit) SP3 plus future errata.

HPE Dynamic Smart Array B140i SATA RAID Controller Driver for SUSE LINUX Enterprise Server 15 (64-bit)
Version: 1.2.10-162 **(Recommended)**
Filename: hpdsa-kmp-default-1.2.10-162.sles15sp0.x86_64.compsig; hpdsa-kmp-default-1.2.10-162.sles15sp0.x86_64.rpm; hpdsa-kmp-default-1.2.10-162.sles15sp1.x86_64.compsig; hpdsa-kmp-default-1.2.10-162.sles15sp1.x86_64.rpm

Enhancements

Added support for SUSE Linux Enterprise Services15 SP1

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.

default - SUSE LINUX Enterprise Server 15 (64-bit) SP1 plus future errata

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HPE Dynamic Smart Array Controller Driver for VMware vSphere 6.0 (Bundle file).
Version: 5.5.0.68-1 **(Recommended)**
Filename: hpdsa-5.5.0.68.zip

Fixes

Fixes an issue where the driver will not upgrade due to the AHCI driver taking priority.

This issue is only encounter when upgrading to version 2018.09.31 (5.5.0.66-1). All other versions are not affected.

HPE Dynamic Smart Array Controller Driver for VMware vSphere 6.5 (Bundle file).
Version: 5.5.0.68-1 **(Recommended)**
Filename: hpdsa-5.5.0.68.zip

Fixes

Fixes an issue where the driver will not upgrade due to the AHCI driver taking priority.

This issue is only encounter when upgrading to version 2018.09.31 (5.5.0.66-1). All other versions are not affected.

HPE Dynamic Smart Array Controller Driver for VMware vSphere 6.7 (Bundle file).
Version: 5.5.0.68-1 **(Recommended)**
Filename: hpdsa-5.5.0.68.zip

Fixes

Fixes an issue where the driver will not upgrade due to the AHCI driver taking priority.

This issue is only encounter when upgrading to version 2018.09.31 (5.5.0.66-1). All other versions are not affected.

HPE H2xx SAS/SATA Host Bus Adapter (64-bit) Driver for vSphere 6.0 (Driver Component).
Version: 2016.03.21 (A) **(Optional)**
Filename: cp031478.compsig; cp031478.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

Change implemented in version 2016.03.21(A):

- Changed versioning control for component deployment.
- Updated to support Service Pack for ProLiant version 2017.07.0.
  Note: If component version 2016.03.21 was previously installed, then it is not necessary to upgrade to version 2016.03.21(A).

Issues resolved in version 2016.03.21:

- None

Enhancements

Change implemented in version 2016.03.21(A):

- Updated to support Service Pack for ProLiant version 2017.07.0.
  Note: If component version 2016.03.21 was previously installed, then it is not necessary to upgrade to version 2016.03.21(A).

Enhancements/New Features implemented in version 2016.03.21:

- Added support for VMWare ESXi 6.0 Update 1

Supported Devices and Features

NOTE: HPE H221 Host Bus Adapter does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

HPE H2xx SAS/SATA Host Bus Adapter (64-bit) Driver for vSphere 6.5
Version: 15.10.07.00-1 (A) **(Optional)**
Filename: mpt2sas-15.10.07.00-esxi5.5-4778920.zip

Fixes

Change implemented in version 15.10.07.00-1(A):

- Updated to support Service Pack for ProLiant version 2017.07.0.
  Note: If driver version 15.10.07.00-1 was previously installed, then it is not necessary to upgrade to version 15.10.07.00-1(A).

Issues resolved in version 15.10.07.00-1:

- Fixes minor installation issue with the driver on VMware vSphere 6.5.

Supported Devices and Features

NOTE: HPE H221 Host Bus Adapter does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

HPE H2xx SAS/SATA Host Bus Adapter (64-bit) Driver for vSphere 6.5 (Driver Component).
Version: 2017.01.20 (A) **(Optional)**
Filename: cp032277.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

Change implemented in version 2017.01.20(A):

- Updated to support Service Pack for ProLiant version 2017.07.0.
  Note: If component version 2017.01.20 was previously installed, then it is not necessary to upgrade to version 2017.01.20(A).

Issues resolved in version 2017.01.20:

- Fixes minor installation issue with the driver on VMware vSphere 6.5.

Supported Devices and Features

NOTE: HPE H221 Host Bus Adapter does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

HPE H2xx SAS/SATA Host Bus Adapter Driver for 64-bit Microsoft Windows Server 2016 Editions
Version: 2.68.64.2 (C) **(Recommended)**
Filename: cp037731.exe

Important Note!

This driver component supports Gen9 servers only with H221 controllers and the controller does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

Enhancements

- Improved integration with Smart Update Manager

Supported Devices and Features

This driver component supports Gen9 servers only with H221 controllers and the controller does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers

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HPE H2xx SAS/SATA Host Bus Adapter Driver for Microsoft Windows Server 2012 64-bit Editions
Version: 2.68.64.0 (B) **(Recommended)**
Filename: cp032610.exe

Enhancements

Change implemented in version 2.68.64.0(B):

- Updated to support Service Pack for ProLiant version 2017.07.0.
  Note: If driver version 2.68.64.0 was previously installed, then it is not necessary to upgrade to version 2.68.64.0 (B).

Enhancements/New Features implemented in version 2.68.64.0:

- Updated for Version Control across all LSI_sas2 Windows Drivers.

Supported Devices and Features

This driver component supports Gen9 servers only with H221 controllers and the controller does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

HPE H2xx SAS/SATA Host Bus Adapter Driver for Microsoft Windows Server 2012 R2 64-bit Editions
Version: 2.68.64.1 (B) **(Optional)**
Filename: cp032453.exe

Enhancements

Change implemented in version 2.68.64.1(B):

- Updated to support Service Pack for ProLiant version 2017.07.0.
  Note: If driver version 2.68.64.1 was previously installed, then it is not necessary to upgrade to version 2.68.64.1(B).

Enhancements/New Features implemented in version 2.68.64.1:

- Added support for Windows 8.1 and Windows Server 2012R2 to the build scripts.
- Add build support for new Windows Event Logging.
- Add support for automatic selection of the default driver build parameters file during the build

Supported Devices and Features

This driver component supports Gen9 servers only with H221 controllers and the controller does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

HPE H2xx SAS/SATA Host Bus Adapter Driver for Red Hat Enterprise Linux 6 (64-bit)
Version: 15.10.08.00-2 (A) **(Recommended)**
Filename: kmod-mpt2sas-15.10.08.00-1.rhel6u9.x86_64.compsig; kmod-mpt2sas-15.10.08.00-1.rhel6u9.x86_64.rpm; kmod-mpt2sas-15.10.08.00-2.rhel6u10.x86_64.compsig; kmod-mpt2sas-15.10.08.00-2.rhel6u10.x86_64.rpm

Enhancements

- Improved integration with Smart Update Manager

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (64-bit) supported by this binary rpm are:
2.6.32-696.el6 - Red Hat Enterprise Linux 6 Update 9(64-bit) and future errata kernels for update 9.
2.6.32-754 - Red Hat Enterprise Linux 6 Update 10(64-bit) and future errata kernels for update 10.

NOTE: HPE H221 Host Bus Adapter does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

HPE H2xx SAS/SATA Host Bus Adapter Driver for Red Hat Enterprise Linux 7 (64-bit)
Version: 15.10.09.00-2 **(Recommended)**
Filename: kmod-mpt2sas-15.10.07.00-3.rhel7u5.x86_64.compsig; kmod-mpt2sas-15.10.07.00-3.rhel7u5.x86_64.rpm; kmod-mpt2sas-15.10.09.00-2.rhel7u6.x86_64.compsig; kmod-mpt2sas-15.10.09.00-2.rhel7u6.x86_64.rpm

Enhancements

Added support for Red Hat Enterprise Linux 7 Update 6

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.

Note: This driver component supports Gen9 servers only with H221 controllers and the controller does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

HPE H2xx SAS/SATA Host Bus Adapter Driver for SUSE LINUX Enterprise Server 12 (64-bit)
Version: 15.10.09.00-1 **(Recommended)**
Filename: lsi-mpt2sas-kmp-default-15.10.09.00-1.sles12sp4.x86_64.compsig; lsi-mpt2sas-kmp-default-15.10.09.00-1.sles12sp4.x86_64.rpm

Enhancements

Added support for SUSE Linux Enterprise Server 12 SP4

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 12 (64-bit) supported by this binary rpm are:
-SUSE LINUX Enterprise Server 12 (64-bit) SP4 plus future errata.

Note: This driver component supports Gen9 servers only with H221 controllers and the controller does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

HPE ProLiant Gen10 Smart Array Controller (64-bit) Driver for Red Hat Enterprise Linux 6 (64-bit)
Version: 1.2.8-015 **(Recommended)**
Filename: kmod-smartpqi-1.2.8-015.rhel6u10.x86_64.compsig; kmod-smartpqi-1.2.8-015.rhel6u10.x86_64.rpm; kmod-smartpqi-1.2.8-015.rhel6u9.x86_64.compsig; kmod-smartpqi-1.2.8-015.rhel6u9.x86_64.rpm

Enhancements

Version value was updated to be consistent with the smartpqi driver packages released for other OSes as version 1.2.8-015. Smartpqi driver functionality is the same as previous version 1.2.4-065. If target device was previously updated to version 1.2.4-065, it is not necessary to update to 1.2.8-015.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (64-bit) supported by this driver rpm are:
2.6.32-696.el6 - Red Hat Enterprise Linux 6 Update 9(64-bit) and future errata kernels for update 9.

HPE ProLiant Gen10 Smart Array Controller (64-bit) Driver for Red Hat Enterprise Linux 7 (64-bit)
Version: 1.2.8-026 **(Recommended)**
Filename: kmod-smartpqi-1.2.8-026.rhel7u6.x86_64.compsig; kmod-smartpqi-1.2.8-026.rhel7u6.x86_64.rpm; kmod-smartpqi-1.2.8-026.rhel7u7.x86_64.compsig; kmod-smartpqi-1.2.8-026.rhel7u7.x86_64.rpm

Fixes

- Fixed an issue where device scanning would return success prior to all devices being established on large configurations.
- Fixed an issue where some device attributes exposed through /sysfs were not being updated.

Enhancements

Add support for Red Hat Enterprise Linux 7.7

HPE ProLiant Gen10 Smart Array Controller (64-bit) Driver for Red Hat Enterprise Linux 8 (64-bit)
Version: 1.2.8-015 **(Recommended)**
Filename: kmod-smartpqi-1.2.8-015.rhel8u0.x86_64.compsig; kmod-smartpqi-1.2.8-015.rhel8u0.x86_64.rpm

Enhancements

Version value was updated to be consistent with the smartpqi driver packages released for other OSes as version 1.2.8-015. Smartpqi driver functionality is the same as previous version 1.2.6-035. If target device was previously updated to version 1.2.6-035, it is not necessary to update to 1.2.8-015.

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 Smart Array Controller (64-bit) Driver for SUSE LINUX Enterprise Server 12 (64-bit)
Version: 1.2.8-015 **(Recommended)**
Filename: smartpqi-kmp-default-1.2.8-015.sles12sp3.x86_64.compsig; smartpqi-kmp-default-1.2.8-015.sles12sp3.x86_64.rpm; smartpqi-kmp-default-1.2.8-015.sles12sp4.x86_64.compsig; smartpqi-kmp-default-1.2.8-015.sles12sp4.x86_64.rpm

Enhancements

Version value was updated to be consistent with the smartpqi driver packages released for other OSes as version 1.2.8-015. Smartpqi driver functionality is the same as previous version 1.2.4-065. If target device was previously updated to version 1.2.4-065, it is not necessary to update to 1.2.8-015.

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 Smart Array Controller (64-bit) Driver for SUSE LINUX Enterprise Server 15 (64-bit)
Version: 1.2.8-015 **(Recommended)**
Filename: smartpqi-kmp-default-1.2.8-015.sles15sp0.x86_64.compsig; smartpqi-kmp-default-1.2.8-015.sles15sp0.x86_64.rpm; smartpqi-kmp-default-1.2.8-015.sles15sp1.x86_64.compsig; smartpqi-kmp-default-1.2.8-015.sles15sp1.x86_64.rpm

Enhancements

Added support for SUSE Linux Enterprise Services15 SP1

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

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HPE ProLiant Gen10 Smart Array Controller Driver for VMware ESXi 6.0 (Bundle file)
Version: 1.0.3.2309-1 **(Recommended)**
Filename: VMW-ESX-6.0.0-smartpqi-1.0.3.2309-offline_bundle-13601684.zip

Fixes

Fixes the following issues

- During hotplug reinsertion and while under heavy I/O system can return a checksum error.
- Customer could encounter a data coherency issue that will cause the system to return a Purple Screen Of Death (PSOD) when system fails to complete I/O's
- Possible PSOD when a TMF request timed out
- Fixed an issue where I/O tags could get exhausted when Task Management Function (TMF) fails.

- Possible PSOD while Lun reset completes with service response failure
- Possible PSOD due to incorrect queue selection logic for AIO TaskManagement
- Controller could stop responding due to outstanding IO during pqi reset.
- Inquiring command could potentially fail during device discovery

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HPE ProLiant Gen10 Smart Array Controller Driver for VMware ESXi 6.5 (Bundle file)
Version: 1.0.3.2309-1 **(Recommended)**
Filename: VMW-ESX-6.5.0-smartpqi-1.0.3.2309-offline_bundle-13601768.zip

Fixes

Fixes the following issues

- During hotplug reinsertion and while under heavy I/O system can return a checksum error.
- Customer could encounter a data coherency issue that will cause the system to return a Purple Screen Of Death (PSOD) when system fails to complete I/O's
- Possible PSOD when a TMF request timed out
- Fixed an issue where I/O tags could get exhausted when Task Management Function (TMF) fails.
- Possible PSOD while Lun reset completes with service response failure
- Possible PSOD due to incorrect queue selection logic for AIO TaskManagement
- Controller could stop responding due to outstanding IO during pqi reset.
- Inquiring command could potentially fail during device discovery

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HPE ProLiant Gen10 Smart Array Controller Driver for VMware ESXi 6.7 (Bundle file)
Version: 1.0.3.2309-1 **(Recommended)**
Filename: VMW-ESX-6.7.0-smartpqi-1.0.3.2309-offline_bundle-13601990.zip

Fixes

Fixes the following issues

- During hotplug reinsertion and while under heavy I/O system can return a checksum error.
- Customer could encounter a data coherency issue that will cause the system to return a Purple Screen Of Death (PSOD) when system fails to complete I/O's
- Possible PSOD when a TMF request timed out
- Fixed an issue where I/O tags could get exhausted when Task Management Function (TMF) fails.
- Possible PSOD while Lun reset completes with service response failure
- Possible PSOD due to incorrect queue selection logic for AIO TaskManagement
- Controller could stop responding due to outstanding IO during pqi reset.
- Inquiring command could potentially fail during device discovery

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HPE ProLiant Gen10 Smart Array Controller Driver for VMware vSphere 6.0 (Driver Component).
Version: 2019.06.01 **(Recommended)**
Filename: cp039888.compsig; cp039888.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.hp.com webpages, plus an HPE specific CPXXXX.xml file.

Fixes

Fixes the following issues

- During hotplug reinsertion and while under heavy I/O system can return a checksum error.
- Customer could encounter a data coherency issue that will cause the system to return a Purple Screen Of Death (PSOD) when system fails to complete I/O's. Please reference Customer Advisory a00071158en_us for more details.
- Possible PSOD when a TMF request timed out
- Fixed an issue where I/O tags could get exhausted when Task Management Function (TMF) fails.
- Possible PSOD while Lun reset completes with service response failure
- Possible PSOD due to incorrect queue selection logic for AIO TaskManagement
- Controller could stop responding due to outstanding IO during pqi reset.
- Inquiring command could potentially fail during device discovery
- Refer to the Customer Advisory a00071158en_us for details for use in the VMware vSAN environment as well as minimal Synergy Core SPP requirements for Synergy environments.

HPE ProLiant Gen10 Smart Array Controller Driver for VMware vSphere 6.5 (Driver Component).
Version: 2019.06.01 **(Recommended)**
Filename: cp039887.compsig; cp039887.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.hp.com webpages, plus an HPE specific CPXXXX.xml file.

Fixes

Fixes the following issues

- During hotplug reinsertion and while under heavy I/O system can return a checksum error.
- Customer could encounter a data coherency issue that will cause the system to return a Purple Screen Of Death (PSOD) when system fails to complete I/O's. Please reference Customer Advisory a00071158en_us for more details.
- Possible PSOD when a TMF request timed out
- Fixed an issue where I/O tags could get exhausted when Task Management Function (TMF) fails.

- Possible PSOD while Lun reset completes with service response failure
- Possible PSOD due to incorrect queue selection logic for AIO TaskManagement
- Controller could stop responding due to outstanding IO during pqi reset.
- Inquiring command could potentially fail during device discovery
- Refer to the Customer Advisory a00071158en_us for details for use in the VMware vSAN environment as well as minimal Synergy Core SPP requirements for Synergy environments.

HPE ProLiant Gen10 Smart Array Controller Driver for VMware vSphere 6.7 (Driver Component).
Version: 2019.06.01 **(Recommended)**
Filename: cp039886.compsig; cp039886.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.hp.com webpages, plus an HPE specific CPXXXX.xml file.

Fixes

Fixes the following issues

- During hotplug reinsertion and while under heavy I/O system can return a checksum error.
- Customer could encounter a data coherency issue that will cause the system to return a Purple Screen Of Death (PSOD) when system fails to complete I/O's.
- Possible PSOD when a TMF request timed out
- Fixed an issue where I/O tags could get exhausted when Task Management Function (TMF) fails.
- Possible PSOD while Lun reset completes with service response failure
- Possible PSOD due to incorrect queue selection logic for AIO TaskManagement
- Controller could stop responding due to outstanding IO during pqi reset.
- Inquiring command could potentially fail during device discovery
- Refer to the Customer Advisory a00071158en_us for details for use in the VMware vSAN environment as well as minimal Synergy Core SPP requirements for Synergy environments.

HPE ProLiant Smart Array Controller (64-bit) Driver for Red Hat Enterprise Linux 6 (64-bit)
Version: 3.4.20-170 **(Recommended)**
Filename: kmod-hpsa-3.4.20-170.rhel6u10.x86_64.compsig; kmod-hpsa-3.4.20-170.rhel6u10.x86_64.rpm; kmod-hpsa-3.4.20-170.rhel6u9.x86_64.compsig; kmod-hpsa-3.4.20-170.rhel6u9.x86_64.rpm

Enhancements

Version value was updated to be consistent with the hpsa driver packages released for other OSes as version 3.4.0-170. Hpsa driver functionality is the same as previous version 3.4.20-145. If target device was previously updated to version 3.4.20-145, it is not necessary to update to 3.4.20-170.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (64-bit) supported by this driver diskette are:
2.6.32-696.el6 - Red Hat Enterprise Linux 6 Update 9(64-bit) and future errata kernels for update 9.
2.6.32-754 - Red Hat Enterprise Linux 6 Update 10(64-bit) and future errata kernels for update 10.

HPE ProLiant Smart Array Controller (64-bit) Driver for Red Hat Enterprise Linux 7 (64-bit)
Version: 3.4.20-181 **(Recommended)**
Filename: kmod-hpsa-3.4.20-181.rhel7u6.x86_64.compsig; kmod-hpsa-3.4.20-181.rhel7u6.x86_64.rpm; kmod-hpsa-3.4.20-181.rhel7u7.x86_64.compsig; kmod-hpsa-3.4.20-181.rhel7u7.x86_64.rpm

Enhancements

Add support for Red Hat Enterprise Linux 7.7

HPE ProLiant Smart Array Controller (64-bit) Driver for Red Hat Enterprise Linux 8 (64-bit)
Version: 3.4.20-170 **(Recommended)**
Filename: kmod-hpsa-3.4.20-170.rhel8u0.x86_64.compsig; kmod-hpsa-3.4.20-170.rhel8u0.x86_64.rpm

Enhancements

Version value was updated to be consistent with the hpsa driver packages released for other OSes as version 3.4.0-170. Hpsa driver functionality is the same as previous version 3.4.20-166. If target device was previously updated to version 3.4.20-166, it is not necessary to update to 3.4.20-170.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 8 (64-bit) supported by this binary rpm are:
- Red Hat Enterprise Linux 8 Update 6 (64-bit).

Kernel version: 4.18.0-80

HPE ProLiant Smart Array Controller (64-bit) Driver for SUSE LINUX Enterprise Server 12 (64-bit)
Version: 3.4.20-170 **(Recommended)**
Filename: hpsa-kmp-default-3.4.20-170.sles12sp3.x86_64.compsig; hpsa-kmp-default-3.4.20-170.sles12sp3.x86_64.rpm; hpsa-kmp-default-3.4.20-170.sles12sp4.x86_64.compsig; hpsa-kmp-default-3.4.20-170.sles12sp4.x86_64.rpm

Enhancements

Version value was updated to be consistent with the hpsa driver packages released for other OSes as version 3.4.0-170. Hpsa driver functionality is the same as previous version 3.4.20-152. If target device was previously updated to version 3.4.20-152, it is not necessary to update to 3.4.20-170.

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 ProLiant Smart Array Controller (64-bit) Driver for SUSE LINUX Enterprise Server 15 (64-bit)
Version: 3.4.20-170 **(Recommended)**
Filename: hpsa-kmp-default-3.4.20-170.sles15sp0.x86_64.compsig; hpsa-kmp-default-3.4.20-170.sles15sp0.x86_64.rpm; hpsa-kmp-default-3.4.20-170.sles15sp1.x86_64.compsig; hpsa-kmp-default-3.4.20-170.sles15sp1.x86_64.rpm

Enhancements

Added support for SUSE Linux Enterprise Services15 SP1

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.

default - SUSE LINUX Enterprise Server 15 (64-bit) SP1 plus future errata.

HPE ProLiant Smart Array Controller Driver for VMware vSphere 6.0 (Bundle file)
Version: 6.0.0.132-1 **(Recommended)**
Filename: hpsa-6.0.0.132-7216129.zip

Enhancements

Improved driver handling of late I/O request completions to reduce the possibility of PSOD event.

HPE ProLiant Smart Array Controller Driver for VMware vSphere 6.0 (Driver Component).
Version: 2018.02.12 **(Recommended)**
Filename: cp033361.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 http://vibsdepot.hpe.com/ webpages, plus an HPE specific CPXXXX.xml file.

Enhancements

Improved driver handling of late I/O request completions to reduce the possibility of PSOD event.

HPE ProLiant Smart Array Controller Driver for VMware vSphere 6.5 (Bundle file)
Version: 2.0.42-1 **(Recommended)**
Filename: VMW-ESX-6.5.0-nhpsa-2.0.42-offline_bundle-13902712.zip

Fixes

- Fix issue where the hot-plug operation while on HBA mode could be unreliable due to an incorrect controller behavior in SEP configurations
- Fix problems causing driver to run out of command slots during high-IO conditions.
- Fix incorrect status shown on aborted AIO requests
- Fix dangerous wait in mempool allocation
- Fix problem preventing Task Management reset during high IO

HPE ProLiant Smart Array Controller Driver for VMware vSphere 6.5 (Driver Component).
Version: 2019.06.01 **(Recommended)**
Filename: cp040090.compsig; cp040090.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

- Fix issue where the hot-plug operation while on HBA mode could be unreliable due to an incorrect controller behavior in SEP configurations
- Fix problems causing driver to run out of command slots during high-IO conditions.
- Fix incorrect status shown on aborted AIO requests

- Fix dangerous wait in mempool allocation
- Fix problem preventing Task Management reset during high IO

HPE ProLiant Smart Array Controller Driver for VMware vSphere 6.7 (Bundle file)
Version: 2.0.42-1 **(Recommended)**
Filename: VMW-ESX-6.7.0-nhpsa-2.0.42-offline_bundle-13915522.zip

Fixes

- Fix issue where the hot-plug operation while on HBA mode could be unreliable due to an incorrect controller behavior in SEP configurations
- Fix problems causing driver to run out of command slots during high-IO conditions.
- Fix incorrect status shown on aborted AIO requests
- Fix dangerous wait in mempool allocation
- Fix problem preventing Task Management reset during high IO

HPE ProLiant Smart Array Controller Driver for VMware vSphere 6.7 (Driver Component).
Version: 2019.06.01 **(Recommended)**
Filename: cp040089.compsig; cp040089.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

- Fix issue where the hot-plug operation while on HBA mode could be unreliable due to an incorrect controller behavior in SEP configurations
- Fix problems causing driver to run out of command slots during high-IO conditions.
- Fix incorrect status shown on aborted AIO requests
- Fix dangerous wait in mempool allocation
- Fix problem preventing Task Management reset during high IO

HPE ProLiant Smart Array HPCISSS3 Controller Driver for 64-bit Microsoft Windows Server 2012/2012 R2/2016/2019 Editions
Version: 106.26.0.64 **(Recommended)**
Filename: cp037982.exe

Fixes

System could potentially display a BSOD while executing a hot replace due to a memory aligment problem

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HPE Smart Array Gen10 Controller Driver for Windows Server 2012 R2, Windows Server 2016, and Windows Server 2019
Version: 106.100.0.1014 **(Recommended)**
Filename: cp040553.compsig; cp040553.exe

Fixes

Fix the following issues:

- System may become unresposive during initialization of s DC OFF/ON test
- Corrected a wrong character displayed by Device Manager in a Japanese environment
- Issue where a PQI reset was sent incorrectly to the controller causing the PNP WHQL test case to fail
- Data could become inaccesible when a reboot is executed while the controller is in dump mode because the Power SRB completed before the cache flush

---

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 controller (64-bit) Driver for vSphere 6.0
Version: 7.706.08.00-1 **(Recommended)**
Filename: VMW-ESX-6.0.0-lsi_mr3-7.706.08.00-offline_bundle-8547848.zip

Enhancements

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

HPE Smart Array P824i-p MR controller (64-bit) Driver for vSphere 6.0 (Driver Component)
Version: 2018.06.04 **(Recommended)**
Filename: cp034921.compsig; cp034921.zip

Important Note!

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

Enhancements

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

HPE Smart Array P824i-p MR controller (64-bit) Driver for vSphere 6.5
Version: 7.706.08.00-1 **(Recommended)**
Filename: VMW-ESX-6.5.0-lsi_mr3-7.706.08.00-offline_bundle-8547861.zip

Enhancements

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

HPE Smart Array P824i-p MR controller (64-bit) Driver for vSphere 6.5 (Driver Component)
Version: 2018.06.04 **(Recommended)**
Filename: cp034922.compsig; cp034922.zip

Important Note!

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

Enhancements

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

HPE Smart Array P824i-p MR controller (64-bit) Driver for vSphere 6.7
Version: 7.706.08.00-1 **(Optional)**
Filename: VMW-ESX-6.7.0-lsi_mr3-7.706.08.00-offline_bundle-11327181.zip

Enhancements

- Added VMware vSphere 6.7 OS support

HPE Smart Array P824i-p MR controller (64-bit) Driver for vSphere 6.7 (Driver Component)
Version: 2018.02.12 **(Optional)**
Filename: cp035605.compsig; cp035605.zip

Important Note!

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

Enhancements

- Added VMware vSphere 6.7 OS support

HPE Smart Array P824i-p MR controller Driver for 64-bit Red Hat Enterprise Linux 6
Version: 07.706.05.00-14 **(Recommended)**
Filename: kmod-megaraid_sas-07.706.05.00-14.rhel6u10.x86_64.compsig; kmod-megaraid_sas-07.706.05.00-14.rhel6u10.x86_64.rpm; kmod-megaraid_sas-07.706.05.00-14.rhel6u9.x86_64.compsig; kmod-megaraid_sas-07.706.05.00-14.rhel6u9.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 6 (AMD64/EM64T) supported by this binary rpm are:
2.6.32-696.el6 - Red Hat Enterprise Linux 6 Update 9(AMD64/EM64T) and future errata kernels for update 9.

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

RC4 drop for snap4

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

Top

HPE Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver for Windows 2012, Windows 2012R2 and Windows 2016
Version: 12.0.318.0 **(Recommended)**
Filename: cp035756.compsig; cp035756.exe

Important Note!

Release Notes:
HPE StoreFabric 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.

Prerequisites

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

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

Enhancements

Updated to driver version 12.0.318.0

Added the following support:

- Added duration support for the Link Cable Beacon command. This avoids situations in which the blinking of an Host Bus Adapter(HBA) Light Emitting Diode(LED) might be initiated, but no command is sent to stop the blinking.

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:

elxdrvr-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\win2012

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

HPE Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver for Windows 2019
Version: 12.0.318.0 **(Recommended)**
Filename: cp037437.compsig; cp037437.exe

Important Note!

Release Notes:
HPE StoreFabric 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.

Prerequisites

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

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

Enhancements

Updated to driver version 12.0.318.0

Added the following support :

- Added duration support for the Link Cable Beacon command. This avoids situations in which the blinking of an Host Bus Adapter(HBA) Light Emitting Diode(LED) might be initiated, but no command is sent to stop the blinking.

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:

elxdrvr-fc-version.exe /q2 extract=2

The extracted files are located:

C:\Users\Administrator\Documents\Emulex\Drivers\FC-version

Each kit folder has subsequent architecture folders with subsequent OS folders. For example,

C:\Users\Administrator\Documents\Emulex\Drivers\FC-version\x64\win2019

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

HPE Storage Fibre Channel Adapter Kit for the x64 QLogic Storport Driver for Windows Server 2012 and 2012 R2
Version: 9.2.9.22 **(Recommended)**
Filename: cp035775.compsig; cp035775.exe

Important Note!

Release Notes:
HPE StoreFabric QLogic Adapters Release Notes

Prerequisites

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

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

Fixes

Fixed the following:

- Build environment using QSpectre compiler switch
- Request FDMI Data Change from drivers
- fcinfo /diag, and continual busy status failures.
- QLogic Windows ql2300.cat file is missing the OS attribute for Windows 2012R2

Enhancements

Added support for following:

- Added OEM IDs and friendly names
- Updated RISC FW to version 8.08.01
- Added qlservice for W2K19 Universal Driver Changes
- Added PID addressing mode support for ElsPassThru when used to send Echo to switch

Updated the driver to version 9.2.9.22

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

HPE Storage Fibre Channel Adapter Kit for the x64 QLogic Storport Driver for Windows Server 2016
Version: 9.2.9.22 **(Recommended)**
Filename: cp035776.compsig; cp035776.exe

Important Note!

Release Notes:
HPE StoreFabric QLogic Adapters Release Notes

Prerequisites

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

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

Fixes

Fixed the following:

- Build environment using QSpectre compiler switch
- Request FDMI Data Change from drivers
- fcinfo /diag, and continual busy status failures.

Enhancements

Added support for following:

- Added OEM IDs and friendly names
- Updated RISC FW to version 8.08.01
- Added qlservice for W2K19 Universal Driver Changes
- Added PID addressing mode support for ElsPassThru when used to send Echo to switch

Driver version 9.2.9.22

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

HPE Storage Fibre Channel Adapter Kit for the x64 QLogic Storport Driver for Windows Server 2019
Version: 9.2.9.22 **(Recommended)**
Filename: cp037397.compsig; cp037397.exe

Important Note!

Release Notes:
HPE StoreFabric QLogic Adapters Release Notes

Prerequisites

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

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

Fixes

Fixed the following:

- Build environment using QSpectre compiler switch
- Request FDMI Data Change from drivers
- fcinfo /diag, and continual busy status failures.

Enhancements

Added support for following:

- Added OEM IDs and friendly names
- Updated RISC FW to version 8.08.01
- Added qlservice for W2K19 Universal Driver Changes
- Added PID addressing mode support for ElsPassThru when used to send Echo to switch

Driver version 9.2.9.22

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

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

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HPE Storage Fibre Channel Over Ethernet Adapter Kit for the x64 Emulex Storport Driver for Windows 2012, Windows 2012R2 and Windows 2016
Version: 12.0.1192.0 **(Recommended)**
Filename: cp035755.compsig; cp035755.exe

Important Note!

Release Notes:
HPE StoreFabric 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.

Prerequisites

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

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

Enhancements

Added support for following:

- Disabled non universal Fibre Channel over Ethernet (FCOE) driver support as we move everything to Universal drivers

Updated to driver version 12.0.1192.0

Removed the raw driver file folder. The raw driver files can be obtained by extracting the Smart Component and then extracting the Emulex installer. Use this command:

```
brcmdrvr-fcoe-version.exe /q2 extract=2
```

The extracted files are located:

```
C:\Users\Administrator\Documents\Broadcom\Drivers\FCoE-version
```

Each kit folder has subsequent architecture folders with subsequent OS folders. For example,

```
C:\Users\Administrator\Documents\Broadcom\Drivers\FCoE-version\x64\win2012
```

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Storage Fibre Channel Over Ethernet Adapter Kit for the x64 Emulex Storport Driver for Windows 2019
Version: 12.0.1192.0 (b) **(Recommended)**
Filename: cp037436.compsig; cp037436.exe

Important Note!

Release Notes:
HPE StoreFabric 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.

Prerequisites

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

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

Enhancements

Added support for following:

- Added support for Windows Server 2019.
- Disabled non universal Fibre Channel over Ethernet (FCOE) driver support as we move everything to Universal drivers

Updated to driver version 12.0.1192.0

Removed the raw driver file folder. The raw driver files can be obtained by extracting the Smart Component and then extracting the Emulex installer. Use this command:

```
brcmdrvr-fcoe-version.exe /q2 extract=2
```

The extracted files are located:

```
C:\Users\Administrator\Documents\Broadcom\Drivers\FCoE-version
```

Each kit folder has subsequent architecture folders with subsequent OS folders. For example,

```
C:\Users\Administrator\Documents\Broadcom\Drivers\FCoE-version\x64\win2012
```

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

Red Hat Enterprise Linux 6 Server (x86-64) FC Driver Kit for HPE Qlogic and mezzanine Host Bus Adapters
Version: 8.08.00.08.06.0-k10 **(Recommended)**
Filename: kmod-qlgc-qla2xxx-8.08.00.08.06.0_k10-1.rhel6u10.x86_64.compsig; kmod-qlgc-qla2xxx-8.08.00.08.06.0_k10-1.rhel6u10.x86_64.rpm; kmod-qlgc-qla2xxx-8.08.00.08.06.0_k10-1.rhel6u9.x86_64.compsig; kmod-qlgc-qla2xxx-8.08.00.08.06.0_k10-1.rhel6u9.x86_64.rpm

Important Note!

Release Notes

HPE StoreFabric QLogic Adapters Release Notes

Note: The rpm base-name for the QLogic driver has been changed to "qlgc". Upgrades from the earlier "hpqlgc" driver are supported.

Prerequisites

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

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

Fixes

Fixed the following:

- Snoop inquiry response atleast 168 bytes to determine proprietary DIF
- Disable standard DIF for arrays advertising proprietary DIF.
- Reset PROTECT bit only in standard INQUIRY response.
- Check if the INQ response buffer is > 170 (instead of >=).
- Fix invalid offset reference of inquiry response data.
- set ql2xenabledif_tgt enabled by default.
- Parameterize ql2xenabledif_tgt (defaulted to zero).
- Mark DIF errors from target as re-tryable errors.
- Do not turn off T10 DIF on a port reset.
- Enable T10 DIF for reads as well.

Enhancements

Added support for following:

- Implement LUN level DIF for 3PAR array.

Updated to version 8.08.00.08.06.0-k10

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

Red Hat Enterprise Linux 6 Server (x86-64) FCoE Driver Kit for HPE Emulex(BRCM) Converged Network Adapters(CNAs) and mezzanine Converged Network Adapters(CNAs)
Version: 12.0.1216.0 **(Recommended)**
Filename: kmod-brcmfcoe-12.0.1216.1-1.rhel6u10.x86_64.compsig; kmod-brcmfcoe-12.0.1216.1-1.rhel6u10.x86_64.rpm; kmod-brcmfcoe-12.0.1216.1-1.rhel6u9.x86_64.compsig; kmod-brcmfcoe-12.0.1216.1-1.rhel6u9.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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.

Fixes

Fixed the following:

- Brcmfcoe incorrectly blacklists lpfc driver when FibreChannel boards are installed.

Enhancements

Added support for following:

- RedHat Enterprise Linux 6 update 10 (RHEL 6.10)
- Repotline changes to legacy Operating System (OS) SUSE Linux Enterprise Server (SLES) and Red Hat distros.

Updated to Driver version 12.0.1216.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

Red Hat Enterprise Linux 6 Server (x86-64) Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and mezzanine Host Bus Adapters
Version: 12.0.346.15 **(Recommended)**
Filename: kmod-elx-lpfc-12.0.346.15-1.rhel6u10.x86_64.compsig; kmod-elx-lpfc-12.0.346.15-1.rhel6u10.x86_64.rpm; kmod-elx-lpfc-12.0.346.15-1.rhel6u9.x86_64.compsig; kmod-elx-lpfc-12.0.346.15-1.rhel6u9.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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

Updated to driver version 12.0.346.15

Added support to the following:

- Added duration support for the Link Cable Beacon command. This avoids situations in which the blinking of an Host Bus Adapter(HBA) Light Emitting Diode(LED) might be initiated, but no command is sent to stop the blinking.

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

Red Hat Enterprise Linux 7 Server FC Driver Kit for HPE QLogic and mezzanine Host Bus Adapters
Version: 10.01.00.33.07.6-k2 **(Recommended)**
Filename: kmod-qlgc-qla2xxx-10.01.00.33.07.6_k2-1.rhel7u6.x86_64.compsig; kmod-qlgc-qla2xxx-10.01.00.33.07.6_k2-1.rhel7u6.x86_64.rpm; kmod-qlgc-qla2xxx-8.08.00.08.07.5_k10-2.rhel7u5.x86_64.compsig; kmod-qlgc-qla2xxx-8.08.00.08.07.5_k10-2.rhel7u5.x86_64.rpm

Important Note!

Release Notes:

HPE StoreFabric QLogic Adapters Release Notes

Note: The rpm base-name for the QLogic driver has been changed to "qlgc". Upgrades from the earlier "hpqlgc" driver are supported.

Prerequisites

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

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

Fixes

Fixed the following:

- Snoop inquiry response atleast 168 bytes to determine proprietary DIF
- Disable standard DIF for arrays advertising proprietary DIF.
- Reset PROTECT bit only in standard INQUIRY response.
- Check if the INQ response buffer is > 170 (instead of >=).
- Fix invalid offset reference of inquiry response data.
- set ql2xenabledif_tgt enabled by default.
- Parameterize ql2xenabledif_tgt (defaulted to zero).
- Mark DIF errors from target as re-tryable errors.
- Do not turn off T10 DIF on a port reset.
- Enable T10 DIF for reads as well.

Enhancements

Added support for following:

- Implement LUN level DIF for 3PAR array.

Initial driver for RedHat Enterprise Linux Server 7 update 6 version 10.01.00.33.07.6-k2

RedHat Enterprise Linux Server 7 update 5 version 8.08.00.08.07.5-k10

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

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

- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

Red Hat Enterprise Linux 7 Server FCoE Driver Kit for HPE Emulex(BRCM) Converged Network Adapters(CNAs) and mezzanine Converged Network Adapters(CNAs)
Version: 12.0.1216.0 **(Recommended)**
Filename: kmod-brcmfcoe-12.0.1216.1-1.rhel7u5.x86_64.compsig; kmod-brcmfcoe-12.0.1216.1-1.rhel7u5.x86_64.rpm; kmod-brcmfcoe-12.0.1216.1-1.rhel7u6.x86_64.compsig; kmod-brcmfcoe-12.0.1216.1-1.rhel7u6.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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.

Fixes

Fixed the following:

- Brcmfcoe incorrectly blacklists lpfc driver when FibreChannel boards are installed.

Enhancements

Added support for following:

- RedHat Enterprise Linux 7 update 6 (RHEL 7.6)
- Repotline changes to legacy Operating System (OS) SUSE Linux Enterprise Server (SLES) and Red Hat distros.

Updated to Driver version 12.0.1216.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

Red Hat Enterprise Linux 7 Server Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and mezzanine Host Bus Adapters
Version: 12.0.346.15 **(Recommended)**
Filename: kmod-elx-lpfc-12.0.346.15-1.rhel7u5.x86_64.compsig; kmod-elx-lpfc-12.0.346.15-1.rhel7u5.x86_64.rpm; kmod-elx-lpfc-12.0.346.15-1.rhel7u6.x86_64.compsig; kmod-elx-lpfc-12.0.346.15-1.rhel7u6.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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

Updated to driver version 12.0.346.15

Added support to the following:

- Added support for Red Hat Enterprise Linux 7update 6 (RHEL7.6).
- Added duration support for the Link Cable Beacon command. This avoids situations in which the blinking of an Host Bus Adapter(HBA) Light Emitting Diode(LED) might be initiated, but no command is sent to stop the blinking.

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

Red Hat Enterprise Linux 8 Server FC Driver Kit for HPE QLogic and mezzanine Host Bus Adapters
Version: 10.01.00.43.08.0-k1 **(Recommended)**
Filename: kmod-qlgc-qla2xxx-10.01.00.43.08.0_k1-1.rhel8u0.x86_64.compsig; kmod-qlgc-qla2xxx-10.01.00.43.08.0_k1-1.rhel8u0.x86_64.rpm

Important Note!

Release Notes:

HPE StoreFabric QLogic Adapters Release Notes

Note: The rpm base-name for the QLogic driver has been changed to "qlgc". Upgrades from the earlier "hpqlgc" driver are supported.

Prerequisites

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

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

Enhancements

Initial driver for RedHat Enterprise Linux Server 8 version 10.01.00.43.08.0-k1

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb FC:

- HPE StoreFabric 81Q PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HPE QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

- HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HPE StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

Red Hat Enterprise Linux 8 Server Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and mezzanine Host Bus Adapters
Version: 12.0.346.42 **(Recommended)**
Filename: kmod-elx-lpfc-12.0.346.42-1.rhel8u0.x86_64.compsig; kmod-elx-lpfc-12.0.346.42-1.rhel8u0.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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.

Fixes

This fix is to support future RHEL 8.0 errata kernel release where the Driver kernel and OS kernel will mismatch.

Enhancements

Updated to driver version 12.0.346.42

Supported Devices and Features

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

8Gb FC:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HPE StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- 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 StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HPE Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

SUSE Linux Enterprise Server 12 FC Driver Kit for HPE QLogic and mezzanine Host Bus Adapters
Version: 10.01.00.33.12.4-k2 **(Recommended)**
Filename: qlgc-qla2xxx-kmp-default-10.01.00.33.12.4_k2_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; qlgc-qla2xxx-kmp-default-10.01.00.33.12.4_k2_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; qlgc-qla2xxx-kmp-default-8.08.00.08.12.3_k10_k4.4.73_5-2.sles12sp3.x86_64.compsig; qlgc-qla2xxx-kmp-default-8.08.00.08.12.3_k10_k4.4.73_5-2.sles12sp3.x86_64.rpm

Important Note!

Release Notes:

HPE StoreFabric QLogic Adapters Release Notes

Note: The rpm base-name for the QLogic driver has been changed to "qlgc". Upgrades from the earlier "hpqlgc" driver are supported.

Prerequisites

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

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

Fixes

Fixed the following:

- Snoop inquiry response atleast 168 bytes to determine proprietary DIF
- Disable standard DIF for arrays advertising proprietary DIF.
- Reset PROTECT bit only in standard INQUIRY response.
- Check if the INQ response buffer is > 170 (instead of >=).
- Fix invalid offset reference of inquiry response data.
- set ql2xenabledif_tgt enabled by default.
- Parameterize ql2xenabledif_tgt (defaulted to zero).
- Mark DIF errors from target as re-tryable errors.
- Do not turn off T10 DIF on a port reset.
- Enable T10 DIF for reads as well.

Enhancements

Added support for following:

- Implement LUN level DIF for 3PAR array.

Initial Driver for SuSE Linux Enterprise Server 12 service pack 4 (SLES12 sp4) version 10.01.00.33.12.4-k2

SuSE Linux Enterprise Server 12 service pack 3 (SLES12 sp3) version 8.08.00.08.12.3_k10

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter

- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

SUSE Linux Enterprise Server 12 FCoE Driver Kit for HPE Emulex(BRCM) Converged Network Adapters(CNAs) and mezzanine Converged Network Adapters(CNAs)
Version: 12.0.1216.0 **(Recommended)**
Filename: brcmfcoe-kmp-default-12.0.1216.1_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; brcmfcoe-kmp-default-12.0.1216.1_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; brcmfcoe-kmp-default-12.0.1216.1_k4.4.73_5-1.sles12sp3.x86_64.compsig; brcmfcoe-kmp-default-12.0.1216.1_k4.4.73_5-1.sles12sp3.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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.

Fixes

Fixed the following:

- Brcmfcoe installer script does not install driver on SUSE Linux Enterprise Server 12 Service Pack 3(SLES 12 SP3) with Message “running kernel not supported".
- Brcmfcoe incorrectly blacklists lpfc driver when FibreChannel boards are installed.

Enhancements

Added support for following:

- SUSE Linux Enterprise Server 12 Service Pack 4 (SLES 12 SP4)
- Repotline changes to legacy Operating System (OS) SUSE Linux Enterprise Server (SLES) and Red Hat distros.

Updated to Driver version 12.0.1216.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

SUSE Linux Enterprise Server 12 Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and mezzanine Host Bus Adapters
Version: 12.0.346.15 **(Recommended)**
Filename: elx-lpfc-kmp-default-12.0.346.15_k4.12.14_94.41-1.sles12sp4.x86_64.compsig; elx-lpfc-kmp-default-12.0.346.15_k4.12.14_94.41-1.sles12sp4.x86_64.rpm; elx-lpfc-kmp-default-12.0.346.15_k4.4.126_94.22-1.sles12sp3.x86_64.compsig; elx-lpfc-kmp-default-12.0.346.15_k4.4.126_94.22-1.sles12sp3.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

For Emulex Fibre Channel Driver installation on SuSE Linux Enterprise Server 12 service pack 3 requires user to install latest Errata Kernel available, otherwise the driver may not complete the installation and throw dependency messages

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.

For Emulex Fibre Channel Driver installation on SuSE Linux Enterprise Server 12 service pack 3 requires user to install latest Errata Kernel available, otherwise the driver may not complete the installation and throw dependency messages

Enhancements

Updated to driver version 12.0.346.15

Added support to the following:

- Added support for SUSE Linux Enterprise Server 12 Service Pack 4(SLES12SP4).
- Added duration support for the Link Cable Beacon command. This avoids situations in which the blinking of an Host Bus Adapter(HBA) Light Emitting Diode(LED) might be initiated, but no command is sent to stop the blinking.

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

SUSE Linux Enterprise Server 15 FC Driver Kit for HPE QLogic and mezzanine Host Bus Adapters
Version: 10.01.00.33.15.0-k2 **(Recommended)**
Filename: qlgc-qla2xxx-kmp-default-10.01.00.33.15.0_k2_k4.12.14_23-1.sles15sp0.x86_64.compsig; qlgc-qla2xxx-kmp-default-10.01.00.33.15.0_k2_k4.12.14_23-1.sles15sp0.x86_64.rpm

Important Note!

Release Notes:

HPE StoreFabric QLogic Adapters Release Notes

Note: The rpm base-name for the QLogic driver has been changed to "qlgc". Upgrades from the earlier "hpqlgc" driver are supported.

Prerequisites

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

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

Fixes

Fixed the following:

- Snoop inquiry response atleast 168 bytes to determine proprietary DIF
- Disable standard DIF for arrays advertising proprietary DIF.
- Reset PROTECT bit only in standard INQUIRY response.
- Check if the INQ response buffer is > 170 (instead of >=).
- Fix invalid offset reference of inquiry response data.
- set ql2xenabledif_tgt enabled by default.
- Parameterize ql2xenabledif_tgt (defaulted to zero).
- Mark DIF errors from target as re-tryable errors.
- Do not turn off T10 DIF on a port reset.
- Enable T10 DIF for reads as well.

Enhancements

Added support for following:

- Implement LUN level DIF for 3PAR array.

Updated to version 10.01.00.33.15.0-k2

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

SUSE Linux Enterprise Server 15 FCoE Driver Kit for HPE Emulex(BRCM) Converged Network Adapters(CNAs) and mezzanine Converged Network Adapters(CNAs)
Version: 12.0.1216.0 **(Recommended)**
Filename: brcmfcoe-kmp-default-12.0.1216.1_k4.12.14_23-1.sles15sp0.x86_64.compsig; brcmfcoe-kmp-default-12.0.1216.1_k4.12.14_23-1.sles15sp0.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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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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.

Fixes

Fixed the following:

- Brcmfcoe incorrectly blacklists lpfc driver when FibreChannel boards are installed.

Enhancements

Added support for following:

- SUSE Linux Enterprise Server 15 Service Pack 0 (SLES 15 SP0)
- Repotline changes to legacy Operating System (OS) SUSE Linux Enterprise Server (SLES) and Red Hat distros.

Updated to Driver version 12.0.1216.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

SUSE Linux Enterprise Server 15 Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and mezzanine Host Bus Adapters
Version: 12.0.346.15 **(Recommended)**
Filename: elx-lpfc-kmp-default-12.0.346.15_k4.12.14_23-1.sles15sp0.x86_64.compsig; elx-lpfc-kmp-default-12.0.346.15_k4.12.14_23-1.sles15sp0.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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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.

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

Updated to driver version 12.0.346.15

Added support to the following:

- Added duration support for the Link Cable Beacon command. This avoids situations in which the blinking of an Host Bus Adapter(HBA) Light Emitting Diode(LED) might be initiated, but no command is sent to stop the blinking.

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

Driver - System Top

HPE Non-Volatile Memory Drivers for Microsoft Windows Server 2012 R2 and 2016
Version: 3.0.1.2 **(Recommended)**
Filename: cp038534.compsig; cp038534.exe

Important Note!

This Smart Component version 3.0.1.2 contains the HPE NVM Bus Driver HpeNvmBus.sys version 3.0.1.2 and the HPE NVM Disk Driver HpeNvmDisk0101 version 3.0.1.0.

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 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/nvdimm

Driver - System Management Top

HPE ProLiant Gen9 Chipset Identifier for Windows Server 2012 to Server 2019
Version: 10.1.17809.8096 **(Optional)**
Filename: cp035801.exe

Enhancements

Add support for Windows Server 2019.

---

iLO 3/4 Channel Interface Driver for Windows Server 2008 to Server 2012 R2
Version: 3.30.0.0 **(Optional)**
Filename: cp029394.exe

Important Note!

The Channel Interface Driver was separated into its own component when the ProLiant Support Pack version 9.00 was released. Previously, the driver was a part of the *iLO 3 Management Controller Driver Package* component.

Fixes

Ensure that work items created by the driver are properly terminated if the driver has been restarted.

---

iLO 4 Channel Interface Driver for Windows Server 2012 and Server 2012 R2
Version: 4.0.0.0 **(Optional)**
Filename: cp035107.exe

Important Note!

The Channel Interface Driver was separated into its own component when the ProLiant Support Pack version 9.00 was released. Previously, the driver was a part of the *iLO 3 Management Controller Driver Package* component.

Enhancements

Aligned system and operating system support with the production Service Pack for ProLiant:

- Removed support for Windows Server 2008 and Windows Server 2008 R2.
- Removed support for iLO 3.
- Removed support for HP ProLiant G7 and HP ProLiant Gen8 systems.

---

iLO 4 Channel Interface Driver for Windows Server 2012 and Server 2012 R2
Version: 4.1.0.0 **(Recommended)**
Filename: cp039984.exe

Important Note!

The Channel Interface Driver was separated into its own component when the ProLiant Support Pack version 9.00 was released. Previously, the driver was a part of the *iLO 3 Management Controller Driver Package* component.

Fixes

Corrected a potential Windows bugcheck 0x50 (PAGE_FAULT_IN_NONPAGED_AREA) that could occur if Windows restarts the driver without unloading it.

---

iLO 4 Channel Interface Driver for Windows Server 2016 and Server 2019
Version: 4.0.0.0 **(Optional)**
Filename: cp035108.exe

Enhancements

Add support for Windows Server 2019.

---

iLO 4 Channel Interface Driver for Windows Server 2016 and Server 2019
Version: 4.1.0.0 **(Recommended)**
Filename: cp039985.exe

Fixes

Corrected a potential Windows bugcheck 0x50 (PAGE_FAULT_IN_NONPAGED_AREA) that could occur if Windows restarts the driver without unloading it.

---

iLO 4 Management Controller Driver Package for Windows Server 2012 and Server 2012 R2
Version: 4.0.0.0 **(Optional)**
Filename: cp035109.exe

Prerequisites

The *iLO 3/4 Channel Interface Driver for Windows Server 2008 to Server 2012 R2* (version 3.4.0.0 or later) must be installed prior to this component. The Channel Interface Driver was previously included within this component, but is now installed separately.

Enhancements

Aligned system and operating system support with the production Service Pack for ProLiant:

- Removed support for Windows Server 2008 and Windows Server 2008 R2.
- Removed support for iLO 3.
- Removed support for HP ProLiant G7 and HP ProLiant Gen8 systems.

---

iLO 4 Management Controller Driver Package for Windows Server 2016 and Server 2019
Version: 4.0.0.0 (B) **(Optional)**
Filename: cp037927.exe

Prerequisites

The *iLO 3/4 Channel Interface Driver for Windows Server 2016* must be installed prior to this component.

Fixes

Fixed a component installation failure (error message "The iLO 4 Core Driver must be installed before installing this package") when Windows Device Guard is enabled.

---

iLO 5 Automatic Server Recovery Driver for Windows Server 2012 R2
Version: 4.4.0.0 **(Optional)**
Filename: cp035137.compsig; cp035137.exe

Important Note!

Installing the iLO 5 Channel Interface Driver, version 4.1.0.0 or earlier, will overwrite this driver. To avoid the overwrite, use version 4.1.0.0(B) or later of the iLO 5 Channel Interface Driver.

Enhancements

- The driver now configures the ASR hardware to assert a Non-Maskable Interrupt nine seconds before the hardware timer expires. In the event of an operating system hang, this will force a Windows bugcheck and memory dump. This feature can be enabled and disabled using the new Set-AsrPreTimeoutNMI.ps1 PowerShell script.
- ASR is no longer used to restart the system after a Windows bugcheck. By default, Windows will automatically reboot after a bugcheck.
- Changes to the ASR settings are now written to disk immediately.
- The Get-AsrTimeout.ps1 PowerShell script has been renamed to Get-AsrSettings.ps1.

---

iLO 5 Automatic Server Recovery Driver for Windows Server 2016 and Server 2019
Version: 4.4.0.0 (B) **(Optional)**
Filename: cp035140.compsig; cp035140.exe

Important Note!

Installing the iLO 5 Channel Interface Driver, version 4.1.0.0 or earlier, will overwrite this driver. To avoid the overwrite, use version 4.1.0.0(B) or later of the iLO 5 Channel Interface Driver.

Enhancements

- Added support for Windows Server 2019
- Added support for the HPE ProLiant XL270d Gen10 and the HPE ProLiant XL420 Gen10

---

iLO 5 Channel Interface Driver for Windows Server 2012 R2
Version: 4.3.0.0 **(Optional)**
Filename: cp034070.compsig; cp034070.exe

Enhancements

- Enabled message-signaled interrupts to avoid interrupt sharing with the Universal Serial Bus controller in iLO 5.
- Added support for the HPE ProLiant DL325 Gen10.

---

iLO 5 Channel Interface Driver for Windows Server 2012 R2
Version: 4.5.0.0 **(Recommended)**
Filename: cp039986.compsig; cp039986.exe

Fixes

Corrected a potential Windows bugcheck 0x50 (PAGE_FAULT_IN_NONPAGED_AREA) that could occur if Windows restarts the driver without unloading it.

---

iLO 5 Channel Interface Driver for Windows Server 2016 and Server 2019
Version: 4.3.0.0 (B) **(Optional)**
Filename: cp035112.compsig; cp035112.exe

Enhancements

- Added support for Windows Server 2019
- Added support for the HPE ProLiant XL270d Gen10 and the HPE ProLiant XL420 Gen10

---

iLO 5 Channel Interface Driver for Windows Server 2016 and Server 2019
Version: 4.5.0.0 **(Recommended)**
Filename: cp039987.compsig; cp039987.exe

Fixes

Corrected a potential Windows bugcheck 0x50 (PAGE_FAULT_IN_NONPAGED_AREA) that could occur if Windows restarts the driver without unloading it.

Driver - Video Top

Matrox G200eH Video Controller Driver for Windows Server 2012 and Server 2012 R2
Version: 9.15.1.224 **(Optional)**
Filename: cp038691.exe

Fixes

- Fix for random screen corruption when changing resolution that could occur with driver versions 9.15.1.184 and 9.15.1.218.
- Fix for a display freeze that could occur when running the Windows Display Diagnostics tool (dispdiag.exe).

Matrox G200eH Video Controller Driver for Windows Server 2016 and Server 2019
Version: 9.15.1.224 **(Optional)**
Filename: cp038692.exe

Fixes

- Fix for random screen corruption when changing resolution that could occur with driver versions 9.15.1.184 and 9.15.1.218.
- Fix for a display freeze that could occur when running the Windows Display Diagnostics tool (dispdiag.exe).

Matrox G200eH3 Video Controller Driver for Windows Server 2012 R2
Version: 9.15.1.224 **(Optional)**

Filename: cp038693.compsig; cp038693.exe

Fixes

- Fix for random screen corruption when changing resolution that could occur with driver versions 9.15.1.184 and 9.15.1.218.
- Fix for a display freeze that could occur when running the Windows Display Diagnostics tool (dispdiag.exe).

Matrox G200eH3 Video Controller Driver for Windows Server 2016 and Server 2019
Version: 9.15.1.224 **(Optional)**
Filename: cp038694.compsig; cp038694.exe

Fixes

- Fix for random screen corruption when changing resolution that could occur with driver versions 9.15.1.184 and 9.15.1.218.
- Fix for a display freeze that could occur when running the Windows Display Diagnostics tool (dispdiag.exe).

Firmware - Blade Infrastructure Top

HPE BladeSystem c-Class Virtual Connect Firmware, Ethernet plus 8Gb 20-port and 8/16Gb 24-port FC Edition Component for Windows
Version: 4.75 **(Recommended)**
Filename: cp033374.exe

Prerequisites

The 4.75 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 4.75 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 4.75 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 Flex-10 10Gb Virtual Connect Ethernet Module for c-Class BladeSystem

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 HP 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: 4.75 (a) **(Recommended)**
Filename: RPMS/x86_64/firmware-vceth-4.75-1.1.x86_64.rpm

Important Note!

Virtual Connect firmware 4.75(a) Linux Component supports deployment from systems running RHEL 6.10, RHEL 7.6, SLES 12 SP4, or SLES 15 SP1.

Prerequisites

The 4.75 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 4.75 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 4.75 version can be found in the HPE Virtual Connect Release Notes at URL**:** http://www.hpe.com/info/vc/manuals

Added support for Virtual Connect firmware Linux component deployment from systems running RHEL 6.10. No other changes were implemented in component release 4.75(a).

Supported Devices and Features

HPE Flex-10 10Gb Virtual Connect Ethernet Module for c-Class BladeSystem

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

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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: 4.90 **(Recommended)**
Filename: RPMS/x86_64/firmware-oa-4.90-1.1.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

The Onboard Administrator Smart Component contains 64-bit executable binaries. As a result, the client operating system upon which the OA Smart Component is installed and executed must either have native support for 64-bit executables or must have the 64-bit compatibility libraries installed.

Fixes

General

- Addressed an issue where Onboard Administrator is not reachable when the port speed changes from 100M to 1000M in auto-negotiation mode. This issue is described by Customer Advisory : https://support.hpe.com/hpsc/doc/public/display?sp4ts.oid=1844065&docLocale=en_US&docId=emr_na-c04866545
- Addressed an issue where the DHCPv6 service does not start after an Onboard Administrator reboots causing it to reboot again after 15 minutes.
- Addressed an issue related to ssl protocols enable or disable in the Onboard Administrator Command Line Interface (CLI) where proper error message is displayed. When the password entered is less than eight characters, the ambient temperature of the BL460c Gen10 blade is not displayed.
- Addressed issues in Onboard Administrator GUI pages related to:
  1. Power management
  2. Front view display of BL460c Gen10 blade
  3. Login feature into linked enclosure and Two-factor authentication
- Addressed an issue where syslog messages were not added for dynamic dns setting and LDAP group access changes.
- Addressed an issue where SNMP GET for Onboard Administrator system description OID displays a wrong value.
- Addressed an issue where Blade Switch 6125G firmware version is not displayed after rebooting OA.

Addressed an issue where Onboard Administrator responds to internal private IP ping requests from management interface.
- Addressed the issue of delay in the powering of the blades after an enclosure power cycle in a VCM managed enclosure.
- Addressed an issue in the SNMP where power supply OK traps are not sent out after an enclosure power cycle.
- Addressed the issues related to user certificate usage in the Onboard Administrator where the same certificate cannot be used for multiple users and checking the syntax of IPv6 address if used in the certificate.
- Addressed the issues present in the previous versions of the Onboard Administrator online help.
- Addressed an issue in FIPS ON mode where Onboard Administrator CLI will display information about the password requirements when an invalid password in entered by the user.
- Fixed an issue related to ambient temperature display of Gen10 blades in Command Line Interface (CLI).
- Fixed an issue in First Time Setup Wizard page in GUI where in FIPS ON mode, user will not able to set DEBUG to ON.
- Addressed an issue where messages are not logged in syslog when Device and Interconnects bay access are updated for a LDAP group.
- Fixed an issue related to Blade part number display in OA GUI and CLI.

Security

The following security vulnerabilities are fixed:

- CVE-2018-0732- Addressed the issue where the possibility of a malicious server sending a large prime value to the client from DH (E) based ciphersuite during the key agreement in a TLS handshake resulting in the client to take a long time to generate a key with the prime and exploited in a Denial Of Service attack.
- CVE-2018-0737- Addressed the issue of vulnerability of the OpenSSL RSA Key generation algorithm to the cache timing side channel attack.

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 Explorer11 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 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.

Enhancements

Onboard Administrator 4.90 provides support for the following enhancements:

Hardware additions

- None

Features**: additions and changes**

General

- On SNMP user add/delete, Onboard Administrator has been enhanced to resync with the new configuration instead of restarting SNMP service.
- The SCEXE package support has been removed in the Onboard Administrator firmware update and EFM. OA now uses only the RPM package.
- The Single Sign-On (SSO) feature has been enhanced to support the Password Complexity feature in the iLO 5 firmware.
- The AlertMail feature has been enhanced to include subsystems status in the AlertMail messages.
- Onboard Administrator has been enhanced for better debugging of issues.

Security

None

Online HPE BladeSystem c-Class Onboard Administrator Firmware Component for Windows
Version: 4.90 **(Recommended)**
Filename: cp036665.exe

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

The Onboard Administrator Smart Component contains 32-bit executable binaries. As a result, the client operating system upon which the OA Smart Component is installed and executed must either have native support for 32-bit executables or must have the 32-bit compatibility libraries installed.

Fixes

General

- Addressed an issue where Onboard Administrator is not reachable when the port speed changes from 100M to 1000M in auto-negotiation mode. This issue is described by Customer Advisory : https://support.hpe.com/hpsc/doc/public/display?sp4ts.oid=1844065&docLocale=en_US&docId=emr_na-c04866545
- Addressed an issue where the DHCPv6 service does not start after an Onboard Administrator reboots causing it to reboot again after 15 minutes.
- Addressed an issue related to ssl protocols enable or disable in the Onboard Administrator Command Line Interface (CLI) where proper error message is displayed. When the password entered is less than eight characters, the ambient temperature of the BL460c Gen10 blade is not displayed.
- Addressed issues in Onboard Administrator GUI pages related to:
  1. Power management
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  3. Login feature into linked enclosure and Two-factor authentication
- Addressed an issue where syslog messages were not added for dynamic dns setting and LDAP group access changes.
- Addressed an issue where SNMP GET for Onboard Administrator system description OID displays a wrong value.
- Addressed an issue where Blade Switch 6125G firmware version is not displayed after rebooting OA.
- Addressed an issue where Onboard Administrator responds to internal private IP ping requests from management interface.
- Addressed the issue of delay in the powering of the blades after an enclosure power cycle in a VCM managed enclosure.
- Addressed an issue in the SNMP where power supply OK traps are not sent out after an enclosure power cycle.
- Addressed the issues related to user certificate usage in the Onboard Administrator where the same certificate cannot be used for multiple users and checking the syntax of IPv6 address if used in the certificate.
- Addressed the issues present in the previous versions of the Onboard Administrator online help.
- Addressed an issue in FIPS ON mode where Onboard Administrator CLI will display information about the password requirements when an invalid password in entered by the user.
- Fixed an issue related to ambient temperature display of Gen10 blades in Command Line Interface (CLI).
- Fixed an issue in First Time Setup Wizard page in GUI where in FIPS ON mode, user will not able to set DEBUG to ON.
- Addressed an issue where messages are not logged in syslog when Device and Interconnects bay access are updated for a LDAP group.
- Fixed an issue related to Blade part number display in OA GUI and CLI.

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The following security vulnerabilities are fixed:

- CVE-2018-0732- Addressed the issue where the possibility of a malicious server sending a large prime value to the client from DH (E) based ciphersuite during the key agreement in a TLS handshake resulting in the client to take a long time to generate a key with the prime and exploited in a Denial Of Service attack.
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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 Explorer11 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 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.

Enhancements

Onboard Administrator 4.90 provides support for the following enhancements:

Hardware additions

- None

Features**: additions and changes**

General

- On SNMP user add/delete, Onboard Administrator has been enhanced to resync with the new configuration instead of restarting SNMP service.
- The SCEXE package support has been removed in the Onboard Administrator firmware update and EFM. OA now uses only the RPM package.
- The Single Sign-On (SSO) feature has been enhanced to support the Password Complexity feature in the iLO 5 firmware.
- The AlertMail feature has been enhanced to include subsystems status in the AlertMail messages.
- Onboard Administrator has been enhanced for better debugging of issues.

Security

- None

Firmware - Lights-Out Management Top

Online ROM Flash Component for Linux - HPE Integrated Lights-Out 4
Version: 2.70 (b) **(Recommended)**
Filename: CP040550.scexe; RPMS/i386/firmware-ilo4-2.70-2.1.i386.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
CPQLOCFG/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 5.3.0
- HPONCFG Linux 5.4.0
- LOCFG v5.10.0
- HPLOMIG 5.2.0

Fixes

The following issues are resolved in this version:

- Linux or VMware systems only: An OS exception or memory corruption might occur when using the hpilo driver.
- Automatic restoration of the iLO backup configuration does not work correctly.
- Redfish calls with iLO 4 2.61 sometimes include an invalid UTF-8 character in the power supply part number.
- The REST call "ilorest -d serverlogs --selectlog=IML --clearlog rc 255" fails when it should succeed.

SECURITY:

- HPESBHF03917

For the latest security bulletins and vulnerabilities, please visit:
https://support.hpe.com/hpesc/public/home

Security best practices:

Please refer to the HPE Integrated Lights-Out Security Technology Brief for the latest on security best practices at:
http://www.hpe.com/support/iLO4_security_en

Enhancements

- HTML5 Remote Console
- SNMP trap 18015 cpqNicAllLinksDown (all Links down on a network adapter)
- Confirmation dialog box for Remote Console power button actions
- New Key Manager software support:
  - SafeNet AT KeySecure G350v 8.6.0 and later
  - Gemalto SafeNet KeySecure 8.9.0 and later
- Active Health System updates:
  - Support for the InfoSight Optimized Active Health System download.
  - iLO nonvolatile flash memory wear data logging.
- Embedded remote support updates:
  - Modified the Active Health System log filename used for Embedded Remote Support uploads.
  - Updated Embedded Remote Support service events for compatibility with Windows Server 2019.
- Support for hyphens in the State and City or Locality boxes in Certificate Signing requests.

Online ROM Flash Component for Linux - HPE Integrated Lights-Out 5
Version: 1.45 (a) **(Optional)**
Filename: RPMS/x86_64/firmware-ilo5-1.45-1.1.x86_64.compsig; RPMS/x86_64/firmware-ilo5-1.45-1.1.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

Fixed problem introduced in iLO 5 v1.43 which could cause an HTTP connection to be refused under high activity of REST calls.

Enhancements

Added support for RHEL8

Online ROM Flash Component for VMware ESXi - HPE Integrated Lights-Out 4
Version: 2.70 **(Recommended)**
Filename: CP037958.compsig; CP037958.zip

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
CPQLOCFG/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 5.3.0
- HPONCFG Linux 5.4.0

- LOCFG v5.10.0
- HPLOMIG 5.2.0

Fixes

The following issues are resolved in this version:

- Linux or VMware systems only: An OS exception or memory corruption might occur when using the hpilo driver.
- Automatic restoration of the iLO backup configuration does not work correctly.
- Redfish calls with iLO 4 2.61 sometimes include an invalid UTF-8 character in the power supply part number.
- The REST call "ilorest -d serverlogs --selectlog=IML --clearlog rc 255" fails when it should succeed.

SECURITY:

- HPESBHF03917

For the latest security bulletins and vulnerabilities, please visit:
https://support.hpe.com/hpesc/public/home

Security best practices:

Please refer to the HPE Integrated Lights-Out Security Technology Brief for the latest on security best practices at:
http://www.hpe.com/support/iLO4_security_en

Enhancements

- HTML5 Remote Console
- SNMP trap 18015 cpqNicAllLinksDown (all Links down on a network adapter)
- Confirmation dialog box for Remote Console power button actions
- New Key Manager software support:
  - SafeNet AT KeySecure G350v 8.6.0 and later
  - Gemalto SafeNet KeySecure 8.9.0 and later
- Active Health System updates:
  - Support for the InfoSight Optimized Active Health System download.
  - iLO nonvolatile flash memory wear data logging.
- Embedded remote support updates:
  - Modified the Active Health System log filename used for Embedded Remote Support uploads.
  - Updated Embedded Remote Support service events for compatibility with Windows Server 2019.
- Support for hyphens in the State and City or Locality boxes in Certificate Signing requests.

Online ROM Flash Component for Windows x64 - HPE Integrated Lights-Out 4
Version: 2.70 **(Recommended)**
Filename: cp038075.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
HPE-SIM Single Sign-On
Web Server
SSH Server
SNTP Client
DDNS Client
RIBCL over IPv6
SNMP
AlertMail
Remote Syslog
WinDBG Support
CPQLOCFG/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 5.3.0
- HPONCFG Linux 5.4.0

- LOCFG v5.10.0
- HPLOMIG 5.2.0

Fixes

The following issues are resolved in this version:

- Linux or VMware systems only: An OS exception or memory corruption might occur when using the hpilo driver.
- Automatic restoration of the iLO backup configuration does not work correctly.
- Redfish calls with iLO 4 2.61 sometimes include an invalid UTF-8 character in the power supply part number.
- The REST call "ilorest -d serverlogs --selectlog=IML --clearlog rc 255" fails when it should succeed.

SECURITY:

- HPESBHF03917

For the latest security bulletins and vulnerabilities, please visit:
https://support.hpe.com/hpesc/public/home

Security best practices:

Please refer to the HPE Integrated Lights-Out Security Technology Brief for the latest on security best practices at:
http://www.hpe.com/support/iLO4_security_en

Enhancements

- HTML5 Remote Console
- SNMP trap 18015 cpqNicAllLinksDown (all Links down on a network adapter)
- Confirmation dialog box for Remote Console power button actions
- New Key Manager software support:
  - SafeNet AT KeySecure G350v 8.6.0 and later
  - Gemalto SafeNet KeySecure 8.9.0 and later
- Active Health System updates:
  - Support for the InfoSight Optimized Active Health System download.
  - iLO nonvolatile flash memory wear data logging.
- Embedded remote support updates:
  - Modified the Active Health System log filename used for Embedded Remote Support uploads.
  - Updated Embedded Remote Support service events for compatibility with Windows Server 2019.
- Support for hyphens in the State and City or Locality boxes in Certificate Signing requests.

Online ROM Flash Component for Windows x64 - HPE Integrated Lights-Out 5
Version: 1.45 **(Recommended)**
Filename: cp040393.compsig; cp040393.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

- Fixed problem introduced in iLO 5 v1.43 which could cause an HTTP connection to be refused under high activity of REST calls.

Online ROM Flash Firmware Package - HPE Integrated Lights-Out 5
Version: 1.45 **(Recommended)**
Filename: ilo5_145.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

- Fixed problem introduced in iLO 5 v1.43 which could cause an HTTP connection to be refused under high activity of REST calls.

Firmware - Network Top

HPE Broadcom NetXtreme-E Online Firmware Upgrade Utility for Linux x86_64
Version: 1.5.11 **(Optional)**
Filename: firmware-nic-bcm-nxe-1.5.11-1.1.x86_64.compsig; firmware-nic-bcm-nxe-1.5.11-1.1.x86_64.rpm

Important Note!

HPE recommends the *HPE Broadcom NetXtreme-E Drivers for Linux*, versions 1.9.2-214.0.182.0 or later, for use with this firmware.

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 corrects an issue where an adapter incorrectly sends a NULL padded System Description Link Layer Discovery Protocol (LLDP) Type-Length-Value (TLV).

This product corrects an issue where an incorrect network controller name is displayed in the RBSU.

This product corrects an issue where adapter firmware is corrupted during reboot.

This product corrects an issue seen in Auto Negotiation (AN) mode where one of the ports goes down if the link is down on the other port.

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 Broadcom NetXtreme-E Online Firmware Upgrade Utility for VMware
Version: 5.7.10 **(Optional)**
Filename: CP035581.compsig; CP035581.zip

Important Note!

HPE recommends *HPE Broadcom NetXtreme-E Drivers for VMware*, versions 2018.09.00 or later, for use with this firmware.

This software package contains NVM Image version 214.0.203000 with the following firmware versions:

NIC	Bootcode Version	NCSI Version	MBA Version	UEFI Version	CCM Version	RoCE Version
HPE Ethernet 10Gb 2-port 535FLR-T Adapter	214.0.202.0	214.0.203.0	214.0.181.0	214.0.182.0	214.0.166.0	214.0.182.0
HPE Ethernet 10Gb 2-port 535T Adapter						
HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter						
HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter						

Prerequisites

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

Fixes

This product corrects an issue where adapters incorrectly send a NULL padded System Description LLDP (Link Layer Discovery Protocol) TLV.

This product corrects an issue where an incorrect device (Network Controller) name is displayed in the RBSU.

This product corrects an issue where adapters become Firmware corruption during rebooting.

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 Broadcom NetXtreme-E Online Firmware Upgrade Utility for Windows Server x64 Editions
Version: 5.1.4.0 **(Optional)**
Filename: cp035575.compsig; cp035575.exe

Important Note!

HPE recommends *HPE Broadcom NetXtreme-E Driver for Windows*, versions 214.0.177.0 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 corrects an issue where adapters incorrectly send a NULL padded System Description LLDP (Link Layer Discovery Protocol) TLV.
This product corrects an issue where an incorrect device (Network Controller) name is displayed in the RBSU.
This product corrects an issue where adapters become Firmware corruption during rebooting.

Enhancements

This product now supports Windows Server 2019.

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 Broadcom NX1 Online Firmware Upgrade Utility for Linux x86_64
Version: 2.23.10 **(Optional)**
Filename: firmware-nic-broadcom-2.23.10-1.1.x86_64.compsig; firmware-nic-broadcom-2.23.10-1.1.x86_64.rpm

Important Note!

HPE recommends *HPE Broadcom tg3 Ethernet Drivers*, versions 3.137y or later, for use with this firmware.

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 corrects an issue where the component fails to update adapter firmware when running on ESXi 6.7.
This product corrects an issue where an incorrect device (Network Controller) name is displayed in the RBSU.

Supported Devices and Features

This product supports the following network adapters:

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

HPE Broadcom NX1 Online Firmware Upgrade Utility for VMware
Version: 1.24.8 **(Optional)**
Filename: CP036110.compsig; CP036110.zip

Important Note!

HPE recommends *HP Broadcom tg3 Ethernet Drivers for VMware*, versions 2015.10.01, for use with this firmware.

This software package contains combo image v20.14.54 with the following firmware versions:

NIC	Boot Code Version	PXE Version	NCSI Version	UEFI Version	CCM Version
HP Ethernet 1Gb 2-port 330i Adapter (22BD)	2.10	20.14.0	1.5.01	20.14.6	214.0.166.0
HP Ethernet 1Gb 4-port 331i Adapter (22BE) HP Ethernet 1Gb 4-port 331FLR Adapter HP Ethernet 1Gb 4-port 331T Adapter	1.46	20.14.0	1.5.01	20.14.6	214.0.166.0
HP Ethernet 1Gb 2-port 332i Adapter (22E8) HP Ethernet 1Gb 2-port 332T Adapter	1.40	20.14.0	1.5.01	20.14.6	214.0.166.0

Prerequisites

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

Fixes

This product corrects an issue on SLES15 where the component fails to update adapter firmware with secure boot enabled.
This product corrects an issue where an incorrect device (Network Controller) name is displayed in the RBSU.

Supported Devices and Features

This product supports the following network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (22BD)
- HP Ethernet 1Gb 4-port 331i Adapter (22BE)
- HPE Ethernet 1Gb 4-port 331FLR Adapter
- HPE Ethernet 1Gb 4-port 331T Adapter
- HP 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: 5.1.4.0 **(Optional)**
Filename: cp036111.compsig; cp036111.exe

Important Note!

HPE recommends *HPE Broadcom NX1 1Gb Driver for Windows Server x64 Editions*, version 214.0.0.0(B) 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 corrects an issue where an incorrect device (Network Controller) name is displayed in the RBSU.

Supported Devices and Features

This product supports the following network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (22BD)
- HP Ethernet 1Gb 4-port 331i Adapter (22BE)
- HPE Ethernet 1Gb 4-port 331FLR Adapter
- HPE Ethernet 1Gb 4-port 331T Adapter
- HP 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: 2019.03.01 **(Recommended)**
Filename: RPMS/x86_64/firmware-cna-emulex-2019.03.01-1.19.x86_64.compsig; RPMS/x86_64/firmware-cna-emulex-2019.03.01-1.19.x86_64.rpm

Important Note!

Release Notes:

HPE StoreFabric 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.

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 unexpected behavior in Active Health System (AHS) logs show World Wide Node Name (wwnn) & World Wide Port Name (wwpn) in reverse order.
- Fixed unexpected behavior with HP FlexFabric 20Gb 2-port 650FLB Adapter, HP FlexFabric 20Gb 2-port 650M Adapter cards does not complete to boot to Linux SUSE Linux Enterprise Server 12 Service Pack 3(SLES12 SP3) Operating System (OS) when both adapter are enabled for Fibre Channel over Ethernet (FCoE) boot.
- Microsoft Windows Server 2012 R2 Hyper-V Storage Area Network (SAN) Disconnect.
- Link lost with firmware version 11.2.1263.19
- "FW not responding" message seen on card when creating Virtual Function (VF) in loop for HPE StoreFabric CN1200E-T 10GBASE-T Converged Network Adapter [NIC+ iSCSI] in Gen10 server.
- HP FlexFabric 20Gb 2-port 650FLB Adapter - Loss of access to storage after Virtual Connect (VC) login redistribution
- HP StoreFabric CN1200E Dual Port Converged Network Adapter does not complete to boot in Legacy Mode on Gen 9 Server
- Emulex Peripheral Component Interconnect (PCI) slot Network Interface Connector (NIC) reported as device path instead of product name
- Unable to disable shared memory feature in Human Interface Infrastructure (HII) menu
- 650M Adapter has some info in Chinese and Japanese show garbled code under Human Interface Infrastructure (HII) Form

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

Firmware

Contains:
CNA (XE100 series) firmware 12.0.1216.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.5
Version: 2019.03.01 **(Recommended)**
Filename: CP035746.compsig; CP035746.zip

Important Note!

Release Notes:

HPE StoreFabric 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.

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 unexpected behavior in Active Health System (AHS) logs show World Wide Node Name (wwnn) & World Wide Port Name (wwpn) in reverse order.
- Microsoft Windows Server 2012 R2 Hyper-V Storage Area Network (SAN) Disconnect.
- Link lost with firmware version 11.2.1263.19
- "FW not responding" message seen on card when creating Virtual Function (VF) in loop for HPE StoreFabric CN1200E-T 10GBASE-T Converged Network Adapter [NIC+ iSCSI] in Gen10 server.
- HP FlexFabric 20Gb 2-port 650FLB Adapter - Loss of access to storage after Virtual Connect (VC) login redistribution
- HP StoreFabric CN1200E Dual Port Converged Network Adapter does not complete to boot in Legacy Mode on Gen 9 Server
- Emulex Peripheral Component Interconnect (PCI) slot Network Interface Connector (NIC) reported as device path instead of product name
- Unable to disable shared memory feature in Human Interface Infrastructure (HII) menu
- 650M Adapter has some info in Chinese and Japanese show garbled code under Human Interface Infrastructure (HII) Form

Enhancements

Updated CNA (XE100 series) firmware

Firmware

Contains:

CNA (XE100 series) firmware 12.0.1216.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.7

Version: 2019.03.01 **(Recommended)**
Filename: CP035747.compsig; CP035747.zip

Important Note!

Release Notes:

HPE StoreFabric 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.

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 unexpected behavior in Active Health System (AHS) logs show World Wide Node Name (wwnn) & World Wide Port Name (wwpn) in reverse order.
- Microsoft Windows Server 2012 R2 Hyper-V Storage Area Network (SAN) Disconnect.
- Link lost with firmware version 11.2.1263.19
- "FW not responding" message seen on card when creating Virtual Function (VF) in loop for HPE StoreFabric CN1200E-T 10GBASE-T Converged Network Adapter [NIC+ iSCSI] in Gen10 server.
- HP FlexFabric 20Gb 2-port 650FLB Adapter - Loss of access to storage after Virtual Connect (VC) login redistribution
- HP StoreFabric CN1200E Dual Port Converged Network Adapter does not complete to boot in Legacy Mode on Gen 9 Server
- Emulex Peripheral Component Interconnect (PCI) slot Network Interface Connector (NIC) reported as device path instead of product name
- Unable to disable shared memory feature in Human Interface Infrastructure (HII) menu
- 650M Adapter has some info in Chinese and Japanese show garbled code under Human Interface Infrastructure (HII) Form

Enhancements

Updated CNA (XE100 series) firmware

Firmware

Contains:

CNA (XE100 series) firmware 12.0.1216.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.0
Version: 2019.03.01 **(Recommended)**
Filename: CP035745.compsig; CP035745.zip

Important Note!

Release Notes:

HPE StoreFabric 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.

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 unexpected behavior in Active Health System (AHS) logs show World Wide Node Name (wwnn) & World Wide Port Name (wwpn) in reverse order.
- Microsoft Windows Server 2012 R2 Hyper-V Storage Area Network (SAN) Disconnect.
- Link lost with firmware version 11.2.1263.19
- "FW not responding" message seen on card when creating Virtual Function (VF) in loop for HPE StoreFabric CN1200E-T 10GBASE-T Converged Network Adapter [NIC+ iSCSI] in Gen10 server.
- HP FlexFabric 20Gb 2-port 650FLB Adapter - Loss of access to storage after Virtual Connect (VC) login redistribution
- HP StoreFabric CN1200E Dual Port Converged Network Adapter does not complete to boot in Legacy Mode on Gen 9 Server
- Emulex Peripheral Component Interconnect (PCI) slot Network Interface Connector (NIC) reported as device path instead of product name
- Unable to disable shared memory feature in Human Interface Infrastructure (HII) menu
- 650M Adapter has some info in Chinese and Japanese show garbled code under Human Interface Infrastructure (HII) Form

Enhancements

Updated CNA (XE100 series) firmware

Firmware

Contains:

CNA (XE100 series) firmware 12.0.1216.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Firmware Flash for Emulex Converged Network Adapters for Windows (x64)
Version: 2019.03.01 **(Recommended)**
Filename: cp035749.compsig; cp035749.exe

Important Note!

Release Notes:

HPE StoreFabric 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.

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 unexpected behavior in Active Health System (AHS) logs show World Wide Node Name (wwnn) & World Wide Port Name (wwpn) in reverse order.
- Microsoft Windows Server 2012 R2 Hyper-V Storage Area Network (SAN) Disconnect.
- Link lost with firmware version 11.2.1263.19
- "FW not responding" message seen on card when creating Virtual Function (VF) in loop for HPE StoreFabric CN1200E-T 10GBASE-T Converged Network Adapter [NIC+ iSCSI] in Gen10 server.
- HP FlexFabric 20Gb 2-port 650FLB Adapter - Loss of access to storage after Virtual Connect (VC) login redistribution
- HP StoreFabric CN1200E Dual Port Converged Network Adapter does not complete to boot in Legacy Mode on Gen 9 Server
- Emulex Peripheral Component Interconnect (PCI) slot Network Interface Connector (NIC) reported as device path instead of product name

Unable to disable shared memory feature in Human Interface Infrastructure (HII) menu
- 650M Adapter has some info in Chinese and Japanese show garbled code under Human Interface Infrastructure (HII) Form

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

Contains:
CNA (XE100 series) firmware 12.0.1216.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Intel Online Firmware Upgrade Utility for Linux x86_64
Version: 1.17.17 (B) **(Optional)**
Filename: firmware-nic-intel-1.17.17-2.1.x86_64.compsig; firmware-nic-intel-1.17.17-2.1.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 5.3.5.22 or later
- HPE Intel ixgbe Drivers for Linux , versions 5.5.2 or later
- HPE Intel i40e Drivers for Linux, versions 2.7.12 or later

Prerequisites

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

Fixes

This product addresses a failure to update adapter firmware on a system running SUSE Linux Enterprise Server 15.
This product corrects an issue where the name for the HP Ethernet 1Gb 4-port 366FLR Adapter is displayed incorrectly in the network boot options.
This product corrects an issue where the HPE Ethernet 10Gb 2-port 562FLR-T Adapter can be awakened when the NIC WOL setting is disabled.
This product corrects an issue where system hangs when booting from the PXE boot menu.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

Supported Devices and Features

This package supports the following 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 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HP Ethernet 1Gb 4-port 366T Adapter
- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter
- HPE Ethernet 1Gb 4-port 369i Adapter
- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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 568i Adapter
- HPE Ethernet 10Gb 2-port 562T Adapter
- HPE Ethernet 10Gb 2-port 562FLR-T Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter
- HPE Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel Online Firmware Upgrade Utility for VMware
Version: 3.10.16 **(Optional)**
Filename: CP035127.compsig; CP035127.zip

Important Note!

HPE recommends at least one of the following drivers, as appropriate for your device, for use with this firmware:

- *HPE Intel igbn Drivers for VMware*, versions 2019.03.11
- *HPE Intel ixgben Drivers for VMware*, versions 2019.03.11
- *HPE Intel i40en Drivers for VMware*, versions 2019.03.11

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

NIC	EEPROM / NVM Version	OROM Version	Single NVM Version
HP Ethernet 1Gb 2-port 361i Adapter	80000CD5	1.2028.0	N/A
HP Ethernet 1Gb 2-port 361T Adapter	80000F91	1.2028.0	N/A
HP Ethernet 1Gb 2-port 363i Adapter	80000D00	1.2028.0	N/A
HPE Ethernet 1Gb 4-port 366i Communication Board	80000EBF	1.2028.0	N/A
HP Ethernet 1Gb 4-port 366i Adapter	80000E24	1.2028.0	N/A
HP Ethernet 1Gb 4-port 366FLR Adapter	80000F44	1.2028.0	N/A
HP Ethernet 1Gb 4-port 366T Adapter	80000E81	1.2028.0	N/A
HPE Ethernet 1Gb 2-port 368i Adapter	80001669	1.2028.0	N/A
HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter	80001668	1.2028.0	N/A
HPE Ethernet 1Gb 4-port 369i Adapter	8000166A	1.2028.0	N/A
HP Ethernet 10Gb 2-port 560FLB Adapter	800008F0	1.2028.0	N/A
HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter	80000838	1.2028.0	N/A
HP Ethernet 10Gb 2-port 560M Adapter	8000083D	1.2028.0	N/A
HPE Ethernet 10Gb 2-port 560SFP+ Adapter	80000835	1.2028.0	N/A
HPE Ethernet 10Gb 2-port 568i Adapter	8000166B	1.2028.0	N/A
HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter	80001668	1.2028.0	N/A
HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter	80001668	1.2028.0	N/A
HPE Ethernet 10Gb 2-port 563i Adapter	800035C0	1.1375.0	N/A
HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	80004005	1.2028.0	10.4.3
HPE Ethernet 10Gb 2-port 562FLR-T Adapter	80000D96	1.2028.0	10.4.4
HPE Ethernet 10Gb 2-port 562SFP+ Adapter	80004004	1.2028.0	10.4.3
HPE Ethernet 10Gb 2-port 562T Adapter	80000D95	1.2028.0	10.4.4
HPE Synergy 4610C 10/25Gb Ethernet Adapter	800040F9	1.2028.0	10.4.7

The combo image v1.2028.0 includes: Boot Agent: 1GbE - v1.5.86, 10GbE - v2.4.32, 40GbE - v1.1.02 & UEFI Drivers: 1GbE - v8.6.06, 10GbE - v7.1.06, 40GbE - v3.4.06

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 corrects an issue where the name for the HP Ethernet 1Gb 4-port 366FLR Adapter is displayed incorrectly in the network boot options.
This product corrects an issue where the HPE Ethernet 10Gb 2-port 562FLR-T Adapter can be awakened when the NIC WOL setting is disabled.
This product corrects an issue where system hangs when booting from the PXE boot menu.

Enhancements

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

Supported Devices and Features

This package supports the following 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 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HP Ethernet 1Gb 4-port 366T Adapter
- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter
- HPE Ethernet 1Gb 4-port 369i Adapter
- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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 568i Adapter
- HPE Ethernet 10Gb 2-port 562T Adapter

- HPE Ethernet 10Gb 2-port 562FLR-T Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter
- HPE Synergy 4610C 10/25Gb Ethernet Adapter

HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions
Version: 5.1.4.0 **(Optional)**
Filename: cp035128.compsig; cp035128.exe

Prerequisites

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

Fixes

This product corrects an issue where the name for the HP Ethernet 1Gb 4-port 366FLR Adapter is displayed incorrectly in the network boot options.
This product corrects an issue where the HPE Ethernet 10Gb 2-port 562FLR-T Adapter can be awakened when the NIC WOL setting is disabled.
This product corrects an issue where system hangs when booting from the PXE boot menu.

Enhancements

This product now supports Windows Server 2019.

This product now supports the HPE Synergy 4610C 10/25Gb Ethernet Adapter.

Supported Devices and Features

This package supports the following 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 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HP Ethernet 1Gb 4-port 366T Adapter
- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter
- HPE Ethernet 1Gb 4-port 369i Adapter
- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M 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 568i Adapter
- HPE Ethernet 10Gb 2-port 562T Adapter
- HPE Ethernet 10Gb 2-port 562FLR-T Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter
- HPE Synergy 4610C 10/25Gb Ethernet Adapter

HPE QLogic FastLinQ Online Firmware Upgrade Utility for Linux x86_64
Version: 1.6.27 **(Optional)**
Filename: firmware-nic-qlogic-flq-1.6.27-1.1.x86_64.compsig; firmware-nic-qlogic-flq-1.6.27-1.1.x86_64.rpm

Important Note!

HPE recommends *HPE QLogic FastLinQ 10/25/50GbE Drivers for Linux,* versions 8.37.31.0-2 or later, for use with the firmware in this product.

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 corrects an issue where the WWPN information is missing in an adapter's FCoE configuration menu (under 'System Utilities'->'System Configuration' menu).
This product corrects an issue where server hangs during POST when a network adapter is connected to the HPE Synergy 20Gb Interconnect Link Module.
This product corrects an issue where the initiator does not stay logged into the target in an FCoE connection.
This product corrects an issue where the link status continues to show as UP on the switch side even after a network adapter is disabled in the OS.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 4820C 10/20/25Gb Converged Network Adapter

- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ Online Firmware Upgrade Utility for VMware
Version: 4.9.27 **(Optional)**
Filename: CP035082.compsig; CP035082.zip

Important Note!

HPE recommends *HPE QLogic FastLinQ 10/25/50GbE Multifunction Drivers for VMware*, versions 2019.03.11 or later, for use with this firmware.

This software package contains the following firmware versions:

NIC	Boot Code (MFW) Version	UEFI Version	PXE Version	Combo Image Version
HPE Synergy 6810C 25/50Gb Ethernet Adapter	8.37.15.0	4.1.6.12	2.0.18	8.37.34
HPE Synergy 4820C 10/20/25Gb Converged Network Adapter				
HPE Ethernet 10Gb 2-port 521T Adapter	8.37.15.0	4.1.6.12	2.0.18	8.37.29
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				

Prerequisites

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

Fixes

This product corrects an issue where the WWPN information is missing in an adapter's FCoE configuration menu (under 'System Utilities'->'System Configuration' menu).
This product corrects an issue where server hangs during POST when a network adapter is connected to the HPE Synergy 20Gb Interconnect Link Module.
This product corrects an issue where the initiator does not stay logged into the target in an FCoE connection.
This product corrects an issue where the link status continues to show as UP on the switch side even after a network adapter is disabled in the OS.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 4820C 10/20/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic FastLinQ Online Firmware Upgrade Utility for Windows Server x64 Editions
Version: 5.1.4.0 **(Optional)**
Filename: cp035083.compsig; cp035083.exe

Important Note!

HPE recommends *HPE QLogic FastLinQ 10/25/50GbE Driver for Windows Server x64 Editions*, versions 8.37.37.0 or later, for use with the firmware in this product.

Prerequisites

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

Fixes

This product corrects an issue where the WWPN information is missing in an adapter's FCoE configuration menu (under 'System Utilities'->'System Configuration' menu).
This product corrects an issue where server hangs during POST when a network adapter is connected to the HPE Synergy 20Gb Interconnect Link Module.
This product corrects an issue where the initiator does not stay logged into the target in an FCoE connection.
This product corrects an issue where the link status continues to show as UP on the switch side even after a network adapter is disabled in the OS.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T 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 Synergy 4820C 10/20/25Gb Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64
Version: 2.24.15 **(Optional)**
Filename: firmware-nic-qlogic-nx2-2.24.15-1.1.x86_64.compsig; firmware-nic-qlogic-nx2-2.24.15-1.1.x86_64.rpm

Important Note!

HPE recommends *HPE QLogic NX2 10/20GbE Multifunction Drivers for Linux*, versions 7.14.54-1 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 corrects an issue where a server does not boot via a network adapter in Legacy BIOS Mode.
This product corrects an issue where a server, across repeated reboots, is unable to boot into iSCSI LUN.
This product corrects an issue where a firmware update performed in UEFI fails when multiple adapters are connected to the system.

Supported Devices and Features

This product 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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB Adapter
- HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Network Adapter

HPE QLogic NX2 Online Firmware Upgrade Utility for VMware
Version: 1.24.16 **(Optional)**
Filename: CP035912.compsig; CP035912.zip

Important Note!

HPE recommends *HPE QLogic NX2 10/20GbE Multifunction Drivers for VMware*, versions 2019.03.11 or later, for use with this firmware.

This software package contains combo image v7.17.71 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	7.15.56	7.14.13	8.3.3	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 HP FlexFabric 10Gb 2-port 534M Adapter HP FlexFabric 10Gb 2-port 536FLB Adapter HPE FlexFabric 10Gb 4-port 536FLR-T Adapter HP FlexFabric 20Gb 2-port 630FLB Adapter HP FlexFabric 20Gb 2-port 630M Adapter HP StoreFabric CN1100R Dual Port Converged Network Adapter HPE StoreFabric CN1100R-T Converged Network Adapter HPE Synergy 3820C 10/20Gb Converged Network Adapter HPE Synergy 2820C 10Gb Converged Network Adapter	7.15.56	7.14.13	8.3.3	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 corrects an issue where a server does not boot via a network adapter in Legacy BIOS Mode.
This product corrects an issue where a server, across repeated reboots, is unable to boot into iSCSI LUN.
This product corrects an issue where a firmware update performed in UEFI fails when multiple adapters are connected to the system.
This product addresses an issue where a temporary link down issue occurs.
This product addresses an issue with firmware version 7.17.19 where, after a firmware update, the IPL order is reset.

Supported Devices and Features

This product 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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB Adapter
- HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Network Adapter

HPE QLogic NX2 Online Firmware Upgrade Utility for Windows Server x64 Editions
Version: 5.1.4.0 **(Optional)**
Filename: cp036015.compsig; cp036015.exe

Important Note!

HPE recommends *HPE QLogic NX2 10/20GbE Multifunction Drivers for Windows Server x64 Editions*, version 7.13.161.0 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 corrects an issue where a server does not boot via a network adapter in Legacy BIOS Mode.
This product corrects an issue where a server, across repeated reboots, is unable to boot into iSCSI LUN.
This product corrects an issue where a firmware update performed in UEFI fails when multiple adapters are connected to the system.

Supported Devices and Features

This product 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
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB Adapter
- HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Network Adapter

Online Firmware Upgrade Utility (ESXi 6.0) for HPE Mellanox Ethernet only adapters
Version: 1.0.10 **(Recommended)**
Filename: CP038535.compsig; CP038535.zip

Important Note!

Known Issues for FW version 2.42.5044 :

- When using the QSFP module RTXM320-581, 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 lattervalue 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 usingthe 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 14.24.9000 :

- The maximum “read” size of MTRC_STDB is limited to 272 Bytes.
- FTE with both forward (FWD) and encapsulation (ENCAP) actions is not supported in the SX NIC Flow Table.
- Encapsulation / Decapsulation support in steering has the following limitations:
  - Encapsulation / Decapsulation can be open on the FDB only if all VFs are non active
  - Encapsulation / Decapsulation supports single mode only: FDB / NIC. Opening tables of both types is not supported
  - Encapsulation / Decapsulation per device support:

		NIC	FDB
ConnectX-4	encap	NO	YES non MH
	decap	NO	NO
ConnectX-4 Lx	encap	NO	YES non MH
	decap	NO	YES
ConnectX-5	encap	YES	YES
	decap	YES	YES

Prerequisites

HPE Synergy 6410C 25/50Gb Ethernet Adapter (868779-B21) must first be upgraded to prerequisite firmware version 12.21.2808 before updating to 12.22.0148 or 12.22.0194.
12.22.0194 is the first secure firmware for HPE Synergy 6410C 25/50Gb Ethernet Adapter (868779-B21). Once this device is upgraded to firmware 12.22.0194, downgrade is not allowed.

Fixes

Fixes submitted in version 2.42.5044 :

- Fixed an issue that prevented the firmware from detecting a link_down event thus preventing the IB bond interface from going to a failover mode

Fixes submitted in version 14.24.9006:

- The HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter was not linking in AUX power mode.

Fixes submitted in version 16.24.9000 :

- Fixed an Active Health System(AHS) packet over PCIe interface issue

Enhancements

Firmware for the following devices are updated to 2.42.5044 :

779799-B21 (HP Ethernet 10G 2-port 546FLR-SFP+ Adapter)
779793-B21 (HP Ethernet 10G 2-port 546SFP+ Adapter)

Firmware for the following device is updated to 12.24.9000 :

868779-B21 (HPE Synergy 6410C 25/50Gb Ethernet Adapter)

Firmware for the following devices are updated to 14.24.9006 :

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

Firmware for the following devices are updated to 14.24.9000 :
817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

Firmware for the following device is updated to 16.24.9000 :

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

New features and changes in version 14.24.9000 :

- Implemented DCi specification v.0.80. The specification defines the NIC behavior in case of restore factory default while the NIC does not support AUX power.
- Added support for Abstract Syntax Notation One(ASN1) defaults v3.0 and NIC Discovery Configuration v.0.81
- Added support for Management Component Transport Protocol (MCTP) over PCI.
- Added support for Event Description Addendum 2.6.4.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
779793-B21	HP Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HP 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
868779-B21	HPE Synergy 6410C 25/50Gb Ethernet Adapter	HPE0000000006
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014

Online Firmware Upgrade Utility (ESXi 6.0) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX4 and ConnectX5 devices on VMware ESXi 6.0
Version: 1.0.5 **(Recommended)**
Filename: CP036745.compsig; CP036745.zip

Important Note!

Known Issues in firmware 12.24.1000 and 16.24.1000:

- vport_tc and para_vport_tc are not supported in this version.
- Executing the update_lid command while the IB port sniffer utility is active can stop the utility.
- Initializing a function while the IB port sniffer utility is active can stop the utility.
- While using e-switch vport sVLAN stripping, the RX steering values on the sVLAN might not be accurate.
- FTE with both forward (FWD) and encapsulation (ENCAP) actions is not supported in the SX NIC Flow Table.
- Encapsulation / Decapsulation support in steering has the following limitations:
  - Encapsulation / Decapsulation can be open on the FDB only if all VFs are non active.
  - Encapsulation / Decapsulation supports single mode only: FDB / NIC. Opening tables of both types is not supported.
  - Encapsulation / Decapsulation per device support:

		NIC	FDB
ConnectX-4	encap	NO	YES non MH
	decap	NO	NO
ConnectX-4 Lx	encap	NO	YES non MH
	decap	NO	YES
ConnectX-5	encap	YES	YES
	decap	YES	YES

Known Issues in firmware 16.24.1000:

- In the case of multi-destinations transmission where the last destination is set to encapsulation & wire, the packet for the last destination will not be send.
- When modifying the TTL in the NIC RX, the CQE checksum is not recalculated automatically. The limitation is indicated by the ttl_checksum_correction bit. If the ttl_checksum_correction=0, the capability is not functioning properly.
- When getting an inline scatter CQE on IB striding RQ, the stride index in the CQE will be zero.
- RoCE DC is not supported in LAG mode.

Fixes

Fixes in version 12.24.1000 and 16.24.1000:

- mlxconfig tool reported all possible expansion ROM images, instead of presenting only the existing images.
- Modifying VMQoS rate limiter parameters during traffic caused transmission failure.
- Aligned the default tuning type in PHY TEST MODE to the device protocol.
- When a device is operating in Safe Mode state, and the user issues the mlxfwreset command, the device might fail to come-up correctly after the reset. Note: Do not run mlxfwreset when operating in a Safe Mode state.
- Fixed an issue related to PCIe "Surprise link down" event reporting capability.
- Fixed an issue that resulted in the link partner experiencing false active linkup when plugging in a base-T cable to a closed port.

Fixes in version 12.24.1000:

- Fixed an issue that caused the max_qp_retry_freq_exceeded counter (including a CQE with error syndrome 0x97, and the QP moving to error state) to be activated only after exceeding the NIC Vport context max_qp_retry_limit, and not when reaching it.

Fixes in version 16.24.1000:

- PCIe bifurcation issue.
- Deadlock in RX related to the “send-invalidate” flow, resulted in RX getting stuck.
- Rare errors in RX that resulted in double completion.

Enhancements

Firmware for the following devices are updated to 12.24.1000:

825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)
825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

Firmware for the following devices are updated to 16.24.1000:

879482-B21 (HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter)
872726-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter)

Changes and New features in firmware version 12.24.1000 and 16.24.1000:

- Added support for the following:
  - An additional layer (Layer 3) of packet processing at the hypervisor level that enables adding and removing protocol headers (e.g., the MAC address is removed during encapsulation, and added during decapsulation) for the encapsulated traffic.
  - Transmission histogram counter set as part of the Ethernet extended group counters.
  - TX steering rule on flow_table_metadata in WQE Ethernet segment.
  - Added L3 encapsulation/decapsulation support in the reformat context allocation.
    - L3 encapsulation removes L2 headers and adds generic L3 tunnel encapsulation.
    - L3 decapsulation removes the generic L3 tunnel decapsulation and L2 header.
  - Flow steering header modification (header rewrite) for IPv4 TTL header for loopback traffic (VF-VF/VF-PF).
    Note: TTL modification for traffic from the network is currently not supported.
  - Requester QP packet based on E2E credits mode. The new flow control supports HCA-to-switch RDMA traffic packet-based End-2-End.
  - IPoIB non-default Partition Keys (PKeys). Now the PKey values can be modified in the PKey table without the need of recreating the IPoIB (underlay) QPs.
  - [Beta] SR-IOV in Multi-Host/Socket-Direct.

    - QUERY_DRIVER_VERSION command. This command allows the PF driver to query its VFs driver version which was set by the SET_DRIVER_VERSION command.
    - New diagnostic counters to evaluate the number of ICMC hits and misses for particular resources.
  - Enabled the hardware to generate an event upon counter incrementation, in order to reduce an overhead from the software from reading rarely updated counters such as error counters.
  - Enabled NOIDNIC connectivity to the network through the e-switch and not directly to the physical port.
  - Enabled setting the QP and the Mkey values by the software upon these resources creation.
  - Enabled advanced PCIe atomic operations. The HCA will perform PCIe atomic operations as a requestor towards the host memory when receiving compatible atomic messages from the network, and according to the configuration of NV_SW_OFFLOAD_CONFIG pci_atomic_mode field and the PCI AtomicOp Requester Enable bit in the Device Control 2 register.
  - Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically.
    Note: TTL modification in the FDB for traffic from the network is currently not supported.
  - Enabled a single TIR destination from the FDB.
  - Changed the WRED default mode to OFF for Multi-Host adapter cards.
  - [Developers only] Moved the fast teardown HCA cap bit to offset 0x1c.4:1.
  - Enabled Virtual Functions to read QPDPM/QPDP/QPTS.
  - Multi PCI RDMA IB: This capability enables the user to expose two PCI/IB devices per network port.
  - Reduced firmware's memory consumption to increase the supported number of VFs per PF to up to 100.
  - Shutting Down RDMA QPs with Excessive Retransmissions is a mechanism used to detect excessive retransmissions for an RC connection, and to close the connection in response to it. If the number of retransmissions due to a Local Ack Timeout, NAK-Sequence Error, or Implied NAK, during a specified period, exceeds the specified threshold, the QP will be handled as if the IB spec defined Retry Count was exceeded.

New features in firmware version 12.24.1000:

- Enabled e-switch steering rule in the NIC without matching it with the Directional MACs (DMAC) protocol. Now the rule is only according to the MC/UC bit.
- The IB Sniffer utility provides the user the ability to capture the e-switch traffic directly to a hypervisor queue.
- Increased the number of VFs that can work with full VMQoS (8 TC) per PFs as follow:
  - in dual port devices to: 0-21, 33-45 VFs (22-32 VFs has single TC)
  - in single port devices to: 0-64 VFs

New features in firmware version 16.24.1000:

- Enabled QoS ETS for systems with 64 VFs to better allocate bandwidth in the NIC.
- Enabled TTL modification for received packets.
- Mirrors the traffic from/to one VF to a dedicate admin VF for monitoring and traffic analysis. Note that in this process packets are duplicated and different packet modifications apply to different duplications.
- Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically.
  Note: TTL modification in the FDB for traffic from the network is currently not supported.
- Added support for Dynamically Connected Transport (DC) in RoCE in ConnectX-5 adapter cards.
- Enabled Rx mini-CQE compressed format for striding RQ.
- Enabled TX steering rule on the application meta-data from the WQE. This functionality implements meta-data Reg A steering and meta-data Reg A and Reg B rewriting.
- Added MPLS over UDP and MPLS over GRE protocols for tunneling offload/steering match criteria.

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 6.0) for HPE Mellanox VPI (Ethernet and Infiniband mode) devices on VMware ESXi 6.0
Version: 1.0.8 **(Recommended)**
Filename: CP040662.compsig; CP040662.zip

Important Note!

Known Issues in firmware 2.42.5000, 2.42.5044, 2.42.5052:

- When using the QSFP module RTXM320-581, and performing a driver restart for the firmware upgrade/downgrade to take effect, the link does not come up**Workaround**: Reboot the server.
- Enabling/disabling cq_timestamp using mlxconfig is not supported.
- In a card with 2 separate LEDs scheme (a Phy LED and a logic LED) only the Phy LED will lit. Meaning, the orange LES will not be active while the ETH link is in an idle mode
- 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 cards 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: 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.
- 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.
  Workaround: Enable SR-IOV in the BIOS.
- 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..
  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.
  Workaround: Upgrade to MLNX_OFED-2.1-x.x.x. or later.
- VPD read-only fields are writable.
  Workaround: Do not write to read- only fields if you wish to preserve them.
- 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.
  Workaround: Use the physical function device ID to identify the device.
- 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:
  - Unplug the cable from the switch
  - Restart driver
  - Change the protocol via the appropriate tools.
- 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.
- 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 (Single Root I/O Virtualization) setup, using mlxconfig when the PF (Physical Function) is passed through to a VM (Virtual Machine) requires a reboot of the Hypervisor.
- 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).
- MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer.

Fixes

Fixes in version 2.42.5000:

- PortRcvPkts counter was prevented from being cleared after resetting it.
- The system Timed Out on the configuration cycle of the Virtual Functions (VFs) when more than 10 Virtual Functions performed FLR and the completion Time Out value was configured to a range of less than 16 msec.
- The server hangs and results in NMI when running “mlxfwtop –d mt4103_pci_cr0” while restarting the driver in parallel (from a different thread). In this case, the downstream bridge over the device reported completion timeout error.
- In flow_steering, BMC could not receive a ping over IPV6 after running bmc_reboot.
- While closing the HCA, the RX packet caused bad access to resources that did not exist, and consequently caused the QPCGW or the irisc to get stuck.
- The master SMLID and the LID was either 0 or 0xFFFF when the port was neither active nor armed.
- ibdump could not capture all MADs packets.
- link did not go up after reboot.
- Fixed a rare issue that cause the PCIe configuration cycle that arrived during the time of sw_reset to generate 2 completions.
- Network Controller Sideband Interface (NC-SI) did not work when adding the disable_static_steering_ini field in the ini file, due to memory allocation issue for this field in the scratchpad.

Fixes in version 2.42.5044:

- Fixed an issue that prevented the firmware from detecting a link_down event thus preventing the IB bond interface from going to a failover mode

Fixes in version 2.42.5052:

- Fixed Uncorrectable Machine Check Exception issue. The internal resources for handling packets were not allowed to be flushed when the driver was brought down and occasionally caused Red Screen of Death (RSOD). The fix was applied to the ROM code only and has only external timing influences upon the driver’s teardown.

Enhancements

Firmware for the following devices are updated to 2.42.5000:
764282-B21
764286-B21

Firmware for the following devices are updated to 2.42.5044:
764284-B21
764285-B21

Firmware for the following devices are updated to 2.42.5052:
764283-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

Supported Devices and Features

Supported Devices:

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

Online Firmware Upgrade Utility (ESXi 6.5) for HPE Mellanox Ethernet only adapters
Version: 1.0.5 **(Recommended)**
Filename: CP038536.compsig; CP038536.zip

Important Note!

Known Issues for FW version 2.42.5044 :

- When using the QSFP module RTXM320-581, 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 lattervalue 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 usingthe 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 14.24.9000 :

- The maximum “read” size of MTRC_STDB is limited to 272 Bytes.
- FTE with both forward (FWD) and encapsulation (ENCAP) actions is not supported in the SX NIC Flow Table.
- Encapsulation / Decapsulation support in steering has the following limitations:
  - Encapsulation / Decapsulation can be open on the FDB only if all VFs are non active
  - Encapsulation / Decapsulation supports single mode only: FDB / NIC. Opening tables of both types is not supported
  - Encapsulation / Decapsulation per device support:

```
                          NIC      FDB
ConnectX-4        encap   NO     YES non MH
                  decap   NO     NO
ConnectX-4 Lx     encap   NO     YES non MH
                  decap   NO     YES
ConnectX-5        encap   YES    YES
                  decap   YES    YES
```

Prerequisites

HPE Synergy 6410C 25/50Gb Ethernet Adapter (868779-B21) must first be upgraded to prerequisite firmware version 12.21.2808 before updating to 12.22.0148 or 12.22.0194.
12.22.0194 is the first secure firmware for HPE Synergy 6410C 25/50Gb Ethernet Adapter (868779-B21). Once this device is upgraded to firmware 12.22.0194, downgrade is not allowed.

Fixes

Fixes submitted in version 2.42.5044 :

- Fixed an issue that prevented the firmware from detecting a link_down event thus preventing the IB bond interface from going to a failover mode

Fixes submitted in version 14.24.9006:

- The HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter was not linking in AUX power mode.

Fixes submitted in version 16.24.9000 :

- Fixed an Active Health System(AHS) packet over PCIe interface issue

Enhancements

Firmware for the following devices are updated to 2.42.5044 :

779799-B21 (HP Ethernet 10G 2-port 546FLR-SFP+ Adapter)
779793-B21 (HP Ethernet 10G 2-port 546SFP+ Adapter)

Firmware for the following device is updated to 12.24.9000 :

868779-B21 (HPE Synergy 6410C 25/50Gb Ethernet Adapter)

Firmware for the following devices are updated to 14.24.9006 :

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

Firmware for the following devices are updated to 14.24.9000 :
817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

Firmware for the following device is updated to 16.24.9000 :

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

New features and changes in version 14.24.9000 :

- Implemented DCi specification v.0.80. The specification defines the NIC behavior in case of restore factory default while the NIC does not support AUX power.
- Added support for Abstract Syntax Notation One(ASN1) defaults v3.0 and NIC Discovery Configuration v.0.81
- Added support for Management Component Transport Protocol (MCTP) over PCI.
- Added support for Event Description Addendum 2.6.4.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
779793-B21	HP Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HP 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
868779-B21	HPE Synergy 6410C 25/50Gb Ethernet Adapter	HPE0000000006
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: 1.0.4 **(Recommended)**
Filename: CP036746.compsig; CP036746.zip

Important Note!

Known Issues in firmware 12.24.1000 and 16.24.1000:

- vport_tc and para_vport_tc are not supported in this version.
- Executing the update_lid command while the IB port sniffer utility is active can stop the utility.
- Initializing a function while the IB port sniffer utility is active can stop the utility.

- While using e-switch vport sVLAN stripping, the RX steering values on the sVLAN might not be accurate.
- FTE with both forward (FWD) and encapsulation (ENCAP) actions is not supported in the SX NIC Flow Table.
- Encapsulation / Decapsulation support in steering has the following limitations:
  - Encapsulation / Decapsulation can be open on the FDB only if all VFs are non active.
  - Encapsulation / Decapsulation supports single mode only: FDB / NIC. Opening tables of both types is not supported.
  - Encapsulation / Decapsulation per device support:

		NIC	FDB
ConnectX-4	encap	NO	YES non MH
	decap	NO	NO
ConnectX-4 Lx	encap	NO	YES non MH
	decap	NO	YES
ConnectX-5	encap	YES	YES
	decap	YES	YES

Known Issues in firmware 16.24.1000:

- In the case of multi-destinations transmission where the last destination is set to encapsulation & wire, the packet for the last destination will not be send.
- When modifying the TTL in the NIC RX, the CQE checksum is not recalculated automatically. The limitation is indicated by the ttl_checksum_correction bit. If the ttl_checksum_correction=0, the capability is not functioning properly.
- When getting an inline scatter CQE on IB striding RQ, the stride index in the CQE will be zero.
- RoCE DC is not supported in LAG mode.

Fixes

Fixes in version 12.24.1000 and 16.24.1000:

- mlxconfig tool reported all possible expansion ROM images, instead of presenting only the existing images.
- Modifying VMQoS rate limiter parameters during traffic caused transmission failure.
- Aligned the default tuning type in PHY TEST MODE to the device protocol.
- When a device is operating in Safe Mode state, and the user issues the mlxfwreset command, the device might fail to come-up correctly after the reset. Note: Do not run mlxfwreset when operating in a Safe Mode state.
- Fixed an issue related to PCIe "Surprise link down" event reporting capability.
- Fixed an issue that resulted in the link partner experiencing false active linkup when plugging in a base-T cable to a closed port.

Fixes in version 12.24.1000:

- Fixed an issue that caused the max_qp_retry_freq_exceeded counter (including a CQE with error syndrome 0x97, and the QP moving to error state) to be activated only after exceeding the NIC Vport context max_qp_retry_limit, and not when reaching it.

Fixes in version 16.24.1000:

- PCIe bifurcation issue.
- Deadlock in RX related to the “send-invalidate” flow, resulted in RX getting stuck.
- Rare errors in RX that resulted in double completion.

Enhancements

Firmware for the following devices are updated to 12.24.1000:

825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)
825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

Firmware for the following devices are updated to 16.24.1000:

879482-B21 (HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter)
872726-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter)

Changes and New features in firmware version 12.24.1000 and 16.24.1000:

- Added support for the following:
  - An additional layer (Layer 3) of packet processing at the hypervisor level that enables adding and removing protocol headers (e.g., the MAC address is removed during encapsulation, and added during decapsulation) for the encapsulated traffic.
  - Transmission histogram counter set as part of the Ethernet extended group counters.
  - TX steering rule on flow_table_metadata in WQE Ethernet segment.
  - Added L3 encapsulation/decapsulation support in the reformat context allocation.
    - L3 encapsulation removes L2 headers and adds generic L3 tunnel encapsulation.
    - L3 decapsulation removes the generic L3 tunnel decapsulation and L2 header.
  - Flow steering header modification (header rewrite) for IPv4 TTL header for loopback traffic (VF-VF/VF-PF).
    Note: TTL modification for traffic from the network is currently not supported.
  - Requester QP packet based on E2E credits mode. The new flow control supports HCA-to-switch RDMA traffic packet-based End-2-End.
  - IPoIB non-default Partition Keys (PKeys). Now the PKey values can be modified in the PKey table without the need of recreating the IPoIB (underlay) QPs.
  - [Beta] SR-IOV in Multi-Host/Socket-Direct.
  - QUERY_DRIVER_VERSION command. This command allows the PF driver to query its VFs driver version which was set by the SET_DRIVER_VERSION command.
  - New diagnostic counters to evaluate the number of ICMC hits and misses for particular resources.
- Enabled the hardware to generate an event upon counter incrementation, in order to reduce an overhead from the software from reading rarely updated counters such as error counters.
- Enabled NOIDNIC connectivity to the network through the e-switch and not directly to the physical port.
- Enabled setting the QP and the Mkey values by the software upon these resources creation.
- Enabled advanced PCIe atomic operations. The HCA will perform PCIe atomic operations as a requestor towards the host memory when receiving compatible atomic messages from the network, and according to the configuration of NV_SW_OFFLOAD_CONFIG pci_atomic_mode field and the PCI AtomicOp Requester Enable bit in the Device Control 2 register.
- Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically.
  Note: TTL modification in the FDB for traffic from the network is currently not supported.
- Enabled a single TIR destination from the FDB.
- Changed the WRED default mode to OFF for Multi-Host adapter cards.
- [Developers only] Moved the fast teardown HCA cap bit to offset 0x1c.4:1.
- Enabled Virtual Functions to read QPDPM/QPDP/QPTS.
- Multi PCI RDMA IB: This capability enables the user to expose two PCI/IB devices per network port.

- Reduced firmware's memory consumption to increase the supported number of VFs per PF to up to 100.
- Shutting Down RDMA QPs with Excessive Retransmissions is a mechanism used to detect excessive retransmissions for an RC connection, and to close the connection in response to it. If the number of retransmissions due to a Local Ack Timeout, NAK-Sequence Error, or Implied NAK, during a specified period, exceeds the specified threshold, the QP will be handled as if the IB spec defined Retry Count was exceeded.

New features in firmware version 12.24.1000:

- Enabled e-switch steering rule in the NIC without matching it with the Directional MACs (DMAC) protocol. Now the rule is only according to the MC/UC bit.
- The IB Sniffer utility provides the user the ability to capture the e-switch traffic directly to a hypervisor queue.
- Increased the number of VFs that can work with full VMQoS (8 TC) per PFs as follow:
  - in dual port devices to: 0-21, 33-45 VFs (22-32 VFs has single TC)
  - in single port devices to: 0-64 VFs

New features in firmware version 16.24.1000:

- Enabled QoS ETS for systems with 64 VFs to better allocate bandwidth in the NIC.
- Enabled TTL modification for received packets.
- Mirrors the traffic from/to one VF to a dedicate admin VF for monitoring and traffic analysis. Note that in this process packets are duplicated and different packet modifications apply to different duplications.
- Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically.
  Note: TTL modification in the FDB for traffic from the network is currently not supported.
- Added support for Dynamically Connected Transport (DC) in RoCE in ConnectX-5 adapter cards.
- Enabled Rx mini-CQE compressed format for striding RQ.
- Enabled TX steering rule on the application meta-data from the WQE. This functionality implements meta-data Reg A steering and meta-data Reg A and Reg B rewriting.
- Added MPLS over UDP and MPLS over GRE protocols for tunneling offload/steering match criteria.

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) devices on VMware ESXi 6.5
Version: 1.0.3 **(Recommended)**
Filename: CP040663.compsig; CP040663.zip

Important Note!

Known Issues in firmware 2.42.5000, 2.42.5044, 2.42.5052:

- When using the QSFP module RTXM320-581, and performing a driver restart for the firmware upgrade/downgrade to take effect, the link does not come up**Workaround**: Reboot the server.
- Enabling/disabling cq_timestamp using mlxconfig is not supported.
- In a card with 2 separate LEDs scheme (a Phy LED and a logic LED) only the Phy LED will lit. Meaning, the orange LES will not be active while the ETH link is in an idle mode
- 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 cards 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: 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.
- 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.
  Workaround: Enable SR-IOV in the BIOS.
- 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..
  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.
  Workaround: Upgrade to MLNX_OFED-2.1-x.x.x. or later.
- VPD read-only fields are writable.
  Workaround: Do not write to read- only fields if you wish to preserve them.
- 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.
  Workaround: Use the physical function device ID to identify the device.
- 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:
  - Unplug the cable from the switch
  - Restart driver
  - Change the protocol via the appropriate tools.

- 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.
- 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 (Single Root I/O Virtualization) setup, using mlxconfig when the PF (Physical Function) is passed through to a VM (Virtual Machine) requires a reboot of the Hypervisor.
- 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).
- MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer.

Fixes

Fixes in version 2.42.5000:

- PortRcvPkts counter was prevented from being cleared after resetting it.
- The system Timed Out on the configuration cycle of the Virtual Functions (VFs) when more than 10 Virtual Functions performed FLR and the completion Time Out value was configured to a range of less than 16 msec.
- The server hangs and results in NMI when running “mlxfwtop –d mt4103_pci_cr0” while restarting the driver in parallel (from a different thread). In this case, the downstream bridge over the device reported completion timeout error.
- In flow_steering, BMC could not receive a ping over IPV6 after running bmc_reboot.
- While closing the HCA, the RX packet caused bad access to resources that did not exist, and consequently caused the QPCGW or the irisc to get stuck.
- The master SMLID and the LID was either 0 or 0xFFFF when the port was neither active nor armed.
- ibdump could not capture all MADs packets.
- link did not go up after reboot.
- Fixed a rare issue that cause the PCIe configuration cycle that arrived during the time of sw_reset to generate 2 completions.
- Network Controller Sideband Interface (NC-SI) did not work when adding the disable_static_steering_ini field in the ini file, due to memory allocation issue for this field in the scratchpad.

Fixes in version 2.42.5044:

- Fixed an issue that prevented the firmware from detecting a link_down event thus preventing the IB bond interface from going to a failover mode

Fixes in version 2.42.5052:

- Fixed Uncorrectable Machine Check Exception issue. The internal resources for handling packets were not allowed to be flushed when the driver was brought down and occasionally caused Red Screen of Death (RSOD). The fix was applied to the ROM code only and has only external timing influences upon the driver’s teardown.

Enhancements

Firmware for the following devices are updated to 2.42.5000:
764282-B21
764286-B21

Firmware for the following devices are updated to 2.42.5044:
764284-B21
764285-B21

Firmware for the following devices are updated to 2.42.5052:
764283-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

Supported Devices and Features

Supported Devices:

HP Part Number	Device Name	PSID
764282-B21	HP InfiniBand QDR/Ethernet 10Gb 2-port 544+M Adapter	HP_1350110023
764283-B21	HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+M Adapter	HP_1360110017

764284-B21	HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	HP_1370110017
764285-B21	HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter	HP_1380110017
764286-B21	HP InfiniBand QDR/Ethernet 10Gb 2-port 544+FLR-QSFP Adapter	HP_1390110023

Online Firmware Upgrade Utility (ESXi 6.7) for HPE Mellanox Ethernet only adapters
Version: 1.0.1 **(Recommended)**
Filename: CP038537.compsig; CP038537.zip

Important Note!

Known Issues for FW version 2.42.5044 :

- When using the QSFP module RTXM320-581, 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 lattervalue 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 usingthe 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 14.24.9000 :

- The maximum “read” size of MTRC_STDB is limited to 272 Bytes.
- FTE with both forward (FWD) and encapsulation (ENCAP) actions is not supported in the SX NIC Flow Table.
- Encapsulation / Decapsulation support in steering has the following limitations:
  - Encapsulation / Decapsulation can be open on the FDB only if all VFs are non active
  - Encapsulation / Decapsulation supports single mode only: FDB / NIC. Opening tables of both types is not supported
  - Encapsulation / Decapsulation per device support:

		NIC	FDB
ConnectX-4	encap	NO	YES non MH
	decap	NO	NO
ConnectX-4 Lx	encap	NO	YES non MH
	decap	NO	YES
ConnectX-5	encap	YES	YES
	decap	YES	YES

Prerequisites

HPE Synergy 6410C 25/50Gb Ethernet Adapter (868779-B21) must first be upgraded to prerequisite firmware version 12.21.2808 before updating to 12.22.0148 or 12.22.0194.
12.22.0194 is the first secure firmware for HPE Synergy 6410C 25/50Gb Ethernet Adapter (868779-B21). Once this device is upgraded to firmware 12.22.0194, downgrade is not allowed.

Fixes

Fixes submitted in version 2.42.5044 :

- Fixed an issue that prevented the firmware from detecting a link_down event thus preventing the IB bond interface from going to a failover mode

Fixes submitted in version 14.24.9006:

- The HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter was not linking in AUX power mode.

Fixes submitted in version 16.24.9000 :

- Fixed an Active Health System(AHS) packet over PCIe interface issue

Enhancements

Firmware for the following devices are updated to 2.42.5044 :

779799-B21 (HP Ethernet 10G 2-port 546FLR-SFP+ Adapter)
779793-B21 (HP Ethernet 10G 2-port 546SFP+ Adapter)

Firmware for the following device is updated to 12.24.9000 :

868779-B21 (HPE Synergy 6410C 25/50Gb Ethernet Adapter)

Firmware for the following devices are updated to 14.24.9006 :

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

Firmware for the following devices are updated to 14.24.9000 :
817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

Firmware for the following device is updated to 16.24.9000 :

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

New features and changes in version 14.24.9000 :

- Implemented DCi specification v.0.80. The specification defines the NIC behavior in case of restore factory default while the NIC does not support AUX power.
- Added support for Abstract Syntax Notation One(ASN1) defaults v3.0 and NIC Discovery Configuration v.0.81
- Added support for Management Component Transport Protocol (MCTP) over PCI.
- Added support for Event Description Addendum 2.6.4.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
779793-B21	HP Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HP 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
868779-B21	HPE Synergy 6410C 25/50Gb Ethernet Adapter	HPE0000000006
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: 1.0.0 **(Recommended)**
Filename: CP035249.compsig; CP035249.zip

Important Note!

Known Issues in firmware 12.24.1000 and 16.24.1000:

- vport_tc and para_vport_tc are not supported in this version.
- Executing the update_lid command while the IB port sniffer utility is active can stop the utility.
- Initializing a function while the IB port sniffer utility is active can stop the utility.
- While using e-switch vport sVLAN stripping, the RX steering values on the sVLAN might not be accurate.
- FTE with both forward (FWD) and encapsulation (ENCAP) actions is not supported in the SX NIC Flow Table.
- Encapsulation / Decapsulation support in steering has the following limitations:
  - Encapsulation / Decapsulation can be open on the FDB only if all VFs are non active.
  - Encapsulation / Decapsulation supports single mode only: FDB / NIC. Opening tables of both types is not supported.
  - Encapsulation / Decapsulation per device support:

		NIC	FDB
ConnectX-4	encap	NO	YES non MH
	decap	NO	NO
ConnectX-4 Lx	encap	NO	YES non MH
	decap	NO	YES
ConnectX-5	encap	YES	YES
	decap	YES	YES

Known Issues in firmware 16.24.1000:

- In the case of multi-destinations transmission where the last destination is set to encapsulation & wire, the packet for the last destination will not be send.
- When modifying the TTL in the NIC RX, the CQE checksum is not recalculated automatically. The limitation is indicated by the ttl_checksum_correction bit. If the ttl_checksum_correction=0, the capability is not functioning properly.
- When getting an inline scatter CQE on IB striding RQ, the stride index in the CQE will be zero.
- RoCE DC is not supported in LAG mode.

Fixes

Fixes in version 12.24.1000 and 16.24.1000:

- mlxconfig tool reported all possible expansion ROM images, instead of presenting only the existing images.
- Modifying VMQoS rate limiter parameters during traffic caused transmission failure.
- Aligned the default tuning type in PHY TEST MODE to the device protocol.
- When a device is operating in Safe Mode state, and the user issues the mlxfwreset command, the device might fail to come-up correctly after the reset.
  Note: Do not run mlxfwreset when operating in a Safe Mode state.
- Fixed an issue related to PCIe "Surprise link down" event reporting capability.
- Fixed an issue that resulted in the link partner experiencing false active linkup when plugging in a base-T cable to a closed port.

Fixes in version 12.24.1000:

- Fixed an issue that caused the max_qp_retry_freq_exceeded counter (including a CQE with error syndrome 0x97, and the QP moving to error state) to be activated only after exceeding the NIC Vport context max_qp_retry_limit, and not when reaching it.

Fixes in version 16.24.1000:

- PCIe bifurcation issue.
- Deadlock in RX related to the “send-invalidate” flow, resulted in RX getting stuck.
- Rare errors in RX that resulted in double completion.

Enhancements

Firmware for the following devices are updated to 12.24.1000:

825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)
825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

Firmware for the following devices are updated to 16.24.1000:

879482-B21 (HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter)
872726-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter)

Changes and New features in firmware version 12.24.1000 and 16.24.1000:

- Added support for the following:
  - An additional layer (Layer 3) of packet processing at the hypervisor level that enables adding and removing protocol headers (e.g., the MAC address is removed during encapsulation, and added during decapsulation) for the encapsulated traffic.
  - Transmission histogram counter set as part of the Ethernet extended group counters.
  - TX steering rule on flow_table_metadata in WQE Ethernet segment.
  - Added L3 encapsulation/decapsulation support in the reformat context allocation.
    - L3 encapsulation removes L2 headers and adds generic L3 tunnel encapsulation.
    - L3 decapsulation removes the generic L3 tunnel decapsulation and L2 header.
  - Flow steering header modification (header rewrite) for IPv4 TTL header for loopback traffic (VF-VF/VF-PF).
    Note: TTL modification for traffic from the network is currently not supported.
  - Requester QP packet based on E2E credits mode. The new flow control supports HCA-to-switch RDMA traffic packet-based End-2-End.
  - IPoIB non-default Partition Keys (PKeys). Now the PKey values can be modified in the PKey table without the need of recreating the IPoIB (underlay) QPs.
  - [Beta] SR-IOV in Multi-Host/Socket-Direct.
  - QUERY_DRIVER_VERSION command. This command allows the PF driver to query its VFs driver version which was set by the SET_DRIVER_VERSION command.
  - New diagnostic counters to evaluate the number of ICMC hits and misses for particular resources.
- Enabled the hardware to generate an event upon counter incrementation, in order to reduce an overhead from the software from reading rarely updated counters such as error counters.
- Enabled NOIDNIC connectivity to the network through the e-switch and not directly to the physical port.
- Enabled setting the QP and the Mkey values by the software upon these resources creation.
- Enabled advanced PCIe atomic operations. The HCA will perform PCIe atomic operations as a requestor towards the host memory when receiving compatible atomic messages from the network, and according to the configuration of NV_SW_OFFLOAD_CONFIG pci_atomic_mode field and the PCI AtomicOp Requester Enable bit in the Device Control 2 register.
- Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically.
  Note: TTL modification in the FDB for traffic from the network is currently not supported.
- Enabled a single TIR destination from the FDB.
- Changed the WRED default mode to OFF for Multi-Host adapter cards.
- [Developers only] Moved the fast teardown HCA cap bit to offset 0x1c.4:1.
- Enabled Virtual Functions to read QPDPM/QPDP/QPTS.
- Multi PCI RDMA IB: This capability enables the user to expose two PCI/IB devices per network port.
- Reduced firmware's memory consumption to increase the supported number of VFs per PF to up to 100.
- Shutting Down RDMA QPs with Excessive Retransmissions is a mechanism used to detect excessive retransmissions for an RC connection, and to close the connection in response to it. If the number of retransmissions due to a Local Ack Timeout, NAK-Sequence Error, or Implied NAK, during a specified period, exceeds the specified threshold, the QP will be handled as if the IB spec defined Retry Count was exceeded.

New features in firmware version 12.24.1000:

- Enabled e-switch steering rule in the NIC without matching it with the Directional MACs (DMAC) protocol. Now the rule is only according to the MC/UC bit.
- The IB Sniffer utility provides the user the ability to capture the e-switch traffic directly to a hypervisor queue.
- Increased the number of VFs that can work with full VMQoS (8 TC) per PFs as follow:
  - in dual port devices to: 0-21, 33-45 VFs (22-32 VFs has single TC)
  - in single port devices to: 0-64 VFs

New features in firmware version 16.24.1000:

- Enabled QoS ETS for systems with 64 VFs to better allocate bandwidth in the NIC.
- Enabled TTL modification for received packets.
- Mirrors the traffic from/to one VF to a dedicate admin VF for monitoring and traffic analysis. Note that in this process packets are duplicated and different packet modifications apply to different duplications.
- Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically.
  Note: TTL modification in the FDB for traffic from the network is currently not supported.
- Added support for Dynamically Connected Transport (DC) in RoCE in ConnectX-5 adapter cards.
- Enabled Rx mini-CQE compressed format for striding RQ.

- Enabled TX steering rule on the application meta-data from the WQE. This functionality implements meta-data Reg A steering and meta-data Reg A and Reg B rewriting.
- Added MPLS over UDP and MPLS over GRE protocols for tunneling offload/steering match criteria.

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) devices on VMware ESXi 6.7
Version: 1.0.1 **(Recommended)**
Filename: CP040664.compsig; CP040664.zip

Important Note!

Known Issues in firmware 2.42.5000, 2.42.5044, 2.42.5052:

- When using the QSFP module RTXM320-581, and performing a driver restart for the firmware upgrade/downgrade to take effect, the link does not come up**Workaround**: Reboot the server.
- Enabling/disabling cq_timestamp using mlxconfig is not supported.
- In a card with 2 separate LEDs scheme (a Phy LED and a logic LED) only the Phy LED will lit. Meaning, the orange LES will not be active while the ETH link is in an idle mode
- 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 cards 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: 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.
- 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.
  Workaround: Enable SR-IOV in the BIOS.
- 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..
  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.
  Workaround: Upgrade to MLNX_OFED-2.1-x.x.x. or later.
- VPD read-only fields are writable.
  Workaround: Do not write to read- only fields if you wish to preserve them.
- 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.
  Workaround: Use the physical function device ID to identify the device.
- 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:
  - Unplug the cable from the switch
  - Restart driver
  - Change the protocol via the appropriate tools.
- 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.
- 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 (Single Root I/O Virtualization) setup, using mlxconfig when the PF (Physical Function) is passed through to a VM (Virtual Machine) requires a reboot of the Hypervisor.
- 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).
- MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer.

Fixes

Fixes in version 2.42.5000:

- PortRcvPkts counter was prevented from being cleared after resetting it.
- The system Timed Out on the configuration cycle of the Virtual Functions (VFs) when more than 10 Virtual Functions performed FLR and the completion Time Out value was configured to a range of less than 16 msec.
- The server hangs and results in NMI when running “mlxfwtop –d mt4103_pci_cr0” while restarting the driver in parallel (from a different thread). In this case, the downstream bridge over the device reported completion timeout error.
- In flow_steering, BMC could not receive a ping over IPV6 after running bmc_reboot.
- While closing the HCA, the RX packet caused bad access to resources that did not exist, and consequently caused the QPCGW or the irisc to get stuck.
- The master SMLID and the LID was either 0 or 0xFFFF when the port was neither active nor armed.
- ibdump could not capture all MADs packets.
- link did not go up after reboot.
- Fixed a rare issue that cause the PCIe configuration cycle that arrived during the time of sw_reset to generate 2 completions.
- Network Controller Sideband Interface (NC-SI) did not work when adding the disable_static_steering_ini field in the ini file, due to memory allocation issue for this field in the scratchpad.

Fixes in version 2.42.5044:

- Fixed an issue that prevented the firmware from detecting a link_down event thus preventing the IB bond interface from going to a failover mode

Fixes in version 2.42.5052:

- Fixed Uncorrectable Machine Check Exception issue. The internal resources for handling packets were not allowed to be flushed when the driver was brought down and occasionally caused Red Screen of Death (RSOD). The fix was applied to the ROM code only and has only external timing influences upon the driver’s teardown.

Enhancements

Firmware for the following devices are updated to 2.42.5000:
764282-B21
764286-B21

Firmware for the following devices are updated to 2.42.5044:
764284-B21
764285-B21

Firmware for the following devices are updated to 2.42.5052:
764283-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

Supported Devices and Features

Supported Devices:

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

Online Firmware Upgrade Utility (Linux x86_64) for HPE Infiniband FDR 2P 545QSFP Adapter (HP Part # 702211-B21), HPE Infiniband FDR 2P 545FLR-QSFP Adapter (HP Part # 702212-B21) and HPE Infiniband FDR 2P 545M Adapter (HP Part #702213-B21)
Version: 1.0.6 **(Recommended)**
Filename: firmware-hca-mellanox-infiniband-only-1.0.6-1.1.x86_64.compsig; firmware-hca-mellanox-infiniband-only-1.0.6-1.1.x86_64.rpm

Important Note!

Known Issues:

- Setting the port to 'sleep' state is not supported.
- Link width x1 might get Replay Timer Timeout, on speed change.
- L1 power state enter requests are ignored by the device.
- **[For customers developing custom low level drivers]**
  The device does not recover if the requested number of pages are not supplied during device initialization.
- On rare occasions, SL to VL modification with functioning QPs results in traffic hangs.
- Vport transmit packets are not blocked if vport policy is Down.
- DC transport is not supported when SR-IOV is enabled.
- ibstat reports the link speed as FDR instead of FDR10.
- When connected to an InfiniScale4 based QDR switch, the link might come up as an SDR speed instead of QDR.
- MTUSB communication via I2C header on primary I2C bus is supported only in live-fish mode.
- mlxconfig tool displays some Ethernet only configuration such as RoCE status.
- PF direct pass-through is not supported (since PF FLR is not supported).
- Some Port Control Register do not return to the default value after the last port owner host restarts the driver.
  Workaround: Reboot or reset the driver.
  reboot / mlxfwreset
- Older MFT versions (4.0.0 and 3.8.0) may indicate that the latest GA firmware is old or that it cannot be compared with the existing firmware.
  A message similar to the below will be displayed upon firmware upgrade stage:
  # flint -d <mst device> -i <image> burn
  Current FW version on flash: 12.1100.6630
  New FW version:
  12.0012.0572
  Note: The new FW version is not newer than the current FW version on flash.
  Do you want to continue ? (y/n) [n] : y
  Workaround: Choose one of the options below to upgrade firmware:
  Upgrade to the latest MFT version (4.1.0)
  Type "y" after the note flint provides
  Run flint with the "-force" flag
- Flashing the firmware requires server reboot.Firmware cannot be flashed twice without server reboot after first flashing
  Workaround: Reboot the server after firmware flashing
- **[For customers developing custom low level drivers]**
  VFs internal FLR is not supported in PF teardown HCA command.
  Workaround: Before unloading the PF driver, PF driver must disable all its active VFs by performing the following:
  1. Run the disable_hca command on all the function_ids
  2. Wait until firmware returns all VFs allocated pages.
- **[For customers developing custom low level drivers]**
  VNodeInfo and VPortGuidInfo virtualization Attributes MADs are not supported.
- **[For customers developing custom low level drivers]**
  The value of log_max_ra_res_qp in set_hca_cap command should be the same in all functions.
- Function (PF/VF) TX port counters are not supported.
- Configuring the SM with VL weight 0 on some VL, and running traffic on it, causes the driver to hang during unload.
- Privileged Vport egress traffic is not blocked when Vport is not active.
- When all SLs are mapped to non-VL0, the firmware might hang.
  Workaround: Fix the SL configuration and power cycle the system.
- In an SR-IOV setup, traffic should contain GRH (GID index), traffic without GRH will be forwarded to vport0 ("Host0").
  OpenSM should be configured as follow (opensm.conf):
  • virt_enable should be 2
  • Enable Qos:
  qos TRUE
- end_padding_mode is required in CREATE_QP and not in INIT_2_RTR command as defined in the PRM.
- Burning in firmware on the same device in parallel from multiple interfaces (e.g. PCIe and MTUSB) is not supported.
- Updating a non-voltile configuration of port type TLV more than 50 times might cause system to hang.
  Workaround: Run mlxconfig reset after every 50 consecutive updates of port type TLV.
- mlxconfig configuration of VF_LOG_BAR_SIZE and PF_LOG_BAR_SIZE are ignored and set to 5 (32MB).
- Performing warm reboot during firmware image burning for VPI/IB devices configured with IB port protocol, might cause the device to disappear from the PCIe.
  Workaround: Cold reboot the device instead

Fixes

The following issues are fixed in firmware version 10.16.1058:

- Fixed an issue which caused system fail when enabled SR-IOV.
- Fixed a rare issue which caused the RX to hang when triggered the SRQ limit event.
- Fixed an issue which occasionally caused the RX traffic to hang in DC when received a PCI error on WQE fetch.
- Fixed an issue which caused the mlxconfig configuration of VF_LOG_BAR_SIZE to be ignored and to be set to 5 (32MB).
- Fixed an EEH error from PCI which caused firmware to hang.
- Fixed an issues which occasionally caused the driver to hang during unload on some VLs when configuring the SM with a VL weight 0 and running traffic on it.
- Fixed a rare case which caused an assert reported to the driver when the DC transport was enabled in the following cases: retransmission occurred and the RX received the same packet twice
- Fixed an issue which caused the HCA to hang when enabled /disabled the VFs vports when the VFs GUIDs configuration were overloaded in the steering table.

The following issues are fixed in firmware version 10.16.1038:

- Fixed RSOD bug.
- Fixed an issue causing single port devices to query and write Physical Port TLVs to Port 2.
- Fixed an issue which caused the device to hang when resetting qkey/pkey violation counter via port_info mad.
- Improved RDMA READ bandwidth under packet lost scenario.
- If the PF driver or the tool (e.g. ethtool) use PAOS DOWN command (e.g. by ifconfig down or ip link set down), loopback traffic is blocked for all functions on this port (PF<->VFs / VF<->VF)
  In Multihost loopback, the traffic will be blocked once the firmware receives the PAOS down command from all PFs. However, the loopback traffic will not

be blocked when the port is down due to the physical link (for example: cable plugged out, switch port down).
- Fixed an issue which prevented QP permission for reserve lkey to be passed to the memop machine.
- Fixed a MLX QP SL mismatch handling which occurred when the SL in the WQE was different than the SL in the QP.
- Fixed wrongly implementation of SM SL2VL configuration.
- Fixed a DC re-connect flow which in some cases sent bad completion.
- Fixed a DC performance issue; separated DCRs SQ from the DCI SQs.
- Fixed an issue causing the firmware to hang when running ibdiagnet. The received DiagData MAD included the following values:
  • Clear_all = 1
  • PageNum = 0
  • Port_select = 0
  To prevent the firmware from hanging, a port check was added to Set() as well.
- Fixed an issue which caused hardware fatal error when running ibdump.
- Fixed an FDR10 incorrect speed indication reported due to the usage of a translation function from the hardware speed to the PRM speed twice.
- Fixed a Phy manager PCS event handling when the port's next state was disable.
- Fixed an issue that caused invalid data returned by EyeOpening MAD.
- Reduced the VF ICM footprint for VFs.
- Increased the number of regular memory region from 2^21 to 2^22.
- Fixed improper handling of sequential connect packets.
- On rare occasions, after PXE boot, the port speed came up as SDR instead of a higher speed.
- On very rare occasions, firmware wrongly reported board over-temperature warning.
- destroy-DCT command handling may experience delays while the DCT port is down.
- Fixed an issue causing diagnostic counters VS-MAD page offset to start at a wrong address.
- Fixed stability issue in the event of no-local-DC-resources.
- Fixed improper handling of multiple DCT errors.
- Fixed bad handling of DC RNR state.
- Reduced DCT destroy firmware handling time.
- Fixed link flapping issue which occurred when LLR was active.
- Deprecated code 0x0c0600 was changed to 0x020700 (InfiniBand network adapter).
- Atomic response endianess is always a big endian.
- **[Documentation fix in PRM v2.01, no changes to the firmware code.]**
  Port asynchronous events documentation are different from the PRM. All port events have a type value of 0x9.
  The following subtype values are used for the following events:
  • link down=0x1
  • link up=0x4
  • link initialized=0x5
  • lid change=0x6
  • PKEY change=0x7
  • GUID change=0x8
  • client reregister=0x9
- Alternate Path Migration (APM) triggers only a single affiliated asynchronous error event in the case of a path migration failure.
- Using a min_rnr_nak value of 0x5 will cause failures when creating reliable connection (RC) QPs.
- On rare occasions DC Initiator completions might be lost.
- The following signature rules are not supported (Numbering based on "signature rules table" in PRM):
  • Rule #12: T10 DIF
  • Rule #13: T10 DIF CS
  • Rule #14 T10 DIF CS
- VL arbitration configuration does not ensure minimum bandwidth for VL as configured.
- On very rare occasions, a false firmware “hanged” report is printed in the dmesg.
- CQ buffer resize not supported.
- When connecting to InfiniScale family switches and non-Mellanox InfiniBand switches DDR and QDR speeds may show line errors and in some cases might downgrade to SDR speed.

Enhancements

Firmware for the following devices are updated to 10.16.1038:

702211-B21 (HP Infiniband FDR 2P 545QSFP Adapter)
702212-B21 (HP Infiniband FDR 2P 545FLR-QSFP Adapter)

Firmware for the following devices are updated to 10.16.1058:

702213-B21 (HP Infiniband FDR 2P 545M Adapter)

New features in firmware version 10.16.1038:

- Increased the number of VFs from 32 to 64 per PF.
  Note: When increasing the number of VFs, the following limitations must be taken into consideration:
  • server_total_bar_size >= (num_pfs)*(2log_pf_uar_bar_size + 2log_vf_uar_bar_size*total_vfs)
  • server_total_msix >=(num_pfs)*(num_pf_msix + num_vfs_msix * total_vfs)
- Added v1, v3, v6 tags to VPD read only tag.

Supported Devices and Features

Supported Devices:

HP Part #	Device Name	PSID
702211-B21	HPE Infiniband FDR 2P 545QSFP Adapter	HP_02B0110019
702212-B21	HPE Infiniband FDR 2P 545FLR-QSFP Adapter	HP_02C0110019
702213-B21	HPE Infiniband FDR 2P 545M Adapter	HP_02A0110019

Online Firmware Upgrade Utility (Linux x86_64) for HPE Intel OPA adapters
Version: 1.8.1 **(Recommended)**
Filename: firmware-nic-intel-opa-hfi-1.8.1-1.1.x86_64.compsig; firmware-nic-intel-opa-hfi-1.8.1-1.1.x86_64.rpm

Prerequisites

The smart component requires Intel IFS or Basic software v10.8.0.0.204 to be installed as a prerequisite.

Enhancements

Changes and New Features in version 1.8.1.0.0 :

- Added hfi1_eprom **v10_8_0_0_13.**
- Loader ROM **HfiPcieGen3Loader_1.8.1.0.0.rom** and driver EFI **HfiPcieGen3_1.8.1.0.0.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: 1.0.10 **(Recommended)**
Filename: firmware-nic-mellanox-ethernet-only-1.0.10-1.1.x86_64.compsig; firmware-nic-mellanox-ethernet-only-1.0.10-1.1.x86_64.rpm

Important Note!

Known Issues for FW version 2.42.5044 :

- When using the QSFP module RTXM320-581, 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 lattervalue 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 usingthe 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 14.24.9000 :

- The maximum “read” size of MTRC_STDB is limited to 272 Bytes.
- FTE with both forward (FWD) and encapsulation (ENCAP) actions is not supported in the SX NIC Flow Table.
- Encapsulation / Decapsulation support in steering has the following limitations:
  - Encapsulation / Decapsulation can be open on the FDB only if all VFs are non active
  - Encapsulation / Decapsulation supports single mode only: FDB / NIC. Opening tables of both types is not supported
  - Encapsulation / Decapsulation per device support:

		NIC	FDB
ConnectX-4	encap	NO	YES non MH
	decap	NO	NO

```
ConnectX-4 Lx   encap   NO     YES non MH
                decap   NO     YES
ConnectX-5      encap   YES    YES
                decap   YES    YES
```

Fixes

Fixes submitted in version 2.42.5044 :

- Fixed an issue that prevented the firmware from detecting a link_down event thus preventing the IB bond interface from going to a failover mode

Fixes submitted in version 14.24.9006:

- The HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter was not linking in AUX power mode.

Fixes submitted in version 16.24.9000 :

- Fixed an Active Health System(AHS) packet over PCIe interface issue

Enhancements

Firmware for the following devices are updated to 2.42.5044 :

779799-B21 (HP Ethernet 10G 2-port 546FLR-SFP+ Adapter)
779793-B21 (HP Ethernet 10G 2-port 546SFP+ Adapter)

Firmware for the following device is updated to 12.24.9000 :

868779-B21 (HPE Synergy 6410C 25/50Gb Ethernet Adapter)

Firmware for the following devices are updated to 14.24.9006 :

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

Firmware for the following devices are updated to 14.24.9000 :
817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

Firmware for the following device is updated to 16.24.9000 :

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

New features and changes in version 14.24.9000 :

- Implemented DCi specification v.0.80. The specification defines the NIC behavior in case of restore factory default while the NIC does not support AUX power.
- Added support for Abstract Syntax Notation One(ASN1) defaults v3.0 and NIC Discovery Configuration v.0.81
- Added support for Management Component Transport Protocol (MCTP) over PCI.
- Added support for Event Description Addendum 2.6.4.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
779793-B21	HP Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HP 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
868779-B21	HPE Synergy 6410C 25/50Gb Ethernet Adapter	HPE0000000006
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: 1.0.3 **(Recommended)**
Filename: firmware-nic-mellanox-ib-cx4-cx5-1.0.3-1.1.x86_64.compsig; firmware-nic-mellanox-ib-cx4-cx5-1.0.3-1.1.x86_64.rpm

Important Note!

Known Issues in firmware 12.24.1000 and 16.24.1000:

- vport_tc and para_vport_tc are not supported in this version.
- Executing the update_lid command while the IB port sniffer utility is active can stop the utility.
- Initializing a function while the IB port sniffer utility is active can stop the utility.
- While using e-switch vport sVLAN stripping, the RX steering values on the sVLAN might not be accurate.
- FTE with both forward (FWD) and encapsulation (ENCAP) actions is not supported in the SX NIC Flow Table.
- Encapsulation / Decapsulation support in steering has the following limitations:
  - Encapsulation / Decapsulation can be open on the FDB only if all VFs are non active.
  - Encapsulation / Decapsulation supports single mode only: FDB / NIC. Opening tables of both types is not supported.
  - Encapsulation / Decapsulation per device support:

```
                              NIC     FDB
ConnectX-4          encap NO YES non MH
                    decap NO NO
ConnectX-4 Lx       encap NO YES non MH
                    decap NO YES
ConnectX-5          encap YES YES
                    decap YES YES
```

Known Issues in firmware 16.24.1000:

- In the case of multi-destinations transmission where the last destination is set to encapsulation & wire, the packet for the last destination will not be send.

- When modifying the TTL in the NIC RX, the CQE checksum is not recalculated automatically. The limitation is indicated by the ttl_checksum_correction bit. If the ttl_checksum_correction=0, the capability is not functioning properly.
- When getting an inline scatter CQE on IB striding RQ, the stride index in the CQE will be zero.
- RoCE DC is not supported in LAG mode.

Fixes

Fixes in version 12.24.1000 and 16.24.1000:

- mlxconfig tool reported all possible expansion ROM images, instead of presenting only the existing images.
- Modifying VMQoS rate limiter parameters during traffic caused transmission failure.
- Aligned the default tuning type in PHY TEST MODE to the device protocol.
- When a device is operating in Safe Mode state, and the user issues the mlxfwreset command, the device might fail to come-up correctly after the reset. Note: Do not run mlxfwreset when operating in a Safe Mode state.
- Fixed an issue related to PCIe "Surprise link down" event reporting capability.
- Fixed an issue that resulted in the link partner experiencing false active linkup when plugging in a base-T cable to a closed port.

Fixes in version 12.24.1000:

- Fixed an issue that caused the max_qp_retry_freq_exceeded counter (including a CQE with error syndrome 0x97, and the QP moving to error state) to be activated only after exceeding the NIC Vport context max_qp_retry_limit, and not when reaching it.

Fixes in version 16.24.1000:

- PCIe bifurcation issue.
- Deadlock in RX related to the “send-invalidate” flow, resulted in RX getting stuck.
- Rare errors in RX that resulted in double completion.

Enhancements

Firmware for the following devices are updated to 12.24.1000:

843400-B21 (HPE Apollo A10 InfiniBand EDR (100Gb) 2-port Adapter)

Firmware for the following devices are updated to 16.24.1000:

872723-B21 (HPE Apollo InfiniBand EDR 100Gb 2-port 841z Mezzanine Adapter)
872725-B21 (HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter)

Changes and New features in firmware version 12.24.1000 and 16.24.1000:

- Added support for the following:
  - An additional layer (Layer 3) of packet processing at the hypervisor level that enables adding and removing protocol headers (e.g., the MAC address is removed during encapsulation, and added during decapsulation) for the encapsulated traffic.
  - Transmission histogram counter set as part of the Ethernet extended group counters.
  - TX steering rule on flow_table_metadata in WQE Ethernet segment.
  - Added L3 encapsulation/decapsulation support in the reformat context allocation.
    - L3 encapsulation removes L2 headers and adds generic L3 tunnel encapsulation.
    - L3 decapsulation removes the generic L3 tunnel decapsulation and L2 header.
  - Flow steering header modification (header rewrite) for IPv4 TTL header for loopback traffic (VF-VF/VF-PF).
    Note: TTL modification for traffic from the network is currently not supported.
  - Requester QP packet based on E2E credits mode. The new flow control supports HCA-to-switch RDMA traffic packet-based End-2-End.
  - IPoIB non-default Partition Keys (PKeys). Now the PKey values can be modified in the PKey table without the need of recreating the IPoIB (underlay) QPs.
  - [Beta] SR-IOV in Multi-Host/Socket-Direct.
  - QUERY_DRIVER_VERSION command. This command allows the PF driver to query its VFs driver version which was set by the SET_DRIVER_VERSION command.
  - New diagnostic counters to evaluate the number of ICMC hits and misses for particular resources.
- Enabled the hardware to generate an event upon counter incrementation, in order to reduce an overhead from the software from reading rarely updated counters such as error counters.
- Enabled NOIDNIC connectivity to the network through the e-switch and not directly to the physical port.
- Enabled setting the QP and the Mkey values by the software upon these resources creation.
- Enabled advanced PCIe atomic operations. The HCA will perform PCIe atomic operations as a requestor towards the host memory when receiving compatible atomic messages from the network, and according to the configuration of NV_SW_OFFLOAD_CONFIG pci_atomic_mode field and the PCI AtomicOp Requester Enable bit in the Device Control 2 register.
- Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically.
  Note: TTL modification in the FDB for traffic from the network is currently not supported.
- Enabled a single TIR destination from the FDB.
- Changed the WRED default mode to OFF for Multi-Host adapter cards.
- [Developers only] Moved the fast teardown HCA cap bit to offset 0x1c.4:1.
- Enabled Virtual Functions to read QPDPM/QPDP/QPTS.
- Multi PCI RDMA IB: This capability enables the user to expose two PCI/IB devices per network port.
- Reduced firmware's memory consumption to increase the supported number of VFs per PF to up to 100.
- Shutting Down RDMA QPs with Excessive Retransmissions is a mechanism used to detect excessive retransmissions for an RC connection, and to close the connection in response to it. If the number of retransmissions due to a Local Ack Timeout, NAK-Sequence Error, or Implied NAK, during a specified period, exceeds the specified threshold, the QP will be handled as if the IB spec defined Retry Count was exceeded.

New features in firmware version 12.24.1000:

- Enabled e-switch steering rule in the NIC without matching it with the Directional MACs (DMAC) protocol. Now the rule is only according to the MC/UC bit.
- The IB Sniffer utility provides the user the ability to capture the e-switch traffic directly to a hypervisor queue.
- Increased the number of VFs that can work with full VMQoS (8 TC) per PFs as follow:
  - in dual port devices to: 0-21, 33-45 VFs (22-32 VFs has single TC)
  - in single port devices to: 0-64 VFs

New features in firmware version 16.24.1000:

- Enabled QoS ETS for systems with 64 VFs to better allocate bandwidth in the NIC.
- Enabled TTL modification for received packets.
- Mirrors the traffic from/to one VF to a dedicate admin VF for monitoring and traffic analysis. Note that in this process packets are duplicated and different packet modifications apply to different duplications.
- Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically.

Note: TTL modification in the FDB for traffic from the network is currently not supported.
- Added support for Dynamically Connected Transport (DC) in RoCE in ConnectX-5 adapter cards.
- Enabled Rx mini-CQE compressed format for striding RQ.
- Enabled TX steering rule on the application meta-data from the WQE. This functionality implements meta-data Reg A steering and meta-data Reg A and Reg B rewriting.
- Added MPLS over UDP and MPLS over GRE protocols for tunneling offload/steering match criteria.

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: 1.0.5 **(Recommended)**
Filename: firmware-hca-mellanox-vpi-connectx4-1.0.5-1.1.x86_64.compsig; firmware-hca-mellanox-vpi-connectx4-1.0.5-1.1.x86_64.rpm

Important Note!

Known Issues in firmware 12.24.1000 and 16.24.1000:

- vport_tc and para_vport_tc are not supported in this version.
- Executing the update_lid command while the IB port sniffer utility is active can stop the utility.
- Initializing a function while the IB port sniffer utility is active can stop the utility.
- While using e-switch vport sVLAN stripping, the RX steering values on the sVLAN might not be accurate.
- FTE with both forward (FWD) and encapsulation (ENCAP) actions is not supported in the SX NIC Flow Table.
- Encapsulation / Decapsulation support in steering has the following limitations:
  - Encapsulation / Decapsulation can be open on the FDB only if all VFs are non active.
  - Encapsulation / Decapsulation supports single mode only: FDB / NIC. Opening tables of both types is not supported.
  - Encapsulation / Decapsulation per device support:

	NIC	FDB
ConnectX-4	encap NO	YES non MH
	decap NO	NO
ConnectX-4 Lx	encap NO	YES non MH
	decap NO	YES
ConnectX-5	encap YES	YES
	decap YES	YES

Known Issues in firmware 16.24.1000:

- In the case of multi-destinations transmission where the last destination is set to encapsulation & wire, the packet for the last destination will not be send.
- When modifying the TTL in the NIC RX, the CQE checksum is not recalculated automatically. The limitation is indicated by the ttl_checksum_correction bit. If the ttl_checksum_correction=0, the capability is not functioning properly.
- When getting an inline scatter CQE on IB striding RQ, the stride index in the CQE will be zero.
- RoCE DC is not supported in LAG mode.

Fixes

Fixes in version 12.24.1000 and 16.24.1000:

- mlxconfig tool reported all possible expansion ROM images, instead of presenting only the existing images.
- Modifying VMQoS rate limiter parameters during traffic caused transmission failure.
- Aligned the default tuning type in PHY TEST MODE to the device protocol.
- When a device is operating in Safe Mode state, and the user issues the mlxfwreset command, the device might fail to come-up correctly after the reset. Note: Do not run mlxfwreset when operating in a Safe Mode state.
- Fixed an issue related to PCIe "Surprise link down" event reporting capability.
- Fixed an issue that resulted in the link partner experiencing false active linkup when plugging in a base-T cable to a closed port.

Fixes in version 12.24.1000:

- Fixed an issue that caused the max_qp_retry_freq_exceeded counter (including a CQE with error syndrome 0x97, and the QP moving to error state) to be activated only after exceeding the NIC Vport context max_qp_retry_limit, and not when reaching it.

Fixes in version 16.24.1000:

- PCIe bifurcation issue.
- Deadlock in RX related to the “send-invalidate” flow, resulted in RX getting stuck.
- Rare errors in RX that resulted in double completion.

Enhancements

Firmware for the following devices are updated to 12.24.1000:

825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)
825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

Firmware for the following devices are updated to 16.24.1000:

879482-B21 (HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter)
872726-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter)

Changes and New features in firmware version 12.24.1000 and 16.24.1000:

- Added support for the following:

        - An additional layer (Layer 3) of packet processing at the hypervisor level that enables adding and removing protocol headers (e.g., the MAC address is removed during encapsulation, and added during decapsulation) for the encapsulated traffic.
        - Transmission histogram counter set as part of the Ethernet extended group counters.
        - TX steering rule on flow_table_metadata in WQE Ethernet segment.
        - Added L3 encapsulation/decapsulation support in the reformat context allocation.
            - L3 encapsulation removes L2 headers and adds generic L3 tunnel encapsulation.
            - L3 decapsulation removes the generic L3 tunnel decapsulation and L2 header.
        - Flow steering header modification (header rewrite) for IPv4 TTL header for loopback traffic (VF-VF/VF-PF).
          Note: TTL modification for traffic from the network is currently not supported.
        - Requester QP packet based on E2E credits mode. The new flow control supports HCA-to-switch RDMA traffic packet-based End-2-End.
        - IPoIB non-default Partition Keys (PKeys). Now the PKey values can be modified in the PKey table without the need of recreating the IPoIB (underlay) QPs.
        - [Beta] SR-IOV in Multi-Host/Socket-Direct.
        - QUERY_DRIVER_VERSION command. This command allows the PF driver to query its VFs driver version which was set by the SET_DRIVER_VERSION command.
        - New diagnostic counters to evaluate the number of ICMC hits and misses for particular resources.
    - Enabled the hardware to generate an event upon counter incrementation, in order to reduce an overhead from the software from reading rarely updated counters such as error counters.
    - Enabled NOIDNIC connectivity to the network through the e-switch and not directly to the physical port.
    - Enabled setting the QP and the Mkey values by the software upon these resources creation.
    - Enabled advanced PCIe atomic operations. The HCA will perform PCIe atomic operations as a requestor towards the host memory when receiving compatible atomic messages from the network, and according to the configuration of NV_SW_OFFLOAD_CONFIG pci_atomic_mode field and the PCI AtomicOp Requester Enable bit in the Device Control 2 register.
    - Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically.
      Note: TTL modification in the FDB for traffic from the network is currently not supported.
    - Enabled a single TIR destination from the FDB.
    - Changed the WRED default mode to OFF for Multi-Host adapter cards.
    - [Developers only] Moved the fast teardown HCA cap bit to offset 0x1c.4:1.
    - Enabled Virtual Functions to read QPDPM/QPDP/QPTS.
    - Multi PCI RDMA IB: This capability enables the user to expose two PCI/IB devices per network port.
    - Reduced firmware's memory consumption to increase the supported number of VFs per PF to up to 100.
    - Shutting Down RDMA QPs with Excessive Retransmissions is a mechanism used to detect excessive retransmissions for an RC connection, and to close the connection in response to it. If the number of retransmissions due to a Local Ack Timeout, NAK-Sequence Error, or Implied NAK, during a specified period, exceeds the specified threshold, the QP will be handled as if the IB spec defined Retry Count was exceeded.

New features in firmware version 12.24.1000:

- Enabled e-switch steering rule in the NIC without matching it with the Directional MACs (DMAC) protocol. Now the rule is only according to the MC/UC bit.
- The IB Sniffer utility provides the user the ability to capture the e-switch traffic directly to a hypervisor queue.
- Increased the number of VFs that can work with full VMQoS (8 TC) per PFs as follow:
    - in dual port devices to: 0-21, 33-45 VFs (22-32 VFs has single TC)
    - in single port devices to: 0-64 VFs

New features in firmware version 16.24.1000:

- Enabled QoS ETS for systems with 64 VFs to better allocate bandwidth in the NIC.
- Enabled TTL modification for received packets.
- Mirrors the traffic from/to one VF to a dedicate admin VF for monitoring and traffic analysis. Note that in this process packets are duplicated and different packet modifications apply to different duplications.
- Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically.
  Note: TTL modification in the FDB for traffic from the network is currently not supported.
- Added support for Dynamically Connected Transport (DC) in RoCE in ConnectX-5 adapter cards.
- Enabled Rx mini-CQE compressed format for striding RQ.
- Enabled TX steering rule on the application meta-data from the WQE. This functionality implements meta-data Reg A steering and meta-data Reg A and Reg B rewriting.
- Added MPLS over UDP and MPLS over GRE protocols for tunneling offload/steering match criteria.

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) devices on Linux x86_64 platform
Version: 1.0.8 **(Recommended)**
Filename: firmware-hca-mellanox-vpi-eth-ib-1.0.8-1.1.x86_64.compsig; firmware-hca-mellanox-vpi-eth-ib-1.0.8-1.1.x86_64.rpm

Important Note!

Known Issues in firmware 2.42.5000, 2.42.5044, 2.42.5052:

- When using the QSFP module RTXM320-581, and performing a driver restart for the firmware upgrade/downgrade to take effect, the link does not come up**Workaround**: Reboot the server.
- Enabling/disabling cq_timestamp using mlxconfig is not supported.
- In a card with 2 separate LEDs scheme (a Phy LED and a logic LED) only the Phy LED will lit. Meaning, the orange LES will not be active while the ETH link is in an idle mode
- 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 cards 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: 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.
- 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.
  Workaround: Enable SR-IOV in the BIOS.
- 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..
  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.
  Workaround: Upgrade to MLNX_OFED-2.1-x.x.x. or later.
- VPD read-only fields are writable.
  Workaround: Do not write to read- only fields if you wish to preserve them.
- 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.
  Workaround: Use the physical function device ID to identify the device.
- 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:
  - Unplug the cable from the switch
  - Restart driver
  - Change the protocol via the appropriate tools.
- 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.
- 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 (Single Root I/O Virtualization) setup, using mlxconfig when the PF (Physical Function) is passed through to a VM (Virtual Machine) requires a reboot of the Hypervisor.
- 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).
- MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer.

Fixes

Fixes in version 2.42.5000:

- PortRcvPkts counter was prevented from being cleared after resetting it.
- The system Timed Out on the configuration cycle of the Virtual Functions (VFs) when more than 10 Virtual Functions performed FLR and the completion Time Out value was configured to a range of less than 16 msec.
- The server hangs and results in NMI when running “mlxfwtop –d mt4103_pci_cr0” while restarting the driver in parallel (from a different thread). In this case, the downstream bridge over the device reported completion timeout error.
- In flow_steering, BMC could not receive a ping over IPV6 after running bmc_reboot.
- While closing the HCA, the RX packet caused bad access to resources that did not exist, and consequently caused the QPCGW or the irisc to get stuck.
- The master SMLID and the LID was either 0 or 0xFFFF when the port was neither active nor armed.
- ibdump could not capture all MADs packets.
- link did not go up after reboot.
- Fixed a rare issue that cause the PCIe configuration cycle that arrived during the time of sw_reset to generate 2 completions.
- Network Controller Sideband Interface (NC-SI) did not work when adding the disable_static_steering_ini field in the ini file, due to memory allocation issue for this field in the scratchpad.

Fixes in version 2.42.5044:

- Fixed an issue that prevented the firmware from detecting a link_down event thus preventing the IB bond interface from going to a failover mode

Fixes in version 2.42.5052:

- Fixed Uncorrectable Machine Check Exception issue. The internal resources for handling packets were not allowed to be flushed when the driver was brought down and occasionally caused Red Screen of Death (RSOD). The fix was applied to the ROM code only and has only external timing influences upon the driver’s teardown.

Enhancements

Firmware for the following devices are updated to 2.42.5000:
764282-B21
764286-B21

Firmware for the following devices are updated to 2.42.5044:
764284-B21
764285-B21

Firmware for the following devices are updated to 2.42.5052:
764283-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

Supported Devices and Features

Supported Devices:

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

Online Firmware Upgrade Utility (Windows x64) for HPE Mellanox Ethernet only adapters
Version: 1.0.0.10 **(Recommended)**
Filename: cp038538.compsig; cp038538.exe

Important Note!

Known Issues for FW version 2.42.5044 :

- When using the QSFP module RTXM320-581, 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 lattervalue 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 usingthe 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 14.24.9000 :

- The maximum “read” size of MTRC_STDB is limited to 272 Bytes.
- FTE with both forward (FWD) and encapsulation (ENCAP) actions is not supported in the SX NIC Flow Table.
- Encapsulation / Decapsulation support in steering has the following limitations:
  - Encapsulation / Decapsulation can be open on the FDB only if all VFs are non active
  - Encapsulation / Decapsulation supports single mode only: FDB / NIC. Opening tables of both types is not supported
  - Encapsulation / Decapsulation per device support:

```
                        NIC      FDB
ConnectX-4       encap   NO     YES non MH
                   decap   NO     NO
ConnectX-4 Lx    encap   NO     YES non MH
                   decap   NO     YES
ConnectX-5       encap   YES    YES
                   decap   YES    YES
```

Prerequisites

HPE Synergy 6410C 25/50Gb Ethernet Adapter (868779-B21) must first be upgraded to prerequisite firmware version 12.21.2808 before updating to 12.22.0148 or 12.22.0194.
12.22.0194 is the first secure firmware for HPE Synergy 6410C 25/50Gb Ethernet Adapter (868779-B21). Once this device is upgraded to firmware 12.22.0194, downgrade is not allowed.

Fixes

Fixes submitted in version 2.42.5044 :

- Fixed an issue that prevented the firmware from detecting a link_down event thus preventing the IB bond interface from going to a failover mode

Fixes submitted in version 14.24.9006:

- The HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter was not linking in AUX power mode.

Fixes submitted in version 16.24.9000 :

- Fixed an Active Health System(AHS) packet over PCIe interface issue

Enhancements

Firmware for the following devices are updated to 2.42.5044 :

779799-B21 (HP Ethernet 10G 2-port 546FLR-SFP+ Adapter)
779793-B21 (HP Ethernet 10G 2-port 546SFP+ Adapter)

Firmware for the following device is updated to 12.24.9000 :

868779-B21 (HPE Synergy 6410C 25/50Gb Ethernet Adapter)

Firmware for the following devices are updated to 14.24.9006 :

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

Firmware for the following devices are updated to 14.24.9000 :
817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

Firmware for the following device is updated to 16.24.9000 :

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

New features and changes in version 14.24.9000 :

- Implemented DCi specification v.0.80. The specification defines the NIC behavior in case of restore factory default while the NIC does not support AUX power.
- Added support for Abstract Syntax Notation One(ASN1) defaults v3.0 and NIC Discovery Configuration v.0.81
- Added support for Management Component Transport Protocol (MCTP) over PCI.
- Added support for Event Description Addendum 2.6.4.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
779793-B21	HP Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HP 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

868779-B21	HPE Synergy 6410C 25/50Gb Ethernet Adapter	HPE0000000006
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: 1.0.0.3 **(Recommended)**
Filename: cp036743.compsig; cp036743.exe

Important Note!

Known Issues in firmware 12.24.1000 and 16.24.1000:

- vport_tc and para_vport_tc are not supported in this version.
- Executing the update_lid command while the IB port sniffer utility is active can stop the utility.
- Initializing a function while the IB port sniffer utility is active can stop the utility.
- While using e-switch vport sVLAN stripping, the RX steering values on the sVLAN might not be accurate.
- FTE with both forward (FWD) and encapsulation (ENCAP) actions is not supported in the SX NIC Flow Table.
- Encapsulation / Decapsulation support in steering has the following limitations:
  - Encapsulation / Decapsulation can be open on the FDB only if all VFs are non active.
  - Encapsulation / Decapsulation supports single mode only: FDB / NIC. Opening tables of both types is not supported.
  - Encapsulation / Decapsulation per device support:

		NIC	FDB
ConnectX-4	encap	NO	YES non MH
	decap	NO	NO
ConnectX-4 Lx	encap	NO	YES non MH
	decap	NO	YES
ConnectX-5	encap	YES	YES
	decap	YES	YES

Known Issues in firmware 16.24.1000:

- In the case of multi-destinations transmission where the last destination is set to encapsulation & wire, the packet for the last destination will not be send.
- When modifying the TTL in the NIC RX, the CQE checksum is not recalculated automatically. The limitation is indicated by the ttl_checksum_correction bit. If the ttl_checksum_correction=0, the capability is not functioning properly.
- When getting an inline scatter CQE on IB striding RQ, the stride index in the CQE will be zero.
- RoCE DC is not supported in LAG mode.

Fixes

Fixes in version 12.24.1000 and 16.24.1000:

- mlxconfig tool reported all possible expansion ROM images, instead of presenting only the existing images.
- Modifying VMQoS rate limiter parameters during traffic caused transmission failure.
- Aligned the default tuning type in PHY TEST MODE to the device protocol.
- When a device is operating in Safe Mode state, and the user issues the mlxfwreset command, the device might fail to come-up correctly after the reset. Note: Do not run mlxfwreset when operating in a Safe Mode state.
- Fixed an issue related to PCIe "Surprise link down" event reporting capability.
- Fixed an issue that resulted in the link partner experiencing false active linkup when plugging in a base-T cable to a closed port.

Fixes in version 12.24.1000:

- Fixed an issue that caused the max_qp_retry_freq_exceeded counter (including a CQE with error syndrome 0x97, and the QP moving to error state) to be activated only after exceeding the NIC Vport context max_qp_retry_limit, and not when reaching it.

Fixes in version 16.24.1000:

- PCIe bifurcation issue.
- Deadlock in RX related to the “send-invalidate” flow, resulted in RX getting stuck.
- Rare errors in RX that resulted in double completion.

Enhancements

Firmware for the following devices are updated to 12.24.1000:

843400-B21 (HPE Apollo A10 InfiniBand EDR (100Gb) 2-port Adapter)

Firmware for the following devices are updated to 16.24.1000:

872723-B21 (HPE Apollo InfiniBand EDR 100Gb 2-port 841z Mezzanine Adapter)
872725-B21 (HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter)

Changes and New features in firmware version 12.24.1000 and 16.24.1000:

- Added support for the following:
  - An additional layer (Layer 3) of packet processing at the hypervisor level that enables adding and removing protocol headers (e.g., the MAC address is removed during encapsulation, and added during decapsulation) for the encapsulated traffic.
  - Transmission histogram counter set as part of the Ethernet extended group counters.
  - TX steering rule on flow_table_metadata in WQE Ethernet segment.
  - Added L3 encapsulation/decapsulation support in the reformat context allocation.
    - L3 encapsulation removes L2 headers and adds generic L3 tunnel encapsulation.
    - L3 decapsulation removes the generic L3 tunnel decapsulation and L2 header.
  - Flow steering header modification (header rewrite) for IPv4 TTL header for loopback traffic (VF-VF/VF-PF).
    Note: TTL modification for traffic from the network is currently not supported.
  - Requester QP packet based on E2E credits mode. The new flow control supports HCA-to-switch RDMA traffic packet-based End-2-End.
  - IPoIB non-default Partition Keys (PKeys). Now the PKey values can be modified in the PKey table without the need of recreating the IPoIB (underlay) QPs.
  - [Beta] SR-IOV in Multi-Host/Socket-Direct.
  - QUERY_DRIVER_VERSION command. This command allows the PF driver to query its VFs driver version which was set by the SET_DRIVER_VERSION command.

New diagnostic counters to evaluate the number of ICMC hits and misses for particular resources.
- Enabled the hardware to generate an event upon counter incrementation, in order to reduce an overhead from the software from reading rarely updated counters such as error counters.
- Enabled NOIDNIC connectivity to the network through the e-switch and not directly to the physical port.
- Enabled setting the QP and the Mkey values by the software upon these resources creation.
- Enabled advanced PCIe atomic operations. The HCA will perform PCIe atomic operations as a requestor towards the host memory when receiving compatible atomic messages from the network, and according to the configuration of NV_SW_OFFLOAD_CONFIG pci_atomic_mode field and the PCI AtomicOp Requester Enable bit in the Device Control 2 register.
- Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically. Note: TTL modification in the FDB for traffic from the network is currently not supported.
- Enabled a single TIR destination from the FDB.
- Changed the WRED default mode to OFF for Multi-Host adapter cards.
- [Developers only] Moved the fast teardown HCA cap bit to offset 0x1c.4:1.
- Enabled Virtual Functions to read QPDPM/QPDP/QPTS.
- Multi PCI RDMA IB: This capability enables the user to expose two PCI/IB devices per network port.
- Reduced firmware's memory consumption to increase the supported number of VFs per PF to up to 100.
- Shutting Down RDMA QPs with Excessive Retransmissions is a mechanism used to detect excessive retransmissions for an RC connection, and to close the connection in response to it. If the number of retransmissions due to a Local Ack Timeout, NAK-Sequence Error, or Implied NAK, during a specified period, exceeds the specified threshold, the QP will be handled as if the IB spec defined Retry Count was exceeded.

New features in firmware version 12.24.1000:

- Enabled e-switch steering rule in the NIC without matching it with the Directional MACs (DMAC) protocol. Now the rule is only according to the MC/UC bit.
- The IB Sniffer utility provides the user the ability to capture the e-switch traffic directly to a hypervisor queue.
- Increased the number of VFs that can work with full VMQoS (8 TC) per PFs as follow:
  - in dual port devices to: 0-21, 33-45 VFs (22-32 VFs has single TC)
  - in single port devices to: 0-64 VFs

New features in firmware version 16.24.1000:

- Enabled QoS ETS for systems with 64 VFs to better allocate bandwidth in the NIC.
- Enabled TTL modification for received packets.
- Mirrors the traffic from/to one VF to a dedicate admin VF for monitoring and traffic analysis. Note that in this process packets are duplicated and different packet modifications apply to different duplications.
- Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically. Note: TTL modification in the FDB for traffic from the network is currently not supported.
- Added support for Dynamically Connected Transport (DC) in RoCE in ConnectX-5 adapter cards.
- Enabled Rx mini-CQE compressed format for striding RQ.
- Enabled TX steering rule on the application meta-data from the WQE. This functionality implements meta-data Reg A steering and meta-data Reg A and Reg B rewriting.
- Added MPLS over UDP and MPLS over GRE protocols for tunneling offload/steering match criteria.

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: 1.0.0.5 **(Recommended)**
Filename: cp036747.compsig; cp036747.exe

Important Note!

Known Issues in firmware 12.24.1000 and 16.24.1000:

- vport_tc and para_vport_tc are not supported in this version.
- Executing the update_lid command while the IB port sniffer utility is active can stop the utility.
- Initializing a function while the IB port sniffer utility is active can stop the utility.
- While using e-switch vport sVLAN stripping, the RX steering values on the sVLAN might not be accurate.
- FTE with both forward (FWD) and encapsulation (ENCAP) actions is not supported in the SX NIC Flow Table.
- Encapsulation / Decapsulation support in steering has the following limitations:
  - Encapsulation / Decapsulation can be open on the FDB only if all VFs are non active.
  - Encapsulation / Decapsulation supports single mode only: FDB / NIC. Opening tables of both types is not supported.
  - Encapsulation / Decapsulation per device support:

		NIC	FDB
ConnectX-4	encap	NO	YES non MH
	decap	NO	NO
ConnectX-4 Lx	encap	NO	YES non MH
	decap	NO	YES
ConnectX-5	encap	YES	YES
	decap	YES	YES

Known Issues in firmware 16.24.1000:

- In the case of multi-destinations transmission where the last destination is set to encapsulation & wire, the packet for the last destination will not be send.
- When modifying the TTL in the NIC RX, the CQE checksum is not recalculated automatically. The limitation is indicated by the ttl_checksum_correction bit. If the ttl_checksum_correction=0, the capability is not functioning properly.
- When getting an inline scatter CQE on IB striding RQ, the stride index in the CQE will be zero.
- RoCE DC is not supported in LAG mode.

Fixes

Fixes in version 12.24.1000 and 16.24.1000:

- mlxconfig tool reported all possible expansion ROM images, instead of presenting only the existing images.
- Modifying VMQoS rate limiter parameters during traffic caused transmission failure.
- Aligned the default tuning type in PHY TEST MODE to the device protocol.
- When a device is operating in Safe Mode state, and the user issues the mlxfwreset command, the device might fail to come-up correctly after the reset.
  Note: Do not run mlxfwreset when operating in a Safe Mode state.
- Fixed an issue related to PCIe "Surprise link down" event reporting capability.
- Fixed an issue that resulted in the link partner experiencing false active linkup when plugging in a base-T cable to a closed port.

Fixes in version 12.24.1000:

- Fixed an issue that caused the max_qp_retry_freq_exceeded counter (including a CQE with error syndrome 0x97, and the QP moving to error state) to be activated only after exceeding the NIC Vport context max_qp_retry_limit, and not when reaching it.

Fixes in version 16.24.1000:

- PCIe bifurcation issue.
- Deadlock in RX related to the “send-invalidate” flow, resulted in RX getting stuck.
- Rare errors in RX that resulted in double completion.

Enhancements

Firmware for the following devices are updated to 12.24.1000:

825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)
825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

Firmware for the following devices are updated to 16.24.1000:

879482-B21 (HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter)
872726-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter)

Changes and New features in firmware version 12.24.1000 and 16.24.1000:

- Added support for the following:
  - An additional layer (Layer 3) of packet processing at the hypervisor level that enables adding and removing protocol headers (e.g., the MAC address is removed during encapsulation, and added during decapsulation) for the encapsulated traffic.
  - Transmission histogram counter set as part of the Ethernet extended group counters.
  - TX steering rule on flow_table_metadata in WQE Ethernet segment.
  - Added L3 encapsulation/decapsulation support in the reformat context allocation.
    - L3 encapsulation removes L2 headers and adds generic L3 tunnel encapsulation.
    - L3 decapsulation removes the generic L3 tunnel decapsulation and L2 header.
  - Flow steering header modification (header rewrite) for IPv4 TTL header for loopback traffic (VF-VF/VF-PF).
    Note: TTL modification for traffic from the network is currently not supported.
  - Requester QP packet based on E2E credits mode. The new flow control supports HCA-to-switch RDMA traffic packet-based End-2-End.
  - IPoIB non-default Partition Keys (PKeys). Now the PKey values can be modified in the PKey table without the need of recreating the IPoIB (underlay) QPs.
  - [Beta] SR-IOV in Multi-Host/Socket-Direct.
  - QUERY_DRIVER_VERSION command. This command allows the PF driver to query its VFs driver version which was set by the SET_DRIVER_VERSION command.
  - New diagnostic counters to evaluate the number of ICMC hits and misses for particular resources.
- Enabled the hardware to generate an event upon counter incrementation, in order to reduce an overhead from the software from reading rarely updated counters such as error counters.
- Enabled NOIDNIC connectivity to the network through the e-switch and not directly to the physical port.
- Enabled setting the QP and the Mkey values by the software upon these resources creation.
- Enabled advanced PCIe atomic operations. The HCA will perform PCIe atomic operations as a requestor towards the host memory when receiving compatible atomic messages from the network, and according to the configuration of NV_SW_OFFLOAD_CONFIG pci_atomic_mode field and the PCI AtomicOp Requester Enable bit in the Device Control 2 register.
- Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically.
  Note: TTL modification in the FDB for traffic from the network is currently not supported.
- Enabled a single TIR destination from the FDB.
- Changed the WRED default mode to OFF for Multi-Host adapter cards.
- [Developers only] Moved the fast teardown HCA cap bit to offset 0x1c.4:1.
- Enabled Virtual Functions to read QPDPM/QPDP/QPTS.
- Multi PCI RDMA IB: This capability enables the user to expose two PCI/IB devices per network port.
- Reduced firmware's memory consumption to increase the supported number of VFs per PF to up to 100.
- Shutting Down RDMA QPs with Excessive Retransmissions is a mechanism used to detect excessive retransmissions for an RC connection, and to close the connection in response to it. If the number of retransmissions due to a Local Ack Timeout, NAK-Sequence Error, or Implied NAK, during a specified period, exceeds the specified threshold, the QP will be handled as if the IB spec defined Retry Count was exceeded.

New features in firmware version 12.24.1000:

- Enabled e-switch steering rule in the NIC without matching it with the Directional MACs (DMAC) protocol. Now the rule is only according to the MC/UC bit.
- The IB Sniffer utility provides the user the ability to capture the e-switch traffic directly to a hypervisor queue.
- Increased the number of VFs that can work with full VMQoS (8 TC) per PFs as follow:
  - in dual port devices to: 0-21, 33-45 VFs (22-32 VFs has single TC)
  - in single port devices to: 0-64 VFs

New features in firmware version 16.24.1000:

- Enabled QoS ETS for systems with 64 VFs to better allocate bandwidth in the NIC.
- Enabled TTL modification for received packets.
- Mirrors the traffic from/to one VF to a dedicate admin VF for monitoring and traffic analysis. Note that in this process packets are duplicated and different packet modifications apply to different duplications.
- Enabled TTL modification in the Rx NIC steering. When modifying the TTL in the Rx NIC, the CQE checksum will not recalculated automatically.
  Note: TTL modification in the FDB for traffic from the network is currently not supported.
- Added support for Dynamically Connected Transport (DC) in RoCE in ConnectX-5 adapter cards.
- Enabled Rx mini-CQE compressed format for striding RQ.
- Enabled TX steering rule on the application meta-data from the WQE. This functionality implements meta-data Reg A steering and meta-data Reg A and Reg B rewriting.
- Added MPLS over UDP and MPLS over GRE protocols for tunneling offload/steering match criteria.

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) devices on Windows x86_64 platform
Version: 1.0.0.8 **(Recommended)**
Filename: cp040665.compsig; cp040665.exe

Important Note!

Known Issues in firmware 2.42.5000, 2.42.5044, 2.42.5052:

- When using the QSFP module RTXM320-581, and performing a driver restart for the firmware upgrade/downgrade to take effect, the link does not come up**Workaround**: Reboot the server.
- Enabling/disabling cq_timestamp using mlxconfig is not supported.
- In a card with 2 separate LEDs scheme (a Phy LED and a logic LED) only the Phy LED will lit. Meaning, the orange LES will not be active while the ETH link is in an idle mode
- 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 cards 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: 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.
- 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.
  Workaround: Enable SR-IOV in the BIOS.
- 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..
  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.
  Workaround: Upgrade to MLNX_OFED-2.1-x.x.x. or later.
- VPD read-only fields are writable.
  Workaround: Do not write to read- only fields if you wish to preserve them.
- 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.
  Workaround: Use the physical function device ID to identify the device.
- 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:
  - Unplug the cable from the switch
  - Restart driver
  - Change the protocol via the appropriate tools.
- 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.
- 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 (Single Root I/O Virtualization) setup, using mlxconfig when the PF (Physical Function) is passed through to a VM (Virtual Machine) requires a reboot of the Hypervisor.
- 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).
- MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer.

Fixes

Fixes in version 2.42.5000:

- PortRcvPkts counter was prevented from being cleared after resetting it.
- The system Timed Out on the configuration cycle of the Virtual Functions (VFs) when more than 10 Virtual Functions performed FLR and the completion Time Out value was configured to a range of less than 16 msec.

- The server hangs and results in NMI when running “mlxfwtop –d mt4103_pci_cr0” while restarting the driver in parallel (from a different thread). In this case, the downstream bridge over the device reported completion timeout error.
- In flow_steering, BMC could not receive a ping over IPV6 after running bmc_reboot.
- While closing the HCA, the RX packet caused bad access to resources that did not exist, and consequently caused the QPCGW or the irisc to get stuck.
- The master SMLID and the LID was either 0 or 0xFFFF when the port was neither active nor armed.
- ibdump could not capture all MADs packets.
- link did not go up after reboot.
- Fixed a rare issue that cause the PCIe configuration cycle that arrived during the time of sw_reset to generate 2 completions.
- Network Controller Sideband Interface (NC-SI) did not work when adding the disable_static_steering_ini field in the ini file, due to memory allocation issue for this field in the scratchpad.

Fixes in version 2.42.5044:

- Fixed an issue that prevented the firmware from detecting a link_down event thus preventing the IB bond interface from going to a failover mode

Fixes in version 2.42.5052:

- Fixed Uncorrectable Machine Check Exception issue. The internal resources for handling packets were not allowed to be flushed when the driver was brought down and occasionally caused Red Screen of Death (RSOD). The fix was applied to the ROM code only and has only external timing influences upon the driver’s teardown.

Enhancements

Firmware for the following devices are updated to 2.42.5000:
764282-B21
764286-B21

Firmware for the following devices are updated to 2.42.5044:
764284-B21
764285-B21

Firmware for the following devices are updated to 2.42.5052:
764283-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

Supported Devices and Features

Supported Devices:

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

Firmware - NVDIMM

Top

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

Fixes

Initial relaese.

Enhancements

Initial release.

Firmware package for HPE Persistent Memory featuring Intel Optane DC Persistent Memory on HPE Gen10 Servers
Version: 01.02.00.5375 **(Recommended)**
Filename: dcpmm_01.02.00.5375.fwpkg

Enhancements

Initial release of Firmware for HPE Persistent Memory for Gen10 Servers.

Online Flash Component for Linux - 16GB NVDIMM-N DDR4-2666
Version: 1.04 (A) **(Optional)**
Filename: RPMS/x86_64/firmware-nvdimm-16gb-1.04-1.1.x86_64.compsig; RPMS/x86_64/firmware-nvdimm-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: 1.2.0.5375 **(Recommended)**
Filename: RPMS/x86_64/firmware-dcpmm-1.2.0.5375-1.1.x86_64.compsig; RPMS/x86_64/firmware-dcpmm-1.2.0.5375-1.1.x86_64.rpm

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.

Online Flash Component for Windows x64 - 16GB NVDIMM-N DDR4-2666
Version: 1.04 (A) **(Optional)**
Filename: cp037531.compsig; cp037531.exe

Fixes

Initial relaese.

Enhancements

Initial release.

Online Flash Component for Windows x64 - HPE Persistent Memory featuring Intel Optane DC Persistent Memory on HPE Gen10 Servers
Version: 1.2.0.5375 **(Recommended)**
Filename: cp039525.compsig; cp039525.exe

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.

Firmware - PCIe NVMe Storage Disk

Top

Supplemental Update / Online ROM Flash Component for Linux (x64) - MK000400KWDUK, VK000480KWDUE, MK000800KWDUL, VK000960KWDUF, MK001600KWDUN and VK001920KWDUH Drives
Version: HPK4 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-b45e49679c-HPK4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b45e49679c-HPK4-2.1.x86_64.rpm

Fixes

Fixed timing issue to pass VMWare VSAN certification. Downgrading to any previous version of firmware is not allowed.

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MO0400KEFHN, MO0800KEFHP, MO1600KEFHQ, MO2000KEFHR, MT0800KEXUU and MT1600KEXUV Drives
Version: HPK4 (C) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-2a5b65f157-HPK4-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-2a5b65f157-HPK4-3.1.x86_64.rpm

Fixes

- Fixes a potential latency issue caused by an incorrect pre-fetch algorithm.
- Resolves an issue with a possible bus hang during a system reboot.
- Once HPK4 is downloaded, the drive firmware cannot be changed back to an earlier firmware version (eg, HPK3 or HPK2) due to security changes.

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VO001000KWJSE, VO002000KWJSF, VO004000KWJSH, VT004000KWJSU, MO001600KWJSN and MO003200KWJSQ Drives
Version: HPK1 (C) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-1656c1b14a-HPK1-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-1656c1b14a-HPK1-3.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- 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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VS000480KWDUP, VS000960KWDUQ, MS000400KWDUR, and MS000800KWDUT Drives
Version: HPK4 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-95a2e5abcb-HPK4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-95a2e5abcb-HPK4-2.1.x86_64.rpm

Fixes

- Fixed timing issue to pass VMWare VSAN certification. Downgrading to any previous version of firmware is not allowed.

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - ET000750KWJTF, EO000750KWTXC and EO000375KWJUC Drives
Version: HPK2 (C) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-c4355d15c4-HPK2-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-c4355d15c4-HPK2-3.1.x86_64.rpm

Fixes

- Resolves an issue where the drive may fail to be recognized after a warm reboot.
- Corrects a potential data integrity issue during unaligned data transfers.
- Fixes an issue where the drive may become disabled during improper access of error registers.
- Once HPK2 is downloaded, the drive cannot be changed back to HPK0 firmware.

Enhancements

- Added support for SLES15 operating system.

Supplemental Update / Online ROM Flash Component for Linux (x64) - LO0400KEFJQ, LO0800KEFJR, LO1600KEFJT, LO2000KEFJU, LT0800KEXVA, LT1600KEXVB and LT2000KEXVC Drives
Version: HPK4 (C) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-d64642c780-HPK4-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-d64642c780-HPK4-3.1.x86_64.rpm

Fixes

- Fixes a potential latency issue caused by an incorrect pre-fetch algorithm.
- Resolves an issue with a possible bus hang during a system reboot.
- Once HPK4 is downloaded, the drive firmware cannot be changed back to an earlier firmware version (eg, HPK3 or HPK2) due to security changes.

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MT001600KWHAC, MT003200KWHAD and MT006400KWHAE Drives
Version: HPS1 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-8e8ddc5265-HPS1-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8e8ddc5265-HPS1-2.1.x86_64.rpm

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VO0400KEFJB, VO1200KEFJC and VO2000KEFJD Drives
Version: HPK4 (C) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-9a826ccd8a-HPK4-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-9a826ccd8a-HPK4-3.1.x86_64.rpm

Important Note!

- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Fixes a potential latency issue caused by an incorrect pre-fetch algorithm.
- Resolves an issue with a possible bus hang during a system reboot.
- Once HPK4 is downloaded, the drive firmware cannot be changed back to an earlier firmware version (eg, HPK3 or HPK2) due to security changes

Enhancements

- Added support for RHEL8.

Firmware - Power Management Top

Online ROM Flash for Linux - Advanced Power Capping Microcontroller Firmware for HPE Gen10 Servers
Version: 1.0.7 **(Optional)**
Filename: RPMS/x86_64/firmware-powerpic-gen10-1.0.7-1.1.x86_64.compsig; RPMS/x86_64/firmware-powerpic-gen10-1.0.7-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

Advanced Power Capping Microcontroller Firmware for HPE Gen10 Servers

Release Version:

1.0.7

Last Recommended or Critical Revision:

1.0.4

Previous Revision:

1.0.4

Firmware Dependencies:

None

Enhancements/New Features:

Added support for AMD EPYC 7002 Generation Processors. ROM version 2.00 or later is required to enable the support. This version of firmware does not include any changes for platforms with Intel Processors or AMD EPYC 7001 Generation Processors.

Problems Fixed:

None

Known Issues:

None

Prerequisites

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

Integrated Lights-Out 5 (iLO 5) Firmware version 1.15 and System ROM version 1.20 or later

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added support for AMD EPYC 7002 Generation Processors. ROM version 2.00 or later is required to enable the support. This version of firmware does not include any changes for platforms with Intel Processors or AMD EPYC 7001 Generation Processors.

Known Issues:

None

Online ROM Flash for Linux - Advanced Power Capping Microcontroller Firmware for HPE Gen9 Servers
Version: 1.0.9 (J) **(Optional)**
Filename: RPMS/i386/firmware-powerpic-gen9-1.0.9-10.1.i386.rpm

Important Note!

Important Notes:

Ver. 1.0.9(J) contains updates to the component packaging and is functionally equivalent to ver. 1.0.9. It is not necessary to upgrade with Revision J if a previous component Revision was used to upgrade the firmware to version 1.0.9.

Deliverable Name:

Advanced Power Capping Microcontroller Firmware for HPE ProLiant Gen9 Servers

Release Version:

1.0.9

Last Recommended or Critical Revision:

1.0.7

Previous Revision:

1.0.7

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addresses an issue in which the minimum power capping value was incorrectly being calculated on certain systems. This fix increases the accuracy of the minimum capping value set during POST.

Known Issues:

None

Prerequisites

The "HP ProLiant iLO 3/4 Channel Interface Driver" must be installed and running before using this flash component. If the driver is not running you will receive the following error message:
"The software is not supported for installation on this system.
You must install the iLO Channel Interface driver to use this component."

Fixes

Important Notes:

Ver. 1.0.9(J) contains updates to the component packaging and is functionally equivalent to ver. 1.0.9. It is not necessary to upgrade with Revision J if a previous component Revision was used to upgrade the firmware to version 1.0.9.

Firmware Dependencies:

None

Problems Fixed:

Addresses an issue in which the minimum power capping value was incorrectly being calculated on certain systems. This fix increases the accuracy of the minimum capping value set during POST.

Known Issues:

None

Online ROM Flash for Linux - Power Management Controller
Version: 4.1 (E) **(Recommended)**
Filename: RPMS/i386/hp-firmware-powerpic-dl580-4.1-5.i386.rpm

Important Note!

Important Notes:

Ver. 4.1 (E) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 4.1. It is not necessary to upgrade with Revision E if a previous component revision was used to upgrade the firmware to version 4.1.

Deliverable Name:

Power Management Controller

Release Version:

4.1(E)

Last Recommended or Critical Revision:

This is the initial version of the firmware.

Previous Revision:

This is the initial version of the firmware.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Problems Fixed:

None

Known Issues:

The smart component prompts for reboot unnecessarily when the installation procedure is completed. Reboot is not required after installation for updates to take effect and hardware stability to be maintained.

Prerequisites

The "HP ProLiant iLO 3/4 Channel Interface Driver" must be installed and running before using this flash component. If the driver is not running you will receive the following error message:
"The software is not supported for installation on this system.
You must install the iLO Channel Interface driver to use this component."

Enhancements

Important Notes:

Ver. 4.1 (E) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 4.1. It is not necessary to upgrade with Revision E if a previous component revision was used to upgrade the firmware to version 4.1.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Known Issues:

The smart component prompts for reboot unnecessarily when the installation procedure is completed. Reboot is not required after installation for updates to take effect and hardware stability to be maintained.

Online ROM Flash for VMware ESXi - Advanced Power Capping Microcontroller Firmware for HPE Gen9 Servers
Version: 1.0.9 (I) **(Optional)**
Filename: CP037782.zip

Important Note!

Important Notes:

Ver. 1.0.9(I) contains updates to the component packaging and is functionally equivalent to ver. 1.0.9. It is not necessary to upgrade with Revision I if a previous component Revision was used to upgrade the firmware to version 1.0.9.

Deliverable Name:

Advanced Power Capping Microcontroller Firmware for HPE ProLiant Gen9 Servers

Release Version:

1.0.9

Last Recommended or Critical Revision:

1.0.7

Previous Revision:

1.0.7

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addresses an issue in which the minimum power capping value was incorrectly being calculated on certain systems. This fix increases the accuracy of the minimum capping value set during POST.

Known Issues:

None

Prerequisites

This component requires that the following HPE drivers be loaded before the component can run.

1. The "HPE ProLiant iLO 3/4 Channel Interface Driver" (CHIF) must be installed and running.

The minimum iLO version for ESXi 5.1, 5.5 and ESXi 6.0 and ESXi 6.5 is 1.4.

2. The "Compaq ROM Utility Driver" (CRU) must be installed and running

The minimum CRU version for ESXi 5.1 is 5.0.3.9.

The minimum CRU version for ESXi 5.5 is 5.5.4.1.

The minimum CRU version for ESXi 6.0 is 6.0.8.

The minimum CRU version for 6.5 is 6.5.8.

The minimum CRU version for 6.7 is 6.7.10.

Both drivers are integrated into the HPE VMware Custom Image which also contains other HPE advanced management tools. The drivers are also available from the OS specific "HPE Agentless Management Service Offline Bundle" for VMware vSphere 6.5, 6.0, 5.5, and 5.1 on vibsdepot.hpe.com.

Fixes

Important Notes:

Ver. 1.0.9(I) contains updates to the component packaging and is functionally equivalent to ver. 1.0.9. It is not necessary to upgrade with Revision I if a previous component Revision was used to upgrade the firmware to version 1.0.9.

Firmware Dependencies:

None

Problems Fixed:

Addresses an issue in which the minimum power capping value was incorrectly being calculated on certain systems. This fix increases the accuracy of the minimum capping value set during POST.

Known Issues:

None

Online ROM Flash for VMware ESXi - Power Management Controller
Version: 4.1 (E) **(Recommended)**
Filename: CP026094.zip

Important Note!

Important Notes:

Ver. 4.1 (E) contains updates to the component packaging and is functionally equivalent to ver. 4.1. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the firmware to version 4.1.

Deliverable Name:

Power Management Controller

Release Version:

4.1(E)

Last Recommended or Critical Revision:

This is the initial version of the firmware.

Previous Revision:

This is the initial version of the firmware.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Problems Fixed:

None

Known Issues:

The smart component prompts for reboot unnecessarily when the installation procedure is completed. Reboot is not required after installation for updates to take effect and hardware stability to be maintained.

Prerequisites

The "HP ProLiant iLO 3/4 Channel Interface Driver" must be installed and running before using this flash component. If the driver is not running you will receive the following error message:
"The software is not supported for installation on this system.
You must install the iLO Channel Interface driver to use this component."

Enhancements

Important Notes:

Ver. 4.1 (E) contains updates to the component packaging and is functionally equivalent to ver. 4.1. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the firmware to version 4.1.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Known Issues:

The smart component prompts for reboot unnecessarily when the installation procedure is completed. Reboot is not required after installation for updates to take effect and hardware stability to be maintained.

Online ROM Flash for Windows x64 - Advanced Power Capping Microcontroller Firmware for HPE Gen10 Servers
Version: 1.0.7 **(Optional)**
Filename: cp040538.compsig; cp040538.exe

Important Note!

Important Notes:

None

Deliverable Name:

Advanced Power Capping Microcontroller Firmware for HPE Gen10 Servers

Release Version:

1.0.7

Last Recommended or Critical Revision:

1.0.4

Previous Revision:

1.0.4

Firmware Dependencies:

None

Enhancements/New Features:

Added support for AMD EPYC 7002 Generation Processors. ROM version 2.00 or later is required to enable the support. This version of firmware does not include any changes for platforms with Intel Processors or AMD EPYC 7001 Generation Processors.

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).

Integrated Lights-Out 5 (iLO 5) Firmware version 1.15 and System ROM version 1.20 or later.

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added support for AMD EPYC 7002 Generation Processors. ROM version 2.00 or later is required to enable the support. This version of firmware does not include any changes for platforms with Intel Processors or AMD EPYC 7001 Generation Processors.

Known Issues:

None

Online ROM Flash for Windows x64 - Advanced Power Capping Microcontroller Firmware for HPE Gen9 Servers
Version: 1.0.9(I) **(Optional)**
Filename: cp037781.exe

Important Note!

Important Notes:

Ver. 1.0.9(I) contains updates to the component packaging and is functionally equivalent to ver. 1.0.9. It is not necessary to upgrade with Revision I if a previous component Revision was used to upgrade the firmware to version 1.0.9.

Deliverable Name:

Advanced Power Capping Microcontroller Firmware for HPE ProLiant Gen9 Servers

Release Version:

1.0.9

Last Recommended or Critical Revision:

1.0.7

Previous Revision:

1.0.7

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addresses an issue in which the minimum power capping value was incorrectly being calculated on certain systems. This fix increases the accuracy of the minimum capping value set during POST.

Known Issues:

None

Prerequisites

The "HPE ProLiant iLO 3/4 Channel Interface Driver for Windows" must be installed and running before using this flash component. If the driver is not running you will receive the following error message:
"The software is not supported for installation on this system.
You must install the iLO Channel Interface driver to use this component."

Fixes

Important Notes:

Ver. 1.0.9(I) contains updates to the component packaging and is functionally equivalent to ver. 1.0.9. It is not necessary to upgrade with Revision I if a previous component Revision was used to upgrade the firmware to version 1.0.9.

Firmware Dependencies:

None

Problems Fixed:

Addresses an issue in which the minimum power capping value was incorrectly being calculated on certain systems. This fix increases the accuracy of the minimum capping value set during POST.

Known Issues:

None

Online ROM Flash for Windows x64 - Power Management Controller for HPE ProLiant DL580 Gen9/Gen8 Servers
Version: 4.1 (F) **(Recommended)**
Filename: cp037764.exe

Important Note!

Important Notes:

Ver. 4.1 (F) adds support to perform the Online ROM Flash with Microsoft Windows Server 2016 by using Smart Update Manager. It is functionally equivalent to ver. 4.1. It is not necessary to upgrade with Revision (F) if a previous component revision was used to upgrade the firmware to ver.4.1.

Deliverable Name:

Power Management Controller

Release Version:

4.1(F)

Last Recommended or Critical Revision:

This is the initial version of the firmware.

Previous Revision:

This is the initial version of the firmware.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Problems Fixed:

None

Known Issues:

The smart component prompts for reboot unnecessarily when the installation procedure is completed. Reboot is not required after installation for updates to take effect and hardware stability to be maintained.

Prerequisites

The "HPE ProLiant iLO 3/4 Channel Interface Driver for Windows" must be installed and running before using this flash component. If the driver is not running you will receive the following error message:
"The software is not supported for installation on this system.
You must install the iLO Channel Interface driver to use this component."

Enhancements

Important Notes:

Ver. 4.1 (F) adds support to perform the Online ROM Flash with Microsoft Windows Server 2016 by using Smart Update Manager. It is functionally equivalent to ver. 4.1. It is not necessary to upgrade with Revision (F) if a previous component revision was used to upgrade the firmware to ver.4.1.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Known Issues:

The smart component prompts for reboot unnecessarily when the installation procedure is completed. Reboot is not required after installation for updates to take effect and hardware stability to be maintained.

ROM Flash Firmware Package - Advanced Power Capping Microcontroller Firmware for HPE Gen10 Servers
Version: 1.0.7 **(Optional)**
Filename: PICGen10_1.0.7s.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

Advanced Power Capping Microcontroller Firmware for HPE Gen10 Servers

Release Version:

1.0.7

Last Recommended or Critical Revision:

1.0.4

Previous Revision:

1.0.4

Firmware Dependencies:

None

Enhancements/New Features:

Added support for AMD EPYC 7002 Generation Processors. ROM version 2.00 or later is required to enable the support. This version of firmware does not include any changes for platforms with Intel Processors or AMD EPYC 7001 Generation Processors.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added support for AMD EPYC 7002 Generation Processors. ROM version 2.00 or later is required to enable the support. This version of firmware does not include any changes for platforms with Intel Processors or AMD EPYC 7001 Generation Processors.

Known Issues:

None

Firmware - SAS Storage Disk Top

Online HDD/SDD Flash Component for VMware ESXi - MO0400JFFCF, MO0800JFFCH, MO1600JFFCK, and MO3200JFFCL Drives
Version: HPD6 (D) **(Recommended)**
Filename: CP039039.compsig; CP039039.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 6.7 U2.

Online ROM Flash Component for Linux (x64) - EH000600JWCPF and EH000900JWCPH Drives
Version: HPD7 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-a05f29cef3-HPD7-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-a05f29cef3-HPD7-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL8.

Online ROM Flash Component for VMware ESXi - EG000300JWBHR Drives
Version: HPD4 **(Recommended)**
Filename: CP037013.compsig; CP037013.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

- Fixed some minor logging and diagnostic test issues.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EG000300JWFVB Drives
Version: HPD2 (C) **(Optional)**
Filename: CP037042.compsig; CP037042.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware changes some settings to comply with Microsoft Storage Spaces Certification requirements.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EG000600JWEBH and EG000300JWEBF Drives
Version: HPD4 **(Recommended)**
Filename: CP037949.compsig; CP037949.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 adds a feature that will periodically assess the health of the writer element of the head by verifying the data after a write operation to ensure more robust data integrity.
- When performing format on drives with marginal servo flaws, it takes too long to format or format fails with 03/31 reported across the interface on subsequent commands. This firmware includes a change that moves the servo flaw characterization retries earlier in the sequence of format.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EG000600JWFUV and EG001200JWFVA Drives
Version: HPD3 (C) **(Optional)**
Filename: CP037044.compsig; CP037044.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware changes some settings to comply with Microsoft Storage Spaces Certification requirements.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EG000600JWJNP and EG001200JWJNQ Drives
Version: HPD2 **(Recommended)**
Filename: CP039528.compsig; CP039528.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 includes

- New servo which prevents the drive from posting non-media errors
- A fix for an issue where the drive could become unresponsive after a hard reset

Online ROM Flash Component for VMware ESXi - EG001800JWJNR and EG002400JWJNT Drives
Version: HPD4 **(Recommended)**
Filename: CP039880.compsig; CP039880.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

- New servo which prevents the drive from posting non-media errors.
- A fix to prevent the drive from becoming unresponsive during certain mixed read/write random workloads.

Online ROM Flash Component for VMware ESXi - EG0600JETKA, EG0900JETKB, and EG1200JETKC Drives
Version: HPD7 **(Recommended)**
Filename: CP037010.compsig; CP037010.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 fixes an infrequent drive internal reset issue. When managing a Task Set Full condition in its firmware the drive may do an internal reset. The drive may not be accessible during the reset recovery process.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EH000900JWHPK and EH000600JWHPH Drives
Version: HPD3 **(Recommended)**
Filename: CP036942.compsig; CP036942.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

- Removes a vendor unique sense code that the controller does not handle properly.
- Includes changes to eliminate the cause of a potential hang condition.
- Changes some settings to comply with Microsoft Storage Spaces Certification requirements.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EH000900JWHPP, EH000600JWHPN and EH000300JWHPL Drives
Version: HPD3 **(Recommended)**
Filename: CP036937.compsig; CP036937.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

- Removes a vendor unique sense code that the controller does not handle properly.
- Includes changes to eliminate the cause of a potential hang condition.
- Changes some settings to comply with Microsoft Storage Spaces Certification requirements.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EH0600JDYTN Drive
Version: HPD7 (C) **(Critical)**
Filename: CP037059.compsig; CP037059.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.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EO000400JWDKP, EO000800JWDKQ, EO001600JWDKR, MO000400JWDKU, MO000800JWDKV, MO001600JWDLA and MO003200JWDLB Drives
Version: HPD2 **(Recommended)**
Filename: CP038747.compsig; CP038747.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

- The firmware was modified to resolve a timing condition in which a SAS port may go offline.
- The firmware was modified to fix a timing window in which a command with a zero transfer length can cause a self-initiated reset
- Performance improvement in handling task management functions (TMFs) in certain situations.
- Multiple consecutive firmware downloads may result in a previous firmware being loaded after the last firmware download being aborted.

Online ROM Flash Component for VMware ESXi - MB002000JWFVN and MB004000JWFVP Drives
Version: HPD2 **(Recommended)**
Filename: CP036959.compsig; CP036959.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

- Removes a vendor unique sense code that the controller does not handle properly.
- Includes changes to eliminate the cause of a potential hang condition.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB004000JWFVK and MB006000JWFVL Drives
Version: HPD2 **(Recommended)**
Filename: CP036927.compsig; CP036927.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

- Fixes the cause of internal reboots detected in the MSA system.
- Removes a vendor unique sense code that the controller does not handle properly.
- Includes changes to eliminate the cause of a potential hang condition.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB012000JWDFD Drives
Version: HPD2 (B) **(Critical)**
Filename: CP037064.compsig; CP037064.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB2000JFEML and MB4000JFEMN Drives
Version: HPD6 (D) **(Critical)**
Filename: CP037067.compsig; CP037067.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB4000JEQNL and MB6000JEQNN Drives
Version: HPDB (D) **(Recommended)**
Filename: CP037070.compsig; CP037070.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB6000JEQUV and MB8000JEQVA Drives
Version: HPDB (D) **(Recommended)**
Filename: CP037071.compsig; CP037071.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB6000JVYZD and MB4000JVYZC Drives
Version: HPD4 **(Recommended)**
Filename: CP036962.compsig; CP036962.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 includes a fix for slow performance during sequential write workloads with small queue depth.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MM1000JEFRB and MM2000JEFRC Drives
Version: HPD8 (C) **(Optional)**
Filename: CP037074.compsig; CP037074.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MM1000JFJTH Drives
Version: HPD3 (C) **(Optional)**
Filename: CP037075.compsig; CP037075.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MO000400JWUFT, MO000800JWUFU, MO001600JWUFV, MO003200JWUGA, MO006400JWUGB, EO000400JWUGC, EO000800JWUGD and EO001600JWUGE Drives
Version: HPD1 **(Optional)**
Filename: CP038950.compsig; CP038950.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager.

Fixes

- Fix for a potential timeout.
- Self-Test code is now logged in the correct location.
- Fix for a potential error during error recovery.

Online ROM Flash Component for VMware ESXi - VO000960JWTBK, VO001920JWTBL, VO003840JWTBN, VO007680JWTBP, MO000400JWTBQ, MO000800JWTBR, MO001600JWTBT, MO003200JWTBU, MO006400JWTCD, EO000400JWTBV, EO000800JWTCA, EO001600JWTCB Drives
Version: HPD5 **(Critical)**
Filename: CP039365.compsig; CP039365.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

- Firmware version HPD5 fixes an issue where drive may fail with command timeout messages. This condition may occur within a few days of initial use if a very small amount of data is written to the drives and they are left powered on without additional data being written to the drive.

Enhancements

- The new firmware improves robustness during dual port heavy workload environments for both runtime and after sudden power off events.

Online ROM Flash Component for VMware ESXi - EG001800JWFVC Drives
Version: HPD3 **(Recommended)**
Filename: CP036965.compsig; CP036965.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

- Improves JetStress READ Latency performance.
- Fixes the cause of internal reboots detected in the MSA system.
- Removes a vendor unique sense code that the controller does not handle properly.
- Includes changes to eliminate the cause of a potential hang condition.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EG0300FCSPH, EG0450FCSPK, EG0600FCSPL, and EG0900FCSPN Drives
Version: HPD2 (D) **(Recommended)**
Filename: CP037047.compsig; CP037047.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EG0300JEHLV, EG0600JEHMA, EG0900JEHMB, and EG1200JEHMC Drives
Version: HPD5 (E) **(Recommended)**
Filename: CP037048.compsig; CP037048.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 a recoverable error can prevent a write command from completing properly.
- Fixes a data integrity risk due to incorrect re-ordering of commands, when overlapped commands occur.
- Fixes a data integrity risk during very large blocks of sequential commands with a data transfer between 1020MB and 1024MB.
- 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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EG0300JFCKA, EG0600JEMCV, EG0900JFCKB, and EG1200JEMDA Drives
Version: HPD6 (D) **(Recommended)**
Filename: CP037049.compsig; CP037049.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EG1800JEHMD Drive
Version: HPD6 (E) **(Recommended)**
Filename: CP037051.compsig; CP037051.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.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EG1800JEMDB Drives
Version: HPD5 (D) **(Recommended)**
Filename: CP040505.compsig; CP040505.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 6.7 U2.

Online ROM Flash Component for VMware ESXi - EG1800JFHMH Drives
Version: HPD7 (C) **(Recommended)**
Filename: CP037053.compsig; CP037053.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

- Improves JetStress READ Latency performance
- Fixes the cause of internal reboots detected in the MSA system
- Removes a vendor unique sense code that the controller does not handle properly
- Includes changes to eliminate the cause of a potential hang condition

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EH000300JWCPK, EH000600JWCPL, and EH000900JWCPN Drives
Version: HPD5 **(Recommended)**
Filename: CP039521.compsig; CP039521.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 includes:

- New servo which disables a feature that could cause unrecoverable data errors.
- A fix for an issue where the drive could become unresponsive after a hard reset.

Online ROM Flash Component for VMware ESXi - EH000600JWCPF and EH000900JWCPH Drives
Version: HPD7 **(Recommended)**
Filename: CP039883.compsig; CP039883.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

- New servo which disables a feature that could cause unrecoverable data errors.
- A fix to prevent the drive from becoming unresponsive during certain mixed read/write random workloads.

Online ROM Flash Component for VMware ESXi - EH0300JDXBA, EH0450JDXBB, and EH0600JDXBC Drives
Version: HPD5 (D) **(Recommended)**
Filename: CP037056.compsig; CP037056.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EH0300JDYTH, EH0450JDYTK, and EH0600JDYTL Drives
Version: HPD6 (E) **(Recommended)**
Filename: CP037057.compsig; CP037057.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 a recoverable error can prevent a write command from completing properly.
- Fixes a data integrity risk due to incorrect re-ordering of commands, when overlapped commands occur.
- Fixes a data integrity risk during very large blocks of sequential commands with a data transfer between 1020MB and 1024MB.
- 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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - EH0300JEDHC, EH0450JEDHD, and EH0600JEDHE Drives
Version: HPD4 (E) **(Recommended)**
Filename: CP037058.compsig; CP037058.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB008000JWJRQ and MB006000JWJRP Drives
Version: HPD4 **(Recommended)**
Filename: CP039385.compsig; CP039385.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 a more graceful termination of certain commands and prevents a read/write command hang under an unusual timing condition when resuming from a suspend operation.

Online ROM Flash Component for VMware ESXi - MB010000JWAYK and MB008000JWAYH Drives
Version: HPD5 (B) **(Critical)**
Filename: CP037062.compsig; CP037062.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB1000JVYZL, MB2000JVYZN, MB3000JVYZP and MB4000JVYZQ Drives
Version: HPD3 **(Recommended)**
Filename: CP037954.compsig; CP037954.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 adds a feature that will periodically assess the health of the writer element of the head by verifying the data after a write operation to ensure more robust data integrity.
- When performing format on drives with marginal servo flaws, it takes too long to format or format fails with 03/31 reported across the interface on subsequent commands. This firmware includes a change that moves the servo flaw characterization retries earlier in the sequence of format.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB2000JFDSL and MB4000JFDSN Drives
Version: HPD4 (D) **(Recommended)**
Filename: CP037066.compsig; CP037066.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB2000JFEPA and MB4000JFEPB Drives
Version: HPD5 (D) **(Recommended)**
Filename: CP037068.compsig; CP037068.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware contains a change to prevent occasional command completion times in the 4-5 second window when command is received just as the drive is transitioning from active to Idle A.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB4000JEFNC and MB6000JEFND Drives
Version: HPD9 (D) **(Recommended)**
Filename: CP037069.compsig; CP037069.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB4000JEXYA and MB6000JEXYB Drives
Version: HPD9 **(Recommended)**
Filename: CP036923.compsig; CP036923.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:

- Fixes the cause of internal reboots detected in the MSA system.
- Removes a vendor unique sense code that the controller does not handle properly.
- Includes changes to eliminate the cause of a potential hang condition.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB6000JVYYV Drives
Version: HPD2 (D) **(Recommended)**
Filename: CP037072.compsig; CP037072.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB8000JFECQ Drives
Version: HPD7 (C) **(Recommended)**
Filename: CP037073.compsig; CP037073.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MO0200JEFNV, MO0400JEFPA, MO0800JEFPB, MO1600JEFPC, EO0200JEFPD, EO0400JEFPE, and EO0800JEFPF Drives
Version: HPD3 (D) **(Recommended)**
Filename: CP037076.compsig; CP037076.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - VO0480JFDGT, VO0960JFDGU, VO1920JFDGV, and VO3840JFDHA Drives
Version: HPD6 (D) **(Recommended)**
Filename: CP037078.compsig; CP037078.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

- During a hot removal/hot plug event, the drive failed discovery operation. To address this problem, the drive firmware handling of the Start/Stop Unit command has been improved.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - VO1920JEUQQ Drives
Version: HPD3 (D) **(Recommended)**
Filename: CP037079.compsig; CP037079.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 version HPD3 supports NDU (non-disruptive update) firmware updates.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for Windows (x64) - EG000300JWBHR Drives
Version: HPD4 **(Recommended)**
Filename: cp037014.compsig; cp037014.exe; cp037014.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

- Fixed some minor logging and diagnostic test issues.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - EG000300JWFVB Drives
Version: HPD2 (B) **(Optional)**
Filename: cp037247.compsig; cp037247.exe; cp037247.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware changes some settings to comply with Microsoft Storage Spaces Certification requirements.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - EG000600JWEBH and EG000300JWEBF Drives
Version: HPD4 **(Recommended)**
Filename: cp037953.compsig; cp037953.exe; cp037953.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported 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 adds a feature that will periodically assess the health of the writer element of the head by verifying the data after a write operation to ensure more robust data integrity.
- When performing format on drives with marginal servo flaws, it takes too long to format or format fails with 03/31 reported across the interface on subsequent commands. This firmware includes a change that moves the servo flaw characterization retries earlier in the sequence of format.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - EG000600JWFUV and EG001200JWFVA Drives
Version: HPD3 (B) **(Optional)**
Filename: cp037249.compsig; cp037249.exe; cp037249.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware changes some settings to comply with Microsoft Storage Spaces Certification requirements.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - EG000600JWJNP and EG001200JWJNQ Drives
Version: HPD2 **(Recommended)**
Filename: cp039532.compsig; cp039532.exe; cp039532.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

This firmware includes

- New servo which prevents the drive from posting non-media errors
- A fix for an issue where the drive could become unresponsive after a hard reset

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Online ROM Flash Component for Windows (x64) - EG001800JWFVC Drives
Version: HPD3 **(Recommended)**
Filename: cp036967.compsig; cp036967.exe; cp036967.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

- Improves JetStress READ Latency performance.
- Fixes the cause of internal reboots detected in the MSA system.
- Removes a vendor unique sense code that the controller does not handle properly.

- Includes changes to eliminate the cause of a potential hang condition.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - EG001800JWJNR and EG002400JWJNT Drives
Version: HPD4 **(Recommended)**
Filename: cp039881.compsig; cp039881.exe; cp039881.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

- New servo which prevents the drive from posting non-media errors.
- A fix to prevent the drive from becoming unresponsive during certain mixed read/write random workloads.

Online ROM Flash Component for Windows (x64) - EG0300FCSPH, EG0450FCSPK, EG0600FCSPL, and EG0900FCSPN Drives
Version: HPD2 (C) **(Recommended)**
Filename: cp037252.compsig; cp037252.exe; cp037252.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 ROM Flash Component for Windows (x64) - EG0300JEHLV, EG0600JEHMA, EG0900JEHMB, and EG1200JEHMC Drives
Version: HPD5 (D) **(Recommended)**
Filename: cp037253.compsig; cp037253.exe; cp037253.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 a recoverable error can prevent a write command from completing properly.
- Fixes a data integrity risk due to incorrect re-ordering of commands, when overlapped commands occur.
- Fixes a data integrity risk during very large blocks of sequential commands with a data transfer between 1020MB and 1024MB.
- 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 ROM Flash Component for Windows (x64) - EG0300JFCKA, EG0600JEMCV, EG0900JFCKB, and EG1200JEMDA Drives
Version: HPD6 (C) **(Recommended)**
Filename: cp037254.compsig; cp037254.exe; cp037254.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 ROM Flash Component for Windows (x64) - EG0600JETKA, EG0900JETKB, and EG1200JETKC Drives

Version: HPD7 **(Recommended)**
Filename: cp037012.compsig; cp037012.exe; cp037012.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 ROM Flash Component for Windows (x64) - EG1800JEHMD Drive
Version: HPD6 (D) **(Recommended)**
Filename: cp037255.compsig; cp037255.exe; cp037255.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 ROM Flash Component for Windows (x64) - EG1800JEMDB Drives
Version: HPD5 (C) **(Recommended)**
Filename: cp040402.compsig; cp040402.exe; cp040402.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 ROM Flash Component for Windows (x64) - EG1800JFHMH Drives
Version: HPD7 (C) **(Recommended)**
Filename: cp037257.compsig; cp037257.exe; cp037257.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

- Improves JetStress READ Latency performance
- Fixes the cause of internal reboots detected in the MSA system
- Removes a vendor unique sense code that the controller does not handle properly
- Includes changes to eliminate the cause of a potential hang condition

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - EH000300JWCPK, EH000600JWCPL, and EH000900JWCPN Drives
Version: HPD5 **(Recommended)**
Filename: cp039527.compsig; cp039527.exe; cp039527.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

This firmware includes:

- New servo which disables a feature that could cause unrecoverable data errors.
- A fix for an issue where the drive could become unresponsive after a hard reset.

Online ROM Flash Component for Windows (x64) - EH000600JWCPF and EH000900JWCPH Drives
Version: HPD7 **(Recommended)**
Filename: cp039884.compsig; cp039884.exe; cp039884.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

- New servo which disables a feature that could cause unrecoverable data errors.
- A fix to prevent the drive from becoming unresponsive during certain mixed read/write random workloads.

Online ROM Flash Component for Windows (x64) - EH000900JWHPK and EH000600JWHPH Drives
Version: HPD3 **(Recommended)**
Filename: cp036941.compsig; cp036941.exe; cp036941.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

- Removes a vendor unique sense code that the controller does not handle properly.
- Includes changes to eliminate the cause of a potential hang condition.
- Changes some settings to comply with Microsoft Storage Spaces Certification requirements.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - EH000900JWHPP, EH000600JWHPN and EH000300JWHPL Drives
Version: HPD3 **(Recommended)**
Filename: cp036939.compsig; cp036939.exe; cp036939.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

- Removes a vendor unique sense code that the controller does not handle properly.
- Includes changes to eliminate the cause of a potential hang condition.
- Changes some settings to comply with Microsoft Storage Spaces Certification requirements.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - EH0300JDXBA, EH0450JDXBB, and EH0600JDXBC Drives
Version: HPD5 (C) **(Recommended)**
Filename: cp037260.compsig; cp037260.exe; cp037260.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 ROM Flash Component for Windows (x64) - EH0300JDYTH, EH0450JDYTK, and EH0600JDYTL Drives
Version: HPD6 (D) **(Recommended)**
Filename: cp037261.compsig; cp037261.exe; cp037261.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 a recoverable error can prevent a write command from completing properly.
- Fixes a data integrity risk due to incorrect re-ordering of commands, when overlapped commands occur.
- Fixes a data integrity risk during very large blocks of sequential commands with a data transfer between 1020MB and 1024MB.
- 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 ROM Flash Component for Windows (x64) - EH0300JEDHC, EH0450JEDHD, and EH0600JEDHE Drives
Version: HPD4 (E) **(Recommended)**
Filename: cp037262.compsig; cp037262.exe; cp037262.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 ROM Flash Component for Windows (x64) - EH0600JDYTN Drive
Version: HPD7 (B) **(Critical)**
Filename: cp034135.compsig; cp034135.exe; cp034135.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 ROM Flash Component for Windows (x64) - EO000400JWDKP, EO000800JWDKQ, EO001600JWDKR, MO000400JWDKU, MO000800JWDKV, MO001600JWDLA and MO003200JWDLB Drives
Version: HPD2 **(Recommended)**
Filename: cp038748.compsig; cp038748.exe; cp038748.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

- The firmware was modified to resolve a timing condition in which a SAS port may go offline.
- The firmware was modified to fix a timing window in which a command with a zero transfer length can cause a self-initiated reset
- Performance improvement in handling task management functions (TMFs) in certain situations.
- Multiple consecutive firmware downloads may result in a previous firmware being loaded after the last firmware download being aborted.

Online ROM Flash Component for Windows (x64) - MB002000JWFVN and MB004000JWFVP Drives
Version: HPD2 **(Recommended)**
Filename: cp036961.compsig; cp036961.exe; cp036961.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

- Removes a vendor unique sense code that the controller does not handle properly.
- Includes changes to eliminate the cause of a potential hang condition.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MB004000JWFVK and MB006000JWFVL Drives
Version: HPD2 **(Recommended)**
Filename: cp036929.compsig; cp036929.exe; cp036929.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

- Fixes the cause of internal reboots detected in the MSA system.
- Removes a vendor unique sense code that the controller does not handle properly.
- Includes changes to eliminate the cause of a potential hang condition.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MB008000JWJRQ and MB006000JWJRP Drives
Version: HPD4 **(Recommended)**
Filename: cp039386.compsig; cp039386.exe; cp039386.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

- This firmware release provides a more graceful termination of certain commands and prevents a read/write command hang under an unusual timing condition when resuming from a suspend operation.

Online ROM Flash Component for Windows (x64) - MB010000JWAYK and MB008000JWAYH Drives
Version: HPD5 (B) **(Critical)**
Filename: cp037269.compsig; cp037269.exe; cp037269.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 ROM Flash Component for Windows (x64) - MB012000JWDFD Drives
Version: HPD2 (B) **(Critical)**
Filename: cp037309.compsig; cp037309.exe; cp037309.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 ROM Flash Component for Windows (x64) - MB1000JVYZL, MB2000JVYZN, MB3000JVYZP and MB4000JVYZQ Drives
Version: HPD3 **(Recommended)**
Filename: cp037956.compsig; cp037956.exe; cp037956.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

- This firmware adds a feature that will periodically assess the health of the writer element of the head by verifying the data after a write operation to ensure more robust data integrity.
- When performing format on drives with marginal servo flaws, it takes too long to format or format fails with 03/31 reported across the interface on subsequent commands. This firmware includes a change that moves the servo flaw characterization retries earlier in the sequence of format.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MB2000JFDSL and MB4000JFDSN Drives
Version: HPD4 (C) **(Recommended)**
Filename: cp037278.compsig; cp037278.exe; cp037278.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 ROM Flash Component for Windows (x64) - MB2000JFEML and MB4000JFEMN Drives
Version: HPD6 (C) **(Critical)**
Filename: cp037279.compsig; cp037279.exe; cp037279.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 ROM Flash Component for Windows (x64) - MB2000JFEPA and MB4000JFEPB Drives
Version: HPD5 (C) **(Recommended)**
Filename: cp037280.compsig; cp037280.exe; cp037280.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 ROM Flash Component for Windows (x64) - MB4000JEFNC and MB6000JEFND Drives
Version: HPD9 (C) **(Recommended)**
Filename: cp037283.compsig; cp037283.exe; cp037283.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware contains a change to prevent a drive reset issue, which may affect performance.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MB4000JEQNL and MB6000JEQNN Drives
Version: HPDB (C) **(Recommended)**
Filename: cp037284.compsig; cp037284.exe; cp037284.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 ROM Flash Component for Windows (x64) - MB4000JEXYA and MB6000JEXYB Drives
Version: HPD9 **(Recommended)**
Filename: cp036926.compsig; cp036926.exe; cp036926.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

- Fixes the cause of internal reboots detected in the MSA system.
- Removes a vendor unique sense code that the controller does not handle properly.
- Includes changes to eliminate the cause of a potential hang condition.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MB6000JEQUV and MB8000JEQVA Drives
Version: HPDB (C) **(Recommended)**
Filename: cp037289.compsig; cp037289.exe; cp037289.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware improves potential timeouts that could occur during the write error recovery process (causing the drive to internally reset), and corrects possible data mismanagement issues.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MB6000JVYYV Drives
Version: HPD2 (C) **(Recommended)**
Filename: cp037290.compsig; cp037290.exe; cp037290.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 ROM Flash Component for Windows (x64) - MB6000JVYZD and MB4000JVYZC Drives
Version: HPD4 **(Recommended)**
Filename: cp036964.compsig; cp036964.exe; cp036964.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

- This firmware includes a fix for slow performance during sequential write workloads with small queue depth.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MB8000JFECQ Drives
Version: HPD7 (B) **(Recommended)**
Filename: cp037291.compsig; cp037291.exe; cp037291.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware includes a fix for slow performance during sequential write workloads with small queue depth.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MM1000JEFRB and MM2000JEFRC Drives
Version: HPD8 (B) **(Optional)**

Filename: cp037295.compsig; cp037295.exe; cp037295.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware allows the drive to meet the requirements for Azure Stack certification.
- This firmware contains a change to the reported drive serial number in VPD page 80. It will now report the same as is displayed on the drive label. Any removed characters are replaced with blank place holders so the log format will not be changed.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MM1000JFJTH Drives
Version: HPD3 (B) **(Optional)**
Filename: cp037296.compsig; cp037296.exe; cp037296.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware allows the drive to meet the requirements for Azure Stack certification.
- This firmware contains a change to the reported drive serial number in VPD page 80. It will now report the same as is displayed on the drive label. Any removed characters are replaced with blank place holders so the log format will not be changed.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MO000400JWUFT, MO000800JWUFU, MO001600JWUFV, MO003200JWUGA, MO006400JWUGB, EO000400JWUGC, EO000800JWUGD and EO001600JWUGE Drives
Version: HPD1 **(Optional)**
Filename: cp038952.compsig; cp038952.exe; cp038952.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

- Fix for a potential timeout.
- Self-Test code is now logged in the correct location.
- Fix for a potential error during error recovery.

Online ROM Flash Component for Windows (x64) - MO0200JEFNV, MO0400JEFPA, MO0800JEFPB, MO1600JEFPC, EO0200JEFPD, EO0400JEFPE, and EO0800JEFPF Drives
Version: HPD3 (C) **(Recommended)**
Filename: cp037297.compsig; cp037297.exe; cp037297.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 ROM Flash Component for Windows (x64) - MO0400JFFCF, MO0800JFFCH, MO1600JFFCK, and MO3200JFFCL Drives
Version: HPD6 (D) **(Recommended)**
Filename: cp039041.compsig; cp039041.exe; cp039041.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 ROM Flash Component for Windows (x64) - VO000960JWTBK, VO001920JWTBL, VO003840JWTBN, VO007680JWTBP, MO000400JWTBQ, MO000800JWTBR, MO001600JWTBT, MO003200JWTBU, MO006400JWTCD, EO000400JWTBV, EO000800JWTCA, EO001600JWTCB Drives
Version: HPD5 **(Critical)**
Filename: cp039369.compsig; cp039369.exe; cp039369.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

- Firmware version HPD5 fixes an issue where drive may fail with command timeout messages. This condition may occur within a few days of initial use if a very small amount of data is written to the drives and they are left powered on without additional data being written to the drive.

Enhancements

- The new firmware improves robustness during dual port heavy workload environments for both runtime and after sudden power off events.

Online ROM Flash Component for Windows (x64) - VO0480JFDGT, VO0960JFDGU, VO1920JFDGV, and VO3840JFDHA Drives
Version: HPD6 **(Recommended)**
Filename: cp038177.compsig; cp038177.exe; cp038177.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.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - VO1920JEUQQ Drives
Version: HPD3 (C) **(Recommended)**
Filename: cp037302.compsig; cp037302.exe; cp037302.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 version HPD3 supports NDU (non-disruptive update) firmware updates.

Enhancements

- Added support for Windows Server 2019.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG000300JWBHR Drives
Version: HPD4 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-2e4c61fc63-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-2e4c61fc63-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG000300JWFVB Drives
Version: HPD2 (C) **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-hdd-c5cd837c29-HPD2-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-c5cd837c29-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 is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- 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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG000600JWEBH and EG000300JWEBF Drives
Version: HPD4 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-aa9e289524-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-aa9e289524-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

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG000600JWFUV and EG001200JWFVA Drives
Version: HPD3 (C) **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-hdd-f0c91d2fe3-HPD3-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-f0c91d2fe3-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG000600JWJNP and EG001200JWJNQ Drives
Version: HPD2 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-bdfb8e99d9-HPD2-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-bdfb8e99d9-HPD2-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- 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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG001800JWJNR and EG002400JWJNT Drives
Version: HPD4 (B) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-b1c9eaf74c-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b1c9eaf74c-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG0600JETKA, EG0900JETKB, and EG1200JETKC Drives
Version: HPD7 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-7505dfb5ae-HPD7-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-7505dfb5ae-HPD7-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EO000400JWDKP, EO000800JWDKQ, EO001600JWDKR, MO000400JWDKU, MO000800JWDKV, MO001600JWDLA and MO003200JWDLB Drives
Version: HPD2 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-5dcf26fa42-HPD2-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-5dcf26fa42-HPD2-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- 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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB002000JWFVN and MB004000JWFVP Drives
Version: HPD2 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-d7af557f47-HPD2-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-d7af557f47-HPD2-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- 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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB004000JWFVK and MB006000JWFVL Drives
Version: HPD2 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-f6d00bd17e-HPD2-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-f6d00bd17e-HPD2-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- 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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB6000JVYZD and MB4000JVYZC Drives
Version: HPD4 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-e800e8d3b9-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-e800e8d3b9-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MM1000JEFRB and MM2000JEFRC Drives
Version: HPD8 (C) **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-hdd-b04257b77b-HPD8-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b04257b77b-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..

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MO000400JWUFT, MO000800JWUFU, MO001600JWUFV, MO003200JWUGA, MO006400JWUGB, EO000400JWUGC, EO000800JWUGD and EO001600JWUGE Drives
Version: HPD1 (B) **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-hdd-ef93133161-HPD1-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-ef93133161-HPD1-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager.
- 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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VO000960JWTBK, VO001920JWTBL, VO003840JWTBN, VO007680JWTBP, MO000400JWTBQ, MO000800JWTBR, MO001600JWTBT, MO003200JWTBU, MO006400JWTCD, EO000400JWTBV, EO000800JWTCA, EO001600JWTCB Drives
Version: HPD5 (B) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-9ad359dac1-HPD5-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-9ad359dac1-HPD5-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc...

Fixes

- Firmware version HPD5 fixes an issue where drive may fail with command timeout messages. This condition may occur within a few days of initial use if a very small amount of data is written to the drives and they are left powered on without additional data being written to the drive.

Enhancements

- Added Support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG001800JWFVC Drives

Version: HPD3 (C) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-693b9a2853-HPD3-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-693b9a2853-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG0300FCSPH, EG0450FCSPK, EG0600FCSPL, and EG0900FCSPN Drives
Version: HPD2 (D) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-7c1a1734f9-HPD2-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-7c1a1734f9-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG0300JEHLV, EG0600JEHMA, EG0900JEHMB, and EG1200JEHMC Drives
Version: HPD5 (E) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-31f91b8622-HPD5-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-31f91b8622-HPD5-5.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- 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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG0300JFCKA, EG0600JEMCV, EG0900JFCKB, and EG1200JEMDA Drives
Version: HPD6 (E) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-ac3fda26eb-HPD6-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-ac3fda26eb-HPD6-5.1.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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG1800JEHMD Drive
Version: HPD6 (E) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-8a2c06af48-HPD6-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8a2c06af48-HPD6-5.1.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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG1800JEMDB Drives
Version: HPD5 (D) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-0a38b25661-HPD5-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-0a38b25661-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 is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- 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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG1800JFHMH Drives
Version: HPD7 (C) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-7fc5497116-HPD7-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-7fc5497116-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 is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- 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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EH000300JWCPK, EH000600JWCPL, and EH000900JWCPN Drives
Version: HPD5 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-3d97759111-HPD5-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-3d97759111-HPD5-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EH000900JWHPK and EH000600JWHPH Drives
Version: HPD3 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-c7df7ceedb-HPD3-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-c7df7ceedb-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EH000900JWHPP, EH000600JWHPN and EH000300JWHPL Drives
Version: HPD3 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-8d68452816-HPD3-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8d68452816-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EH0300JDXBA, EH0450JDXBB, and EH0600JDXBC Drives
Version: HPD5 (D) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-1cbab97ff0-HPD5-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-1cbab97ff0-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 is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- 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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EH0300JDYTH, EH0450JDYTK, and EH0600JDYTL Drives
Version: HPD6 (E) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-b9340d29be-HPD6-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b9340d29be-HPD6-5.1.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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EH0300JEDHC, EH0450JEDHD and EH0600JEDHE Drives
Version: HPD4 (E) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-8c4a212ff9-HPD4-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8c4a212ff9-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EH0600JDYTN Drive
Version: HPD7 (D) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-f3faa195ff-HPD7-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-f3faa195ff-HPD7-4.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant 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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB008000JWJRQ and MB006000JWJRP Drives
Version: HPD4 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-faf39e0ff7-HPD4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-faf39e0ff7-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB010000JWAYK and MB008000JWAYH Drives
Version: HPD5 (C) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-6ec35faf90-HPD5-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-6ec35faf90-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..

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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB012000JWDFD Drives
Version: HPD2 (C) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-aaf1014ede-HPD2-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-aaf1014ede-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 is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant 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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB1000JVYZL, MB2000JVYZN, MB3000JVYZP and MB4000JVYZQ Drives
Version: HPD3 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-b85516c7d2-HPD3-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b85516c7d2-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000JFDSL and MB4000JFDSN Drives
Version: HPD4 (D) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-46fc43ab26-HPD4-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-46fc43ab26-HPD4-4.1.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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000JFEML and MB4000JFEMN Drives
Version: HPD6 (D) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-624b75c7e2-HPD6-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-624b75c7e2-HPD6-4.1.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

- 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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000JFEPA and MB4000JFEPB Drives
Version: HPD5 (D) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-326de7c0f2-HPD5-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-326de7c0f2-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 is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- 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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB4000JEFNC and MB6000JEFND Drives
Version: HPD9 (D) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-af802bb412-HPD9-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-af802bb412-HPD9-4.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- 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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB4000JEQNL and MB6000JEQNN Drives
Version: HPDB (D) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-2cfaac41db-HPDB-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-2cfaac41db-HPDB-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB4000JEXYA and MB6000JEXYB Drives
Version: HPD9 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-0f923833e9-HPD9-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-0f923833e9-HPD9-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for SLES15.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB6000JEQUV and MB8000JEQVA Drives
Version: HPDB (D) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-df22f7effd-HPDB-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-df22f7effd-HPDB-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB6000JVYYV Drives
Version: HPD2 (D) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-0595c2a887-HPD2-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-0595c2a887-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB8000JFECQ Drives
Version: HPD7 (C) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-252770cdda-HPD7-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-252770cdda-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 is NOT supported. Only offline firmware

flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- 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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MM1000JFJTH Drives
Version: HPD3 (C) **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-hdd-fa46c607d6-HPD3-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-fa46c607d6-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MO0200JEFNV, MO0400JEFPA, MO0800JEFPB, MO1600JEFPC, EO0200JEFPD, EO0400JEFPE, and EO0800JEFPF Drives
Version: HPD3 (D) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-71af849f3b-HPD3-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-71af849f3b-HPD3-4.1.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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MO0400JFFCF, MO0800JFFCH, MO1600JFFCK, and MO3200JFFCL Drives
Version: HPD6 (D) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-edf6dcd906-HPD6-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-edf6dcd906-HPD6-4.1.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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VO0480JFDGT, VO0960JFDGU, VO1920JFDGV, and VO3840JFDHA Drives
Version: HPD6 (D) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-8ed8893abd-HPD6-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-8ed8893abd-HPD6-4.1.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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VO1920JEUQQ Drives
Version: HPD3 (D) **(Recommended)**

Filename: rpm/RPMS/x86_64/firmware-hdd-5d9e841607-HPD3-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-5d9e841607-HPD3-4.1.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 RHEL8.

Firmware - SATA Storage Disk Top

Online HDD/SDD Flash Component for ESXi - MB001000GWCBC and MB002000GWCBD Drives
Version: HPG6 **(Recommended)**
Filename: CP040563.compsig; CP040563.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 includes a fix that changes the response to “SMART READ LOG” command from 04/80/80 to 05/26/00, which prevents the drive from incorrectly reporting an error.

Online ROM Flash Component for Linux (x64) - MB001000GWCBC and MB002000GWCBD Drives
Version: HPG6 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-68b12e54d2-HPG6-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-68b12e54d2-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..

Fixes

- This firmware includes a fix that changes the response to “SMART READ LOG” command from 04/80/80 to 05/26/00, which prevents the drive from incorrectly reporting an error.

Enhancements

- Added support for RHEL8.

Online ROM Flash Component for VMware ESXi - EK000200GWEPD, EK000400GWEPE, EK000800GWEPF and EK001600GWEPH Drives
Version: HPG3 (B) **(Recommended)**
Filename: CP037975.compsig; CP037975.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

- Fixed a rare issue that could lead to data loss during an unexpected power loss

Enhancements

- Error Recovery Optimization Enhancements

Online ROM Flash Component for VMware ESXi - MB002000GWFGH and MB001000GWFGF Drives
Version: HPG3 (C) **(Optional)**
Filename: CP036234.compsig; CP036234.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware has a change that allows the drive to meet the requirements for Azure Stack certification.
- Online firmware update fails when drives are connected behind AHCI controller.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB006000GWBXQ and MB008000GWBYL Drives
Version: HPG8 **(Recommended)**
Filename: CP039380.compsig; CP039380.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

- Eliminates a potential hang on 4TB under certain pattern-dependent read conditions.
- Eliminates the possibility of a weak read signal under a sequenced combination of read/write conditions.
- Provides reliability enhancements involving head fly height dynamics.
- Enables download Mode 0Eh activation by Mode 0Fh.

Online ROM Flash Component for VMware ESXi - MB010000GWAYN and MB008000GWAYL Drives
Version: HPG5 (B) **(Critical)**
Filename: CP037061.compsig; CP037061.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB012000GWDFE Drives
Version: HPG2 (B) **(Critical)**
Filename: CP037063.compsig; CP037063.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 HPE Smart Array P824i-p MR Gen10 Controller.

Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB1000GVYZE, MB2000GVYZF, MB3000GVYZH, and MB4000GVYZK Drives
Version: HPG4 (D) **(Recommended)**
Filename: CP036240.compsig; CP036240.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 version HPG4 prevents the occurrence of a rare issue which could lead to slow drive performance. This issue has the potential to impact all drives in configurations where the drives might be allowed to be idle for greater than 1 second.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB2000GCWLT, MB3000GCWLU, and MB4000GCWLV Drives
Version: HPG4 (F) **(Recommended)**
Filename: CP036242.compsig; CP036242.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

- Online firmware update fails when drives are connected behind AHCI controller.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB2000GFEMH and MB4000GFEMK Drives
Version: HPG6 (D) **(Critical)**
Filename: CP036243.compsig; CP036243.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB4000GEQNH and MB6000GEQNK Drives
Version: HPGB (D) **(Critical)**
Filename: CP036327.compsig; CP036327.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB6000GEQUT and MB8000GEQUU Drives
Version: HPGB (D) **(Critical)**
Filename: CP036246.compsig; CP036246.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MB6000GVYYU Drives
Version: HPG2 (D) **(Recommended)**
Filename: CP036248.compsig; CP036248.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 version HPG2 prevents the occurrence of a rare issue which could lead to slow drive performance. This issue has the potential to impact all drives in configurations where the drives might be allowed to be idle for greater than 1 second.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MK000240GWCEU, MK000480GWCEV, MK000960GWCFA and MK001920GWCFB Drives
Version: HPG3 (B) **(Recommended)**
Filename: CP037976.compsig; CP037976.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

- Fixed a rare issue that could lead to data loss during an unexpected power loss

Enhancements

- Error Recovery Optimization Enhancements

Online ROM Flash Component for VMware ESXi - MK0960GECQK Drives
Version: HPG3 (G) **(Critical)**
Filename: CP036251.compsig; CP036251.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 HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MM1000GEFQV and MM2000GEFRA Drives
Version: HPG8 (C) **(Recommended)**
Filename: CP038002.compsig; CP038002.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- In AHCI configuration only offline flashing is supported.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware updates the drive to indicate NDU compliance.

Online ROM Flash Component for VMware ESXi - MM1000GFJTE Drives
Version: HPG5 **(Optional)**
Filename: CP037996.compsig; CP037996.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 includes a fix for an issue where the LED would continue blinking after a Sanitize operation completed.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - MR000240GWFLU, MR000480GWFLV, VR000480GWFMD, MR000960GWFMA, VR000960GWFME, MR001920GWFMB and VR001920GWFMC Drives
Version: HPGB (B) **(Critical)**
Filename: CP037863.compsig; CP037863.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

- Fixed issue to a read-disturb mechanism within the NAND induced only during 4K reads with partially programed blocks. The NAND read time is modified

to prevent the impact of the reads. This change prevents premature or false failure of the drive.
- Fix to a non-exploitable vulnerability in the firmware download process. Corrected FW will increment the security version to ensure that all SSDs receiving the update will not be capable of downloading previous FW with the issue. Regression back to an earlier version of firmware will not be possible.

Online ROM Flash Component for VMware ESXi - VK000240GWCFD, VK000480GWCFE, VK000960GWCFF, VK001920GWCFH and VK003840GWCFK Drives.
Version: HPG3 (B) **(Recommended)**
Filename: CP037551.compsig; CP037551.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

- Fix to the error recovery algorithm to improve the overall reliability of the device.
- Fix to insure complete support of internal logging during a sudden power off event which prevents the device entering into a degraded state.
- Fixed a mishandling of error handling data during back ground media activities prevent a data issue.
- Fix to correct a buffer management timing issue internal to the device allowing for a more robust internal movement of data.

Online ROM Flash Component for VMware ESXi - VK000240GWEZB, VK000480GWEZC, VK000960GWEZD, VK001920GWEZE, MK000240GWEZF, MK000480GWEZH, MK000960GWEZK and MK001920GWHRU Drives
Version: HPGB (B) **(Critical)**
Filename: CP037861.compsig; CP037861.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

- Fixed issue to a read-disturb mechanism within the NAND induced only during 4K reads with partially programed blocks. The NAND read time is modified to prevent the impact of the reads. This change prevents premature or false failure of the drive.
- Fix to a non-exploitable vulnerability in the firmware download process. Corrected FW will increment the security version to ensure that all SSDs receiving the update will not be capable of downloading previous FW with the issue. Regression back to an earlier version of firmware will not be possible.

Online ROM Flash Component for VMware ESXi - VK000480GWSXF, VK000960GWSXH, VK001920GWSXK, MK000480GWUGF, MK000960GWUGH, MK001920GWUGK Drives
Version: HPG2 **(Recommended)**
Filename: CP040227.compsig; CP040227.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- Fix to issue in bootloader download during power loss.
- Change IDF Word 106 report 4K TU for 4/8TB drives to align with Microsoft SQL requirement.
- Improvements to error exception.
- Improvements to Secure lock fix during multi-thread read tests with high freq. power cycling.

Online ROM Flash Component for VMware ESXi - VK003840GWSXL Drive
Version: HPG2 **(Recommended)**
Filename: CP040224.compsig; CP040224.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- Fix to issue in bootloader download during power loss.
- Change IDF Word 106 report 4K TU for 4/8TB drives to align with Microsoft SQL requirement.
- Improvements to error exception.

- Improvements to Secure lock fix during multi-thread read tests with high freq. power cycling.

Online ROM Flash Component for VMware ESXi - VK007680GWSXN Drive
Version: HPG2 **(Recommended)**
Filename: CP040223.compsig; CP040223.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.

Fixes

- Fix to issue in bootloader download during power loss.
- Change IDF Word 106 report 4K TU for 4/8TB drives to align with Microsoft SQL requirement.
- Improvements to error exception.
- Improvements to Secure lock fix during multi-thread read tests with high freq. power cycling.

Online ROM Flash Component for VMware ESXi - VR000150GWEPP and VR000480GWEPR Drives
Version: HPG1 (B) **(Critical)**
Filename: CP038003.compsig; CP038003.zip

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode 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.

Online ROM Flash Component for VMware ESXi - XP0032GEFEN, XP0032GDZME, XP0064GEFEP, and XP0064GDZMF Drives
Version: HPS8 (E) **(Recommended)**
Filename: CP036258.compsig; CP036258.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..,

Prerequisites

Drive models XP0032GEFEN, XP0032GDZME, XP0064GDZMF, and XP0064GEFEP must have firmware version HPS6 installed prior to updating to firmware version HPS8.

Fixes

Firmware Dependency:

- Drive models XP0032GEFEN, XP0032GDZME, XP0064GDZMF, and XP0064GEFEP must have firmware version HPS6 installed prior to updating to firmware version HPS8.

Problems Fixed:

- HPS8 firmware release resolved a firmware timing issue which occurred during drive long self-test and resulted in a timeout condition that caused the drive to become unrecognized by the system.
- Online firmware update fails when drives are connected behind AHCI controller.

Problems Fixed for HPS8 (B):

- When attempting to update drive firmware in a VMware vSphere 6.5 environment, the update would fail and the event was logged as a segmentation fault error.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for VMware ESXi - XP0120GFJSL and XP0240GFJSN Drives
Version: HPS4 (E) **(Recommended)**

Filename: CP036259.compsig; CP036259.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

- Online firmware update fails when drives are connected behind AHCI controller.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Online ROM Flash Component for Windows (x64) - XP0032GEFEN, XP0032GDZME, XP0064GEFEP, and XP0064GDZMF Drives
Version: HPS8 (D) **(Recommended)**
Filename: cp037303.compsig; cp037303.exe; cp037303.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..,

Prerequisites

Drive models XP0032GEFEN, XP0032GDZME, XP0064GDZMF, and XP0064GEFEP must have firmware version HPS6 installed prior to updating to firmware version HPS8.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - EK000200GWEPD, EK000400GWEPE, EK000800GWEPF and EK001600GWEPH Drives
Version: HPG3 (B) **(Recommended)**
Filename: cp037971.compsig; cp037971.exe; cp037971.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

- Fixed a rare issue that could lead to data loss during an unexpected power loss

Enhancements

- Error Recovery Optimization Enhancements

Online ROM Flash Component for Windows (x64) - MB001000GWCBC and MB002000GWCBD Drives
Version: HPG6 **(Recommended)**
Filename: cp040569.compsig; cp040569.exe; cp040569.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 includes a fix that changes the response to “SMART READ LOG” command from 04/80/80 to 05/26/00, which prevents the drive from incorrectly reporting an error.

Online ROM Flash Component for Windows (x64) - MB001000GWFWK and MB002000GWFWL Drives
Version: HPG5 **(Critical)**
Filename: cp038751.compsig; cp038751.exe; cp038751.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

- This firmware corrects a rare but potential data integrity issue, found in specific workloads with improperly ordered write commands or during overlapped read command processing.

Online ROM Flash Component for Windows (x64) - MB001000GWJAN, MB002000GWFWA and MB004000GWFWB Drives
Version: HPG1 **(Recommended)**
Filename: cp039475.compsig; cp039475.exe; cp039475.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

- A minor reliability enhancement involving an extra head cleaning operation
- Preventive corner-case and situational adjustments for a potential Read hang, rare weak read and some “housekeeping” items (display, command outputs, delay on power-up and log maintenance)

Online ROM Flash Component for Windows (x64) - MB002000GWFGH and MB001000GWFGF Drives
Version: HPG3 (C) **(Optional)**
Filename: cp037266.compsig; cp037266.exe; cp037266.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware has a change that allows the drive to meet the requirements for Azure Stack certification.
- Online firmware update fails when drives are connected behind AHCI controller.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MB006000GWBXQ and MB008000GWBYL Drives
Version: HPG8 **(Recommended)**
Filename: cp039382.compsig; cp039382.exe; cp039382.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

- Eliminates a potential hang on 4TB under certain pattern-dependent read conditions
- Eliminates the possibility of a weak read signal under a sequenced combination of read/write conditions
- Provides reliability enhancements involving head fly height dynamics
- Enables download Mode 0Eh activation by Mode 0Fh

Online ROM Flash Component for Windows (x64) - MB010000GWAYN and MB008000GWAYL Drives
Version: HPG5 (B) **(Critical)**
Filename: cp037268.compsig; cp037268.exe; cp037268.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 ROM Flash Component for Windows (x64) - MB012000GWDFE Drives
Version: HPG2 (B) **(Critical)**
Filename: cp037310.compsig; cp037310.exe; cp037310.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 ROM Flash Component for Windows (x64) - MB1000GDUNU, MB2000GDUNV, MB3000GDUPA, and MB4000GDUPB Drives
Version: HPG4 (E) **(Recommended)**
Filename: cp037272.compsig; cp037272.exe; cp037272.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 ROM Flash Component for Windows (x64) - MB1000GVYZE, MB2000GVYZF, MB3000GVYZH, and MB4000GVYZK Drives
Version: HPG4 (E) **(Recommended)**
Filename: cp037273.compsig; cp037273.exe; cp037273.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 version HPG4 prevents the occurrence of a rare issue which could lead to slow drive performance. This issue has the potential to impact all drives in configurations where the drives might be allowed to be idle for greater than 1 second.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MB2000GCWLT, MB3000GCWLU, and MB4000GCWLV Drives
Version: HPG4 (E) **(Recommended)**
Filename: cp037276.compsig; cp037276.exe; cp037276.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 ROM Flash Component for Windows (x64) - MB2000GFEMH and MB4000GFEMK Drives
Version: HPG6 (D) **(Critical)**
Filename: cp037277.compsig; cp037277.exe; cp037277.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 ROM Flash Component for Windows (x64) - MB4000GEFNA and MB6000GEFNB Drives
Version: HPG6 (E) **(Recommended)**
Filename: cp037281.compsig; cp037281.exe; cp037281.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 ROM Flash Component for Windows (x64) - MB4000GEQNH and MB6000GEQNK Drives
Version: HPGB (D) **(Critical)**
Filename: cp037282.compsig; cp037282.exe; cp037282.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 ROM Flash Component for Windows (x64) - MB6000GEBTP Drives
Version: HPG4 (D) **(Recommended)**
Filename: cp037285.compsig; cp037285.exe; cp037285.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

- For drives that have head contaminant build-up, firmware version HPG4 improves drive performance by reducing the possibility for timeouts that could occur during the write error recovery process.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MB6000GEQUT and MB8000GEQUU Drives
Version: HPGB (D) **(Critical)**
Filename: cp037286.compsig; cp037286.exe; cp037286.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 ROM Flash Component for Windows (x64) - MB6000GEXXV Drives
Version: HPG2 (E) **(Recommended)**
Filename: cp037287.compsig; cp037287.exe; cp037287.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 ROM Flash Component for Windows (x64) - MB6000GVYYU Drives
Version: HPG2 (D) **(Recommended)**
Filename: cp037288.compsig; cp037288.exe; cp037288.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 version HPG2 prevents the occurrence of a rare issue which could lead to slow drive performance. This issue has the potential to impact all drives in configurations where the drives might be allowed to be idle for greater than 1 second.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MB6000GVYZB and MB4000GVYZA Drives
Version: HPG4 **(Recommended)**
Filename: cp036932.compsig; cp036932.exe; cp036932.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

- This firmware includes a fix for slow performance during sequential write workloads with small queue depth.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MB8000GFECR Drives
Version: HPG6 **(Recommended)**
Filename: cp036957.compsig; cp036957.exe; cp036957.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

- This firmware includes a fix for slow performance during sequential write workloads with small queue depth.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MK000240GWCEU, MK000480GWCEV, MK000960GWCFA and MK001920GWCFB Drives
Version: HPG3 (B) **(Recommended)**
Filename: cp037978.compsig; cp037978.exe; cp037978.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

- Fixed a rare issue that could lead to data loss during an unexpected power loss

Enhancements

- Error Recovery Optimization Enhancements

Online ROM Flash Component for Windows (x64) - MK0960GECQK Drives
Version: HPG3 (G) **(Critical)**
Filename: cp037292.compsig; cp037292.exe; cp037292.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 ROM Flash Component for Windows (x64) - MM1000GEFQV and MM2000GEFRA Drives
Version: HPG8 (C) **(Recommended)**
Filename: cp037293.compsig; cp037293.exe; cp037293.md5

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for Proliant and Smart Update Manager
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..,

Fixes

- This firmware updates the drive to indicate NDU compliance.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MM1000GFJTE Drives
Version: HPG5 **(Optional)**
Filename: cp037998.compsig; cp037998.exe; cp037998.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

- This firmware includes a fix for an issue where the LED would continue blinking after a Sanitize operation completed.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - MR000240GWFLU, MR000480GWFLV, VR000480GWFMD, MR000960GWFMA, VR000960GWFME, MR001920GWFMB and VR001920GWFMC Drives
Version: HPGB (B) **(Critical)**
Filename: cp037314.compsig; cp037314.exe; cp037314.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

- Fixed issue to a read-disturb mechanism within the NAND induced only during 4K reads with partially programed blocks. The NAND read time is modified to prevent the impact of the reads. This change prevents premature or false failure of the drive.
- Fix to a non-exploitable vulnerability in the firmware download process. Corrected FW will increment the security version to ensure that all SSDs receiving the update will not be capable of downloading previous FW with the issue. Regression back to an earlier version of firmware will not be possible.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - VK000150GWCNN, VK000240GWCNP, VK000480GWCNQ, VK000960GWCNR and VK001600GWCNT Drives
Version: HPG1 **(Recommended)**
Filename: cp037957.compsig; cp037957.exe; cp037957.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

- Adds support for the HPE Security Log Page BBh, and improves drive reliability and responsiveness by including the latest firmware maintenance updates.

Online ROM Flash Component for Windows (x64) - VK000240GWCFD, VK000480GWCFE, VK000960GWCFF, VK001920GWCFH and VK003840GWCFK Drives
Version: HPG3 (B) **(Recommended)**
Filename: cp037552.compsig; cp037552.exe; cp037552.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

- Fix to the error recovery algorithm to improve the overall reliability of the device.
- Fix to insure complete support of internal logging during a sudden power off event which prevents the device entering into a degraded state.
- Fixed a mishandling of error handling data during back ground media activities prevent a data issue.
- Fix to correct a buffer management timing issue internal to the device allowing for a more robust internal movement of data.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - VK000240GWEZB, VK000480GWEZC, VK000960GWEZD, VK001920GWEZE, MK000240GWEZF, MK000480GWEZH, MK000960GWEZK and MK001920GWHRU Drives
Version: HPGB (B) **(Critical)**
Filename: cp037315.compsig; cp037315.exe; cp037315.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

- Fixed issue to a read-disturb mechanism within the NAND induced only during 4K reads with partially programed blocks. The NAND read time is modified to prevent the impact of the reads. This change prevents premature or false failure of the drive.
- Fix to a non-exploitable vulnerability in the firmware download process. Corrected FW will increment the security version to ensure that all SSDs receiving the update will not be capable of downloading previous FW with the issue. Regression back to an earlier version of firmware will not be possible.

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - VK000240GWJPD, VK000480GWJPE, VK000960GWJPF, VK001920GWJPH, VK003840GWJPK, MK000240GWKVK, MK000480GWJPN, MK000960GWJPP and MK001920GWJPQ Drives
Version: HPG5 **(Critical)**
Filename: cp039742.compsig; cp039742.exe; cp039742.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

- 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

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Online ROM Flash Component for Windows (x64) - VK000240GWSRQ, VK000480GWSRR, VK000960GWSRT, VK001920GWSRU and VK003840GWSRV Drives
Version: HPG1 **(Recommended)**
Filename: cp038745.compsig; cp038745.exe; cp038745.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

- Fixes Addressed a sustained write performance by improving the efficiency of background tasks. - Addressed a rare occurrence of a data loss issue during a sudden power event. - Addressed a rare occurrence of a Data Management Error after an interface reset when the device's Software Setting Prevention (SSP) is disabled.

Online ROM Flash Component for Windows (x64) - VK000240GWTSV, VK000480GWTTA, VK000960GWTTB, VK001920GWTTC, VK003840GWTTD, MK000480GWTTH, MK000960GWTTK, MK001920GWTTL and MK003840GWTTN Drives
Version: HPG3 **(Recommended)**
Filename: cp039555.compsig; cp039555.exe; cp039555.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

- Corrects a potential unresponsiveness during a Secure Erase operation, and fixes an incorrect error reporting issue during certain SATA protocol transfers.

Online ROM Flash Component for Windows (x64) - VK000480GWSXF, VK000960GWSXH, VK001920GWSXK, MK000480GWUGF, MK000960GWUGH, MK001920GWUGK Drives
Version: HPG2 **(Recommended)**
Filename: cp040228.compsig; cp040228.exe; cp040228.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

- Fix to issue in bootloader download during power loss.
- Change IDF Word 106 report 4K TU for 4/8TB drives to align with Microsoft SQL requirement.
- Improvements to error exception.
- Improvements to Secure lock fix during multi-thread read tests with high freq. power cycling.

Online ROM Flash Component for Windows (x64) - VK003840GWSXL Drive
Version: HPG2 **(Recommended)**
Filename: cp040225.compsig; cp040225.exe; cp040225.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

- Fix to issue in bootloader download during power loss.
- Change IDF Word 106 report 4K TU for 4/8TB drives to align with Microsoft SQL requirement.
- Improvements to error exception.
- Improvements to Secure lock fix during multi-thread read tests with high freq. power cycling.

Online ROM Flash Component for Windows (x64) - VK007680GWSXN Drive
Version: HPG2 **(Recommended)**
Filename: cp040222.compsig; cp040222.exe; cp040222.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

- Fix to issue in bootloader download during power loss.
- Change IDF Word 106 report 4K TU for 4/8TB drives to align with Microsoft SQL requirement.
- Improvements to error exception.
- Improvements to Secure lock fix during multi-thread read tests with high freq. power cycling.

Online ROM Flash Component for Windows (x64) - VK0120GFDKE, VK0240GFDKF, VK0480GFDKH, VK0960GFDKK, VK1920GFDKL, and VK3840GFDKN Drives
Version: HPG1 (D) **(Recommended)**
Filename: cp037299.compsig; cp037299.exe; cp037299.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 ROM Flash Component for Windows (x64) - VK0240GEPQN, VK0480GEPQP, and VK0960GEPQQ Drives
Version: HPG1 (D) **(Recommended)**
Filename: cp037300.compsig; cp037300.exe; cp037300.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

- HPG1 is a maintenance firmware release with minor performance enhancements for 2.5" SSD 6Gb SATA drive models VK0240GEPQN, VK0480GEPQP, and VK0960GEPQQ .

Enhancements

- Added support for Windows Server 2019.

Online ROM Flash Component for Windows (x64) - VR000150GWEPP and VR000480GWEPR Drives
Version: HPG1 (B) **(Critical)**
Filename: cp038004.compsig; cp038004.exe; cp038004.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.

Online ROM Flash Component for Windows (x64) - XP0120GFJSL and XP0240GFJSN Drives
Version: HPS4 (D) **(Recommended)**
Filename: cp037304.compsig; cp037304.exe; cp037304.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..,

Fixes

- HPS4 firmware release resolved a firmware timing issue which occurred during drive long self-test and resulted in a timeout condition that caused the drive to become unrecognized by the system.

Enhancements

- Added support for Windows Server 2019.

Supplemental Update / Online ROM Flash Component for ESXi - MB001000GWFWK and MB002000GWFWL Drives
Version: HPG5 **(Critical)**
Filename: CP038749.compsig; CP038749.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 corrects a rare but potential data integrity issue, found in specific workloads with improperly ordered write commands or during overlapped read command processing.

Supplemental Update / Online ROM Flash Component for ESXi - MB001000GWJAN, MB002000GWFWA, MB004000GWFWB Drives
Version: HPG1 **(Recommended)**
Filename: CP039476.compsig; CP039476.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

- A minor reliability enhancement involving an extra head cleaning operation
- Preventive corner-case and situational adjustments for a potential Read hang, rare weak read and some “housekeeping” items (display, command outputs, delay on power-up and log maintenance)

Supplemental Update / Online ROM Flash Component for ESXi - MB1000GDUNU, MB2000GDUNV, MB3000GDUPA, and MB4000GDUPB Drives
Version: HPG4 (F) **(Recommended)**
Filename: CP036239.compsig; CP036239.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

Problems Fixed:

- Reliability enhancement for applications that write data to a narrow range of tracks.

Problems Fixed for HPG4 (C):

- When attempting to update drive firmware in a VMware vSphere 6.5 environment, the update would fail and the event was logged as a segmentation fault error.

Problems Fixed for HPG4 (D):

- Online firmware update fails when drives are connected behind AHCI controller.

Known Issues:

- Firmware cannot be downgraded to HPG3 after updating to HPG4.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Supplemental Update / Online ROM Flash Component for ESXi - MB4000GEFNA and MB6000GEFNB Drives
Version: HPG6 (D) **(Recommended)**
Filename: CP036244.compsig; CP036244.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

Problems Fixed:

- HPG6 firmware improves drive reliability where disk drives are exposed to long periods of host inactivity which exceed 1 second.
- Online firmware update fails when drives are connected behind AHCI controller.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Supplemental Update / Online ROM Flash Component for ESXi - MB6000GEBTP Drives
Version: HPG4 (D) **(Recommended)**
Filename: CP036245.compsig; CP036245.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

- For drives that have head contaminant build-up, firmware version HPG4 improves drive performance by reducing the possibility for timeouts that could occur during the write error recovery process.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Supplemental Update / Online ROM Flash Component for ESXi - MB6000GEXXV Drives
Version: HPG2 (F) **(Recommended)**
Filename: CP036247.compsig; CP036247.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

- Online firmware update fails when drives are connected behind AHCI controller.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Supplemental Update / Online ROM Flash Component for ESXi - MB6000GVYZB and MB4000GVYZA Drives
Version: HPG4 **(Recommended)**
Filename: CP036930.compsig; CP036930.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 includes a fix for slow performance during sequential write workloads with small queue depth.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Supplemental Update / Online ROM Flash Component for ESXi - MB8000GFECR Drives
Version: HPG6 **(Recommended)**
Filename: CP036956.compsig; CP036956.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 includes a fix for slow performance during sequential write workloads with small queue depth.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Supplemental Update / Online ROM Flash Component for ESXi - VK000150GWCNN, VK000240GWCNP, VK000480GWCNQ, VK000960GWCNR and VK001600GWCNT Drives
Version: HPG1 **(Recommended)**
Filename: CP037884.compsig; CP037884.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

- Adds support for the HPE Security Log Page BBh, and improves drive reliability and responsiveness by including the latest firmware maintenance updates.

Supplemental Update / Online ROM Flash Component for ESXi - VK000240GWJPD, VK000480GWJPE, VK000960GWJPF, VK001920GWJPH, VK003840GWJPK, MK000240GWKVK, MK000480GWJPN, MK000960GWJPP and MK001920GWJPQ Drives
Version: HPG5 **(Critical)**
Filename: CP039740.compsig; CP039740.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

- 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

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Supplemental Update / Online ROM Flash Component for ESXi - VK000240GWSRQ, VK000480GWSRR, VK000960GWSRT, VK001920GWSRU, VK003840GWSRV Drives
Version: HPG1 **(Recommended)**
Filename: CP038744.compsig; CP038744.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

- Fixes Addressed a sustained write performance by improving the efficiency of background tasks. - Addressed a rare occurrence of a data loss issue during a sudden power event. - Addressed a rare occurrence of a Data Management Error after an interface reset when the device's Software Setting Prevention (SSP) is disabled.

Supplemental Update / Online ROM Flash Component for ESXi - VK000240GWTSV, VK000480GWTTA, VK000960GWTTB, VK001920GWTTC, VK003840GWTTD, MK000480GWTTH, MK000960GWTTK, MK001920GWTTL and MK003840GWTTN Drives
Version: HPG3 **(Recommended)**
Filename: CP039549.compsig; CP039549.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

- Corrects a potential unresponsiveness during a Secure Erase operation, and fixes an incorrect error reporting issue during certain SATA protocol transfers.

Supplemental Update / Online ROM Flash Component for ESXi - VK0120GFDKE, VK0240GFDKF, VK0480GFDKH, VK0960GFDKK, VK1920GFDKL, and VK3840GFDKN Drives
Version: HPG1 (E) **(Recommended)**
Filename: CP036256.compsig; CP036256.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

- Added FW binary unencrypted.
- Online firmware update fails when drives are connected behind AHCI controller.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Supplemental Update / Online ROM Flash Component for ESXi - VK0240GEPQN, VK0480GEPQP, and VK0960GEPQQ Drives
Version: HPG1 (E) **(Recommended)**
Filename: CP036257.compsig; CP036257.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

- Added FW binary unencrypted.
- Online firmware update fails when drives are connected behind AHCI controller.

Enhancements

Added support for HPE Smart Array P824i-p MR Gen10 Controller.
Added support for VMware 6.7 Update1.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EK000200GWEPD, EK000400GWEPE, EK000800GWEPF and EK001600GWEPH Drives
Version: HPG3 (C) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-5bf9355926-HPG3-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-5bf9355926-HPG3-3.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB001000GWFWK and MB002000GWFWL Drives
Version: HPG5 (B) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-bfc4af697b-HPG5-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-bfc4af697b-HPG5-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- This firmware corrects a rare but potential data integrity issue, found in specific workloads with improperly ordered write commands or during overlapped read command processing.

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB001000GWJAN, MB002000GWFWA and MB004000GWFWB Drives
Version: HPG1 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-d39e7a7e75-HPG1-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-d39e7a7e75-HPG1-2.1.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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB002000GWFGH and MB001000GWFGF Drives
Version: HPG3 (D) **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-hdd-0b575b5895-HPG3-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-0b575b5895-HPG3-4.1.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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB006000GWBXQ and MB008000GWBYL Drives
Version: HPG8 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-a1fd19f9ca-HPG8-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-a1fd19f9ca-HPG8-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc...

Fixes

- Eliminates a potential hang on 4TB under certain pattern-dependent read conditions
- Eliminates the possibility of a weak read signal under a sequenced combination of read/write conditions
- Provides reliability enhancements involving head fly height dynamics
- Enables download Mode 0Eh activation by Mode 0Fh

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB010000GWAYN and MB008000GWAYL Drives
Version: HPG5 (C) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-cc819d4bff-HPG5-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-cc819d4bff-HPG5-3.1.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

- 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 RHEL8

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB012000GWDFE Drives
Version: HPG2 (C) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-059b8654a6-HPG2-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-059b8654a6-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 is NOT supported. Only offline firmware

flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant 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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB1000GDUNU, MB2000GDUNV, MB3000GDUPA, and MB4000GDUPB Drives
Version: HPG4 (F) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-3ab4c70e64-HPG4-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-3ab4c70e64-HPG4-6.1.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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB1000GVYZE, MB2000GVYZF, MB3000GVYZH, and MB4000GVYZK Drives
Version: HPG4 (F) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-0a7010918e-HPG4-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-0a7010918e-HPG4-6.1.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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000GCWLT, MB3000GCWLU, and MB4000GCWLV Drives
Version: HPG4 (F) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-2e70ce7412-HPG4-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-2e70ce7412-HPG4-6.1.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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000GFEMH and MB4000GFEMK Drives
Version: HPG6 (E) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-70e3962f98-HPG6-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-70e3962f98-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..

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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB4000GEFNA and MB6000GEFNB Drives
Version: HPG6 (F) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-40277d55d3-HPG6-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-40277d55d3-HPG6-6.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc...

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB4000GEQNH and MB6000GEQNK Drives
Version: HPGB (E) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-bfc95f0628-HPGB-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-bfc95f0628-HPGB-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

- 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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB6000GEBTP Drives
Version: HPG4 (E) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-3243fce9a0-HPG4-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-3243fce9a0-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB6000GEQUT and MB8000GEQUU Drives
Version: HPGB (E) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-1d7f19120b-HPGB-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-1d7f19120b-HPGB-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

- 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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB6000GEXXV Drives
Version: HPG2 (F) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-a629fcea59-HPG2-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-a629fcea59-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.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB6000GVYYU Drives
Version: HPG2 (E) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-bdc37cb37f-HPG2-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-bdc37cb37f-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB6000GVYZB and MB4000GVYZA Drives
Version: HPG4 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-0a7d4aa47f-HPG4-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-0a7d4aa47f-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB8000GFECR Drives
Version: HPG6 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-6d922fc9a8-HPG6-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-6d922fc9a8-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MK000240GWCEU, MK000480GWCEV, MK000960GWCFA and MK001920GWCFB Drives
Version: HPG3 (C) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-7677644a25-HPG3-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-7677644a25-HPG3-3.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MK0960GECQK Drives
Version: HPG3 (G) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-3e34285be7-HPG3-7.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-3e34285be7-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..

Fixes

- Firmware fixes intermittent data corruption issue associated with unaligned sequential write operations.

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MM1000GEFQV and MM2000GEFRA Drives
Version: HPG8 (D) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-ec908c3650-HPG8-4.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-ec908c3650-HPG8-4.1.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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MM1000GFJTE Drives
Version: HPG5 (B) **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-hdd-95af9a555e-HPG5-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-95af9a555e-HPG5-2.1.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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MR000240GWFLU, MR000480GWFLV, VR000480GWFMD, MR000960GWFMA, VR000960GWFME, MR001920GWFMB and VR001920GWFMC Drives
Version: HPGB (C) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-9196d4f720-HPGB-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-9196d4f720-HPGB-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

- Fixed issue to a read-disturb mechanism within the NAND induced only during 4K reads with partially programed blocks. The NAND read time is modified to prevent the impact of the reads. This change prevents premature or false failure of the drive.
- Fix to a non-exploitable vulnerability in the firmware download process. Corrected FW will increment the security version to ensure that all SSDs receiving the update will not be capable of downloading previous FW with the issue. Regression back to an earlier version of firmware will not be possible.

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VK000150GWCNN, VK000240GWCNP, VK000480GWCNQ, VK000960GWCNR and VK001600GWCNT Drives
Version: HPG1 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-6e3845def5-HPG1-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-6e3845def5-HPG1-2.1.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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VK000240GWCFD, VK000480GWCFE, VK000960GWCFF, VK001920GWCFH and VK003840GWCFK Drives.
Version: HPG3 (C) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-f42438de3d-HPG3-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-f42438de3d-HPG3-3.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VK000240GWEZB, VK000480GWEZC, VK000960GWEZD, VK001920GWEZE, MK000240GWEZF, MK000480GWEZH, MK000960GWEZK and MK001920GWHRU Drives
Version: HPGB (C) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-3db7640485-HPGB-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-3db7640485-HPGB-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

- Fixed issue to a read-disturb mechanism within the NAND induced only during 4K reads with partially programed blocks. The NAND read time is modified to prevent the impact of the reads. This change prevents premature or false failure of the drive.
- Fix to a non-exploitable vulnerability in the firmware download process. Corrected FW will increment the security version to ensure that all SSDs receiving the update will not be capable of downloading previous FW with the issue. Regression back to an earlier version of firmware will not be possible.

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VK000240GWJPD, VK000480GWJPE, VK000960GWJPF, VK001920GWJPH, VK003840GWJPK, MK000240GWKVK, MK000480GWJPN, MK000960GWJPP and MK001920GWJPQ Drives
Version: HPG5 (B) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-aef2a690c9-HPG5-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-aef2a690c9-HPG5-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- 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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VK000240GWSRQ, VK000480GWSRR, VK000960GWSRT, VK001920GWSRU and VK003840GWSRV Drives
Version: HPG1 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-db687966b4-HPG1-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-db687966b4-HPG1-2.1.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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VK000240GWTSV, VK000480GWTTA, VK000960GWTTB, VK001920GWTTC, VK003840GWTTD, MK000480GWTTH, MK000960GWTTK, MK001920GWTTL and MK003840GWTTN Drives
Version: HPG3 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-c566d63ca0-HPG3-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-c566d63ca0-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VK000480GWSXF, VK000960GWSXH, VK001920GWSXK, MK000480GWUGF, MK000960GWUGH, MK001920GWUGK Drives
Version: HPG2 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-9e87eecb3f-HPG2-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-9e87eecb3f-HPG2-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc...

Fixes

- Fix to issue in bootloader download during power loss.
- Change IDF Word 106 report 4K TU for 4/8TB drives to align with Microsoft SQL requirement.
- Improvements to error exception.
- Improvements to Secure lock fix during multi-thread read tests with high freq. power cycling.

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VK003840GWSXL Drive
Version: HPG2 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-d1cf327bc4-HPG2-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-d1cf327bc4-HPG2-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode or Host Bus Adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Fix to issue in bootloader download during power loss.
- Change IDF Word 106 report 4K TU for 4/8TB drives to align with Microsoft SQL requirement.
- Improvements to error exception.
- Improvements to Secure lock fix during multi-thread read tests with high freq. power cycling.

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VK007680GWSXN Drive
Version: HPG2 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-b460823f70-HPG2-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b460823f70-HPG2-2.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Fixes

- Fix to issue in bootloader download during power loss.
- Change IDF Word 106 report 4K TU for 4/8TB drives to align with Microsoft SQL requirement.
- Improvements to error exception.
- Improvements to Secure lock fix during multi-thread read tests with high freq. power cycling.

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VK0120GFDKE, VK0240GFDKF, VK0480GFDKH, VK0960GFDKK, VK1920GFDKL, and VK3840GFDKN Drives
Version: HPG1 (F) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-a2d4b5c742-HPG1-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-a2d4b5c742-HPG1-6.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to a Smart Array controller running in Zero Memory (ZM) mode is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant and Smart Update Manager.
- Customers who already installed latest firmware version do not need to update to sub version like (B) (C) (D) etc..

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VK0240GEPQN, VK0480GEPQP, and VK0960GEPQQ Drives
Version: HPG1 (E) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-1a516522d1-HPG1-5.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-1a516522d1-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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VR000150GWEPP and VR000480GWEPR Drives
Version: HPG1 (C) **(Critical)**
Filename: rpm/RPMS/x86_64/firmware-hdd-b7eb905efe-HPG1-3.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-b7eb905efe-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 is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
- Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the Service Pack for ProLiant 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 RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - XP0032GEFEN, XP0032GDZME, XP0064GEFEP, and XP0064GDZMF Drives
Version: HPS8 (F) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-f286f98973-HPS8-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-f286f98973-HPS8-6.1.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..

Prerequisites

Drive models XP0032GEFEN, XP0032GDZME, XP0064GDZMF, and XP0064GEFEP must have firmware version HPS5 installed prior to updating to firmware version HPS8.

Enhancements

- Added support for RHEL8.

Supplemental Update / Online ROM Flash Component for Linux (x64) - XP0120GFJSL and XP0240GFJSN Drives
Version: HPS4 (F) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-hdd-d355375539-HPS4-6.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-hdd-d355375539-HPS4-6.1.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.

Firmware - Storage Controller Top

Online ROM Flash Component for ESXi (x86) - HPE Smart Array P824i-p MR Gen10
Version: 24.23.0-0042 **(Optional)**
Filename: CP036878.compsig; CP036878.zip

Enhancements

- Added support for the Apollo 4510 system

Online ROM Flash Component for Linux - HPE Host Bus Adapters H221
Version: 15.10.10.00 (C) **(Optional)**
Filename: rpm/RPMS/i386/firmware-43d7eff89e-15.10.10.00-3.1.i386.rpm

Important Note!

Customers who already have firmware version 15.10.10.00 installed do not need to update to 15.10.10.00(C).

This driver component supports Gen9 servers only with H221 controllers and the controller does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

Enhancements

- Improved Integration with Smart Update Manager.

Supported Devices and Features

This driver component supports Gen9 servers only with H221 controllers and the controller does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

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-9f082dffb4-1.00-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-9f082dffb4-1.00-2.1.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 System - SAS Expander
Version: 1.51 **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-3bf7ece88e-1.51-1.1.x86_64.rpm

Fixes

- Expander may reset during heavy SSACLI polling
- SATA drives may take longer to spin up, not be initially detected, and then hot add later. This can prevent system boot or affect the logical drive status.

Online ROM Flash Component for Linux (x64) – HPE Apollo 4200 Backplane Expander Firmware
Version: 1.78 (A) **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-f18fdefd0b-1.78-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-f18fdefd0b-1.78-1.1.x86_64.rpm

Important Note!

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

Enhancements

- Added HPE Smart Array P824i-p controller support

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: 24.23.0-0042 (A) **(Optional)**
Filename: CP040180.md5; CP040180.scexe; deb/firmware-cafee9b6e4_24.23.0.0042-1.1_amd64.deb; rpm/RPMS/x86_64/firmware-cafee9b6e4-24.23.0_0042-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-cafee9b6e4-24.23.0_0042-1.1.x86_64.rpm

Fixes

Fixes installation issues with Intelligent Provisioning and Service Pack for ProLiant Offline.

Online ROM Flash Component for VMware ESXi – HPE 12Gb/s SAS Expander Firmware for HPE Smart Array Controllers and HPE HBA Controllers
Version: 4.22 **(Recommended)**
Filename: CP040617.compsig; CP040617.zip

Important Note!

- Power cycle / cold reboot is required if firmware is upgraded from version 1.31 or earlier.

Fixes

- Fixes an issue where false Smart Carrier authenication errors may happen.

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 System - SAS Expander
Version: 1.51 **(Recommended)**
Filename: CP038045.compsig; CP038045.zip

Fixes

- Expander may reset during heavy SSACLI polling
- SATA drives may take longer to spin up, not be initially detected, and then hot add later. This can prevent system boot or affect the logical drive status.

Online ROM Flash Component for VMware ESXi – HPE Apollo 4200 Backplane Expander Firmware
Version: 1.78 (A) **(Optional)**
Filename: CP038813.compsig; CP038813.zip

Important Note!

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

Enhancements

- Added HPE Smart Array P824i-p controller support

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 Apollo 45xx Gen9 Backplane Expander Firmware
Version: 2.50 **(Optional)**
Filename: CP038042.compsig; CP038042.zip

Important Note!

- Please un-plug and re-plug the power cord to the server for firmware upgrade from version 1.03 or earlier to take effect.

Fixes

- Expander may reset during heavy SSACLI polling
- SATA drives may take longer to spin up, not be initially detected, and then hot add later. This can prevent system boot or affect the logical drive status.

Online ROM Flash component for VMware ESXi - HPE Dual 8GB microSD USB
Version: 1.3.2.215 (B) **(Recommended)**
Filename: CP037940.compsig; CP037940.zip

Fixes

- To show corresponding HPE Dual 8GB Micron SD part number in Agentless Management Service version 11.2.0 or later.

Online ROM Flash Component for VMware ESXi - HPE Express Bay Enablement Switch Card
Version: 1.78 (B) **(Optional)**
Filename: CP035193.zip

Important Note!

Customers who already have firmware version 1.78 installed do not need to update to 1.78(B).

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

Prerequisites

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

  Check dependency failed.

  Current version: iLOx x.xx

  Minimum version required: iLO4 2.20

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

Enhancements

- Added VMware vSphere 6.7 OS 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: 1.99 **(Recommended)**
Filename: CP039067.compsig; CP039067.zip

Fixes

Fixes the following issues

- Customer could encounter a data coherencey issue that will cause the system to return a Purple Screen Of Death (PSOD) when system fails to complete I/O's.
- Refer to the Customer Advisory a00071158en_us for details for use in the VMware vSAN environment as well as minimal Synergy Core SPP requirements for Synergy environments.

Online ROM Flash Component for VMware ESXi - Smart Array and Smart HBA H240ar, H240nr, H240, H241, H244br, P240nr, P244br, P246br, P440ar, P440, P441, P542D, P741m, P840, P840ar, and P841
Version: 7.00 **(Recommended)**
Filename: CP039996.compsig; CP039996.zip

Fixes

- Occasionally the drive will not accept any IO's after running Sanitize command for a period of time due to the FW being out of sync with the drive during that time
- Non-HPE drives could report "Task Set Full" due to the drives reaching the qdepth limit during heavy workload
- Raid volume is not discovered due to a bad drive consuming two slots during hotplug
- Data could become inaccessible when upgrading from firmware versions prior to 4.5x
- The controller could stop responding when executing a SCSI verify command due to a CPU exception
- The system could stop communicating due to an I/O command timeout
- While on HBA mode, a drive could stop responding due to an early allocated buffer release
- A SAS drive WWN is reported inaccuratelyy due to an incorrect report causing the driver to be out of sync with the device
- If using a 4G module, the controller could stop responding due to the SSD Cache metadata exceeding its limits during a Backup
- SSD Smart Cache module become disabled due to a reduction in usable cache space

Enhancements

Add optimization for the iLO communication interface in order to have a more effective mechanism to check for ownership of the communication buffer

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Online ROM Flash Component for VMware ESXi - Smart Array P220i, P222, P420i, P420, P421, P721m, and P822
Version: 8.32 (C) **(Recommended)**
Filename: CP039258.compsig; CP039258.zip

Enhancements

- Improved integration with Smart Update Manager. If target device was previously updated to firmware v 8.32, it is not necessary to update to v8.32(C).

Online ROM Flash Component for VMware ESXi - Smart Array P230i, P430, P431, P731m, P830i, and P830
Version: 5.02 **(Recommended)**
Filename: CP039414.compsig; CP039414.zip

Fixes

- The firmware updates could fail while SmartCache is enabled due to active I/O in the Smart Cache.
- The serial output of the expander could fail to be populated in the controller logs due to the buffer not being handled appropriately by the controller

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Online ROM Flash Component for Windows (x64) - HPE 12Gb/s SAS Expander Firmware for HPE Smart Array Controllers and HPE HBA Controllers
Version: 4.22 **(Recommended)**
Filename: cp040619.compsig; cp040619.exe; cp040619.md5

Important Note!

- Power cycle / cold reboot is required if firmware is upgraded from version 1.31 or earlier.

Fixes

- Fixes an issue where false Smart Carrier authenication errors may happen.

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 System - SAS Expander
Version: 1.51 **(Recommended)**
Filename: cp038043.exe; cp038043.md5

Fixes

- Expander may reset during heavy SSACLI polling
- SATA drives may take longer to spin up, not be initially detected, and then hot add later. This can prevent system boot or affect the logical drive status.

Online ROM Flash Component for Windows (x64) - HPE Apollo 4200 Backplane Expander Firmware
Version: 1.78 (A) **(Optional)**
Filename: cp038812.compsig; cp038812.exe; cp038812.md5

Important Note!

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

Enhancements

- Added HPE Smart Array P824i-p controller support

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 Apollo 45xx Gen9 Backplane Expander Firmware
Version: 2.50 **(Optional)**
Filename: cp038040.exe; cp038040.md5

Important Note!

- Please un-plug and re-plug the power cord to the server for firmware upgrade from version 1.03 or earlier to take effect.

Fixes

- Expander may reset during heavy SSACLI polling
- SATA drives may take longer to spin up, not be initially detected, and then hot add later. This can prevent system boot or affect the logical drive status.

Online ROM Flash Component for Windows (x64) - HPE Express Bay Enablement Switch Card
Version: 1.78 (C) **(Optional)**

Filename: cp037730.exe; cp037730.md5

Important Note!

Customers who already have firmware version 1.78 installed do not need to update to 1.78(C).

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

Prerequisites

- The "HP ProLiant iLO 3/4 Channel Interface Driver" must be installed and running before using this flash component. If the driver is not running you will receive the following error message:

  "Setup is unable to load a setup DLL"

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

  Check dependency failed.

  Current version: iLOx x.xx

  Minimum version required: iLO4 2.20

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

Enhancements

- Added support for Microsoft Windows Server 2019 OS

Online ROM Flash Component for Windows (x64) - HPE Host Bus Adapters H221
Version: 15.10.10.00 (E) **(Optional)**
Filename: cp038049.exe; cp038049.md5

Important Note!

Customers who already have firmware version 15.10.10.00 installed do not need to update to 15.10.10.00(E).

This driver component supports Gen9 servers only with H221 controllers and the controller does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

Enhancements

- Improved Integration with Smart Update Manager.

Supported Devices and Features

This driver component supports Gen9 servers only with H221 controllers and the controller does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

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: 1.99 **(Recommended)**
Filename: cp039215.compsig; cp039215.exe; cp039215.md5

Fixes

Fixes the following issues

- Customer could encounter a data coherencey issue that will cause the system to return a Purple Screen Of Death (PSOD) when system fails to complete I/O's

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Online ROM Flash Component for Windows (x64) - HPE Smart Array P824i-p MR Gen10
Version: 24.23.0-0042 (A) **(Recommended)**
Filename: cp040218.compsig; cp040218.exe; cp040218.md5

Fixes

- Fixes Firmware downgrade issue

Online ROM Flash Component for Windows (x64) - Smart Array and Smart HBA H240ar, H240nr, H240, H241, H244br, P240nr, P244br, P246br, P440ar, P440, P441, P542D, P741m, P840, P840ar, and P841
Version: 7.00 **(Recommended)**
Filename: cp039995.exe; cp039995.md5

Fixes

- Occasionally the drive will not accept any IO's after running Sanitize command for a period of time due to the FW being out of sync with the drive during that time
- Non-HPE drives could report "Task Set Full" due to the drives reaching the qdepth limit during heavy workload
- Raid volume is not discovered due to a bad drive consuming two slots during hotplug
- Data could become inaccessible when upgrading from firmware versions prior to 4.5x
- The controller could stop responding when executing a SCSI verify command due to a CPU exception
- The system could stop communicating due to an I/O command timeout
- While on HBA mode, a drive could stop responding due to an early allocated buffer release
- A SAS drive WWN is reported inaccuratelyy due to an incorrect report causing the driver to be out of sync with the device
- If using a 4G module, the controller could stop responding due to the SSD Cache metadata exceeding its limits during a Backup
- SSD Smart Cache module become disabled due to a reduction in usable cache space

Enhancements

Add optimization for the iLO communication interface in order to have a more effective mechanism to check for ownership of the communication buffer

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Online ROM Flash Component for Windows (x64) - Smart Array P220i, P222, P420i, P420, P421, P721m, and P822
Version: 8.32 (C) **(Recommended)**
Filename: cp037741.exe; cp037741.md5

Important Note!

Customers who already have firmware version 8.32 installed do not need to update to 8.32(C).

Enhancements

- Improved Integration with Smart Update Manager

Online ROM Flash Component for Windows (x64) - Smart Array P230i, P430, P431, P731m, P830i, and P830
Version: 5.02 **(Optional)**
Filename: cp039412.exe; cp039412.md5

Fixes

- The firmware updates could fail while SmartCache is enabled due to active I/O in the Smart Cache.
- The serial output of the expander could fail to be populated in the controller logs due to the buffer not being handled appropriately by the controller

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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: 4.22 **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-2de15b6882-4.22-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-2de15b6882-4.22-1.1.x86_64.rpm

Important Note!

- Power cycle / cold reboot is required if firmware is upgraded from version 1.31 or earlier.

Fixes

- Fixes an issue where false Smart Carrier authenication errors may happen.

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 Apollo 45xx Gen9 Backplane Expander Firmware
Version: 2.50 **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-7bdfcd246b-2.50-1.1.x86_64.rpm

Important Note!

- Please un-plug and re-plug the power cord to the server for firmware upgrade from version 1.03 or earlier to take effect.

Fixes

- Expander may reset during heavy SSACLI polling
- SATA drives may take longer to spin up, not be initially detected, and then hot add later. This can prevent system boot or affect the logical drive status.

Supplemental Update / Online ROM Flash Component for Linux (x64) – HPE Express Bay Enablement Switch Card

Version: 1.78 (B) **(Optional)**
Filename: firmware-smartarray-94189dca85-1.78-2.1.x86_64.rpm

Important Note!

Customers who already have firmware version 1.78 installed do not need to update to 1.78(B).

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

Prerequisites

- Previous releases of HPE Express Bay Enablement Switch Card firmware Smart Component documented dependency on iLO 3/4 Channel Interface Driver. This driver is now included with the following Linux OSes:

  Red Hat Enterprise Linux 7 Server

  Red Hat Enterprise Linux 6 Server (x86-64)

  SUSE Linux Enterprise Server 12

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

  Check dependency failed.

  Current version: iLOx x.xx

  Minimum version required: iLO4 2.20

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

Enhancements

- Added support for SUSE Linux Enterprise Server 15 OS

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: 1.99 **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-f7c07bdbbd-1.99-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-f7c07bdbbd-1.99-1.1.x86_64.rpm

Fixes

Fixes the following issues

- Customer could encounter a data coherencey issue that will cause the system to return a Purple Screen Of Death (PSOD) when system fails to complete I/O's

Enhancements

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Supplemental Update / Online ROM Flash Component for Linux (x64) - Smart Array and Smart HBA H240ar, H240nr, H240, H241, H244br, P240nr, P244br, P246br, P440ar, P440, P441, P542D, P741m, P840, P840ar, and P841
Version: 7.00 **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-ea3138d8e8-7.00-1.1.x86_64.rpm

Important Note!

- In order to be detected properly, some controllers may need a newer version of the Smart Array driver installed prior to upgrading the controller firmware. If not installed, the component will fail with return code 3.
- When booting a system running Red Hat Enterprise Linux 7.1 Operating System, the HP Smart Array controllers might not be recognized. This issue is due to changes in the OS where the sg driver is no longer loaded during system boot. The work around for this issue is to manually issue a "**modprobe sg**" command which should load the sg driver. After the sg driver is loaded, the /dev/sg* devices should be present and the sg driver can be used to access SCSI devices.

Fixes

- Occasionally the drive will not accept any IO's after running Sanitize command for a period of time due to the FW being out of sync with the drive during that time
- Non-HPE drives could report "Task Set Full" due to the drives reaching the qdepth limit during heavy workload
- Raid volume is not discovered due to a bad drive consuming two slots during hotplug
- Data could become inaccessible when upgrading from firmware versions prior to 4.5x
- The controller could stop responding when executing a SCSI verify command due to a CPU exception
- The system could stop communicating due to an I/O command timeout
- While on HBA mode, a drive could stop responding due to an early allocated buffer release
- A SAS drive WWN is reported inaccuratelyy due to an incorrect report causing the driver to be out of sync with the device
- If using a 4G module, the controller could stop responding due to the SSD Cache metadata exceeding its limits during a Backup
- SSD Smart Cache module become disabled due to a reduction in usable cache space

Enhancements

Add optimization for the iLO communication interface in order to have a more effective mechanism to check for ownership of the communication buffer

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Supplemental Update / Online ROM Flash Component for Linux (x64) - Smart Array P220i, P222, P420i, P420, P421, P721m, and P822
Version: 8.32 **(Recommended)**
Filename: rpm/RPMS/x86_64/hp-firmware-smartarray-46a4d957a7-8.32-1.1.x86_64.rpm

Important Note!

- When booting a system running Red Hat Enterprise Linux 7.1 Operating System, the HP Smart Array controllers might not be recognized. This issue is due to changes in the OS where the sg driver is no longer loaded during system boot. The work around for this issue is to manually issue a "**modprobe sg**" command which should load the sg driver. After the sg driver is loaded, the /dev/sg* devices should be present and the sg driver can be used to access SCSI devices.

Fixes

System can potentially stop responding with no lockup code due to livelock condition where the RAID Stack thread is polling a queue for a completion to be returned by the base code firmware

Enhancements

Improved accuracy of drive temperature reporting feature

Supplemental Update / Online ROM Flash Component for Linux (x64) - Smart Array P230i, P430, P431, P731m, P830i, and P830
Version: 5.02 **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-112204add8-5.02-1.1.x86_64.rpm

Important Note!

- When booting a system running Red Hat Enterprise Linux 7.1 Operating System, the HP Smart Array controllers might not be recognized. This issue is due to changes in the OS where the sg driver is no longer loaded during system boot. The work around for this issue is to manually issue a "**modprobe sg**" command which should load the sg driver. After the sg driver is loaded, the /dev/sg* devices should be present and the sg driver can be used to access SCSI devices.

Fixes

- The firmware updates could fail while SmartCache is enabled due to active I/O in the Smart Cache.
- The serial output of the expander could fail to be populated in the controller logs due to the buffer not being handled appropriately by the controller

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Firmware - Storage Fibre Channel

Top

HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters for Linux (x64)
Version: 2019.03.02 **(Recommended)**
Filename: RPMS/x86_64/firmware-fc-emulex-2019.03.02-1.1.x86_64.compsig; RPMS/x86_64/firmware-fc-emulex-2019.03.02-1.1.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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)

Enhancements

We have separate components to update fibre channel and converged network adapters. This is a fibre channel update component.

16 Gb Standup, 16 Gb Mezzanine, and 32 Gb Standup

Added support to the following:

- Added duration support for the Link Cable Beacon command.This avoids situations in which the blinking of an Host Bus Adapter(HBA) Light Emitting Diode(LED) might be initiated, but no command is sent to stop the blinking.
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

Updated 16/32 Gb HBA/Mezz universal boot
Updated 16Gb HBA/Mezz universal boot
Updated 8Gb HBA/Mezz universal boot

Contains:

16/32 Gb HBA/Mezz universal boot 12.0.346.9
16 Gb HBA/Mezz universal boot 12.0.346.9

8 Gb standup/mezz firmware 2.10X6

8 Gb standup/mezz universal boot image 12.00a10 (12.0.325.0 BIOS, 12.0.348.0 UEFI)

Supported Devices and Features

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

8Gb FC:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HPE StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- 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 StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HPE Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters for VMware vSphere 6.5
Version: 2019.03.01 **(Recommended)**
Filename: CP035751.compsig; CP035751.zip

Important Note!

Release Notes:

HPE StoreFabric 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.

Prerequisites

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

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

Enhancements

We have separate components to update fibre channel and converged network adapters. This is a fibre channel update component.

16 Gb Standup, 16 Gb Mezzanine, and 32 Gb Standup

Added support to the following:

- Added duration support for the Link Cable Beacon command.This avoids situations in which the blinking of an Host Bus Adapter(HBA) Light Emitting Diode(LED) might be initiated, but no command is sent to stop the blinking.
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

Updated 16/32 Gb HBA/Mezz universal boot
Updated 16Gb HBA/Mezz universal boot
Updated 8Gb HBA/Mezz universal boot

Contains:

16/32 Gb HBA/Mezz universal boot 12.0.346.9
16 Gb HBA/Mezz universal boot 12.0.346.9

8 Gb standup/mezz firmware 2.10X6

8 Gb standup/mezz universal boot image 12.00a10 (12.0.325.0 BIOS, 12.0.348.0 UEFI)

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters for VMware vSphere 6.7
Version: 2019.03.01 **(Recommended)**
Filename: CP035752.compsig; CP035752.zip

Important Note!

Release Notes:

HPE StoreFabric 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.

Prerequisites

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

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

Enhancements

We have separate components to update fibre channel and converged network adapters. This is a fibre channel update component.

16 Gb Standup, 16 Gb Mezzanine, and 32 Gb Standup

Added support to the following:

- Added duration support for the Link Cable Beacon command.This avoids situations in which the blinking of an Host Bus Adapter(HBA) Light Emitting Diode(LED) might be initiated, but no command is sent to stop the blinking.
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

Updated 16/32 Gb HBA/Mezz universal boot
Updated 16Gb HBA/Mezz universal boot
Updated 8Gb HBA/Mezz universal boot

Contains:

16/32 Gb HBA/Mezz universal boot 12.0.346.9
16 Gb HBA/Mezz universal boot 12.0.346.9

8 Gb standup/mezz firmware 2.10X6

8 Gb standup/mezz universal boot image 12.00a10 (12.0.325.0 BIOS, 12.0.348.0 UEFI)

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters for VMware vSphere 6.0
Version: 2019.03.01 **(Recommended)**
Filename: CP035750.compsig; CP035750.zip

Important Note!

Release Notes:

HPE StoreFabric 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.

Prerequisites

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

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

Enhancements

We have separate components to update fibre channel and converged network adapters. This is a fibre channel update component.

16 Gb Standup, 16 Gb Mezzanine, and 32 Gb Standup

Added support to the following:

- Added duration support for the Link Cable Beacon command.This avoids situations in which the blinking of an Host Bus Adapter(HBA) Light Emitting Diode(LED) might be initiated, but no command is sent to stop the blinking.
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

Updated 16/32 Gb HBA/Mezz universal boot
Updated 16Gb HBA/Mezz universal boot
Updated 8Gb HBA/Mezz universal boot

Contains:

16/32 Gb HBA/Mezz universal boot 12.0.346.9
16 Gb HBA/Mezz universal boot 12.0.346.9

8 Gb standup/mezz firmware 2.10X6

8 Gb standup/mezz universal boot image 12.00a10 (12.0.325.0 BIOS, 12.0.348.0 UEFI)

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter

- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters for Windows 2012/2012 R2/2016/2019 x64
Version: 2019.03.01 **(Recommended)**
Filename: cp035754.compsig; cp035754.exe

Important Note!

Release Notes:
HPE StoreFabric 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.

Prerequisites

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

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

The HPE supplied Emulex driver must be installed prior to this firmware component being identified by SUM for deployment. The OOB driver is available on the Service Pack for ProLiant (SPP) which is available at http://www.hpe.com/servers/spp/download/

Enhancements

We have separate components to update fibre channel and converged network adapters. This is a fibre channel update component.

16 Gb Standup, 16 Gb Mezzanine, and 32 Gb Standup

Added support to the following:

- Added duration support for the Link Cable Beacon command.This avoids situations in which the blinking of an Host Bus Adapter(HBA) Light Emitting Diode(LED) might be initiated, but no command is sent to stop the blinking.
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

Updated 16/32 Gb HBA/Mezz universal boot
Updated 16Gb HBA/Mezz universal boot
Updated 8Gb HBA/Mezz universal boot

Contains:

16/32 Gb HBA/Mezz universal boot 12.0.346.9
16 Gb HBA/Mezz universal boot 12.0.346.9

8 Gb standup/mezz firmware 2.10X6

8 Gb standup/mezz universal boot image 12.00a10 (12.0.325.0 BIOS, 12.0.348.0 UEFI)

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

HPE Firmware Flash for QLogic Fibre Channel Host Bus Adapters - Linux (x86_64)
Version: 2019.03.03 **(Recommended)**
Filename: RPMS/x86_64/firmware-fc-qlogic-2019.03.03-1.2.x86_64.compsig; RPMS/x86_64/firmware-fc-qlogic-2019.03.03-1.2.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric QLogic Adapter Release Notes

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.

Fixes

Fixed the following

Transceiver with part number 5700-0077 requires a minimum of 10ms after a write operation before reading it back. But the current Firmware is not waiting long enough, manifests as an intermittently incomplete to connect to Fabric

For more details please go through the document titled "HPE StoreFabric Host Bus Adapters - During A Server Power-On Sequence, A SN1100Q Or SN1600Q Fibre Channel Adapter With A Specific 16GB Transceiver Will Intermittently Fail To Connect To All FC Switches At Both The UEFI And OS Levels" at the following link:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00078768en_us

Enhancements

Updated the Firmware/BIOS/UEFI packages for 8 Gb, 16 Gb and 32 Gb products.

- Gen4 Fibre Channel Host Bus Adapter:
  - Package 3.79.02
  - Firmware 8.08.01
  - UEFI 6.66
  - BIOS 3.56
- Gen5 Fibre Channel Host Bus Adapter:
  - Package 6.01.79
  - Firmware 8.08.203
  - UEFI 6.65
  - BIOS 3.43
- Gen6 Fibre Channel Host Bus Adapter:
  - Package 1.72.02
  - Firmware 8.08.220
  - UEFI 6.51
  - BIOS 3.64

Supported Devices and Features

This firmware supports the following HPE adapters:

Gen 4 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 StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HPE QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

Gen5 Fibre Channel Host Bus Adapter:

- HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HPE StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

Gen6 Fibre Channel Host Bus Adapter:

- HPE StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter

- HPE StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

HPE Firmware Flash for QLogic Fibre Channel Host Bus Adapters for VMware vSphere 6.0
Version: 2019.03.02 **(Recommended)**
Filename: CP040757.compsig; CP040757.zip

Important Note!

HPE StoreFabric QLogic Adapter Release Notes

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

Transceiver with part number 5700-0077 requires a minimum of 10ms after a write operation before reading it back. But the current Firmware is not waiting long enough, manifests as an intermittently incomplete to connect to Fabric

For more details please go through the document titled "HPE StoreFabric Host Bus Adapters - During A Server Power-On Sequence, A SN1100Q Or SN1600Q Fibre Channel Adapter With A Specific 16GB Transceiver Will Intermittently Fail To Connect To All FC Switches At Both The UEFI And OS Levels" at the following link:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00078768en_us

Enhancements

Updated the Firmware/BIOS/UEFI packages for 8 Gb, 16 Gb and 32 Gb products.

- Gen4 Fibre Channel Host Bus Adapter:
  - Package 3.79.02
  - Firmware 8.08.01
  - UEFI 6.66
  - BIOS 3.56
- Gen5 Fibre Channel Host Bus Adapter:
  - Package 6.01.79
  - Firmware 8.08.203
  - UEFI 6.65
  - BIOS 3.43
- Gen6 Fibre Channel Host Bus Adapter:
  - Package 1.72.02
  - Firmware 8.08.220
  - UEFI 6.51
  - BIOS 3.64

Supported Devices and Features

This firmware supports the following HPE adapters:

Gen 4 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 StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HPE QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

Gen5 Fibre Channel Host Bus Adapter:

- HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HPE StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

Gen6 Fibre Channel Host Bus Adapter:

- HPE StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

HPE Firmware Flash for QLogic Fibre Channel Host Bus Adapters for VMware vSphere 6.5
Version: 2019.03.02 **(Recommended)**
Filename: CP040756.compsig; CP040756.zip

Important Note!

HPE StoreFabric QLogic Adapter Release Notes

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

Transceiver with part number 5700-0077 requires a minimum of 10ms after a write operation before reading it back. But the current Firmware is not waiting long enough, manifests as an intermittently incomplete to connect to Fabric

For more details please go through the document titled "HPE StoreFabric Host Bus Adapters - During A Server Power-On Sequence, A SN1100Q Or SN1600Q Fibre Channel Adapter With A Specific 16GB Transceiver Will Intermittently Fail To Connect To All FC Switches At Both The UEFI And OS Levels" at the following link:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00078768en_us

Enhancements

Updated the Firmware/BIOS/UEFI packages for 8 Gb, 16 Gb and 32 Gb products.

- Gen4 Fibre Channel Host Bus Adapter:
  - Package 3.79.02
  - Firmware 8.08.01
  - UEFI 6.66
  - BIOS 3.56
- Gen5 Fibre Channel Host Bus Adapter:
  - Package 6.01.79
  - Firmware 8.08.203
  - UEFI 6.65
  - BIOS 3.43
- Gen6 Fibre Channel Host Bus Adapter:
  - Package 1.72.02
  - Firmware 8.08.220
  - UEFI 6.51
  - BIOS 3.64

Supported Devices and Features

This firmware supports the following HPE adapters:

Gen 4 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 StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HPE QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

Gen5 Fibre Channel Host Bus Adapter:

- HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HPE StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

Gen6 Fibre Channel Host Bus Adapter:

- HPE StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

HPE Firmware Flash for QLogic Fibre Channel Host Bus Adapters for VMware vSphere 6.7
Version: 2019.03.03 **(Recommended)**
Filename: CP040755.compsig; CP040755.zip

Important Note!

HPE StoreFabric QLogic Adapter Release Notes

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

Transceiver with part number 5700-0077 requires a minimum of 10ms after a write operation before reading it back. But the current Firmware is not waiting long enough, manifests as an intermittently incomplete to connect to Fabric

For more details please go through the document titled "HPE StoreFabric Host Bus Adapters - During A Server Power-On Sequence, A SN1100Q Or SN1600Q Fibre Channel Adapter With A Specific 16GB Transceiver Will Intermittently Fail To Connect To All FC Switches At Both The UEFI And OS Levels" at the following link:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00078768en_us

Enhancements

Updated the Firmware/BIOS/UEFI packages for 8 Gb, 16 Gb and 32 Gb products.

- Gen4 Fibre Channel Host Bus Adapter:
  - Package 3.79.02
  - Firmware 8.08.01
  - UEFI 6.66
  - BIOS 3.56
- Gen5 Fibre Channel Host Bus Adapter:
  - Package 6.01.79
  - Firmware 8.08.203
  - UEFI 6.65
  - BIOS 3.43
- Gen6 Fibre Channel Host Bus Adapter:
  - Package 1.72.02
  - Firmware 8.08.220
  - UEFI 6.51
  - BIOS 3.64

Supported Devices and Features

This firmware supports the following HPE adapters:

Gen 4 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 StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HPE QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

Gen5 Fibre Channel Host Bus Adapter:

- HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HPE StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

Gen6 Fibre Channel Host Bus Adapter:

- HPE StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

HPE Firmware Online Flash for QLogic Fibre Channel Host Bus Adapters - Windows 2012/2012R2/2016/2019 (x86_64)
Version: 2019.03.02 **(Recommended)**
Filename: cp040753.compsig; cp040753.exe

Important Note!

Release Notes:
HPE StoreFabric QLogic Adapters Release Notes

Prerequisites

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

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

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

Transceiver with part number 5700-0077 requires a minimum of 10ms after a write operation before reading it back. But the current Firmware is not waiting long enough, manifests as an intermittently incomplete to connect to Fabric

For more details please go through the document titled "HPE StoreFabric Host Bus Adapters - During A Server Power-On Sequence, A SN1100Q Or SN1600Q Fibre Channel Adapter With A Specific 16GB Transceiver Will Intermittently Fail To Connect To All FC Switches At Both The UEFI And OS Levels" at the following link:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00078768en_us

Enhancements

Updated the Firmware/BIOS/UEFI packages for 8 Gb, 16 Gb and 32 Gb products.

- Gen4 Fibre Channel Host Bus Adapter:

Package 3.79.02
    - Firmware 8.08.01
    - UEFI 6.66
    - BIOS 3.56
- Gen5 Fibre Channel Host Bus Adapter:
    - Package 6.01.79
    - Firmware 8.08.203
    - UEFI 6.65
    - BIOS 3.43
- Gen6 Fibre Channel Host Bus Adapter:
    - Package 1.72.02
    - Firmware 8.08.220
    - UEFI 6.51
    - BIOS 3.64

Supported Devices and Features

This firmware supports the following HPE adapters:

Gen 4 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 StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HPE QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

Gen5 Fibre Channel Host Bus Adapter:

- HPE QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HPE StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

Gen6 Fibre Channel Host Bus Adapter:

- HPE StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

Firmware - System Top

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.

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 - NVMe Backplane PIC Firmware
Version: 8.4 (D) **(Optional)**
Filename: RPMS/i386/firmware-nvmebackplane-8.4-4.1.i386.rpm

Important Note!

Note: If version 8.4 was previously installed, then it is not necessary to upgrade to version 8.4 (D).

Prerequisites

iLO 4 version 2.50 or later is required.

Enhancements

- Added support for SUSE Linux Enterprise Server 15 OS

Online Flash Component for VMware - NVMe Backplane PIC Firmware
Version: 8.4 (D) **(Optional)**
Filename: CP035161.compsig; CP035161.zip

Important Note!

Note: If version 8.4 was previously installed, then it is not necessary to upgrade to version 8.4 (D).

Prerequisites

iLO 4 version 2.50 or later is required.

Enhancements

- Added VMware vSphere 6.7 OS support

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 - NVMe Backplane PIC Firmware
Version: 8.4 (E) **(Optional)**
Filename: cp037743.exe

Important Note!

Note: If version 8.4 was previously installed, then it is not necessary to upgrade to version 8.4 (E).

Prerequisites

iLO 4 version 2.50 or later is required.

Enhancements

- Added support for Microsoft Windows Server 2019 OS

Online ROM Flash Component for Windows x64 - Server Platform Services (SPS) Firmware for HPE Gen10 Servers
Version: 04.01.04.296 **(Optional)**
Filename: cp039727.compsig; cp039727.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Server Platform Services (SPS) Firmware

Release Version:

04.01.04.296

Last Recommended or Critical Revision:

04.00.04.393

Previous Revision:

04.01.04.251

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an intermittent issue where an optional PCIe device may not properly report its thermal data or other telemetry data as seen through the Integrated Lights-Out (iLO) interface. 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:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an intermittent issue where an optional PCIe device may not properly report its thermal data or other telemetry data as seen through the Integrated Lights-Out (iLO) interface. This issue is not unique to HPE servers.

Known Issues:

None

Online ROM Flash for Linux - HPE Gen10 Innovation Engine Firmware for HPE Gen10 Servers
Version: 0.2.1.2 (B) **(Optional)**
Filename: RPMS/x86_64/firmware-iegen10-0.2.1.2-2.1.x86_64.compsig; RPMS/x86_64/firmware-iegen10-0.2.1.2-2.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Innovation Engine (IE) Firmware

Release Version:

0.2.1.2

Last Recommended or Critical Revision:

0.1.5.2

Previous Revision:

0.2.0.11

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Problems Fixed:

None

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.

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Known Issues:

None

Online ROM Flash for Linux - Server Platform Services (SPS) Firmware for HPE Gen10 Servers
Version: 04.01.04.296 **(Optional)**
Filename: RPMS/x86_64/firmware-spsgen10-04.01.04.296-1.1.x86_64.compsig; RPMS/x86_64/firmware-spsgen10-04.01.04.296-1.1.x86_64.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Server Platform Services (SPS) Firmware

Release Version:

04.01.04.296

Last Recommended or Critical Revision:

04.00.04.393

Previous Revision:

04.01.04.251

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an intermittent issue where an optional PCIe device may not properly report its thermal data or other telemetry data as seen through the Integrated Lights-Out (iLO) interface. 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:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an intermittent issue where an optional PCIe device may not properly report its thermal data or other telemetry data as seen through the Integrated Lights-Out (iLO) interface. 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 Servers
Version: 0.2.1.2 **(Optional)**
Filename: cp039812.compsig; cp039812.exe

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Innovation Engine (IE) Firmware

Release Version:

0.2.1.2

Last Recommended or Critical Revision:

0.1.5.2

Previous Revision:

0.2.0.11

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Problems Fixed:

None

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).

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Known Issues:

None

ROM Flash Firmware Package - HPE Gen10 Innovation Engine Firmware for HPE Gen10 Servers
Version: 0.2.1.2 **(Optional)**
Filename: IEGen10_0.2.1.2.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Innovation Engine (IE) Firmware

Release Version:

0.2.1.2

Last Recommended or Critical Revision:

0.1.5.2

Previous Revision:

0.2.0.11

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Problems Fixed:

None

Known Issues:

None

Prerequisites

System ROM V1.26 or later

iLO 5 v1.20 or later

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added support for HPE Persistent Memory featuring Intel Optane DC Persistent Memory.

Known Issues:

None

ROM Flash Firmware Package - Server Platform Services (SPS) Firmware for HPE Gen10 Servers
Version: 04.01.04.296 **(Optional)**
Filename: SPSGen10_04.01.04.296.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE Gen10 Server Platform Services (SPS) Firmware

Release Version:

04.01.04.296

Last Recommended or Critical Revision:

04.00.04.393

Previous Revision:

04.01.04.251

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an intermittent issue where an optional PCIe device may not properly report its thermal data or other telemetry data as seen through the Integrated Lights-Out (iLO) interface. 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:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an intermittent issue where an optional PCIe device may not properly report its thermal data or other telemetry data as seen through the Integrated Lights-Out (iLO) interface. This issue is not unique to HPE servers.

Known Issues:

None

Firmware (Entitlement Required) - Storage Controller Top

HP D2600/D2700 6Gb SAS Disk Enclosure ROM Flash Component for Linux (x64)
Version: 0150 (B) **(Recommended)**
Filename: RPMS/x86_64/hp-firmware-d2600-d2700-0150-2.1.x86_64.rpm

Important Note!

Firmware upgrade to 150(B) is not necessary, if the device is currently running 150 firmware

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: When disk enclosures are cascaded, I/O module A of one enclosure is connected to I/O module A of the subsequent enclosure. During a firmware update, I/O module A in the cascaded disk enclosures is automatically updated.

In dual-domain configurations, both I/O modules of the target disk enclosure and cascaded disk enclosures are automatically updated during the firmware installation process.

All firmware flash progress messages are 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: When disk enclosures are cascaded, I/O module A of one enclosure is connected to I/O module A of the subsequent enclosure. During a firmware update, I/O module A in the cascaded disk enclosures is automatically updated.

In dual-domain configurations, both I/O modules of the target disk enclosure and cascaded disk enclosures are automatically updated during the firmware installation process.

All firmware flash progress messages are logged to /var/cpq/Component.log.

Fixes

The following fix is added in this version:-

-Removed action over FAULT_SENSED bit due to incorrect algorithm.

Supported Devices and Features

The D2600/ D2700 Enclosure can be attached to any of the following HP Storage Controllers and Host Bus Adapters:

HP H222 Host Bus Adapter
HP H221 Host Bus Adapter
HP H241 Smart Host Bus Adapter
HP Smart Array P812 Controller
HP Smart Array P822 Controller
HP Smart Array P841 Controller
HP Smart Array P441 Controller
HP Smart Array P431 Controller
HP Smart Array P421 Controller
HP Smart Array P411 Controller
HP Smart Array P212 Controller
HP Smart Array P222 Controller

HP D2600/D2700 6Gb SAS Disk Enclosure ROM Flash Component for Windows (x64)
Version: 0150 (B) **(Recommended)**
Filename: cp028806.exe

Important Note!

Firmware upgrade to 150(B) is not necessary, if the device is currently running 150 firmware

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: When disk enclosures are cascaded, I/O module A of one enclosure is connected to I/O module A of the subsequent enclosure. During a firmware update, I/O module A in the cascaded disk enclosures is automatically updated.

In dual-domain configurations, both I/O modules of the target disk enclosure and cascaded disk enclosures are automatically updated during the firmware installation process.

All firmware flash progress messages are logged to %systemdrive%\CPQSYSTEM\Log\D2000.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: When disk enclosures are cascaded, I/O module A of one enclosure is connected to I/O module A of the subsequent enclosure. During a firmware update, I/O module A in the cascaded disk enclosures is automatically updated.

In dual-domain configurations, both I/O modules of the target disk enclosure and cascaded disk enclosures are automatically updated during the firmware installation process.

All firmware flash progress messages are logged to %systemdrive%\CPQSYSTEM\Log\D2000.log and flash summary is logged to %systemdrive%\CPQSYSTEM\Log\cpqsetup.log.

Fixes

The following fix is added in this version:-

-Removed action over FAULT_SENSED bit due to incorrect algorithm.

Supported Devices and Features

The D2600/ D2700 Enclosure can be attached to any of the following HP Storage Controllers and Host Bus Adapters:

HP H222 Host Bus Adapter
HP H221 Host Bus Adapter
HP H241 Smart Host Bus Adapter
HP Smart Array P812 Controller
HP Smart Array P822 Controller
HP Smart Array P841 Controller
HP Smart Array P441 Controller
HP Smart Array P431 Controller
HP Smart Array P421 Controller
HP Smart Array P411 Controller
HP Smart Array P212 Controller
HP Smart Array P222 Controller

HPE D3600/D3700/D3610/D3710 12Gb SAS Disk Enclosure ROM Flash Component for Linux (x64)
Version: 4.12 **(Recommended)**
Filename: CP036703.md5; RPMS/x86_64/firmware-d3000-4.12-1.1.x86_64.compsig; RPMS/x86_64/firmware-d3000-4.12-1.1.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 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 fix is incorporated in this version:

- The Enabled-ClusterS2D command now completes successfully when executed on a SATA drive within a D3610 disk enclosure.

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 :

- HP Smart Array P841 Controller
- HP Smart Array P441 Controller
- HP Smart HBA H241
- HPE Smart Array P408e-p Controller
- HPE Smart Array E208e-p Controller
- HPE Smart Array P408e-m Controller
- HP Smart Array P741m Controller
- HPE Smart Array P416ie-m Controller

HPE D3600/D3700/D3610/D3710 12Gb SAS Disk Enclosure ROM Flash Component for VMware (ESXi)
Version: 4.12 **(Recommended)**
Filename: CP036702.compsig; CP036702.md5; CP036702.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 fix is incorporated in this version:

- The Enabled-ClusterS2D command now completes successfully when executed on a SATA drive within a D3610 disk enclosure.

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 VMware vsphere 6.7

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 :

- HP Smart Array P841 Controller
- HP Smart Array P441 Controller
- HP Smart HBA H241
- HP Smart Array P741m Controller
- HPE Smart Array P408e-p Controller
- HPE Smart Array E208e-p Controller
- HPE Smart Array P408e-m Controller
- HPE Smart Array P416ie-m Controller

HPE D3600/D3700/D3610/D3710 12Gb SAS Disk Enclosure ROM Flash Component for Windows (x64)
Version: 4.12 **(Recommended)**
Filename: cp036704.compsig; cp036704.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/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\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 fix is incorporated in this version:

- The Enabled-ClusterS2D command now completes successfully when executed on a SATA drive within a D3610 disk enclosure.

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 :

- HP Smart Array P841 Controller
- HP Smart Array P441 Controller
- HP Smart HBA H241
- HPE Smart Array P408e-p Controller
- HPE Smart Array E208e-p Controller
- HPE Smart Array P408e-m Controller
- HP Smart Array P741m Controller

- HPE Smart Array P416ie-m Controller

HPE D6020 12Gb SAS Disk Enclosure ROM Flash Component for Linux (x64)
Version: 2.74 (C) **(Recommended)**
Filename: CP039703.md5; RPMS/x86_64/firmware-d6020-2.74-3.1.x86_64.compsig; RPMS/x86_64/firmware-d6020-2.74-3.1.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 8

Supported Devices and Features

The D6020 Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

- HP Smart Array P841 Controller
- HP Smart Array P441 Controller
- HP Smart HBA H241
- HP Smart Array P741m Controller
- HPE Smart Array P408e-p Controller
- HPE Smart Array E208e-p Controller
- HPE Smart Array P408e-m Controller

HPE D6020 12Gb SAS Disk Enclosure ROM Flash Component for VMware (ESXi)
Version: 2.74 (C) **(Recommended)**
Filename: CP039705.compsig; CP039705.md5; CP039705.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 :

- HP Smart Array P841 Controller
- HP Smart Array P441 Controller
- HP Smart HBA H241
- HP Smart Array P741m Controller
- HPE Smart Array P408e-p Controller
- HPE Smart Array E208e-p Controller
- HPE Smart Array P408e-m Controller

HPE D6020 12Gb SAS Disk Enclosure ROM Flash Component for Windows (x64)
Version: 2.74 (C) **(Recommended)**
Filename: cp039704.compsig; cp039704.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 :

- HP Smart Array P841 Controller
- HP Smart Array P441 Controller
- HP Smart HBA H241
- HP Smart Array P741m Controller
- HPE Smart Array P408e-p Controller
- HPE Smart Array E208e-p Controller
- HPE Smart Array P408e-m Controller

HPE D8000 12Gb SAS Disk Enclosure ROM Flash Component for Linux (x64)
Version: 0102 **(Recommended)**
Filename: CP039760.md5; RPMS/x86_64/firmware-d8000-0102-1.1.x86_64.compsig; RPMS/x86_64/firmware-d8000-0102-1.1.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:

- SAS drive LED behavior was corrected to align with the Smart Array specification, specifically:
  - The Activity LED of a sanitize erase drive now turns ON when connected.

- The Array present LED now turns ON for the SAS drive.
- The Activity LED now blinks on all drives during a SAS drive rebuild.

- SATA logical drives now display as available after a simultaneous power restore to the server and the D8000.

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 8

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: 0102 **(Recommended)**
Filename: CP039759.compsig; CP039759.md5; CP039759.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 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:

- SAS drive LED behavior was corrected to align with the Smart Array specification, specifically:
  - The Activity LED of a sanitize erase drive now turns ON when connected.
  - The Array present LED now turns ON for the SAS drive.
  - The Activity LED now blinks on all drives during a SAS drive rebuild.
- SATA logical drives now display as available after a simultaneous power restore to the server and the D8000.

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: 0102 **(Recommended)**
Filename: cp039761.compsig; cp039761.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:

- SAS drive LED behavior was corrected to align with the Smart Array specification, specifically:
  - The Activity LED of a sanitize erase drive now turns ON when connected.
  - The Array present LED now turns ON for the SAS drive.
  - The Activity LED now blinks on all drives during a SAS drive rebuild.
- SATA logical drives now display as available after a simultaneous power restore to the server and the D8000.

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

Software - Lights-Out Management Top

HP Lights-Out Online Configuration Utility for Linux (AMD64/EM64T)
Version: 5.5.0-0 **(Recommended)**
Filename: hponcfg-5.5.0-0.x86_64.compsig; hponcfg-5.5.0-0.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

Updated the OpenSSL API calls to support Host's OpenSSL FIPS mode.

HP Lights-Out Online Configuration Utility for Windows x64 Editions
Version: 5.3.0.0 **(Optional)**
Filename: cp037416.compsig; cp037416.exe

Prerequisites

This utility requires the following minimum firmware revisions:

- Integrated Lights-Out 3 firmware v1.00 or later
- Integrated Lights-Out 4 firmware v1.00 or later
- Integrated Lights-Out 5 firmware v1.30 or later

The management interface driver must be installed on the server.

Microsoft .Net Framework 2.0 or later is required to launch HPONCFG GUI.

Enhancements

Introduced support for CNSA security state from iLO5 v1.40 or later.

Software - Management Top

HPE Management Bundle Smart Component for ESXi 6.0
Version: 2019.09.01 **(Recommended)**
Filename: cp039173.compsig; cp039173.zip

Fixes

Agentless Management Service

- Fixed issue with AMS filling up tmp and causing VUM updates to Fail (https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00073323en_us)
- Fixed issue with read spikes seen in Gen9 hosts every 5 minutes

Enhancements

Agentless Management Service

- Added support for HPE Ethernet 10Gb 2-port 524SFP+ Adapter and HPE Ethernet 10Gb 2-port 548SFP+ Adapter

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HPE Management Bundle Smart Component for ESXi 6.5
Version: 2019.09.01 **(Recommended)**
Filename: cp039175.compsig; cp039175.zip

Fixes

Agentless Management Service

- Fixed issue with AMS filling up tmp and causing VUM updates to Fail (https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00073323en_us)
- Fixed issue with read spikes seen in Gen9 hosts every 5 minutes

Enhancements

Agentless Management Service

- Added support for HPE Ethernet 10Gb 2-port 524SFP+ Adapter and HPE Ethernet 10Gb 2-port 548SFP+ Adapter

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HPE Management Bundle Smart Component for ESXi 6.7
Version: 2019.09.01 **(Recommended)**
Filename: cp039176.compsig; cp039176.zip

Fixes

Agentless Management Service

- Fixed issue with AMS filling up tmp and causing VUM updates to Fail (https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00073323en_us)
- Fixed issue with read spikes seen in Gen9 hosts every 5 minutes

Enhancements

Agentless Management Service

- Added support for HPE Ethernet 10Gb 2-port 524SFP+ Adapter and HPE Ethernet 10Gb 2-port 548SFP+ Adapter

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HPE SDK Python Module
Version: 2.4 **(Optional)**
Filename: python-ilorest-library-2.4.0.zip

Enhancements

- Added new serverinfo command.

Software - Network Top

Broadcom Active Health System Agent for HPE ProLiant Network Adapters for Linux x86_64
Version: 1.0.21-1 **(Optional)**
Filename: hp-tg3sd-1.0.21-1.x86_64.compsig; hp-tg3sd-1.0.21-1.x86_64.rpm; hp-tg3sd-1.0.21-1.x86_64.txt

Fixes

This product adddresses a library dependency issue seen when installing on a system running SUSE Linux Enterprise Server 15.

Supported Devices and Features

These drivers support the following network adapters:

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

HPE Intel esx-provider for VMware
Version: 2018.09.00 **(Optional)**
Filename: cp035296.compsig; cp035296.zip

Enhancements

This product now supports Gen10 servers.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 4-port 366T Adapter
- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

Intel Active Health System Agent for HPE ProLiant Network Adapters for Linux x86_64
Version: 1.1.83.0-1 (B) **(Optional)**
Filename: hp-ocsbbd-1.1.83.0-1.x86_64.compsig; hp-ocsbbd-1.1.83.0-1.x86_64.rpm; hp-ocsbbd-1.1.83.0-1.x86_64.txt

Fixes

SUM no longer attempts to install this product on Gen10 servers, which this product does not support.

Supported Devices and Features

This software supports the following Intel 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 2-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 4-port 366T Adapter
- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter

Software - Storage Controller Top

HPE MegaRAID Storage Administrator StorCLI for VMware6.0
Version: 2019.09.00 **(Optional)**
Filename: cp040117.compsig; cp040117.zip

Enhancements

Updated Product Name with the OS version.

HPE MegaRAID Storage Administrator StorCLI for VMware6.5
Version: 2019.09.00 **(Optional)**
Filename: cp040118.compsig; cp040118.zip

Enhancements

Updated Product Name with the OS version.

HPE MegaRAID Storage Administrator StorCLI for VMware6.7
Version: 2019.09.00 **(Optional)**
Filename: cp040119.compsig; cp040119.zip

Enhancements

Updated Product Name with the OS version.

HPE ProLiant Smart Array SAS/SATA Event Notification Service for 64-bit Windows Server Editions
Version: 6.46.0.64 (E) **(Optional)**
Filename: cp037465.exe

Important Note!

Customers who already have firmware version 6.46.0.64 installed do not need to update to 6.46.0.64(E).

Enhancements

Added support for Microsoft Windows Server 2019.

HPE Smart Array SR Event Notification Service for Windows Server 64-bit Editions

Version: 1.2.1.64 (A) **(Recommended)**
Filename: cp039146.compsig; cp039146.exe

Fixes

Event Notification Service may report invalid BMIC command in the system logs

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Software - Storage Fibre Channel Top

Emulex Fibre Channel driver component for VMware vSphere 6.0
Version: 2019.03.01 **(Recommended)**
Filename: cp035757.compsig; cp035757.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.

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

Updated to Driver version 11.4.329.0

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

Emulex Fibre Channel driver component for VMware vSphere 6.5
Version: 2019.03.01 **(Recommended)**
Filename: cp035758.compsig; cp035758.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.

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

Updated to Driver version 12.0.257.5

Added support to following:

- Added duration support for the Link Cable Beacon command. This avoids situations in which the blinking of an Host Bus Adapter(HBA) Light Emitting Diode(LED) might be initiated, but no command is sent to stop the blinking.

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

Emulex Fibre Channel driver component for VMware vSphere 6.7
Version: 2019.03.01 **(Recommended)**
Filename: cp035759.compsig; cp035759.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.

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

Updated to Driver version 12.0.257.5

Added support to following:

- Added support for VMware vSphere 6.7 Update 1.
- Added duration support for the Link Cable Beacon command. This avoids situations in which the blinking of an Host Bus Adapter(HBA) Light Emitting Diode(LED) might be initiated, but no command is sent to stop the blinking.

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

Emulex(BRCM) Fibre Channel Over Ethernet driver for VMware vSphere 6.0
Version: 2019.03.01 **(Recommended)**
Filename: cp035741.compsig; cp035741.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.

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

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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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

Fixes

Fixed the following:

- Added workaround to reduce the race probability in Input Output Device Management (IODM).
- Fixed Purple Screen of Death (PSOD) Triggered by assert that when destroying a Slab and there was still one object not released.

Enhancements

Updated to Driver version 12.0.1211.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

Emulex(BRCM) Fibre Channel over Ethernet driver for VMware vSphere 6.5
Version: 2019.03.03 **(Recommended)**
Filename: cp040413.compsig; cp040413.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.

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

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

Fixes

Fixed the following:

- Servers do not complete the process to connect to OneConnectManager Management Host On Windows 2008/ 2012 and 2016

Enhancements

Updated to Driver version 12.0.1216.4

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

Emulex(BRCM) Fibre Channel over Ethernet driver for VMware vSphere 6.7
Version: 2019.03.03 **(Recommended)**
Filename: cp040416.compsig; cp040416.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.

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

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

Fixes

Fixed the following:

- Servers do not complete the process to connect to OneConnectManager Management Host On Windows 2008/ 2012 and 2016

Enhancements

.Updated to Driver version 12.0.1216.4

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

QLogic Fibre Channel driver component for VMware vSphere 6.0
Version: 2019.03.01 **(Recommended)**
Filename: cp035767.compsig; cp035767.zip

Important Note!

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

Prerequisites

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

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

Fixes

Fixed the following:

- Sync up information registered to switch for FDMI across all drivers.
- Continue with the logins in the scan loop despite seeing a login failure
- Send the GFO command in a separate thread then the fabric discovery.
- Eliminate the code to block I/O during small read operations of the flash.
- Ensure the target ID assigned to the WWPN on the physical port is the same on the NPIV port

Enhancements

Driver version 2.1.81.0

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

QLogic Fibre Channel driver component for VMware vSphere 6.5
Version: 2019.03.01 **(Recommended)**
Filename: cp035768.compsig; cp035768.zip

Important Note!

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

Prerequisites

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

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

Fixes

Fixed the following:

- Sync up information registered to switch for FDMI across all drivers.
- Continue with the logins in the scan loop despite seeing a login failure
- Send the GFO command in a separate thread then the fabric discovery.
- Eliminate the code to block I/O during small read operations of the flash.
- Ensure the target ID assigned to the WWPN on the physical port is the same on the NPIV port

Enhancements

Driver version 2.1.81.0

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

QLogic Fibre Channel driver component for VMware vSphere 6.7
Version: 2019.03.01 **(Recommended)**
Filename: cp035769.compsig; cp035769.zip

Important Note!

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

Prerequisites

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

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

Fixes

Fixed the following:

- Sync up information registered to switch for FDMI across all drivers.
- Continue with the logins in the scan loop despite seeing a login failure
- Send the GFO command in a separate thread then the fabric discovery.
- Eliminate the code to block I/O during small read operations of the flash.
- Ensure the target ID assigned to the WWPN on the physical port is the same on the NPIV port

Enhancements

Driver version 3.1.16.0

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter

- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

Software - Storage Fibre Channel HBA Top

Fibreutils for HPE Storage Fibre Channel Host Bus Adapters for Linux -Red Hat Enterprise Linux (RHEL)
Version: 3.3-6 (b) **(Optional)**
Filename: fibreutils-3.3-6_rhel.x86_64.compsig; fibreutils-3.3-6_rhel.x86_64.rpm

Prerequisites

- Requires the following packages to be installed: glibc, libgcc, libstdc++, bash, perl

On RedHat Enterprise Linux 6 perl has to be install in \bin path to make sure there are no dependencies for the installation.

Fixes

Fiixed adpater_info code to display correct Vendor name instead of Unknown

Enhancements

This package supports only RedHat Enterprise Linux(RHEL) Distros

RedHat Enterprise Linux 6

RedHat Enterprise Linux 7

RedHat Enterprise Linux 8

Supported Devices and Features

Supports the following:

- HPE LPe1205A 8Gb Fibre Channel Host Bus Adapter
- HPE LPe1605 16Gb Fibre Channel Host Bus Adapter
- HPE QMH2672 16GB FC HBA for c-Class BladeSystem
- HPE QMH2572 8Gb Fibre Channel Host Bus Adapter
- HPE FlexFabric 20Gb 2-port 650M Adapter
- HPE FlexFabric 20Gb 2-port 650FLB Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HPE StoreFabric 84Q 4-port 8Gb Fibre Channel Host Bus Adapter
- HPE StoreFabric 84E 4-port 8Gb Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb 2-port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb 2-port PCIe Fibre Channel Host Bus Adapter
- HPE 81Q 8Gb 1-port PCIe Fibre Channel Host Bus Adapter
- HPE 81E 8Gb 1-port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb 2-port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb 1-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4-port 16Gb Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric CN1200E-T 10GBASE-T Converged Network Adapter
- HPE StoreFabric CN1200E 10Gb Converged Network Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

Fibreutils for HPE Storage Fibre Channel Host Bus Adapters for Linux -SuSE Linux Enterprise Server(SLES)
Version: 3.3-6 (c) **(Recommended)**
Filename: fibreutils-3.3-6_sles.x86_64.compsig; fibreutils-3.3-6_sles.x86_64.rpm

Prerequisites

- Requires the following packages to be installed: glibc libgcc libstdc++ bash perl

Fixes

Fiixed adpater_info code to display correct Vendor name instead of Unknown

Enhancements

This package supports only SuSE Linux Enterprise Server(SLES) Distros

SuSE Linux Enterprise Server 11

SuSE Linux Enterprise Server 12

SuSELinux Enterprise Server 15

Supported Devices and Features

Supports the following:

- HPE LPe1205A 8Gb Fibre Channel Host Bus Adapter
- HPE LPe1605 16Gb Fibre Channel Host Bus Adapter
- HPE QMH2672 16GB FC HBA for c-Class BladeSystem
- HPE QMH2572 8Gb Fibre Channel Host Bus Adapter
- HPE FlexFabric 20Gb 2-port 650M Adapter
- HPE FlexFabric 20Gb 2-port 650FLB Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HPE StoreFabric 84Q 4-port 8Gb Fibre Channel Host Bus Adapter
- HPE StoreFabric 84E 4-port 8Gb Fibre Channel Host Bus Adapter
- HPE 82Q 8Gb 2-port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb 2-port PCIe Fibre Channel Host Bus Adapter
- HPE 81Q 8Gb 1-port PCIe Fibre Channel Host Bus Adapter
- HPE 81E 8Gb 1-port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb 2-port PCIe Fibre Channel Host Bus Adapter
- HPE SN1000E 16Gb 1-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4-port 16Gb Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric CN1200E-T 10GBASE-T Converged Network Adapter
- HPE StoreFabric CN1200E 10Gb Converged Network Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

HPE Emulex Fibre Channel Enablement Kit for Red Hat Enterprise Linux 6 Server
Version: 12.0.346.16 **(Recommended)**
Filename: HP-CNA-FC-Emulex-Enablement-Kit-12.0.346.16-1.rhel6.x86_64.compsig; HP-CNA-FC-Emulex-Enablement-Kit-12.0.346.16-1.rhel6.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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 12.0.346.16

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

HPE Emulex Fibre Channel Enablement Kit for Red Hat Enterprise Linux 7 Server
Version: 12.0.346.16 **(Recommended)**
Filename: HP-CNA-FC-Emulex-Enablement-Kit-12.0.346.16-1.rhel7.x86_64.compsig; HP-CNA-FC-Emulex-Enablement-Kit-12.0.346.16-1.rhel7.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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 12.0.346.16

Added support for Red Hat Enterprise Linux 7 update 6 (RHEL 7.6).

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

HPE Emulex Fibre Channel Enablement Kit for Red Hat Enterprise Linux 8 Server
Version: 12.0.346.38 **(Recommended)**
Filename: HP-CNA-FC-Emulex-Enablement-Kit-12.0.346.38-1.rhel8.x86_64.compsig; HP-CNA-FC-Emulex-Enablement-Kit-12.0.346.38-1.rhel8.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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 12.0.346.38

Added support for Red Hat Enterprise Linux 8 (RHEL 8).

Supported Devices and Features

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

8Gb FC:

- HPE 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HPE 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HPE StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- 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 StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HPE Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

HPE Emulex Fibre Channel Enablement Kit for SUSE Linux Enterprise Server 12
Version: 12.0.346.16 **(Recommended)**
Filename: HP-CNA-FC-Emulex-Enablement-Kit-12.0.346.16-1.sles12sp3.x86_64.compsig; HP-CNA-FC-Emulex-Enablement-Kit-12.0.346.16-1.sles12sp3.x86_64.rpm; HP-CNA-FC-Emulex-Enablement-Kit-12.0.346.16-1.sles12sp4.x86_64.compsig; HP-CNA-FC-Emulex-Enablement-Kit-12.0.346.16-1.sles12sp4.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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 12.0.346.16

Added support for SUSE Linux Enterprise Server 12 Service Pack 4 (SLES12SP4).

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

HPE Emulex Fibre Channel Enablement Kit for SUSE Linux Enterprise Server 15
Version: 12.0.346.16 **(Recommended)**
Filename: HP-CNA-FC-Emulex-Enablement-Kit-12.0.346.16-1.sles15sp0.x86_64.compsig; HP-CNA-FC-Emulex-Enablement-Kit-12.0.346.16-1.sles15sp0.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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 12.0.346.16

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

HPE Emulex Smart SAN Enablement Kit for Linux
Version: 1.0.0.0-4 (c) **(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!

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, for RedHat 6, RedHat 7, and Novell SUSE 11, SUSE 12

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 SuSE Linux Enterprise Server 15

Updated to version 1.0.0.0-4 (c)

Supported Devices and Features

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

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA

HPE Emulex Smart SAN Enablement Kit for Windows 64 bit operating systems
Version: 1.0.0.1 (h) **(Optional)**
Filename: cp037970.compsig; cp037970.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 occured.

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

Added support for Microsoft Windows 2019 Server

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:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA
- HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter

HPE Emulex(BRCM) Fibre Channel Over Ethernet Enablement Kit for Red Hat Enterprise Linux 6 Server
Version: 12.0.1210.0 **(Recommended)**
Filename: HP-CNA-FC-Broadcom-Enablement-Kit-12.0.1210.0-1.rhel6.x86_64.compsig; HP-CNA-FC-Broadcom-Enablement-Kit-12.0.1210.0-1.rhel6.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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

Added support for following:

- Updated the HP-CNA-FC-Emulex-Enablement-Kit RPM to provide libdfc.so.12() library.

Updated to version: 12.0.1210.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex(BRCM) Fibre Channel Over Ethernet Enablement Kit for Red Hat Enterprise Linux 7 Server
Version: 12.0.1210.0 **(Recommended)**
Filename: HP-CNA-FC-Broadcom-Enablement-Kit-12.0.1210.0-1.rhel7.x86_64.compsig; HP-CNA-FC-Broadcom-Enablement-Kit-12.0.1210.0-1.rhel7.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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

Added support for following:

- Updated the HP-CNA-FC-Emulex-Enablement-Kit RPM to provide libdfc.so.12() library.

Updated to version: 12.0.1210.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex(BRCM) Fibre Channel Over Ethernet Enablement Kit for SUSE Linux Enterprise Server 12
Version: 12.0.1210.0 **(Recommended)**
Filename: HP-CNA-FC-Broadcom-Enablement-Kit-12.0.1210.0-1.sles12sp3.x86_64.compsig; HP-CNA-FC-Broadcom-Enablement-Kit-12.0.1210.0-1.sles12sp3.x86_64.rpm; HP-CNA-FC-Broadcom-Enablement-Kit-12.0.1210.0-1.sles12sp4.x86_64.compsig; HP-CNA-FC-Broadcom-Enablement-Kit-12.0.1210.0-1.sles12sp4.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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

Added support for following:

- Updated the HP-CNA-FC-Emulex-Enablement-Kit RPM to provide libdfc.so.12() library.

Updated to version: 12.0.1210.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex(BRCM) Fibre Channel Over Ethernet Enablement Kit for SUSE Linux Enterprise Server 15
Version: 12.0.1210.0 **(Recommended)**
Filename: HP-CNA-FC-Broadcom-Enablement-Kit-12.0.1210.0-1.sles15sp0.x86_64.compsig; HP-CNA-FC-Broadcom-Enablement-Kit-12.0.1210.0-1.sles15sp0.x86_64.rpm

Important Note!

Release Notes:
HPE StoreFabric 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.

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

Added support for following:

- Updated the HP-CNA-FC-Emulex-Enablement-Kit RPM to provide libdfc.so.12() library.

Updated to version: 12.0.1210.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE QLogic Fibre Channel Enablement Kit for Linux
Version: 6.0.0.0-4 (e) **(Recommended)**
Filename: HP-CNA-FC-hpqlgc-Enablement-Kit-6.0.0.0-4.noarch.compsig; HP-CNA-FC-hpqlgc-Enablement-Kit-6.0.0.0-4.noarch.rpm

Important Note!

Release Notes:
HPE StoreFabric QLogic Adapters Release Notes

Prerequisites

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

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

Enhancements

Updated the kit to version 6.0.0.0-4

Supported Devices and Features

This version of the enablement kit supports the following devices:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

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

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HPE QLogic Smart SAN enablement kit for Linux
Version: 3.3-3 (d) **(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 SuSE Linux Enterprise Server 15

Updated to version 3.3-3

Supported Devices and Features

This enablement kit is supported on the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

HPE QLogic Smart SAN Enablement Kit for Windows 64 bit operating systems
Version: 1.0.0.1 (g) **(Optional)**
Filename: cp037804.compsig; cp037804.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 occured.

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 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 enablement kit is supported on the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

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

- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter

Software - System Management Top

Agentless Management Service (iLO 5) for Red Hat Enterprise Linux 6 Server
Version: 1.4.2 **(Optional)**
Filename: amsd-1.4.2-1166.3.rhel6.x86_64.compsig; amsd-1.4.2-1166.3.rhel6.x86_64.rpm

Prerequisites

- **amsd only supported on HPE ProLiant Gen10 Servers.**
- **amsd provides information to the iLO 5 service providing SNMP support.**
- **SNMP PASS-THRU on the iLO 5 MUST be disabled, and SNMP should be configured on the iLO 5. The iLO 5 may need to be reset after changing these settings.**
- **Requirements:**
  - Minimum iLO 5 Firmware Version = 1.1
  - Minimum supported OS Versions = Red Hat Enterprise Linux 6.9

Fixes

Fixed the following items:

- addressed segfaults seen in the ahslog
- amsd no longer segfaults when a NIC virtual function is created
- addressed an occasional segfault/system hang/NMI with amsd
- added support for the HPE Smart Array P824i-p storage controller in MRSA and Storcli
- Corrected the cpqFcaHostCntlrFirmwareVersion for the HPE Synergy 5830C 32Gb FC Host Bus Adapter

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Agentless Management Service (iLO 5) for Red Hat Enterprise Linux 7 Server
Version: 1.4.2 **(Optional)**
Filename: amsd-1.4.2-1166.3.rhel7.x86_64.compsig; amsd-1.4.2-1166.3.rhel7.x86_64.rpm

Prerequisites

- **amsd only supported on HPE Gen10 Servers.**
- **amsd provides information to the iLO 5 service providing SNMP support.**
- **SNMP PASS-THRU on the iLO 5 MUST be disabled, and SNMP should be configured on the iLO 5. The iLO 5 may need to be reset after changing these settings.**
- **Requirements:**
  - Minimum iLO 5 Firmware Version = 1.1
  - Minimum supported OS Versions = Red Hat Enterprise Linux 7.3 Errata 3.10.0.514.6.1

Fixes

Fixed the following items:

- addressed segfaults seen in the ahslog
- amsd no longer segfaults when a NIC virtual function is created
- addressed an occasional segfault/system hang/NMI with amsd
- added support for the HPE Smart Array P824i-p storage controller in MRSA and Storcli
- Corrected the cpqFcaHostCntlrFirmwareVersion for the HPE Synergy 5830C 32Gb FC Host Bus Adapter

Enhancements

Enhancements:

- Support for Red Hat Enterprise Linux 7.7

Agentless Management Service (iLO 5) for Red Hat Enterprise Linux 8 Server
Version: 1.4.2 **(Optional)**
Filename: amsd-1.4.2-1166.3.rhel8.x86_64.compsig; amsd-1.4.2-1166.3.rhel8.x86_64.rpm

Prerequisites

- **amsd only supported on HPE Gen10 Servers.**
- **amsd provides information to the iLO 5 service providing SNMP support.**
- **SNMP PASS-THRU on the iLO 5 MUST be disabled, and SNMP should be configured on the iLO 5. The iLO 5 may need to be reset after changing these settings.**
- **Requirements:**
  - Minimum iLO 5 Firmware Version = 1.1
  - Minimum supported OS Versions = Red Hat Enterprise Linux 8

Fixes

Fixed the following items:

- addressed segfaults seen in the ahslog

Agentless Management Service (iLO 5) for SUSE Linux Enterprise Server 12
Version: 1.4.2 **(Optional)**
Filename: amsd-1.4.2-1166.3.sles12.x86_64.compsig; amsd-1.4.2-1166.3.sles12.x86_64.rpm

Prerequisites

- **amsd only supported on HPE Gen10 Servers.**
- **amsd provides information to the iLO 5 service providing SNMP support.**
- **SNMP PASS-THRU on the iLO 5 MUST be disabled, and SNMP should be configured on the iLO 5. The iLO 5 may need to be reset after changing these settings.**
- **Requirements:**
  - Minimum iLO 5 Firmware Version = 1.1
  - Minimum supported OS Versions = SuSE Linux Enterprise Server 12 SP2

Fixes

Fixed the following items:

- addressed segfaults seen in the ahslog
- amsd no longer segfaults when a NIC virtual function is created
- addressed an occasional segfault/system hang/NMI with amsd
- added support for the HPE Smart Array P824i-p storage controller in MRSA and Storcli
- Corrected the cpqFcaHostCntlrFirmwareVersion for the HPE Synergy 5830C 32Gb FC Host Bus Adapter

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Agentless Management Service (iLO 5) for SUSE Linux Enterprise Server 15
Version: 1.4.2 **(Optional)**
Filename: amsd-1.4.2-1166.3.sles15.x86_64.compsig; amsd-1.4.2-1166.3.sles15.x86_64.rpm

Prerequisites

- **amsd only supported on HPE Gen10 Servers.**
- **amsd provides information to the iLO 5 service providing SNMP support.**
- **SNMP PASS-THRU on the iLO 5 MUST be disabled, and SNMP should be configured on the iLO 5. The iLO 5 may need to be reset after changing these settings.**
- **Requirements:**
  - Minimum iLO 5 Firmware Version = 1.1
  - Minimum supported OS Versions = SuSE Linux Enterprise Server 15

Fixes

Fixed the following items:

- addressed segfaults seen in the ahslog

Agentless Management Service for Windows X64
Version: 1.44.0.0 **(Optional)**
Filename: cp039663.compsig; cp039663.exe

Important Note!

iLO Firmware Version:

- This version of AMS has been tested with iLO 5 firmware version 1.44. It is recommended to install AMS 1.44 on systems with iLO 5 firmware 1.43 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%.

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 the minor memory leak in ams.exe process.
- Fixed the security vulnerability of missing double-quote (") character in ImagePath value of AMS service in the registry.

HPE Insight Management Agents for Windows Server x64 Editions
Version: 11.0.0.0 **(Optional)**
Filename: cp037536.exe

Prerequisites

The HPE Insight Management Agents require the SNMP Service , HPE ProLiant iLO 3/4 Channel Interface and Management Controller Drivers for Windows x64 to be installed prior to this component.

In addition, the System Management Homepage (SMH) component is required for a single server web-based user interface.

Fixes

The following items are fixed in this release:

- Agents display incorrect Windows OS name on System Management Homepage (SMH).

HPE Insight Management WBEM Providers for Windows Server x64 Editions
Version: 10.75.0.0 **(Optional)**
Filename: cp037689.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

Fixed the incorrect System Management Homepage red icon status of Smart Array controllers, if the controller has logical drive(s) created with HPE Smart Storage Administrator version later than 3.10.3.0.

HPE MegaRAID Storage Administrator (HPE MRSA) for Linux 64-bit
Version: 3.113.0.0 **(Optional)**
Filename: HPE_Linux_64_readme.txt; MRStorageAdministrator-003.113.000.000-00.x86_64.rpm; MRStorageAdministrator-003.113.000.000-00.x86_64_part1.compsig; MRStorageAdministrator-003.113.000.000-00.x86_64_part2.compsig; MRStorageAdministrator-003.113.000.000-00.x86_64_part3.compsig; MRStorageAdministrator-003.113.000.000-00.x86_64_part4.compsig

Important Note!

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Prerequisites

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Enhancements

- Initial Release

HPE MegaRAID Storage Administrator (HPE MRSA) for Windows 64-bit
Version: 3.113.0.0 **(Optional)**
Filename: cp036916.exe; cp036916_part1.compsig; cp036916_part2.compsig; cp036916_part3.compsig; cp036916_part4.compsig

Enhancements

Initial Release

HPE MegaRAID Storage Administrator StorCLI for Linux 64-bit
Version: 1.25.12 **(Optional)**
Filename: LINUX_Readme.txt; storcli-1.25.12-1.noarch.compsig; storcli-1.25.12-1.noarch.rpm

Enhancements

- Added support for the Apollo 4510 system

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

Enhancements

- Added support for the Apollo 4510 system

HPE MegaRAID Storage Administrator StorCLI for VMware
Version: 1.25.12 **(Recommended)**
Filename: storcli-esxi6.5-bundle-1.25.12.zip

Enhancements

Initial release

HPE MegaRAID Storage Administrator StorCLI for VMware
Version: 1.25.12 **(Optional)**
Filename: storcli-esxi6.0-bundle-1.25.12.zip

Enhancements

Initial release

HPE MegaRAID Storage Administrator StorCLI for VMware
Version: 1.25.12 **(Recommended)**
Filename: storcli-esxi6.7-bundle-1.25.12.zip

Enhancements

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

HPE MegaRAID Storage Administrator StorCLI for Windows 64-bit
Version: 1.25.12.0 **(Optional)**
Filename: cp036918.compsig; cp036918.exe

Enhancements

- Added support for the Apollo 4510 system

HPE Offline Bundle for ESXi 6.0
Version: 3.4.5 **(Recommended)**
Filename: esxi6.0uX-mgmt-bundle-3.4.5-8.zip

Fixes

Agentless Management Service

- Fixed issue with AMS filling up tmp and causing VUM updates to Fail (https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00073323en_us)
- Fixed issue with read spikes seen in Gen9 hosts every 5 minutes

Enhancements

Agentless Management Service

- Added support for HPE Ethernet 10Gb 2-port 524SFP+ Adapter and HPE Ethernet 10Gb 2-port 548SFP+ Adapter

Supported Devices and Features

VMware vSphere version support:

- VMware vSphere 6.0 U2
- VMware vSphere 6.0 U3

HPE Offline Bundle for ESXi 6.5

Version: 3.4.5 **(Recommended)**
Filename: esxi6.5uX-mgmt-bundle-3.4.5-8.zip

Fixes

Agentless Management Service

- Fixed issue with AMS filling up tmp and causing VUM updates to Fail (https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00073323en_us)
- Fixed issue with read spikes seen in Gen9 hosts every 5 minutes

Enhancements

Agentless Management Service

- Added support for HPE Ethernet 10Gb 2-port 524SFP+ Adapter and HPE Ethernet 10Gb 2-port 548SFP+ Adapter

Supported Devices and Features

VMware vSphere version support:

- VMware vSphere 6.5 U2
- VMware vSphere 6.5 U3

HPE Offline Bundle for ESXi 6.7
Version: 3.4.5 **(Recommended)**
Filename: esxi6.7uX-mgmt-bundle-3.4.5-8.zip

Fixes

Agentless Management Service

- Fixed issue with AMS filling up tmp and causing VUM updates to Fail (https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00073323en_us)
- Fixed issue with read spikes seen in Gen9 hosts every 5 minutes

Enhancements

Agentless Management Service

- Added support for HPE Ethernet 10Gb 2-port 524SFP+ Adapter and HPE Ethernet 10Gb 2-port 548SFP+ Adapter

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HPE ProLiant Agentless Management Service for HPE Apollo, ProLiant and Synergy Gen9 servers
Version: 10.96.0.0 **(Optional)**
Filename: cp039504.exe

Important Note!

iLO Firmware Version:

- This version of AMS has been tested with iLO 4 firmware version 2.70. It is recommended to install AMS 10.96 on system with iLO 4 firmware 2.70.

Prerequisites

The *HPE ProLiant iLO 3/4 Channel Interface Driver for Windows X64* (version 3.4.0.0 or later) must be installed prior to this component.

Fixes

- Fixed the security vulnerability on the missing double quote characters in service binary path entry in registry.
- Fixed the minor memory leak when reading data from WMI (Windows Management Instrumentation).

HPE ProLiant Agentless Management Service for Red Hat Enterprise Linux 6 (AMD64/EM64T)
Version: 2.9.1 **(Optional)**
Filename: hp-ams-2.9.1-843.15.rhel6.x86_64.rpm

Prerequisites

- **hp-ams supported on HP ProLiant Gen8 and Gen9 Servers.**
- **hp-ams provides information to the HP iLO 4 service providing SNMP support.**
- **SNMP PASS-THRU on the HP iLO 4 MUST be disabled, and SNMP should be configured on the HP iLO 4. The HP iLO 4 may need to be reset after changing these settings.**
- **Requirements:**
  - Minimum HP iLO 4 Firmware Version = 1.05
  - Minimum supported OS Versions = Red Hat Enterprise Linux 5.6, Red Hat Enterprise Linux 6.0, Red Hat Enterprise Linux 7.0, Red Hat Enterprise Linux 8.0, SUSE Linux Enterprise Server 10 SP4, SUSE Linux Enterprise Server 11 SP1, SUSE Linux Enterprise Server 12, SUSE Linux Enterprise Server 15

Fixes

Fixed the following issues:

- amsHelper no longer segfaults when a NIC virtual function is created
- addressed an occasional segfault/system hang/NMI with amsHelper
- added support for the HPE Smart Array P824i-p storage controller in MRSA and Storcli

HPE ProLiant Agentless Management Service for Red Hat Enterprise Linux 7 Server
Version: 2.9.1 **(Optional)**
Filename: hp-ams-2.9.1-843.15.rhel7.x86_64.rpm

Prerequisites

- **hp-ams supported on HP ProLiant Gen8 and Gen9 Servers.**
- **hp-ams provides information to the HP iLO 4 service providing SNMP support.**
- **SNMP PASS-THRU on the HP iLO 4 MUST be disabled, and SNMP should be configured on the HP iLO 4. The HP iLO 4 may need to be reset after changing these settings.**
- **Requirements:**
  - Minimum HP iLO 4 Firmware Version = 1.05
  - Minimum supported OS Versions = Red Hat Enterprise Linux 5.6, Red Hat Enterprise Linux 6.0, Red Hat Enterprise Linux 7.0, Red Hat Enterprise Linux 8.0, SUSE Linux Enterprise Server 10 SP4, SUSE Linux Enterprise Server 11 SP1, SUSE Linux Enterprise Server 12, SUSE Linux Enterprise Server 15

Fixes

Fixed the following issues:

- amsHelper no longer segfaults when a NIC virtual function is created
- addressed an occasional segfault/system hang/NMI with amsHelper
- added support for the HPE Smart Array P824i-p storage controller in MRSA and Storcli

Enhancements

Enhancements:

- Support for Red Hat Enterprise Linux 7.7

HPE ProLiant Agentless Management Service for Red Hat Enterprise Linux 8 Server
Version: 2.9.1 **(Optional)**
Filename: hp-ams-2.9.1-842.8.rhel8.x86_64.rpm

Prerequisites

- **hp-ams supported on HP ProLiant Gen8 and Gen9 Servers.**
- **hp-ams provides information to the HP iLO 4 service providing SNMP support.**
- **SNMP PASS-THRU on the HP iLO 4 MUST be disabled, and SNMP should be configured on the HP iLO 4. The HP iLO 4 may need to be reset after changing these settings.**
- **Requirements:**
  - Minimum HP iLO 4 Firmware Version = 1.05
  - Minimum supported OS Versions = Red Hat Enterprise Linux 8

Fixes

Initial support for Red Hat Enterprise Linux 8 Server

HPE ProLiant Agentless Management Service for SUSE LINUX Enterprise Server 12
Version: 2.9.1 **(Optional)**
Filename: hp-ams-2.9.1-843.16.sles12.x86_64.rpm

Prerequisites

- **hp-ams supported on HP ProLiant Gen8 and Gen9 Servers.**
- **hp-ams provides information to the HP iLO 4 service providing SNMP support.**
- **SNMP PASS-THRU on the HP iLO 4 MUST be disabled, and SNMP should be configured on the HP iLO 4. The HP iLO 4 may need to be reset after changing these settings.**
- **Requirements:**
  - Minimum HP iLO 4 Firmware Version = 1.05
  - Minimum supported OS Versions = Red Hat Enterprise Linux 5.6, Red Hat Enterprise Linux 6.0, Red Hat Enterprise Linux 7.0, Red Hat Enterprise Linux 8.0, SUSE Linux Enterprise Server 10 SP4, SUSE Linux Enterprise Server 11 SP1, SUSE Linux Enterprise Server 12, SUSE Linux Enterprise Server 15

Fixes

Fixed the following issues:

- amsHelper no longer segfaults when a NIC virtual function is created
- addressed an occasional segfault/system hang/NMI with amsHelper
- added support for the HPE Smart Array P824i-p storage controller in MRSA and Storcli

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HPE ProLiant Agentless Management Service for SUSE LINUX Enterprise Server 15
Version: 2.9.1 **(Optional)**
Filename: hp-ams-2.9.1-842.14.sles15.x86_64.rpm

Prerequisites

- **hp-ams supported on HP ProLiant Gen8 and Gen9 Servers.**
- **hp-ams provides information to the HP iLO 4 service providing SNMP support.**
- **SNMP PASS-THRU on the HP iLO 4 MUST be disabled, and SNMP should be configured on the HP iLO 4. The HP iLO 4 may need to be reset after changing these settings.**

- **Requirements:**
  - Minimum HP iLO 4 Firmware Version = 1.05
  - Minimum supported OS Versions = Red Hat Enterprise Linux 5.6, Red Hat Enterprise Linux 6.0, Red Hat Enterprise Linux 7.0, SUSE Linux Enterprise Server 10 SP4, SUSE Linux Enterprise Server 11 SP1, SUSE Linux Enterprise Server 12, SUSE Linux Enterprise Server 15

Fixes

Fixed the following issues:

- added support for SLES15 SP1
- amsHelper no longer segfaults when a NIC virtual function is created
- addressed an occasional segfault/system hang/NMI with amsHelper
- added support for the HPE Smart Array P824i-p storage controller in MRSA and Storcli

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HPE Smart Storage Administrator (HPE SSA) CLI for Linux 64-bit
Version: 3.47.6.0 **(Optional)**
Filename: ssacli-3.47-6.0.x86_64.compsig; ssacli-3.47-6.0.x86_64.rpm; ssacli-3.47-6.0.x86_64.txt

Important Note!

HPE SSACLI will allow you to configure and manage your storage as before, but now with additional features, abilities, and supported devices. Existing ACUCLI scripts should only need to make minimal changes such as calling the appropriate binary or executable in order to maintain compatibility.

Enhancements

Supports RHEL 8.0

HPE Smart Storage Administrator (HPE SSA) CLI for VMware 6.0
Version: 3.47.6.0 **(Optional)**
Filename: ssacli-3.47.6.0-6.0.0.vib

Enhancements

Added support for SSD WearGauge reporting for NVMe drives.

HPE Smart Storage Administrator (HPE SSA) CLI for VMware 6.5
Version: 3.47.6.0 **(Optional)**
Filename: ssacli-3.47.6.0-6.5.0.vib

Enhancements

Added support for SSD WearGauge reporting for NVMe drives.

HPE Smart Storage Administrator (HPE SSA) CLI for VMware 6.7
Version: 3.47.6.0 **(Optional)**
Filename: ssacli-3.47.6.0-6.7.0.vib

Enhancements

Added support for SSD WearGauge reporting for NVMe drives.

HPE Smart Storage Administrator (HPE SSA) CLI for Windows 64-bit
Version: 3.47.6.0 **(Optional)**
Filename: cp038945.compsig; cp038945.exe

Important Note!

HPE SSACLI will allow you to configure and manage your storage as before, but now with additional features, abilities, and supported devices. Existing ACUCLI scripts should only need to make minimal changes such as calling the appropriate binary or executable in order to maintain compatibility.

Enhancements

Added support for SSD WearGauge reporting for NVMe drives.

HPE Smart Storage Administrator (HPE SSA) for Linux 64-bit
Version: 3.47.6.0 **(Optional)**
Filename: ssa-3.47-6.0.x86_64.compsig; ssa-3.47-6.0.x86_64.rpm; ssa-3.47-6.0.x86_64.txt

Important Note!

HPE SSA replaces the existing HP Array Configuration Utility, or ACU, with an updated design and will deliver new features and functionality for various Smart Storage initiatives as they come online. HPE Smart Array Advanced Pack 1.0 and 2.0 features are now part of the baseline features of HPE SSA, with the appropriate firmware.

HPE SSA will allow you to configure and manage your storage as before, but now with additional features, abilities, and supported devices. Existing ACU scripts should only need to make minimal changes such as calling the appropriate binary or executable in order to maintain compatibility.

Prerequisites

The HPE Smart Storage Administrator for Linux requires the HPE System Management Homepage software to be installed on the server. If the HPE System Management Homepage software is not already installed on your server, please download it from HPE.com and install it before installing the HPE Smart Storage Administrator for Linux.

IMPORTANT UPDATE: HPE SSA (GUI) for Linux can now be run without requiring the HPE System Management Homepage. HPE SSA now supports a Local Application Mode for Linux. The HPE System Management Homepage is still supported, but no longer required to run the HPE SSA GUI.

To invoke, enter the following at the command prompt:

ssa -local

The command will start HP SSA in a new Firefox browser window. When the browser window is closed, HP SSA will automatically stop. This is only valid for the loopback interface, and not visible to external network connections.

Enhancements

Supports RHEL 8.0

HPE Smart Storage Administrator (HPE SSA) for Windows 64-bit
Version: 3.47.6.0 **(Optional)**
Filename: cp038944.compsig; cp038944.exe

Important Note!

HPE SSA replaces the existing HP Array Configuration Utility, or ACU, with an updated design and will deliver new features and functionality for various Smart Storage initiatives as they come online. HPE Smart Array Advanced Pack 1.0 and 2.0 features are now part of the baseline features of HPE SSA, with the appropriate firmware.

HPE SSA will allow you to configure and manage your storage as before, but now with additional features, abilities, and supported devices. Existing ACU scripts should only need to make minimal changes such as calling the appropriate binary or executable in order to maintain compatibility.

Enhancements

Added support for SSD WearGauge reporting for NVMe drives.

HPE Smart Storage Administrator Diagnostic Utility (HPE SSADU) CLI for Linux 64-bit
Version: 3.47.6.0 **(Optional)**
Filename: ssaducli-3.47-6.0.x86_64.compsig; ssaducli-3.47-6.0.x86_64.rpm; ssaducli-3.47-6.0.x86_64.txt

Important Note!

This stand alone version of the HPE Smart Storage Administrator's Diagnostic feature is available only in CLI form. For the GUI version of Diagnostic reports, please use HPE Smart Storage Administrator (HPE SSA).

Enhancements

Supports RHEL 8.0

HPE Smart Storage Administrator Diagnostic Utility (HPE SSADU) CLI for Windows 64-bit
Version: 3.47.6.0 **(Optional)**
Filename: cp038946.compsig; cp038946.exe

Important Note!

This stand alone version of the HPE Smart Storage Administrator's Diagnostic feature is available only in CLI form. For the GUI version of Diagnostic reports, please use HPE Smart Storage Administrator (HPE SSA).

Enhancements

Added support for SSD WearGauge reporting for NVMe drives.

HPE SNMP Agents for Red Hat Enterprise Linux 6 (AMD64/EM64T)
Version: 10.8.0 **(Optional)**
Filename: hp-snmp-agents-10.80-2965.21.rhel6.x86_64.rpm

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-snmp-agents type:

rpm –qp –-requires hp-snmp-agents-<version>.rpm

Fixes

Fixed the following items:
Enabled additional debugging information for the storage agents debuginfo rpm

HPE SNMP Agents for Red Hat Enterprise Linux 7 Server
Version: 10.8.0 **(Optional)**
Filename: hp-snmp-agents-10.80-2965.21.rhel7.x86_64.rpm

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-snmp-agents type:

rpm –qp –-requires hp-snmp-agents-<version>.rpm

Fixes

Fixed the following items:
Enabled additional debugging information for the storage agents debuginfo rpm

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HPE SNMP Agents for Red Hat Enterprise Linux 8 Server
Version: 10.8.1 **(Optional)**
Filename: hp-snmp-agents-10.81-2988.7.rhel8.x86_64.rpm

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-snmp-agents type:

rpm –qp –-requires hp-snmp-agents-<version>.rpm

Fixes

Initial support for Red Hat Enterprise Linux 8 Server

HPE SNMP Agents for SUSE LINUX Enterprise Server 12
Version: 10.8.0 **(Optional)**
Filename: hp-snmp-agents-10.80-2965.22.sles12.x86_64.rpm

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-snmp-agents type:

rpm –qp –-requires hp-snmp-agents-<version>.rpm

Fixes

Fixed the following items:
Enabled additional debugging information for the storage agents debuginfo rpm

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HPE SNMP Agents for SUSE LINUX Enterprise Server 15
Version: 10.8.1 (a) **(Optional)**
Filename: hp-snmp-agents-10.81-2972.1.sles15.x86_64.rpm

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-snmp-agents type:

rpm –qp –-requires hp-snmp-agents-<version>.rpm

Fixes

Fixed the following items:

- Addressed metadata issue where the Operating System name was not showing SUSE Linux Enterprise Server 15 in the XML

Enhancements

Initial release.

HPE System Health Application and Command Line Utilities for Red Hat Enterprise Linux 6 (AMD64/EM64T)
Version: 10.9.0 **(Optional)**
Filename: hp-health-10.90-1873.17.rhel6.x86_64.rpm

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-health, type:

rpm –qp –requires hp-health-< version >.rpm

Fixes

Fixed the following items:

- Modified the loop initial values in hpasmcli from 2 to 0.
- Modifications to check the read and write variables to match RBSU in Legacy and UEFI mode
- Updated the hpasmcli check string to correctly report the impitool information.
- Remove the redundant serial embedded and com ports
- Addressed IML message size limitation from 36 to 212 bytes
- Support for hp-health in OS security boot
- Added supporting “quote mark” in SET NAME command
- Enabled to set PXE as boot first

HPE System Health Application and Command Line Utilities for Red Hat Enterprise Linux 7 Server
Version: 10.9.0 **(Optional)**
Filename: hp-health-10.90-1873.8.rhel7.x86_64.rpm

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-health, type:

rpm –qp –requires hp-health-< version >.rpm

Fixes

Fixed the following items:

- Modified the loop initial values in hpasmcli from 2 to 0.
- Modifications to check the read and write variables to match RBSU in Legacy and UEFI mode
- Updated the hpasmcli check string to correctly report the impitool information.
- Remove the redundant serial embedded and com ports
- Addressed IML message size limitation from 36 to 212 bytes
- Support for hp-health in OS security boot
- Added supporting “quote mark” in SET NAME command
- Enabled to set PXE as boot first

HPE System Health Application and Command Line Utilities for Red Hat Enterprise Linux 8 Server
Version: 10.9.1 **(Optional)**
Filename: hp-health-10.91-1878.11.rhel8.x86_64.rpm

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-health, type:

rpm –qp –requires hp-health-< version >.rpm

Fixes

Initial support for Red Hat Enterprise Linux 8 Server

HPE System Health Application and Command Line Utilities for SUSE LINUX Enterprise Server 12
Version: 10.9.0 **(Optional)**
Filename: hp-health-10.90-1873.3.sles12.x86_64.rpm

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-health, type:

rpm –qp –requires hp-health-< version >.rpm

Fixes

Fixed the following items:

- Modified the loop initial values in hpasmcli from 2 to 0.
- Modifications to check the read and write variables to match RBSU in Legacy and UEFI mode
- Updated the hpasmcli check string to correctly report the impitool information.
- Remove the redundant serial embedded and com ports
- Addressed IML message size limitation from 36 to 212 bytes

Support for hp-health in OS security boot
- Added supporting “quote mark” in SET NAME command
- Enabled to set PXE as boot first

HPE System Health Application and Command Line Utilities for SUSE LINUX Enterprise Server 15
Version: 10.9.0 **(Optional)**
Filename: hp-health-10.90-1860.5.sles15.x86_64.rpm

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-health, type:

rpm –qp –requires hp-health-< version >.rpm

Fixes

Fixed the following items:

- Modified the loop initial values in hpasmcli from 2 to 0.
- Modifications to check the read and write variables to match RBSU in Legacy and UEFI mode
- Updated the hpasmcli check string to correctly report the impitool information.
- Remove the redundant serial embedded and com ports
- Addressed IML message size limitation from 36 to 212 bytes
- Support for hp-health in OS security boot
- Added supporting “quote mark” in SET NAME command
- Enabled to set PXE as boot first

HPE System Management Homepage for Linux (AMD64/EM64T)
Version: 7.6.5-3 **(Recommended)**
Filename: hpsmh-7.6.5-3.x86_64.rpm

Important Note!

SMH 7.6.0 & later versions, will support only Gen8 and Gen9 servers. Any future patch releases could be available, only on SMH web page. Please refer to HPE SMH Release Notes

Precautions for the user on Linux OS:

- Do not provide login access to the “hpsmh” user (created during installation) by editing the /etc/passwd file or any other means
- Do not add any user to the “hpsmh” group (created during installation)

Prerequisites

Before installing the SMH software, the RPM verifies that the required versions of Linux library dependencies are present. If any dependencies are not present, then a list of the missing dependencies is provided. The user must manually install all missing dependencies to satisfy the prerequisites before proceeding with the RPM installation.

Fixes

New OS Support

- RHEL 8
- SLES15 SP1

HPE System Management Homepage for Windows x64
Version: 7.6.3.3 **(Recommended)**
Filename: cp034022.exe

Important Note!

SMH 7.6.0 & later versions, will support only Gen 8 and Gen 9 servers. Any future patch releases could be available, only on SMH web page. Please refer to HPE SMH Release Notes

Enhancements

Updated the following components:

- PHP to version 5.6.30
- Zlib to version 1.2.11
- Libxslt to version 1.1.32
- PCRE to version 8.41

HPE System Management Homepage Templates for Linux
Version: 10.8.1 **(Optional)**
Filename: hp-smh-templates-10.8.1-1487.3.noarch.rpm

Prerequisites

The **hp-smh-templates** RPM install will fail, if all dependencies are not installed. The administrator can verify the list of dependencies required by running this command. If the repositories being used by yum or zypper, includes these dependencies, the installation tool will automatically retrieve them. However if they are not present, the user must manually install them prior to proceeding with the RPM install.

To get the list of all dependency files for hp-smh-templates type:

rpm –qp –-requires hp-smh-templates-<version>.rpm

Fixes

Initial support for Red Hat Enterprise Linux 8 Server

HPE Utilities Offline Bundle for ESXi 6.0
Version: 3.4.5 **(Recommended)**
Filename: esxi6.0-util-bundle-3.4.5-9.zip

Important Note!

Refer to the HPE VMware Utilities Guide for VMware vSphere 6.0 U3 which is located at HPE Information Library.

Enhancements

Updated the Smart Storage Administrator CLI (SSACLI)

HPE Utilities Offline Bundle for ESXi 6.5
Version: 3.4.5 **(Recommended)**
Filename: esxi6.5-util-bundle-3.4.5-8.zip

Important Note!

Refer to the HPE VMware Utilities Guide for VMware vSphere 6.5 U3 which is located at HPE Information Library.

Enhancements

Updated the Smart Storage Administrator CLI (SSACLI)

HPE Utilities Offline Bundle for ESXi 6.7
Version: 3.4.5 **(Recommended)**
Filename: esxi6.7-util-bundle-3.4.5-9.zip

Important Note!

Refer to the HPE VMware Utilities Guide for VMware vSphere for 6.7 U3 which is located at HPE Information Library.

Enhancements

Updated the Smart Storage Administrator CLI (SSACLI)

Integrated Smart Update Tools for VMware ESXi 6.0
Version: 2.4.5.0 **(Recommended)**
Filename: sut-esxi6.0-offline-bundle-2.4.5.0-16.zip

Important Note!

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

Fixes

See the iSUT Release Notes for information about the issues resolved in this release

Enhancements

See the iSUT Release Notes for information about the issues resolved in this release

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Integrated Smart Update Tools for VMware ESXi 6.5 (Gen10 Snap3)
Version: 2.4.5.0 **(Recommended)**
Filename: sut-esxi6.5-offline-bundle-2.4.5.0-17.zip

Important Note!

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

Fixes

QXCR1001693797 – SLES 15 mount issue

Version related changes
QXCR1001690819 OV 5.0 UEFI installable components in pending state on Gen10 blades.
Localization change and allow that to update
2.4.0.1 Linux offline related changes
CPQSTUB - refresh for Sep SPP
Testing support for RHEL8
Samsung issue pull back from 2.5.0

Integrated Smart Update Tools for VMware ESXi 6.7 (Gen10 Snap4)
Version: 2.4.5.0 **(Recommended)**
Filename: sut-esxi6.7-offline-bundle-2.4.5.0-16.zip

Important Note!

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

Fixes

See the iSUT Release Notes for information about the issues resolved in this release

Enhancements

Updated from 2.3.6

NVMe Drive Eject NMI Fix for Intel Xeon Processor Scalable Family for Windows
Version: 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

NVMe Drive Eject NMI Fix for Intel Xeon v3 and Xeon v4 Processors for Windows Server 2012 R2 to Server 2019
Version: 1.0.5.0 (C) **(Optional)**
Filename: cp035799.exe

Enhancements

Add support for Windows Server 2019.
