2015.10.0 SPP Component Notes

**BIOS - System ROM**
**Driver - Chipset**
**Driver - Lights-Out Management**
**Driver - Network**
**Driver - Storage**
**Driver - Storage Controller**
**Driver - Storage Fibre Channel**
**Driver - Storage Tape**
**Driver - System Management**
**Driver - USB**
**Driver - Video**
**Firmware - Blade Infrastructure**
**Firmware - Lights-Out Management**
**Firmware - Network**
**Firmware - Power Management**
**Firmware - SAS Storage Disk**
**Firmware - SATA Storage Disk**
**Firmware - Storage Controller**
**Firmware - Storage Fibre Channel**
**Firmware - Storage Tape**
**Software - Lights-Out Management**
**Software - Network**
**Software - Storage Controller**
**Software - Storage Fibre Channel**
**Software - Storage Fibre Channel HBA**
**Software - System Management**

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**BIOS - System ROM**

**Online ROM Flash Component for Linux - HP Apollo 4200 Gen9 (U19) Servers**

Version: 1.50_07-20-2015 *(Recommended)*

Filename: RPMS/i386/hp-firmware-system-u19-1.50_07_20_2015-1.1.i386.rpm

**Important Note**

**Important Notes:**

None

**Deliverable Name:**

HP Apollo 4200 Gen9 System ROM - U19

© 2015 Hewlett-Packard Development Company, L.P.
Release Version:
1.50_07-20-2015

Last Recommended or Critical Revision:
1.50_07-20-2015

Previous Revision:
1.40_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.
Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Prerequisites**

None

**Fixes**

**Important Notes:**
Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.
Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for Linux - HP ProLiant BL280c G6 (I22) Servers**

Version: 2013.07.02 (Critical)
Filename: CP021101.scexe

**Important Note!**

**Important Notes:**

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

© 2015 Hewlett-Packard Development Company, L.P.
Deliverable Name:

HP ProLiant BL280c G6 System ROM - I22

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a
result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:


**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.
Known Issues:
None

Online ROM Flash Component for Linux - HP ProLiant BL2x220c G6 (I26) Servers
Version: 2013.07.02 (Critical)
Filename: CP021284.scexe

Important Note!

Important Notes:
Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Deliverable Name:
HP ProLiant BL2x220c G6 System ROM - I26

Release Date:
07/02/2013

Last Recommended or Critical Revision:
07/02/2013

Previous Revision:
05/05/2011

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other
unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:
None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:
None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and
could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

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**Online ROM Flash Component for Linux - HP ProLiant BL2x220c G7 (I29) Servers**

Version: 2013.07.02 *(Critical)*  
Filename: CP021111.scexe

**Important Note!**

**Important Notes:**

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

**Deliverable Name:**

HP ProLiant BL2x220c G7 System ROM - I29

**Release Date:**

07/02/2013

**Last Recommended or Critical Revision:**
07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. This revision of the System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors.

This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP
Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:
None

Problems Fixed:
Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:
None

Online ROM Flash Component for Linux - HP ProLiant BL420c Gen8 (I30) Servers
Version: 2014.11.03 (B) (Optional)
Filename: RPMS/i386/hp-firmware-system-i30-2014.11.03-2.i386.rpm

Important Note!

Important Notes:
Ver. 2014.11.03 (B) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.11.03. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.03.

**Deliverable Name:**

HP ProLiant BL420c Gen8 System ROM - I30

**Release Version:**

11/03/2014

**Last Recommended or Critical Revision:**

09/01/2014

**Previous Revision:**

09/01/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to properly configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Ver. 2014.11.03 (B) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.11.03. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.03.

**Firmware Dependencies:**
Problems Fixed:

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to properly configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL460c G6/WS460c G6 (I24) Servers
Version: 2015.01.22 (Recommended)
Filename: RPMS/i386/hp-firmware-system-i24-2015.01.22-1.1.i386.rpm

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Deliverable Name:

HP ProLiant BL460c G6 and WS460c G6 System ROM - I24

Release Date:

01/22/2015

Last Recommended or Critical Revision:

01/22/2015

Previous Revision:

10/01/2013

Firmware Dependencies:

None
Enhancements/New Features:

None

Problems Fixed:

Eliminate the "row hammer" issue when susceptible DIMMs have been installed in the server. This BIOS update will program the memory controller for 2x memory refresh which prevents the "row hammer" issue that could result in correctable or uncorrectable memory errors.

Known Issues:

None

Firmware Dependencies:

None

Problems Fixed:

Eliminate the "row hammer" issue when susceptible DIMMs have been installed in the server. This BIOS update will program the memory controller for 2x memory refresh which prevents the "row hammer" issue that could result in correctable or uncorrectable memory errors.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL460c G7 (127) Servers
Version: 2013.07.02 (C) (Critical)
Filename: RPPMS/i386/hp-firmware-system-i27-2013.07.02-3.i386.rpm

Important Notes:
Ver. 2013.07.02 (C) contains a documentation update only and is functionally equivalent to ver. 2013.07.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2013.07.02.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:
HP ProLiant BL460c G7 System ROM - I27

Release Date:
07/02/2013

Last Recommended or Critical Revision:
07/02/2013

Previous Revision:
12/03/2012

Firmware Dependencies:
None

Enhancements/New Features:
None.

Problems Fixed:
Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.
Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Ver. 2013.07.02 (C) contains a documentation update only and is functionally equivalent to ver. 2013.07.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2013.07.02.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:


**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.
Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL460c Gen9/WS460c Gen9 (136) Servers
Version: 1.40_05-06-2015 (Optional)
Filename: RPMS/i386/hp-firmware-system-i36-1.40_05_06_2015-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL460c Gen9/WS460c Gen9 System ROM - I36

Release Version:

1.40_05-06-2015

Last Recommended or Critical Revision:

1.33_04-03-2015

Previous Revision:

1.33_04-03-2015

Firmware Dependencies:

None
Enhancements/New Features:

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInititiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

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

Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This
change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.

Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.

Enhanced the System Utilities System Information and the Embedded UEFI Shell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

Reduced boot time when the Dynamic Smart Array B140i RAID is enabled.

Added a new Server Availability BIOS/Platform Configuration (RBSU) Automatic Power On configuration option setting. This option allows the user to configure the power on policy of the server when power is first applied. The options are Enabled to allow the server to automatically power on when first installed into the enclosure or Disabled to allow the server to remain powered off when first installed into the enclosure.

**Problems Fixed:**

Addressed an issue where the platform may become unresponsive during system boot when the server is configured for Legacy Boot Mode and the USB Boot Support has been disabled.

Addressed an issue where the Intel NIC DMA Channels (IOAT) option could not be properly be configured from the Embedded UEFI Shell via the Sysconfig command.

Addressed an issue where the +/- keys in the BIOS/Platform Configuration (RBSU) Boot Options menu were not functioning properly when configuring the server through a BIOS Serial Console Session.

Addressed an issue where the fwupdate Embedded UEFI Shell command and the Firmware Update pre-boot application could hang during a firmware update and not successfully flash the device.

Addressed an issue where the server may fail to boot properly to a Windows Deployment Server (WDS) when configured for IPv6 network boot mode.

Addressed an issue where an optional PCIe adapter's legacy Expansion ROM may not run properly or the Expansion ROM's Setup Utility may not run properly when the server is configured for Legacy Boot Mode. This issue was seen with a Seagate storage adapter but may impact other devices.

Addressed an issue where the Administrator Password would not be properly configured from the Embedded UEFI Shell Sysconfig command.
Addressed an issue where a system could become unresponsive when booting to Linux Operating when serial output was enabled from the operating system and the iLO Virtual Serial Port was the only enabled UART.

Addressed various issues with webclient and ftp commands in the Embedded UEFI Shell.

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the system may experience a Linux kernel panic when booting from a SATA optical drive attached to the embedded SATA controller when the SATA controller is configured for Dynamic Smart Array B140i support.

Addressed an issue where the system health LED would remain blinking RED (indicating a failed state) due to a power supply failure after the power supply had been replaced. Once the power supply is replaced, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when a failed power supply is replaced.

Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in. Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.

Addressed an issue where a system may become unresponsive when launching a guest operating system under a Hypervisor operating system such as Citrix or VMware when VT-d is enabled. This issue is NOT unique to HP servers.

Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:
Addressed an issue where the platform may become unresponsive during system boot when the server is configured for Legacy Boot Mode and the USB Boot Support has been disabled.

Addressed an issue where the Intel NIC DMA Channels (IOAT) option could not be properly be configured from the Embedded UEFI Shell via the Sysconfig command.

Addressed an issue where the +/- keys in the BIOS/Platform Configuration (RBSU) Boot Options menu were not functioning properly when configuring the server through a BIOS Serial Console Session.

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Addressed an issue where the Administrator Password would not be properly configured from the Embedded UEFI Shell Sysconfig command.

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Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the system may experience a Linux kernel panic when booting from a SATA optical drive attached to the embedded SATA controller when the SATA controller is configured for Dynamic Smart Array B140i support.

Addressed an issue where the system health LED would remain blinking RED (indicating a failed state) due to a power supply failure after the power supply had been replaced. Once the power supply is replaced, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when a failed power supply is replaced.

Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in. Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.
Addressed an issue where a system may become unresponsive when launching a guest operating system under a Hypervisor operating system such as Citrix or VMware when VT-d is enabled. This issue is NOT unique to HP servers.

Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

**Known Issues:**

None

**Enhancements**

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInititiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

Updated the HP RESTful API HP BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.
Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.

Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.

Enhanced the System Utilities System Information and the Embedded UEFI Shell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

Reduced boot time when the Dynamic Smart Array B140i RAID is enabled.

Added a new Server Availability BIOS/Platform Configuration (RBSU) Automatic Power On configuration option setting. This option allows the user to configure the power on policy of the server when power is first applied. The options are Enabled to allow the server to automatically power on when first installed into the enclosure or Disabled to allow the server to remain powered off when first installed into the enclosure.

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**Online ROM Flash Component for Linux - HP ProLiant BL460c/WS460c Gen8 (i31) Servers**

Version: 2015.06.01 *(Optional)*

Filename: RPMS/i386/hp-firmware-system-i31-2015.06.01-1.1.i386.rpm

**Important Note:**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant BL460c Gen8/WS460c Gen8 System ROM - I31

**Release Version:**

06/01/2015

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Last Recommended or Critical Revision:
12/20/2013

Previous Revision:
04/01/2015

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Addressed an issue where systems configured with the ATI S4000x GPU adapter may experience unexpected shutdowns due to a thermal event.

Known Issues:
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:
Addressed an issue where systems configured with the ATI S4000x GPU adapter may experience unexpected shutdowns due to a thermal event.

Known Issues:
None

Online ROM Flash Component for Linux - HP ProLiant BL465c G7 (A19) Servers
Version: 2014.02.02 (C) (Optional)
Filename: RPMS/i386/hp-firmware-system-a19-2014.02.02-3.i386.rpm
**Important Note**

**Important Notes:**

Ver. 2014.02.02 (C) contains a documentation update only and is functionally equivalent to ver. 2014.02.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.02.02.

**Deliverable Name:**

HP ProLiant BL465c G7 System ROM - A19

**Release Date:**

02/02/2014

**Last Recommended or Critical Revision:**

12/08/2012

**Previous Revision:**

12/08/2012

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Resolved a very rare condition where the system could become unresponsive or unexpectedly reset when running with AMD Opteron 6100 or 6200 processors.

**Known Issues:**

None

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**Fixes**

**Important Notes:**

Ver. 2014.02.02 (C) contains a documentation update only and is functionally equivalent to ver. 2014.02.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.02.02.
**Firmware Dependencies:**

None

**Problems Fixed:**

Resolved a very rare condition where the system could become unresponsive or unexpectedly reset when running with AMD Opteron 6100 or 6200 processors.

**Known Issues:**

None

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**Online ROM Flash Component for Linux - HP ProLiant BL465c Gen8 (A26) Servers**

Version: 2014.11.02 (B) *(Optional)*
Filename: RPMs/i386/hp-firmware-system-a26-2014.11.02-2.i386.rpm

**Important Note!**

**Important Notes:**

Ver. 2014.11.02 (B) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.11.02. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.02.

**Deliverable Name:**

HP ProLiant BL465c Gen8 System ROM - A26

**Release Version:**

11/02/2014

**Last Recommended or Critical Revision:**

12/17/2012

**Previous Revision:**

09/03/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None
Problems Fixed:

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

Known Issues:

None

Fixes

Important Notes:

Ver. 2014.11.02 (B) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.11.02. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.02.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL490c G6 (121) Servers

Version: 2013.07.02 (Critical)
Filename: CP021351.scexe

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
Deliverable Name:

HP ProLiant BL490 G6 System ROM - I21

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

05/05/2011

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a
result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.
**Known Issues:**

None

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**Online ROM Flash Component for Linux - HP ProLiant BL490c G7 (I28) Servers**

Version: 2013.07.02 (Critical)

Filename: CP021018.scexe

**Important Note!**

**Important Notes:**

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:


**Deliverable Name:**

HP ProLiant BL490c G7 System ROM - I28

**Release Date:**

07/02/2013

**Last Recommended or Critical Revision:**

07/02/2013

**Previous Revision:**

12/03/2012

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None.

**Problems Fixed:**

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other
unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and
could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

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**Online ROM Flash Component for Linux - HP ProLiant BL660c Gen8 (I32) Servers**

Version: 2014.11.02 (Optional)

Filename: RPMS/i386/hp-firmware-system-i32-2014.11.02-2.i386.rpm

**Important Note!**

**Important Notes:**

Ver. 2014.11.02 (B) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.11.02. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.02.

**Deliverable Name:**

HP ProLiant BL660c Gen8 System ROM - I32

**Release Version:**

11/02/2014

**Last Recommended or Critical Revision:**

12/20/2013

**Previous Revision:**
Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

Known Issues:
None

Fixes

Important Notes:

Ver. 2014.11.02 (B) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.11.02. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.02.

Firmware Dependencies:
None

Problems Fixed:
Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

Known Issues:
None

Online ROM Flash Component for Linux - HP ProLiant BL660c Gen9 (I38) Servers
Version: 1.40_05-06-2015 (Optional)
Filename: RPMS/i386/hp-firmware-system-i38-1.40_05_06_2015-1.1.i386.rpm

Important Note!
Important Notes:

None

Deliverable Name:

HP ProLiant BL660c Gen9 System ROM - i38

Release Version:

1.40_05-06-2015

Last Recommended or Critical Revision:

1.30_03-05-2015

Previous Revision:

1.30_03-05-2015

Firmware Dependencies:

None

Enhancements/New Features:

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInititiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.
Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

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

Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.

Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.

Enhanced the System Utilities System Information and the Embedded UEFI Shell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

Reduced boot time when the Dynamic Smart Array B140i RAID is enabled.

Added a new Server Availability BIOS/Platform Configuration (RBSU) Automatic Power On configuration option setting. This option allows the user to configure the power on policy of the server when power is first applied. The options are Enabled to allow the server to automatically power on when first installed into the enclosure or Disabled to allow the server to remain powered off when first installed into the enclosure.

Problems Fixed:

Addressed an issue where the platform may become unresponsive during system boot when the server is configured for Legacy Boot Mode and the USB Boot Support has been disabled.

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Addressed an issue where the Intel NIC DMA Channels (IOAT) option could not be properly be configured from the Embedded UEFI Shell via the Sysconfig command.

Addressed an issue where the +/- keys in the BIOS/Platform Configuration (RBSU) Boot Options menu were not functioning properly when configuring the server through a BIOS Serial Console Session.

Addressed an issue where the fwupdate Embedded UEFI Shell command and the Firmware Update pre-boot application could hang during a firmware update and not successfully flash the device.

Addressed an issue where the server may fail to boot properly to a Windows Deployment Server (WDS) when configured for IPv6 network boot mode.

Addressed an issue where an optional PCIe adapter’s legacy Expansion ROM may not run properly or the Expansion ROM’s Setup Utility may not run properly when the server is configured for Legacy Boot Mode. This issue was seen with a Seagate storage adapter but may impact other devices.

Addressed an issue where the Administrator Password would not be properly configured from the Embedded UEFI Shell Sysconfig command.

Addressed an issue where a system could become unresponsive when booting to Linux Operating when serial output was enabled from the operating system and the iLO Virtual Serial Port was the only enabled UART.

Addressed various issues with webclient and ftp commands in the Embedded UEFI Shell.

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the system may experience a Linux kernel panic when booting from a SATA optical drive attached to the embedded SATA controller when the SATA controller is configured for Dynamic Smart Array B140i support.

Addressed an issue where the system health LED would remain blinking RED (indicating a failed state) due to a power supply failure after the power supply had been replaced. Once the power supply is replaced, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when a failed power supply is replaced.

Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in. Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.

Addressed an issue where a system may become unresponsive when launching a guest operating system under a Hypervisor operating system such as Citrix or VMware when VT-d is enabled. This issue is NOT unique to HP servers.
Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the platform may become unresponsive during system boot when the server is configured for Legacy Boot Mode and the USB Boot Support has been disabled.

Addressed an issue where the Intel NIC DMA Channels (IOAT) option could not be properly be configured from the Embedded UEFI Shell via the Sysconfig command.

Addressed an issue where the +/- keys in the BIOS/Platform Configuration (RBSU) Boot Options menu were not functioning properly when configuring the server through a BIOS Serial Console Session.

Addressed an issue where the fwupdate Embedded UEFI Shell command and the Firmware Update pre-boot application could hang during a firmware update and not successfully flash the device.

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Addressed an issue where an optional PCIe adapter's legacy Expansion ROM may not run properly or the Expansion ROM’s Setup Utility may not run properly when the server is configured for Legacy Boot Mode. This issue was seen with a Seagate storage adapter but may impact other devices.

Addressed an issue where the Administrator Password would not be properly configured from the Embedded UEFI Shell Sysconfig command.

Addressed an issue where a system could become unresponsive when booting to Linux Operating when serial output was enabled from the operating system and the iLO Virtual Serial Port was the only enabled UART.

Addressed various issues with webclient and ftp commands in the Embedded UEFI Shell.

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen
with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the system may experience a Linux kernel panic when booting from a SATA optical drive attached to the embedded SATA controller when the SATA controller is configured for Dynamic Smart Array B140i support.

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Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in. Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.

Addressed an issue where a system may become unresponsive when launching a guest operating system under a Hypervisor operating system such as Citrix or VMware when VT-d is enabled. This issue is NOT unique to HP servers.

Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

Known Issues:

None

Enhancements

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInititiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI
Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

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

Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.

Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.

Enhanced the System Utilities System Information and the Embedded UEFI Shell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

Reduced boot time when the Dynamic Smart Array B140i RAID is enabled.

Added a new Server Availability BIOS/Platform Configuration (RBSU) Automatic Power On configuration option setting. This option allows the user to configure the power on policy of the server when power is first applied. The options are Enabled to allow the server to automatically power on when first installed into the enclosure or Disabled to allow the server to remain powered off when first installed into the enclosure.
Online ROM Flash Component for Linux - HP ProLiant BL680c G7/BL620c G7 (I25) Servers

Version: 2013.07.01 (C) (Critical)
Filename: RPMs/i386/hp-firmware-system-i25-2013.07.01-3.i386.rpm

Important Note!

Important Notes:

Ver. 2013.07.01 (C) contains a documentation update only and is functionally equivalent to ver. 2013.07.01. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2013.07.01.

Deliverable Name:

HP ProLiant BL620c/BL680c G7 System ROM - I25

Release Date:

07/01/2013

Last Recommended or Critical Revision:

07/01/2013

Previous Revision:

04/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.
Known Issues:

None

Fixes

Important Notes:

Ver. 2013.07.01 (C) contains a documentation update only and is functionally equivalent to ver. 2013.07.01. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2013.07.01.

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL685c G6 (A17) Servers

Version: 2011.05.02 (Critical)
Filename: CP015214.scexe

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
Deliverable Name:

HP ProLiant BL685c G6 System ROM - A17

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

12/09/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue where the system may not be able to install an operating system to an iSCSI-based storage solution when using the local DVD drive.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on
the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

**Firmware Dependencies:**

None

**Problems Fixed:**

Resolved an issue where the system may not be able to install an operating system to an iSCSI-based storage solution when using the local DVD drive.

**Known Issues:**

None

**Enhancements**

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

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**Online ROM Flash Component for Linux - HP ProLiant BL685c G7 (A20) Servers**

Version: 2014.09.03 (C) *(Optional)*
Filename: RPMS/i386/hp-firmware-system-a20-2014.09.03-3.i386.rpm

**Important Note!**

**Important Notes:**

Ver. 2014.09.03 (C) contains a documentation update only and is functionally equivalent to ver. 2014.09.03. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.09.03.

**Deliverable Name:**

HP ProLiant BL685c G7 System ROM

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Release Date:
09/03/2014

Last Recommended or Critical Revision:
12/17/2012

Previous Revision:
02/01/2014

Firmware Dependencies:
None

Enhancements/New Features:

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:

None

Fixes

Important Notes:

Ver. 2014.09.03 (C) contains a documentation update only and is functionally equivalent to ver. 2014.09.03. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.09.03.

Firmware Dependencies:

None

Problems Fixed:
Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

**Known Issues:**

None

**Enhancements**

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

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**Online ROM Flash Component for Linux - HP ProLiant DL120 Gen9 (P86) Servers**

Version: 1.50_07-20-2015 *(Recommended)*

Filename: RPMS/i386/hp-firmware-system-p86-1.50_07_20_2015-1.1.i386.rpm

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant DL120 Gen9 System ROM - P86

**Release Version:**

1.50_07-20-2015

**Last Recommended or Critical Revision:**

1.50_07-20-2015

**Previous Revision:**

1.40_05-06-2015

**Firmware Dependencies:**

None

**Enhancements/New Features:**
Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.
Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.
Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may
be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for Linux - HP ProLiant DL160 Gen8 (J03) Servers**

Version: 2014.08.02 (D) (**Recommended**)

Filename: RPMS/i386/hp-firmware-system-j03-2014.08.02-4.i386.rpm

**Important Note:**

**Important Notes:**

This System ROM update is recommended to ensure that the system cooling is operating at maximum efficiency. Ver. 2014.08.02 (D) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2014.08.02. Please refer to the Customer Advisory at [http://h20564.www2.hp.com/hpsc/doc/public/display?docId=emr_na-c04619916](http://h20564.www2.hp.com/hpsc/doc/public/display?docId=emr_na-c04619916) for additional details.

**Deliverable Name:**

HP ProLiant DL160 Gen8 System ROM - J03

**Release Date:**

08/02/2014

**Last Recommended or Critical Revision:**

08/02/2014

**Previous Revision:**

02/10/2014

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Firmware Dependencies:

None

Enhancements/New Features:

Improved the thermal cooling solution, update the System ROM to a version dated 02 August 2014 or later.

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Addressed a rare issue where systems configured with Intel Xeon E5 2600 v2 processors and Registered DIMMs (RDIMMs) in a 2 DIMM per Channel or 3 DIMM per Channel configuration may experience a 207 - Memory Initialization error message where certain DIMMs may not be initialized properly. This issue is seen intermittently after a system reboot.

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Known Issues:

None

Fixes

Important Notes:

This System ROM update is recommended to ensure that the system cooling is operating at maximum efficiency. Ver. 2014.08.02 (D) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2014.08.02. Please refer to the Customer Advisory at http://h20564.www2.hp.com/hpsc/doc/public/display?docId=emr_na-c04619916 for additional details.

Firmware Dependencies:

None

Problems Fixed:

Addressed a rare issue where systems configured with Intel Xeon E5 2600 v2 processors and Registered DIMMs (RDIMMs) in a 2 DIMM per Channel or 3 DIMM per Channel configuration may experience a 207 -
Memory Initialization error message where certain DIMMs may not be initialized properly. This issue is seen intermittently after a system reboot.

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

**Known Issues:**

None

**Enhancements**

Improved the thermal cooling solution, update the System ROM to a version dated 02 August 2014 or later.

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

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**Online ROM Flash Component for Linux - HP ProLiant DL160 Gen9/DL180 Gen9 (U20) Servers**

Version: 1.50_07-20-2015 *(Recommended)*

Filename: RPMs/i386/hp-firmware-system-u20-1.50_07_20_2015-1.1.i386.rpm

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant DL160/DL180 Gen9 System ROM - U20

**Release Version:**

1.50_07-20-2015

**Last Recommended or Critical Revision:**

1.50_07-20-2015

**Previous Revision:**

1.40_05-06-2015

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Firmware Dependencies:

None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.
Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Prerequisites**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that
users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.
**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for Linux - HP ProLiant DL320 G6/ML330 G6 (W07) Servers**

Version: 2013.07.02 *(Critical)*

Filename: CP021238.scexe

**Important Note!**

**Important Notes:**

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:


**Deliverable Name:**

HP ProLiant ML330 G6 and DL320 G6 System ROM - W07

**Release Date:**

07/02/2013
Last Recommended or Critical Revision:
07/02/2013

Previous Revision:
12/02/2012

Firmware Dependencies:
None

Enhancements/New Features:
None.

Problems Fixed:
Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:
None

Fixes
Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL320e Gen8 (J05) Servers
Version: 2013.11.09 (D) (Optional)
Filename: RPMS/i386/hp-firmware-system-j05-2013.11.09-4.i386.rpm

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Important Notes:

Ver. 2013.11.09 (D) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2013.11.09. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2013.11.09.

Deliverable Name:

HP ProLiant DL320e Gen8 System ROM - J05

Release Date:

11/09/2013

Last Recommended or Critical Revision:

08/24/2013

Previous Revision:

08/24/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM’s detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None
Known Issues:

None

Enhancements

Important Notes:

Ver. 2013.11.09 (D) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2013.11.09. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2013.11.09.

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM’s detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None
Deliverable Name:
HP ProLiant DL320e Gen8 v2 System ROM - P80

Release Version:
04/02/2015

Last Recommended or Critical Revision:
03/07/2014

Previous Revision:
03/28/2014

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Addressed an issue with excessively loud fan noise when either SATA AHCI support is enabled in the Embedded SATA Configuration menu in RBSU (ROM-Based Setup Utility) or when Dynamic HP Smart Array B120i RAID Support is enabled in the Embedded SATA Configuration menu in RBSU (ROM-Based Setup Utility) and the Dynamic HP Smart Array B120i RAID operating system driver is not loaded.

Addressed an issue where a system under heavy stress could experience an uncorrectable machine check. This issue is not unique to HP. It is recommended that customers experiencing this issue update to this version of the System ROM before replacing any hardware components.

Known Issues:
None

Fixes

Important Notes:
Ver. 2015.04.02 (B) contains a change to the Firmware RPM install command name from "cpqsetup" to "hpsetup" and is functionally equivalent to ver. 2015.04.02. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2015.04.02.

Firmware Dependencies:
Problems Fixed:

Addressed an issue with excessively loud fan noise when either SATA AHCI support is enabled in the Embedded SATA Configuration menu in RBSU (ROM-Based Setup Utility) or when Dynamic HP Smart Array B120i RAID Support is enabled in the Embedded SATA Configuration menu in RBSU (ROM-Based Setup Utility) and the Dynamic HP Smart Array B120i RAID operating system driver is not loaded.

Addressed an issue where a system under heavy stress could experience an uncorrectable machine check. This issue is not unique to HP. It is recommended that customers experiencing this issue update to this version of the System ROM before replacing any hardware components.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL360 G6 (P64) Servers
Version: 2015.01.22 (Recommended)
Filename: RPMS/i386/hp-firmware-system-p64-2015.01.22-1.1.i386.rpm

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Deliverable Name:

HP ProLiant DL360 G6 System ROM - P64

Release Date:

01/22/2015

Last Recommended or Critical Revision:

01/22/2015

Previous Revision:

07/02/2013
Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Eliminate the "row hammer" issue when susceptible DIMMs have been installed in the server. This BIOS update will program the memory controller for 2x memory refresh which prevents the "row hammer" issue that could result in correctable or uncorrectable memory errors.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:

None

Problems Fixed:

Eliminate the "row hammer" issue when susceptible DIMMs have been installed in the server. This BIOS update will program the memory controller for 2x memory refresh which prevents the "row hammer" issue that could result in correctable or uncorrectable memory errors.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL360 G7 (P68) Servers
Version: 2013.07.02 (C) [Critical]
Filename: RPMS/i386/hp-firmware-system-p68-2013.07.02-3.i386.rpm

Important Note!
Important Notes:

Ver. 2013.07.02 (C) contains a documentation update only and is functionally equivalent to ver. 2013.07.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2013.07.02.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectId=c02838375

Deliverable Name:

HP ProLiant DL360 G7 System ROM - P68

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue.
Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Ver. 2013.07.02 (C) contains a documentation update only and is functionally equivalent to ver. 2013.07.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2013.07.02.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:


**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue.
Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL360e Gen8/DL380e Gen8 (P73) Servers
Version: 2014.08.02 (D) (Optional)
Filename: RPMS/i386/hp-firmware-system-p73-2014.08.02-4.i386.rpm

Important Note!

Important Notes:

Ver. 2014.08.02 (D) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2014.08.02.

Deliverable Name:

HP ProLiant DL360e/DL380e Gen8 System ROM - P73

Release Date:

08/02/2014

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

02/10/2014
Firmware Dependencies:

None

Enhancements/New Features:

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Known Issues:

None

Fixes

Important Notes:

Ver. 2014.08.02 (D) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2014.08.02.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Known Issues:

None

Enhancements

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).
Online ROM Flash Component for Linux - HP ProLiant DL360p Gen8/DL360p Gen8 SE (P71) Servers
Version: 2015.07.01 (Optional)
Filename: RPMS/i386/hp-firmware-system-p71-2015.07.01-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL360p Gen8/DL360p Gen8 SE System ROM - P71

Release Date:

07/01/2015

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/01/2014

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:

None

Fixes
Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL380 G6 (P62) Servers
Version: 2015.01.22 (Recommended)
Filename: RPMS/i386/hp-firmware-system-p62-2015.01.22-1.1.i386.rpm

Important Note!

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Deliverable Name:

HP ProLiant DL380 G6 System ROM - P62

Release Date:

01/22/2015

Last Recommended or Critical Revision:

01/22/2015
Previous Revision:
07/02/2013

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Eliminate the "row hammer" issue when susceptible DIMMs have been installed in the server. This BIOS update will program the memory controller for 2x memory refresh which prevents the "row hammer" issue that could result in correctable or uncorrectable memory errors.

Known Issues:
None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:
None

Problems Fixed:
Eliminate the "row hammer" issue when susceptible DIMMs have been installed in the server. This BIOS update will program the memory controller for 2x memory refresh which prevents the "row hammer" issue that could result in correctable or uncorrectable memory errors.

Known Issues:
None
Online ROM Flash Component for Linux - HP ProLiant DL380 G7 (P67) Servers
Version: 2013.07.02 (C) (Critical)
Filename: RPMs/i386/hp-firmware-system-p67-2013.07.02-3.i386.rpm

Important Note!

Important Notes:

Ver. 2013.07.02 (C) contains a documentation update only and is functionally equivalent to ver. 2013.07.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2013.07.02.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Deliverable Name:

HP ProLiant DL380 G7 System ROM - P67

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be
affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Ver. 2013.07.02 (C) contains a documentation update only and is functionally equivalent to ver. 2013.07.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2013.07.02.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:


Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be
affected by this issue the server must be operating in a virtualized environment, have Intel
Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables,
and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and
could impact any system utilizing affected processors operating with the conditions listed above. This
revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue.
Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM
upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon
Processor X5687 where a rare and complex combination of data and environmental conditions may result
in some instructions not executing properly causing unpredictable system behavior. This issue is not
unique to HP ProLiant servers and could impact any system using the affected processors listed above.
This revision of the System ROM contains and updated version of Intel’s microcode that addresses this
issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors.
This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with
Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a
result of this issue, software may lose interrupts, receive spurious interrupts or cause a network
disconnect.

Known Issues:
None

Online ROM Flash Component for Linux - HP ProLiant DL380 Gen9/DL360 Gen9 (P89)
Servers
Version: 1.50_07-20-2015 (Recommended)
Filename: RPMs/i386/hp-firmware-system-p89-1.50_07_20_2015-1.1.i386.rpm

Important Note!

Important Notes:
None

Deliverable Name:
HP ProLiant DL360/DL380 Gen9 System ROM - P89

Release Version:
1.50_07-20-2015

Last Recommended or Critical Revision:
1.50_07-20-2015

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Previous Revision:
1.40_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.
Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that
users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.
Known Issues:

None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for Linux - HP ProLiant DL380p Gen8 (P70) Servers**

Version: 2015.07.01 *(Optional)*

Filename: RPMS/i386/hp-firmware-system-p70-2015.07.01-1.1.i386.rpm

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant DL380p Gen8 System ROM - P70

**Release Date:**

07/01/2015

**Last Recommended or Critical Revision:**

12/20/2013
Previous Revision:
08/02/2014

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:
Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:
None

Online ROM Flash Component for Linux - HP ProLiant DL385 G7 (A18) Servers
Version: 2014.02.02 (Optional)
Filename: CP022918.scexe

Important Note!
**Important Notes:**

None

**Deliverable Name:**

HP ProLiant DL385 G7 System ROM - A18

**Release Date:**

02/02/2014

**Last Recommended or Critical Revision:**

12/08/2012

**Previous Revision:**

12/08/2012

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Resolved a very rare condition where the system could become unresponsive or unexpectedly reset when running with AMD Opteron 6100 or 6200 processors.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None
Problems Fixed:

Resolved a very rare condition where the system could become unresponsive or unexpectedly reset when running with AMD Opteron 6100 or 6200 processors.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL385p Gen8 (A28) Servers
Version: 2014.09.03 (D) (Optional)
Filename: RPMS/i386/hp-firmware-system-a28-2014.09.03-4.i386.rpm

Important Note!

Important Notes:

Ver. 2014.09.03 (D) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.09.03. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2014.09.03.

Deliverable Name:

HP ProLiant DL385p Gen8 System ROM - A28

Release Date:

09/03/2014

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

02/06/2014

Firmware Dependencies:

None

Enhancements/New Features:

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized.
Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:

None

Fixes

Important Notes:

Ver. 2014.09.03 (D) contains a change to the Firmware RPM install command name from "cpqsetup" to "hpsetup" and is functionally equivalent to ver. 2014.09.03. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2014.09.03.

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:

None

Enhancements

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

Online ROM Flash Component for Linux - HP ProLiant DL560 Gen8 (P77) Servers

Version: 2014.08.03 (D) (Optional)
Filename: RPMS/i386/hp-firmware-system-p77-2014.08.03-4.i386.rpm

Important Note!
Important Notes:

Ver. 2014.08.03 (D) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.08.03. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2014.08.03.

Deliverable Name:

HP ProLiant DL560 Gen8 System ROM - P77

Release Date:

08/03/2014

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

02/10/2014

Firmware Dependencies:

None

Enhancements/New Features:

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Addressed a rare issue where systems configured with Intel Xeon E5 2600 v2 processors and Registered DIMMs (RDIMMs) in a 2 DIMM per Channel or 3 DIMM per Channel configuration may experience a 207 - Memory Initialization error message where certain DIMMs may not be initialized properly. This issue is seen intermittently after a system reboot.

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-4600 series processors.

Known Issues:
None

**Fixes**

**Important Notes:**

Ver. 2014.08.03 (D) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.08.03. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2014.08.03.

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed a rare issue where systems configured with Intel Xeon E5 2600 v2 processors and Registered DIMMs (RDIMMs) in a 2 DIMM per Channel or 3 DIMM per Channel configuration may experience a 207 - Memory Initialization error message where certain DIMMs may not be initialized properly. This issue is seen intermittently after a system reboot.

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

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Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-4600 series processors.

**Known Issues:**

None

**Enhancements**

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

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**Online ROM Flash Component for Linux - HP ProLiant DL560 Gen9 (P85) Servers**

Version: 1.50_07-20-2015 *(Recommended)*

Filename: RPMS/i386/hp-firmware-system-p85-1.50_07_20_2015-1.1.i386.rpm

**Important Note!**

**Important Notes:**

None
Deliverable Name:
HP ProLiant DL560 Gen9 System ROM - P85

Release Version:
1.50_07-20-2015

Last Recommended or Critical Revision:
1.50_07-20-2015

Previous Revision:
1.40_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None
Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.
Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for Linux - HP ProLiant DL580 G7 (P65) Servers**

Version: 2013.10.01 (D) *(Critical)*

Filename: RPMS/i386/hp-firmware-system-p65-2013.10.01-4.i386.rpm

**Important Note!**

**Important Notes:**
Ver. 2013.10.01 (D) contains a documentation update only and is functionally equivalent to ver. 2013.10.01. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2013.10.01.

IMPORTANT: The 07/01/2013 System ROM has an issue that can result in reduced performance and it has been removed from the HP Support Site. All HP ProLiant DL580 G7 servers should update to the 10/01/2013 System ROM instead. The 10/01/2013 System ROM revision addresses the performance issue. The performance issue was unique to the 07/01/2013 System ROM revision for the DL580 G7. It does not affect any other ProLiant servers or any other HP ProLiant DL580 G7 System ROM revisions.

**Deliverable Name:**

HP ProLiant DL580 G7 System ROM - P65

**Release Date:**

10/01/2013

**Last Recommended or Critical Revision:**

10/01/2013

**Previous Revision:**

04/01/2013

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Addressed an issue with the 07/01/2013 revision of the System ROM that could result in decreased performance. Due to an issue with the thermal solution included in that revision of the System ROM, the processor may be "throttled" to a reduced frequency when not necessary. This issue does NOT affect other revisions of the System ROM.

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue.
Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue where the Intelligent Platform Management Interface (IPMI) based power reporting would not function properly and report an incorrect wattage from the installed Power Supplies.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Ver. 2013.10.01 (D) contains a documentation update only and is functionally equivalent to ver. 2013.10.01. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2013.10.01.

IMPORTANT: The 07/01/2013 System ROM has an issue that can result in reduced performance and it has been removed from the HP Support Site. All HP ProLiant DL580 G7 servers should update to the 10/01/2013 System ROM instead. The 10/01/2013 System ROM revision addresses the performance issue. The performance issue was unique to the 07/01/2013 System ROM revision for the DL580 G7. It does not affect any other ProLiant servers or any other HP ProLiant DL580 G7 System ROM revisions.

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue with the 07/01/2013 revision of the System ROM that could result in decreased performance. Due to an issue with the thermal solution included in that revision of the System ROM, the processor may be “throttled” to a reduced frequency when not necessary. This issue does NOT affect other revisions of the System ROM.

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue where the Intelligent Platform Management Interface (IPMI) based power reporting would not function properly and report an incorrect wattage from the installed Power Supplies.
Known Issues:
None

Online ROM Flash Component for Linux - HP ProLiant DL580 Gen8 (P79) Servers
Version: 1.90_07-20-2015 (Optional)
Filename: RPMS/i386/hp-firmware-system-p79-1.90_07_20_2015-1.1.i386.rpm

Important Note!

Important Notes:
None

Deliverable Name:
HP ProLiant DL580 Gen8 System ROM - P79

Release Version:
1.90_07-20-2015

Last Recommended or Critical Revision:
1.01_03-19-2014

Previous Revision:
1.80_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:
Added a new System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy menu that allows the user to select how the UEFI BIOS will scan for valid Fibre Channel (or boot from SAN) boot targets. By default, the system will now only scan for Fibre Channel boot targets that are configured in each adapter. In the past, the system would scan for all Fibre Channel or FCoE available targets, potentially resulting in long boot times and large number of entries in the UEFI Boot Order list. The boot targets for adapters can be configured using the adapter specific menu in the System Utilities, System Configuration menu, or using management software such as HP Virtual Connect or HP OneView. This setting is applicable only in UEFI Boot Mode. A firmware update of the fibre channel controller might also be required to take full advantage of this feature.

Enhanced the thermal solution to provide better acoustics from the system fans.
Problems Fixed:

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Known Issues:

None

Enhancements

Added a new System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy menu that allows the user to select how the UEFI BIOS will scan for valid Fibre Channel (or boot from SAN) boot targets. By default, the system will now only scan for Fibre Channel boot targets that are configured in each adapter. In the past, the system would scan for all Fibre Channel or FCoE available targets, potentially resulting in long boot times and large number of entries in the UEFI Boot Order list. The boot targets for adapters can be configured using the adapter specific menu in the System Utilities, System Configuration menu, or using management software such as HP Virtual Connect or HP OneView. This setting is applicable only in UEFI Boot Mode. A firmware update of the fibre channel controller might also be required to take full advantage of this feature.
Enhanced the thermal solution to provide better acoustics from the system fans.

Online ROM Flash Component for Linux - HP ProLiant DL580 Gen9 (U17) Servers
Version: 1.20_05-06-2015 (Recommended)
Filename: RPMS/i386/hp-firmware-system-u17-1.20_05_06_2015-1.1.i386.rpm

Important Note!

Important Notes:
None

Deliverable Name:
HP ProLiant DL580 Gen9 System ROM - U17

Release Date:
1.20_05-06-2015

Last Recommended or Critical Revision:
1.20_05-06-2015

Previous Revision:
1.00_03-13-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScciSoftwareInitiator resource type. This option is only available in UEFI Boot Mode.
Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

Updated the default setting of the Power Management Minimum Processor Idle Power Package C-State to Package C6 (retention). Previous revisions of the server defaulted to Package C6 (non-retention). This change was made to be consistent with other ProLiant servers and does not address any particular issue.

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

Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.

Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.
Enhanced the System Utilities System Information and the Embedded UEFI SHELL sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

Problems Fixed:

Addressed an issue where Online Spare Memory Protection would not function properly when the system was configured with Quad Rank LRDIMMs. Failover to the spare memory would not occur due to a degraded DIMM.

Addressed an issue where the system may become unresponsive early in the boot process (approximately 20% to 23% POST progress) when configured with quad rank LRDIMMs populated in every DIMM socket on at least one memory channel and not in every DIMM socket on at least one other memory channels. This issue occurs on every system boot with the impacted DIMM configuration and is NOT intermittent.

Addressed an issue where the system may become unresponsive during system boot when configured with a single processor when configured in Legacy Boot Mode. This does not affect systems configured with two or more processors or systems configured for UEFI Boot Mode.

Addressed an issue where the QPI Bandwidth Optimization (RTID) setting could not be properly configured from the HP RESTful API.

Addressed an issue where the Intel NIC DMA Channels (IOAT) option could not be properly be configured from the Embedded UEFI SHELL via the Sysconfig command.

Addressed an issue where the +/- keys in the BIOS/Platform Configuration (RBSU) Boot Options menu were not functioning properly when configuring the server through a BIOS Serial Console Session.

Addressed an issue where the fwupdate Embedded UEFI SHELL command and the Firmware Update pre-boot application could hang during a firmware update and not successfully flash the device.

Addressed an issue where the server may fail to boot properly to a Windows Deployment Server (WDS) when configured for IPv6 network boot mode.

Addressed an issue where an optional PCIe adapter's legacy Expansion ROM may not run properly or the Expansion ROM’s Setup Utility may not run properly when the server is configured for Legacy Boot Mode. This issue was seen with a Seagate storage adapter but may impact other devices.

Addressed an issue where the Administrator Password would not be properly configured from the Embedded UEFI SHELL Sysconfig command.

Addressed an issue where a system could become unresponsive when booting to Linux Operating when serial output was enabled from the operating system and the iLO Virtual Serial Port was the only enabled UART.

Addressed various issues with webclient and ftp commands in the Embedded UEFI SHELL.

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen
with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the system health LED would remain blinking RED (indicating a failed state) due to a power supply failure after the power supply had been replaced. Once the power supply is replaced, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when a failed power supply is replaced.

Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in. Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.

Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where Online Spare Memory Protection would not function properly when the system was configured with Quad Rank LRDIMMs. Failover to the spare memory would not occur due to a degraded DIMM.

Addressed an issue where the system may become unresponsive early in the boot process (approximately 20% to 23% POST progress) when configured with quad rank LRDIMMs populated in every DIMM socket on at least one memory channel and not in every DIMM socket on at least one other memory channels. This issue occurs on every system boot with the impacted DIMM configuration and is NOT intermittent.

Addressed an issue where the system may become unresponsive during system boot when configured with a single processor when configured in Legacy Boot Mode. This does not affect systems configured with two or more processors or systems configured for UEFI Boot Mode.

Addressed an issue where the QPI Bandwidth Optimization (RTID) setting could not be properly configured from the HP RESTful API.
Addressed an issue where the Intel NIC DMA Channels (IOAT) option could not be properly be configured from the Embedded UEFI Shell via the Sysconfig command.

Addressed an issue where the +/- keys in the BIOS/Platform Configuration (RBSU) Boot Options menu were not functioning properly when configuring the server through a BIOS Serial Console Session.

Addressed an issue where the fwupdate Embedded UEFI Shell command and the Firmware Update pre-boot application could hang during a firmware update and not successfully flash the device.

Addressed an issue where the server may fail to boot properly to a Windows Deployment Server (WDS) when configured for IPv6 network boot mode.

Addressed an issue where an optional PCIe adapter's legacy Expansion ROM may not run properly or the Expansion ROM's Setup Utility may not run properly when the server is configured for Legacy Boot Mode. This issue was seen with a Seagate storage adapter but may impact other devices.

Addressed an issue where the Administrator Password would not be properly configured from the Embedded UEFI Shell Sysconfig command.

Addressed an issue where a system could become unresponsive when booting to Linux Operating when serial output was enabled from the operating system and the iLO Virtual Serial Port was the only enabled UART.

Addressed various issues with webclient and ftp commands in the Embedded UEFI Shell.

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the system health LED would remain blinking RED (indicating a failed state) due to a power supply failure after the power supply had been replaced. Once the power supply is replaced, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when a failed power supply is replaced.

Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in. Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.

Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

**Known Issues:**

None

**Enhancements**
Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInititiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

Updated the default setting of the Power Management Minimum Processor Idle Power Package C-State to Package C6 (retention). Previous revisions of the server defaulted to Package C6 (non-retention). This change was made to be consistent with other ProLiant servers and does not address any particular issue.

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

Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This
change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.

Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.

Enhanced the System Utilities System Information and the Embedded UEFI SHell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

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**Online ROM Flash Component for Linux - HP ProLiant DL585 G7 (A16) Servers**

Version: 2014.09.03 (C) *(Optional)*
Filename: RPMS/i386/hp-firmware-system-a16-2014.09.03-3.i386.rpm

**Important Note:**

Ver. 2014.09.03 (C) contains a documentation update only and is functionally equivalent to ver. 2014.09.03. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.09.03.

**Deliverable Name:**

HP ProLiant DL585 G7 System ROM

**Release Date:**

09/03/2014

**Last Recommended or Critical Revision:**

12/17/2012

**Previous Revision:**

02/02/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**
Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:

None

Fixes

Important Notes:

Ver. 2014.09.03 (C) contains a documentation update only and is functionally equivalent to ver. 2014.09.03. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.09.03.

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:

None

Enhancements

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".
Important Notes:

None

Deliverable Name:

HP ProLiant DL60/DL80 Gen9 System ROM - U15

Release Version:

1.50_07-20-2015

Last Recommended or Critical Revision:

1.50_07-20-2015

Previous Revision:

1.40_05-06-2015

Firmware Dependencies:

None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.
Updated the HP RESTful API HP BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.
Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.
Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API HP BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.
Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Deliverable Name:

HP ProLiant DL785 G5/G6 System ROM - A15

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

12/04/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
Problems Fixed:

Resolved an issue where the System ROM would not populate the System Enclosure or Chassis (type 3) SMBIOS record with text entered by the user in the Server Asset Tag Text Line in the ROM-Based Setup Utility (RBSU).

Resolved an issue where the user may be unable to select and use the '57600' and '115200' options in the "BIOS Serial Console Baud Rate" menu in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:


Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the System ROM would not populate the System Enclosure or Chassis (type 3) SMBIOS record with text entered by the user in the Server Asset Tag Text Line in the ROM-Based Setup Utility (RBSU).

Resolved an issue where the user may be unable to select and use the '57600' and '115200' options in the "BIOS Serial Console Baud Rate" menu in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
Online ROM Flash Component for Linux - HP ProLiant DL980 G7 (P66) Servers

Version: 2014.08.15 (Optional)
Filename: RPMS/i386/hp-firmware-system-p66-2014.08.15-1.1.i386.rpm

Important Note!

Important Notes:
None

Deliverable Name:
HP ProLiant DL980 G7 System ROM - P66

Release Date:
08/15/2014

Last Recommended or Critical Revision:
12/31/2013

Previous Revision:
12/31/2013

Firmware Dependencies:
None

Enhancements/New Features:
Added the CMCI (Corrected Machine-Check Error Interrupt) enable/disable feature in the RBSU (ROM Based Setup Utility). Users can access the option by pressing F9 in the boot time to enter RBSU, then enter the "Advanced Options" menu and choose the "CMCI" option.

Problems Fixed:
None

Known Issues:
None

Enhancements
Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added the CMCI (Corrected Machine-Check Error Interrupt) enable/disable feature in the RBSU (ROM Based Setup Utility). Users can access the option by pressing F9 in the boot time to enter RBSU, then enter the "Advanced Options" menu and choose the "CMCI" option.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant MicroServer Gen8 (J06) Servers

Version: 2015.07.16 (Optional)
Filename: RPMS/i386/hp-firmware-system-j06-2015.07.16-1.1.i386.rpm

Important Note!}

Important Notes:

None

Deliverable Name:

HP ProLiant MicroServer Gen8 System ROM - J06

Release Version:

07/16/2015

Last Recommended or Critical Revision:

08/24/2013

Previous Revision:

06/06/2014

Firmware Dependencies:
iLO Chassis Manager (CM) 1.30 is required for changing the hyperthreading setting from the iLO CM command-line.

Enhancements/New Features:

Added support for Intel i3-2130 and i3-3240 processors.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

iLO Chassis Manager (CM) 1.30 is required for changing the hyperthreading setting from the iLO CM command-line.

Enhancements/New Features:

Added support for Intel i3-2130 and i3-3240 processors.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant ML10 (P88) Server
Version: 2013.08.16 (B) (Optional)
Filename: CP022592.scexe

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML10 System ROM - P88
Release Date:
08/16/2013

Last Recommended or Critical Revision:
07/02/2013

Previous Revision:
07/02/2013

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Resolved an issue where the IRQ setting could not be changed in the ROM-Based Setup Utility (RBSU) for the BL110i SATA RAID device.

Removed the Removable Flash Media Boot Sequence option in the ROM-Based Setup Utility (RBSU) as the HP ProLiant ML10 does not support an internal SD card slot.

Updated text (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:
Resolved an issue where the IRQ setting could not be changed in the ROM-Based Setup Utility (RBSU) for the BL110i SATA RAID device.
Removed the Removable Flash Media Boot Sequence option in the ROM-Based Setup Utility (RBSU) as the HP ProLiant ML10 does not support an internal SD card slot.

Updated text (for non-English modes) in the ROM-Based Setup Utility (RBSU).

**Known Issues:**

None

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**Online ROM Flash Component for Linux - HP ProLiant ML10 v2 (J10) Servers**

Version: 2015.02.02 (B) *(Recommended)*

Filename: RPMS/i386/hp-firmware-system-j10-2015.02.02-2.i386.rpm

**Important Note!**

**Important Notes:**

Version 2015.02.02 (B) contains an update to the flash driver and replaces version 2015.02.02. The actual firmware contained within version 2015.02.02 (B) did not change as compared to version 2015.02.02 and therefore it is not necessary to upgrade if version 2015.02.02 has already been installed.

**Deliverable Name:**

HP ProLiant ML10 v2 System ROM - J10

**Release Date:**

02/02/2015

**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:**
Enhancements

Important Notes:

Version 2015.02.02 (B) contains an update to the flash driver and replaces version 2015.02.02. The actual firmware contained within version 2015.02.02 (B) did not change as compared to version 2015.02.02 and therefore it is not necessary to upgrade if version 2015.02.02 has already been installed.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Known Issues:

None
Previous Revision:
12/04/2012

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This
revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

**Known Issues:**

None

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**Online ROM Flash Component for Linux - HP ProLiant ML110 Gen9 (P99) Servers**

Version: 1.50_07-20-2015 (Recommended)
Filename: RPMs/i386/hp-firmware-system-p99-1.50_07_20_2015-1.1.i386.rpm

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant ML110 Gen9 System ROM - P99

**Release Version:**

1.50_07-20-2015

**Last Recommended or Critical Revision:**

1.50_07-20-2015

**Previous Revision:**

1.40_05-06-2015

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot.
By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.
Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.
Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.
Updated the language translations (non-English modes) for System Utilities.

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

**Online ROM Flash Component for Linux - HP ProLiant ML150 Gen9 (P95) Servers**

Version: 1.50_07-20-2015 *(Recommended)*
Filename: RPMS/i386/hp-firmware-system-p95-1.50_07_20_2015-1.1.i386.rpm

**Important Note!**

**Important Notes:**
None

**Deliverable Name:**
HP ProLiant ML150 Gen9 System ROM - P95

**Release Version:**
1.50_07-20-2015

**Last Recommended or Critical Revision:**
1.50_07-20-2015

**Previous Revision:**
1.40_05-06-2015

**Firmware Dependencies:**
None

**Enhancements/New Features:**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now
optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.
Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.
Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.
Updated the language translations (non-English modes) for System Utilities.

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

Online ROM Flash Component for Linux - HP ProLiant ML310e Gen8 (J04) Servers
Version: 2013.11.09 (C) *(Optional)*
Filename: RPMS/i386/hp-firmware-system-j04-2013.11.09-3.i386.rpm

**Important Note!**

**Important Notes:**

Ver. 2013.11.09 (C) contains a documentation update only and is functionally equivalent to ver. 2013.11.09. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2013.11.09.

**Deliverable Name:**

HP ProLiant ML310e Gen8 System ROM - J04

**Release Date:**

11/09/2013

**Last Recommended or Critical Revision:**

08/24/2013

**Previous Revision:**

08/24/2013

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect
the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

**Problems Fixed:**

None

**Known Issues:**

None

**Enhancements**

**Important Notes:**

Ver. 2013.11.09 (C) contains a documentation update only and is functionally equivalent to ver. 2013.11.09. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2013.11.09.

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

**Known Issues:**

None
Important Note!

Important Notes:

Ver. 2014.03.28 (E) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.03.28. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2014.03.28.

Deliverable Name:

HP ProLiant ML310e Gen8 v2 System ROM - P78

Release Date:

03/28/2014

Last Recommended or Critical Revision:

03/08/2014

Previous Revision:

03/08/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where servers using the 03/08/2014 revision of the System ROM caused a problem with a Trusted Platform Module (TPM) operating system certification test. This issue has no known impact with TPM functionality under normal operating system environments. This problem only affects servers with the 03/08/2014 revision of the System ROM.

Known Issues:

None

Fixes

Important Notes:

Ver. 2014.03.28 (E) contains a change to the Firmware RPM install command name from “cpqsetup” to
“hpsetup” and is functionally equivalent to ver. 2014.03.28. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2014.03.28.

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where servers using the 03/08/2014 revision of the System ROM caused a problem with a Trusted Platform Module (TPM) operating system certification test. This issue has no known impact with TPM functionality under normal operating system environments. This problem only affects servers with the 03/08/2014 revision of the System ROM.

**Known Issues:**

None

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**Online ROM Flash Component for Linux - HP ProLiant ML350 G6 (D22) Servers**

Version: 2013.07.02 (**Critical**)
Filename: CP021266.scexe

**Important Note!**

**Important Notes:**

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

**Deliverable Name:**

HP ProLiant ML350 G6 System ROM - D22

**Release Date:**

07/02/2013

**Last Recommended or Critical Revision:**

07/02/2013

**Previous Revision:**
12/02/2012

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None.

**Problems Fixed:**

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None
Deliverable Name:
HP ProLiant ML350 Gen9 System ROM - P92

Release Version:
1.50_07-20-2015

Last Recommended or Critical Revision:
1.50_07-20-2015

Previous Revision:
1.40_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

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**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.
Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Online ROM Flash Component for Linux - HP ProLiant ML350e Gen8/ML350e Gen8 v2 (J02) Servers

Version: 2014.08.02 (D) (Optional)
Filename: RPMS/i386/hp-firmware-system-j02-2014.08.02-4.i386.rpm

Important Note!

Important Notes:

Ver. 2014.08.02 (D) contains a change to the Firmware RPM install command name from “cpqsetup” to
“hpsetup” and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2014.08.02.

**Deliverable Name:**

HP ProLiant ML350e Gen8/ML350e Gen8 v2 System ROM - J02

**Release Date:**

08/02/2014

**Last Recommended or Critical Revision:**

12/22/2013

**Previous Revision:**

02/10/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

**Problems Fixed:**

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Ver. 2014.08.02 (D) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2014.08.02.

**Firmware Dependencies:**
None

Problems Fixed:

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Known Issues:

None

Enhancements

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Linux - HP ProLiant ML350p Gen8 (P72) Servers

Version: 2015.07.01 (Optional)
Filename: RPMS/i386/hp-firmware-system-p72-2015.07.01-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML350p Gen8 System ROM - P72

Release Date:

07/01/2015

LastRecommended or Critical Revision:

12/20/2013

Previous Revision:

08/02/2014

Firmware Dependencies:

None
Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant ML370 G6/DL370 G6 (P63) Servers
Version: 2013.07.02 (Critical)
Filename: CP021234.scexe

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory
Deliverable Name:

HP ProLiant ML370 G6/DL370 G6 System ROM - P63

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.
Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:


Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a
result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

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**Online ROM Flash Component for Linux - HP ProLiant SL210t Gen8 (P83) Servers**

Version: 2014.11.01 (B) *(Optional)*
Filename: RPMS/i386/hp-firmware-system-p83-2014.11.01-2.i386.rpm

**Important Note!**

**Important Notes:**

Ver. 2014.11.01 (B) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.11.01. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.01.

**Deliverable Name:**

HP ProLiant SL210t Gen8 System ROM - P83

**Release Version:**

11/01/2014

**Last Recommended or Critical Revision:**

12/20/2013

**Previous Revision:**

08/02/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**
Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-2600 series processors.

Known Issues:

None

Fixes

Important Notes:

Ver. 2014.11.01 (B) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.11.01. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.01.

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-2600 series processors.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant SL230s/SL250s/SL270s Gen8/SL270s Gen8 SE (P75) Servers
Version: 2015.05.01 (Optional)
Filename: RPMS/i386/hp-firmware-system-p75-2015.05.01-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL230s/250s/270s Gen8/270s Gen8 SE System ROM - P75

Release Version:
Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Updated the thermal support for systems configured with AMD GPGPUs.

Known Issues:

None
Important Note!

Important Notes:

Ver. 2012.12.08 (C) contains a documentation update only and is functionally equivalent to ver. 2012.12.08. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2012.12.08.

Deliverable Name:

HP ProLiant SL335s G7 System ROM - A24

Release Date:

12/08/2012

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

09/01/2012

Firmware Dependencies:

None

Enhancements/New Features:

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue that could result in a server reset or the inability to boot. Servers should be updated to this revision of the system ROM to minimize the potential for a system reset or the inability to boot.

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 09/01/2012 system ROM.

Known Issues:

None
Fixes

Important Notes:

Ver. 2012.12.08 (C) contains a documentation update only and is functionally equivalent to ver. 2012.12.08. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2012.12.08.

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue that could result in a server reset or the inability to boot. Servers should be updated to this revision of the system ROM to minimize the potential for a system reset or the inability to boot.

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 09/01/2012 system ROM.

Known Issues:

None

Enhancements

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Linux - HP ProLiant SL390s G7 (P69) Servers

Version: 2013.07.02 (Critical)
Filename: CP021313.scexe

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
Deliverable Name:

HP ProLiant SL390s G7 System ROM - P69

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a
result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.
**Online ROM Flash Component for Linux - HP ProLiant SL4540 Gen8 (P74) Servers**

Version: 2014.11.01 (Optional)
Filename: RPMS/i386/hp-firmware-system-p74-2014.11.01-2.i386.rpm

**Important Note!**

**Important Notes:**

Ver. 2014.11.01 (B) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2014.11.01. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.01.

**Deliverable Name:**

HP ProLiant SL4540 Gen8 System ROM - P74

**Release Version:**

11/01/2014

**Last Recommended or Critical Revision:**

12/20/2013

**Previous Revision:**

08/02/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-2400 series processors.

**Known Issues:**

None
Fixes

Important Notes:

Ver. 2014.11.01 (B) contains a change to the Firmware RPM install command name from "cpqsetup" to "hpsetup" and is functionally equivalent to ver. 2014.11.01. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.01.

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-2400 series processors.

Known Issues:

None

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Online ROM Flash Component for Linux - HP ProLiant SL4545 G7 (A31) Servers
Version: 2013.11.02 (Optional)
Filename: CP022235.scexe

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL4545 G7 System ROM - A31

Release Date:

11/02/2013

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:
06/05/2013

Firmware Dependencies:
None

Enhancements/New Features:
Added the latest product names of optional expansion cards in the ROM-Based Setup Utility (RBSU).

Problems Fixed:
None

Known Issues:
None

Online ROM Flash Component for Linux - HP ProLiant XL170r/XL190r Gen9 (U14) Servers
Version: 1.50_07-20-2015 (Recommended)
Filename: RPMS/i386/hp-firmware-system-u14-1.50_07_20_2015-1.1.i386.rpm

Important Note!

Important Notes:
None

Deliverable Name:
Release Version:
1.50_07-20-2015

Last Recommended or Critical Revision:
1.50_07-20-2015

Previous Revision:
1.40_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.
Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Fixes**
Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.
Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for Linux - HP ProLiant XL220a Gen8 v2 (P94) Servers**

Version: 2015.01.26 (B) **(Optional)**  
Filename: RPMS/i386/hp-firmware-system-p94-2015.01.26-2.i386.rpm

**Important Note!**

**Important Notes:**
Ver. 2015.01.26 (B) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2015.01.26. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2015.01.26.

The firmware for the System Programmable Logic Device must be upgraded in addition to the System ROM. Please see the Firmware Dependencies section below.

**Deliverable Name:**

HP ProLiant XL220a Gen8 v2 System ROM - P94

**Release Date:**

01/26/2015

**Last Recommended or Critical Revision:**

06/20/2014

**Previous Revision:**

06/20/2014

**Firmware Dependencies:**

System Programmable Logic Device version 0x15 or later is required. The System Programmable Logic Device firmware is available for download at the following links:


Online Flash Component for Win64 - System Programmable Logic Device (HP ProLiant XL220a Gen8 v2) version 0x15: ftp://ftp.hp.com/pub/softlib2/software1/sc-windows-fw/p1281588026/v103857

**Enhancements/New Features:**

None

**Problems Fixed:**

Addressed an issue where a system under heavy stress could experience an uncorrectable machine check. This issue will be reported in the Integrated Management Log with the following error details (Uncorrrrectable Machine Check Exception: APIC ID 0x00000004, Bank 0x00000003, Status 0xF2000000'00800400, Address 0x00000000'00000000, Misc 0x00000000'00000000). This issue is not unique to HP. It is recommended that customers experiencing this issue update to this version of the System ROM before replacing any hardware components.
Addressed an issue where an uncorrectable machine check exception can cause the server to reboot continuously or stop responding. This solution requires the System Programmable Logic Device be upgraded to version 0x15 or later.

Known Issues:

None

Fixes

Important Notes:

Ver. 2015.01.26 (B) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 2015.01.26. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2015.01.26.

The firmware for the System Programmable Logic Device must be upgraded in addition to the System ROM. Please see the Firmware Dependencies section below.

Firmware Dependencies:

System Programmable Logic Device version 0x15 or later is required. The System Programmable Logic Device firmware is available for download at the following links:


Online Flash Component for Win64 - System Programmable Logic Device (HP ProLiant XL220a Gen8 v2) version 0x15: ftp://ftp.hp.com/pub/softlib2/software1/sc-windows-fw/p1281588026/v103857

Problems Fixed:

Addressed an issue where a system under heavy stress could experience an uncorrectable machine check. This issue will be reported in the Integrated Management Log with the following error details (Uncorrectable Machine Check Exception: APIC ID 0x00000004, Bank 0x00000003, Status 0xF2000000'00800400, Address 0x00000000'00000000, Misc 0x00000000'00000000). This issue is not unique to HP. It is recommended that customers experiencing this issue update to this version of the System ROM before replacing any hardware components.

Addressed an issue where an uncorrectable machine check exception can cause the server to reboot continuously or stop responding. This solution requires the System Programmable Logic Device be upgraded to version 0x15 or later.

Known Issues:

None
Filename: RPMS/i386/hp-firmware-system-u13-1.50_07_20_2015-1.1.i386.rpm

Important Notes:

Important Notes:

None

Deliverable Name:

HP ProLiant XL230a/XL250a Gen9 System ROM - U13

Release Version:

1.50_07-20-2015

Last Recommended or Critical Revision:

1.50_07-20-2015

Previous Revision:

1.40_05-06-2015

Firmware Dependencies:

None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:
Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.
Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API HP BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.
**Online ROM Flash Component for Linux - HP ProLiant XL450 Gen9 (U21) Servers**

Version: 1.50_07-20-2015 *(Recommended)*

Filename: RPMS/i386/hp-firmware-system-u21-1.50_07_20_2015-1.1.i386.rpm

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant XL450 Gen9 System ROM - U21

**Release Version:**

1.50_07-20-2015

**Last Recommended or Critical Revision:**

1.50_07-20-2015

**Previous Revision:**

1.40_05-06-2015

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.
Updated the HP RESTful API HP BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.
Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Prerequisites**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API HP BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.
Online ROM Flash Component for Linux - HP ProLiant XL730f/XL740f/XL750f Gen9 (U18)

Servers

Version: 1.50_07-20-2015 (Recommended)
Filename: RPMS/i386/hp-firmware-system-u18-1.50_07_20_2015-1.1.i386.rpm

Important Note!

Important Notes:

None

Deliverable Name:

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

Release Version:

1.50_07-20-2015

Last Recommended or Critical Revision:

1.50_07-20-2015

Previous Revision:

1.40_05-06-2015

Firmware Dependencies:

None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.
Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.
Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue where thermal and inventory data may not be available for all DIMMs in the system when certain processors, such as the Xeon E5-2667 v3, are installed in the server.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.
Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue where thermal and inventory data may not be available for all DIMMs in the system when certain processors, such as the Xeon E5-2667 v3, are installed in the server.

Known Issues:

None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now
optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for VMware - HP Apollo 4200 Gen9 (U19) Servers**

Version: 1.50_07-20-2015 *(Recommended)*
Filename: CP027111.zip

**Important Note!**

**Important Notes:**
None

**Deliverable Name:**
HP Apollo 4200 Gen9 System ROM - U19

**Release Version:**
1.50_07-20-2015

**Last Recommended or Critical Revision:**
1.50_07-20-2015

**Previous Revision:**
1.40_05-06-2015

**Firmware Dependencies:**
None

**Enhancements/New Features:**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot.
By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.
Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites
None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

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Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot.
By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Online ROM Flash Component for VMware - HP ProLiant BL460c Gen9/WS460c Gen9 (I36) Servers
Version: 1.40_05-06-2015 (Optional)
Filename: CP027215.zip

Important Notes:

Important Notes:
None

Deliverable Name:

HP ProLiant BL460c Gen9/WS460c Gen9 System ROM - I36

Release Version:

1.40_05-06-2015

Last Recommended or Critical Revision:

1.33_04-03-2015

Previous Revision:

1.33_04-03-2015

Firmware Dependencies:

None

Enhancements/New Features:

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be
configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInitiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

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

Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.

Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.
Enhanced the System Utilities System Information and the Embedded UEFI Shell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

Reduced boot time when the Dynamic Smart Array B140i RAID is enabled.

Added a new Server Availability BIOS/Platform Configuration (RBSU) Automatic Power On configuration option setting. This option allows the user to configure the power on policy of the server when power is first applied. The options are Enabled to allow the server to automatically power on when first installed into the enclosure or Disabled to allow the server to remain powered off when first installed into the enclosure.

Problems Fixed:

Addressed an issue where the platform may become unresponsive during system boot when the server is configured for Legacy Boot Mode and the USB Boot Support has been disabled.

Addressed an issue where the Intel NIC DMA Channels (IOAT) option could not be properly be configured from the Embedded UEFI Shell via the Sysconfig command.

Addressed an issue where the +/- keys in the BIOS/Platform Configuration (RBSU) Boot Options menu were not functioning properly when configuring the server through a BIOS Serial Console Session.

Addressed an issue where the fwupdate Embedded UEFI Shell command and the Firmware Update pre-boot application could hang during a firmware update and not successfully flash the device.

Addressed an issue where the server may fail to boot properly to a Windows Deployment Server (WDS) when configured for IPv6 network boot mode.

Addressed an issue where an optional PCIe adapter's legacy Expansion ROM may not run properly or the Expansion ROM's Setup Utility may not run properly when the server is configured for Legacy Boot Mode. This issue was seen with a Seagate storage adapter but may impact other devices.

Addressed an issue where the Administrator Password would not be properly configured from the Embedded UEFI Shell Sysconfig command.

Addressed an issue where a system could become unresponsive when booting to Linux Operating when serial output was enabled from the operating system and the iLO Virtual Serial Port was the only enabled UART.

Addressed various issues with webclient and ftp commands in the Embedded UEFI Shell.

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.
Addressed an issue where the system may experience a Linux kernel panic when booting from a SATA optical drive attached to the embedded SATA controller when the SATA controller is configured for Dynamic Smart Array B140i support.

Addressed an issue where the system health LED would remain blinking RED (indicating a failed state) due to a power supply failure after the power supply had been replaced. Once the power supply is replaced, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when a failed power supply is replaced.

Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in. Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.

Addressed an issue where a system may become unresponsive when launching a guest operating system under a Hypervisor operating system such as Citrix or VMware when VT-d is enabled. This issue is NOT unique to HP servers.

Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the platform may become unresponsive during system boot when the server is configured for Legacy Boot Mode and the USB Boot Support has been disabled.

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Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

Known Issues:

None
Enhancements

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInitiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

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

Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.
Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.

Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.

Enhanced the System Utilities System Information and the Embedded UEFI Shell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

Reduced boot time when the Dynamic Smart Array B140i RAID is enabled.

Added a new Server Availability BIOS/Platform Configuration (RBSU) Automatic Power On configuration option setting. This option allows the user to configure the power on policy of the server when power is first applied. The options are Enabled to allow the server to automatically power on when first installed into the enclosure or Disabled to allow the server to remain powered off when first installed into the enclosure.

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**Online ROM Flash Component for VMware - HP ProLiant BL660c Gen9 (I38) Servers**

Version: 1.40_05-06-2015 *(Optional)*

Filename: CP027247.zip

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant BL660c Gen9 System ROM - I38

**Release Version:**

1.40_05-06-2015

**Last Recommended or Critical Revision:**

1.30_03-05-2015

**Previous Revision:**

1.30_03-05-2015

**Firmware Dependencies:**

None
Enhancements/New Features:

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInititiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

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

Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for Hpbios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpsecureBoot resource. This

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change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

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Enhanced the System Utilities System Information and the Embedded UEFI Shell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

Reduced boot time when the Dynamic Smart Array B140i RAID is enabled.

Added a new Server Availability BIOS/Platform Configuration (RBSU) Automatic Power On configuration option setting. This option allows the user to configure the power on policy of the server when power is first applied. The options are Enabled to allow the server to automatically power on when first installed into the enclosure or Disabled to allow the server to remain powered off when first installed into the enclosure.

**Problems Fixed:**

Addressed an issue where the platform may become unresponsive during system boot when the server is configured for Legacy Boot Mode and the USB Boot Support has been disabled.

Addressed an issue where the Intel NIC DMA Channels (IOAT) option could not be properly be configured from the Embedded UEFI Shell via the Sysconfig command.

Addressed an issue where the +/- keys in the BIOS/Platform Configuration (RBSU) Boot Options menu were not functioning properly when configuring the server through a BIOS Serial Console Session.

Addressed an issue where the fwupdate Embedded UEFI Shell command and the Firmware Update pre-boot application could hang during a firmware update and not successfully flash the device.

Addressed an issue where the server may fail to boot properly to a Windows Deployment Server (WDS) when configured for IPv6 network boot mode.

Addressed an issue where an optional PCIe adapter's legacy Expansion ROM may not run properly or the Expansion ROM's Setup Utility may not run properly when the server is configured for Legacy Boot Mode. This issue was seen with a Seagate storage adapter but may impact other devices.

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Addressed an issue where a system could become unresponsive when booting to Linux Operating when serial output was enabled from the operating system and the iLO Virtual Serial Port was the only enabled UART.

Addressed various issues with webclient and ftp commands in the Embedded UEFI Shell.

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the system may experience a Linux kernel panic when booting from a SATA optical drive attached to the embedded SATA controller when the SATA controller is configured for Dynamic Smart Array B140i support.

Addressed an issue where the system health LED would remain blinking RED (indicating a failed state) due to a power supply failure after the power supply had been replaced. Once the power supply is replaced, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when a failed power supply is replaced.

Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in. Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.

Addressed an issue where a system may become unresponsive when launching a guest operating system under a Hypervisor operating system such as Citrix or VMware when VT-d is enabled. This issue is NOT unique to HP servers.

Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

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Addressed an issue where the platform may become unresponsive during system boot when the server is configured for Legacy Boot Mode and the USB Boot Support has been disabled.

Addressed an issue where the Intel NIC DMA Channels (IOAT) option could not be properly be configured from the Embedded UEFI Shell via the Sysconfig command.

Addressed an issue where the +/- keys in the BIOS/Platform Configuration (RBSU) Boot Options menu were not functioning properly when configuring the server through a BIOS Serial Console Session.

Addressed an issue where the fwupdate Embedded UEFI Shell command and the Firmware Update pre-boot application could hang during a firmware update and not successfully flash the device.

Addressed an issue where the server may fail to boot properly to a Windows Deployment Server (WDS) when configured for IPv6 network boot mode.

Addressed an issue where an optional PCIe adapter's legacy Expansion ROM may not run properly or the Expansion ROM's Setup Utility may not run properly when the server is configured for Legacy Boot Mode. This issue was seen with a Seagate storage adapter but may impact other devices.

Addressed an issue where the Administrator Password would not be properly configured from the Embedded UEFI Shell Sysconfig command.

Addressed an issue where a system could become unresponsive when booting to Linux Operating when serial output was enabled from the operating system and the iLO Virtual Serial Port was the only enabled UART.

Addressed various issues with webclient and ftp commands in the Embedded UEFI Shell.

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the system may experience a Linux kernel panic when booting from a SATA optical drive attached to the embedded SATA controller when the SATA controller is configured for Dynamic Smart Array B140i support.

Addressed an issue where the system health LED would remain blinking RED (indicating a failed state) due to a power supply failure after the power supply had been replaced. Once the power supply is replaced, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when a failed power supply is replaced.

Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in. Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.
Addressed an issue where a system may become unresponsive when launching a guest operating system under a Hypervisor operating system such as Citrix or VMware when VT-d is enabled. This issue is NOT unique to HP servers.

Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

**Known Issues:**

None

**Enhancements**

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInitiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

Updated the HP RESTful API HP BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.
Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.

Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.

Enhanced the System Utilities System Information and the Embedded UEFI Shell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

Reduced boot time when the Dynamic Smart Array B140i RAID is enabled.

Added a new Server Availability BIOS/Platform Configuration (RBSU) Automatic Power On configuration option setting. This option allows the user to configure the power on policy of the server when power is first applied. The options are Enabled to allow the server to automatically power on when first installed into the enclosure or Disabled to allow the server to remain powered off when first installed into the enclosure.

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**Online ROM Flash Component for VMware - HP ProLiant DL120 Gen9 (P86) Servers**

Version: 1.50_07-20-2015 *(Recommended)*

Filename: CP027098.zip

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant DL120 Gen9 System ROM - P86

**Release Version:**

1.50_07-20-2015
Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.
Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.
Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

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Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

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Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may
be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for VMware - HP ProLiant DL160 Gen9/DL180 Gen9 (U20) Servers**

Version: 1.50_07-20-2015 *(Recommended)*
Filename: CP027095.zip

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant DL160/DL180 Gen9 System ROM - U20

**Release Version:**

1.50_07-20-2015

**Last Recommended or Critical Revision:**

1.50_07-20-2015

**Previous Revision:**

1.40_05-06-2015

**Firmware Dependencies:**

None
Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.
Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:
Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Online ROM Flash Component for VMware - HP ProLiant DL380 Gen9/DL360 Gen9 (P89)

Servers

Version: 1.50_07-20-2015 (Recommended)
Filename: CP027653.zip

Important Notes:

None

Deliverable Name:

HP ProLiant DL360/DL380 Gen9 System ROM - P89

Release Version:

1.50_07-20-2015

Last Recommended or Critical Revision:

1.50_07-20-2015

Previous Revision:

1.40_05-06-2015
Firmware Dependencies:
None

Enhancements/New Features:
Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

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Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:
Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.
Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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**Known Issues:**
Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

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Updated the language translations (non-English modes) for System Utilities.

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

Online ROM Flash Component for VMware - HP ProLiant DL560 Gen9 (P85) Servers
Version: 1.50_07-20-2015 (Recommended)
Filename: CP027038.zip

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL560 Gen9 System ROM - P85

Release Version:

1.50_07-20-2015

Last Recommended or Critical Revision:

1.50_07-20-2015

Previous Revision:
Firmware Dependencies:

None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

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Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

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Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

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Known Issues:
None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Online ROM Flash Component for VMware - HP ProLiant DL580 Gen9 (U17) Servers
Version: 1.20_05-06-2015 (Recommended)
Filename: CP027244.zip

Important Note!

Important Notes:
None

Deliverable Name:
HP ProLiant DL580 Gen9 System ROM - U17

Release Date:
1.20_05-06-2015

Last Recommended or Critical Revision:
1.20_05-06-2015

Previous Revision:
Firmware Dependencies:

None

Enhancements/New Features:

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInititiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

Updated the default setting of the Power Management Minimum Processor Idle Power Package C-State to Package C6 (retention). Previous revisions of the server defaulted to Package C6 (non-retention). This change was made to be consistent with other ProLiant servers and does not address any particular issue.
Updated the HP RESTful API HP BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.

Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.

Enhanced the System Utilities System Information and the Embedded UEFI Shell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

Problems Fixed:

Addressed an issue where Online Spare Memory Protection would not function properly when the system was configured with Quad Rank LRDIMMs. Failover to the spare memory would not occur due to a degraded DIMM.

Addressed an issue where the system may become unresponsive early in the boot process (approximately 20% to 23% POST progress) when configured with quad rank LRDIMMs populated in every DIMM socket on at least one memory channel and not in every DIMM socket on at least one other memory channels. This issue occurs on every system boot with the impacted DIMM configuration and is NOT intermittent.

Addressed an issue where the system may become unresponsive during system boot when configured with a single processor when configured in Legacy Boot Mode. This does not affect systems configured with two or more processors or systems configured for UEFI Boot Mode.

Addressed an issue where the QPI Bandwidth Optimization (RTID) setting could not be properly configured from the HP RESTful API.

Addressed an issue where the Intel NIC DMA Channels (IOAT) option could not be properly be configured from the Embedded UEFI Shell via the Sysconfig command.

Addressed an issue where the +/- keys in the BIOS/Platform Configuration (RBSU) Boot Options menu were not functioning properly when configuring the server through a BIOS Serial Console Session.
Addressed an issue where the fwupdate Embedded UEFI Shell command and the Firmware Update pre-boot application could hang during a firmware update and not successfully flash the device.

Addressed an issue where the server may fail to boot properly to a Windows Deployment Server (WDS) when configured for IPv6 network boot mode.

Addressed an issue where an optional PCIe adapter's legacy Expansion ROM may not run properly or the Expansion ROM's Setup Utility may not run properly when the server is configured for Legacy Boot Mode. This issue was seen with a Seagate storage adapter but may impact other devices.

Addressed an issue where the Administrator Password would not be properly configured from the Embedded UEFI Shell Sysconfig command.

Addressed an issue where a system could become unresponsive when booting to Linux Operating when serial output was enabled from the operating system and the iLO Virtual Serial Port was the only enabled UART.

Addressed various issues with webclient and ftp commands in the Embedded UEFI Shell.

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the system health LED would remain blinking RED (indicating a failed state) due to a power supply failure after the power supply had been replaced. Once the power supply is replaced, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when a failed power supply is replaced.

Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in. Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.

Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

Known Issues:

None

Fixes

Important Notes:

None
Firmware Dependencies:

None

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**Enhancements**

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**Online ROM Flash Component for VMware - HP ProLiant DL60 Gen9/DL80 Gen9 (U15) Servers**

Version: 1.50_07-20-2015 *(Recommended)*

Filename: CP027134.zip

**Important Note!**

**Important Notes:**

None

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Deliverable Name:
HP ProLiant DL60/DL80 Gen9 System ROM - U15

Release Version:
1.50_07-20-2015

Last Recommended or Critical Revision:
1.50_07-20-2015

Previous Revision:
1.40_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None
Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:

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Known Issues:
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Enhancements

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Updated the language translations (non-English modes) for System Utilities.

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

Online ROM Flash Component for VMware - HP ProLiant ML110 Gen9 (P99) Servers
Version: 1.50_07-20-2015 (Recommended)
Filename: CP027085.zip

Important Note!

Important Notes:
None

**Deliverable Name:**
HP ProLiant ML110 Gen9 System ROM - P99

**Release Version:**
1.50_07-20-2015

**Last Recommended or Critical Revision:**
1.50_07-20-2015

**Previous Revision:**
1.40_05-06-2015

**Firmware Dependencies:**
None

**Enhancements/New Features:**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

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Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None
Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.
Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

 Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

 Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

 Updated the language translations (non-English modes) for System Utilities.

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

**Online ROM Flash Component for VMware - HP ProLiant ML150 Gen9 (P95) Servers**

Version: 1.50_07-20-2015 *(Recommended)*

Filename: CP027127.zip

**Important Note!**

**Important Notes:**

None
Deliverable Name:
HP ProLiant ML150 Gen9 System ROM - P95

Release Version:
1.50_07-20-2015

Last Recommended or Critical Revision:
1.50_07-20-2015

Previous Revision:
1.40_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

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Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

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Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None
Fixes

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

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Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.
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Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Online ROM Flash Component for VMware - HP ProLiant ML350 Gen9 (P92) Servers

Version: 1.50_07-20-2015 (Recommended)
Filename: CP027054.zip

Important Note!

Important Notes:

None
Deliverable Name:

HP ProLiant ML350 Gen9 System ROM - P92

Release Version:

1.50_07-20-2015

Last Recommended or Critical Revision:

1.50_07-20-2015

Previous Revision:

1.40_05-06-2015

Firmware Dependencies:

None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

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Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

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Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

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Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None
Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

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Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for VMware - HP ProLiant XL170r/XL190r Gen9 (U14) Servers**

Version: 1.50_07-20-2015 (Recommended)
Filename: CP027105.zip

**Important Note!**

**Important Notes:**

None
Deliverable Name:

HP ProLiant XL170r/XL190r Gen9 System ROM - U14

Release Version:

1.50_07-20-2015

Last Recommended or Critical Revision:

1.50_07-20-2015

Previous Revision:

1.40_05-06-2015

Firmware Dependencies:

None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

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Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

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Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None
**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for VMware - HP ProLiant XL450 Gen9 (U21) Servers**

Version: 1.50_07-20-2015 *(Recommended)*

Filename: CP027051.zip

**Important Note!**

**Important Notes:**
Deliverable Name:
HP ProLiant XL450 Gen9 System ROM - U21

Release Version:
1.50_07-20-2015

Last Recommended or Critical Revision:
1.50_07-20-2015

Previous Revision:
1.40_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

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Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

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Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None
Prerequisites
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.
Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for VMware ESXi - HP ProLiant BL420c Gen8 (I30) Servers**

Version: 2014.11.03 (B) *(Optional)*
Filename: CP026028.zip

**Important Note!**

**Important Notes:**
Ver. 2014.11.03 (B) contains updates to the component packaging and is functionally equivalent to ver. 2014.11.03. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.03.

**Deliverable Name:**

HP ProLiant BL420c Gen8 System ROM - i30

**Release Date:**

11/03/2014

**Last Recommended or Critical Revision:**

09/01/2014

**Previous Revision:**

09/01/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Ver. 2014.11.03 (B) contains updates to the component packaging and is functionally equivalent to ver. 2014.11.03. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.03.

**Firmware Dependencies:**
None

Problems Fixed:

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant BL460c G7 (I27) Servers
Version: 2013.07.02 (E) [Critical]
Filename: CP026017.zip

Important Note!

Important Notes:

Ver. 2013.07.02 (E) contains updates to the component packaging and is functionally equivalent to ver. 2013.07.02. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2013.07.02.

Deliverable Name:

HP ProLiant BL460c G7 System ROM - I27

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/03/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.
Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Ver. 2013.07.02 (E) contains updates to the component packaging and is functionally equivalent to ver. 2013.07.02. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2013.07.02.

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables,
and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

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**Online ROM Flash Component for VMware ESXi - HP ProLiant BL460c/WS460c Gen8 (I31) Servers**

Version: 2015.06.01 (Optional)

Filename: CP027282.zip

**Important Note:**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant BL460c Gen8/WS460c Gen8 System ROM - I31

**Release Version:**

06/01/2015

**Last Recommended or Critical Revision:**

12/20/2013

**Previous Revision:**
04/01/2015

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Addressed an issue where systems configured with the ATI S4000x GPU adapter may experience unexpected shutdowns due to a thermal event.

Known Issues:
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:
Addressed an issue where systems configured with the ATI S4000x GPU adapter may experience unexpected shutdowns due to a thermal event.

Known Issues:
None

Online ROM Flash Component for VMware ESXi - HP ProLiant BL465c G7 (A19) Servers
Version: 2014.02.02 (C) (Optional)
Filename: CP026050.zip

Important Note!

Important Notes:
Ver. 2014.02.02 (C) contains updates to the component packaging and is functionally equivalent to ver.
2014.02.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.02.02.

**Deliverable Name:**

HP ProLiant BL465c G7 System ROM - A19

**Release Date:**

02/02/2014

**Last Recommended or Critical Revision:**

12/08/2012

**Previous Revision:**

12/08/2012

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Resolved a very rare condition where the system could become unresponsive or unexpectedly reset when running with AMD Opteron 6100 or 6200 processors.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Ver. 2014.02.02 (C) contains updates to the component packaging and is functionally equivalent to ver. 2014.02.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.02.02.
Resolved a very rare condition where the system could become unresponsive or unexpectedly reset when running with AMD Opteron 6100 or 6200 processors.

**Known Issues:**

None

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**Online ROM Flash Component for VMware ESXi - HP ProLiant BL465c Gen8 (A26) Servers**

*Version: 2014.11.02 (B) (Optional)*

*Filename: CP026047.zip*

**Important Note!**

**Important Notes:**

Ver. 2014.11.02 (B) contains updates to the component packaging and is functionally equivalent to ver. 2014.11.02. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.02.

**Deliverable Name:**

HP ProLiant BL465c Gen8 System ROM - A26

**Release Date:**

11/02/2014

**Last Recommended or Critical Revision:**

12/17/2012

**Previous Revision:**

09/03/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.
Known Issues:

None

Fixes

Important Notes:

Ver. 2014.11.02 (B) contains updates to the component packaging and is functionally equivalent to ver. 2014.11.02. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.02.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant BL490c G7 (I28) Servers
Version: 2013.07.02 (C) (Critical)
Filename: CP024234.scexe

Important Note!

Important Notes:

Version 2013.07.02 (C) contains an update to the flash driver and replaces version 2013.07.02. The actual firmware contained within version 2013.07.02 (C) did not change as compared to version 2013.07.02 and therefore it is not necessary to upgrade if version 2013.07.02 has already been installed.

Deliverable Name:

HP ProLiant BL490c G7 System ROM - I28

Release Date:

07/02/2013

Last Recommended or Critical Revision:
07/02/2013

Previous Revision:

12/03/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel’s microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Version 2013.07.02 (C) contains an update to the flash driver and replaces version 2013.07.02. The actual firmware contained within version 2013.07.02 (C) did not change as compared to version 2013.07.02 and
therefore it is not necessary to upgrade if version 2013.07.02 has already been installed.

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

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**Online ROM Flash Component for VMware ESXi - HP ProLiant BL660c Gen8 (I32) Servers**

Version: 2014.11.02 (B)  **(Optional)**

Filename: CP026041.zip

**Important Note!**

**Important Notes:**

Ver. 2014.11.02 (B) contains updates to the component packaging and is functionally equivalent to ver. 2014.11.02. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.02.
Deliverable Name:
HP ProLiant BL660c Gen8 System ROM - I32

Release Date:
11/02/2014

Last Recommended or Critical Revision:
12/20/2013

Previous Revision:
08/03/2014

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

Known Issues:
None

Fixes

Important Notes:
Ver. 2014.11.02 (B) contains updates to the component packaging and is functionally equivalent to ver. 2014.11.02. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.02.

Firmware Dependencies:
None

Problems Fixed:
Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

**Known Issues:**

None

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**Online ROM Flash Component for VMware ESXi - HP ProLiant BL680c G7/BL620c G7 (I25) Servers**

Version: 2013.07.01 (Critical)

Filename: CP026016.zip

**Important Note:**

**Important Notes:**

Ver. 2013.07.01 (E) contains updates to the component packaging and is functionally equivalent to ver. 2013.07.01. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2013.07.01.

**Deliverable Name:**

HP ProLiant BL620c/BL680c G7 System ROM - I25

**Release Date:**

07/01/2013

**Last Recommended or Critical Revision:**

07/01/2013

**Previous Revision:**

04/01/2013

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**
Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:

None

 Fixes

Important Notes:

Ver. 2013.07.01 (E) contains updates to the component packaging and is functionally equivalent to ver. 2013.07.01. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2013.07.01.

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant BL685c G7 (A20) Servers
Version: 2014.09.03 (C) (Optional)
Filename: CP026046.zip
Important Notes:

Ver. 2014.09.03 (C) contains updates to the component packaging and is functionally equivalent to ver. 2014.09.03. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.09.03.

Deliverable Name:

HP ProLiant BL685c G7 System ROM

Release Date:

09/03/2014

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

02/01/2014

Firmware Dependencies:

None

Enhancements/New Features:

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:

None
Important Notes:

Ver. 2014.09.03 (C) contains updates to the component packaging and is functionally equivalent to ver. 2014.09.03. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.09.03.

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:

None

Enhancements

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

Online ROM Flash Component for VMware ESXi - HP ProLiant DL160 Gen8 (J03) Servers

Version: 2014.08.02 (D) (Recommended)
Filename: CP026581.zip

Important Notes:

This System ROM update is recommended to ensure that the system cooling is operating at maximum efficiency. Ver. 2014.08.02 (D) contains updates to the customer release notes and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision D if the previous Revision was used to upgrade the system ROM to version 2014.08.02. Please refer to the Customer Advisory at http://h20564.www2.hp.com/hpsc/doc/public/display?docId=emr_na-c04619916 for additional details.

Deliverable Name:

HP ProLiant DL160 Gen8 System ROM - J03
Release Date:
08/02/2014

Last Recommended or Critical Revision:
08/02/2014

Previous Revision:
02/10/2014

Firmware Dependencies:
None

Enhancements/New Features:

Improved the thermal cooling solution, update the System ROM to a version dated 02 August 2014 or later.

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Addressed a rare issue where systems configured with Intel Xeon E5 2600 v2 processors and Registered DIMMs (RDIMMs) in a 2 DIMM per Channel or 3 DIMM per Channel configuration may experience a 207 - Memory Initialization error message where certain DIMMs may not be initialized properly. This issue is seen intermittently after a system reboot.

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Known Issues:

None

Fixes

Important Notes:

This System ROM update is recommended to ensure that the system cooling is operating at maximum efficiency. Ver. 2014.08.02 (D) contains updates to the customer release notes and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision D if the previous Revision was used to upgrade the system ROM to version 2014.08.02. Please refer to the Customer Advisory
Firmware Dependencies:
None

Problems Fixed:

Addressed a rare issue where systems configured with Intel Xeon E5 2600 v2 processors and Registered DIMMs (RDIMMs) in a 2 DIMM per Channel or 3 DIMM per Channel configuration may experience a 207 - Memory Initialization error message where certain DIMMs may not be initialized properly. This issue is seen intermittently after a system reboot.

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Known Issues:
None

Enhancements

Improved the thermal cooling solution, update the System ROM to a version dated 02 August 2014 or later.

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for VMware ESXi - HP ProLiant DL320e Gen8 (J05) Servers
Version: 2013.11.09 (E) (Optional)
Filename: CP025985.zip

Important Note!

Important Notes:

Ver. 2013.11.09 (E) contains updates to the component packaging and is functionally equivalent to ver. 2013.11.09. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2013.11.09.

Deliverable Name:

HP ProLiant DL320e Gen8 System ROM - J05

Release Date:
11/09/2013

Last Recommended or Critical Revision:

08/24/2013

Previous Revision:

08/24/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM’s detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

Ver. 2013.11.09 (E) contains updates to the component packaging and is functionally equivalent to ver. 2013.11.09. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2013.11.09.

Firmware Dependencies:
None

**Enhancements/New Features:**

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

**Known Issues:**

None

**Online ROM Flash Component for VMware ESXi - HP ProLiant DL320e Gen8 v2 (P80) Servers**

Version: 2015.04.02 *(Optional)*

Filename: CP026844.zip

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant DL320e Gen8 v2 System ROM - P80

**Release Date:**

04/02/2015

**Last Recommended or Critical Revision:**

03/07/2014

**Previous Revision:**
03/28/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Addressed an issue with excessively loud fan noise when either SATA AHCI support is enabled in the Embedded SATA Configuration menu in RBSU (ROM-Based Setup Utility) or when Dynamic HP Smart Array B120i RAID Support is enabled in the Embedded SATA Configuration menu in RBSU (ROM-Based Setup Utility) and the Dynamic HP Smart Array B120i RAID operating system driver is not loaded.

Addressed an issue where a system under heavy stress could experience an uncorrectable machine check. This issue is not unique to HP. It is recommended that customers experiencing this issue update to this version of the System ROM before replacing any hardware components.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue with excessively loud fan noise when either SATA AHCI support is enabled in the Embedded SATA Configuration menu in RBSU (ROM-Based Setup Utility) or when Dynamic HP Smart Array B120i RAID Support is enabled in the Embedded SATA Configuration menu in RBSU (ROM-Based Setup Utility) and the Dynamic HP Smart Array B120i RAID operating system driver is not loaded.

Addressed an issue where a system under heavy stress could experience an uncorrectable machine check. This issue is not unique to HP. It is recommended that customers experiencing this issue update to this version of the System ROM before replacing any hardware components.

**Known Issues:**

None
Online ROM Flash Component for VMware ESXi - HP ProLiant DL360 G7 (P68) Servers

Version: 2013.07.02 (E) [Critical]
Filename: CP025993.zip

Important Note:

Important Notes:

Ver. 2013.07.02 (E) contains updates to the component packaging and is functionally equivalent to ver. 2013.07.02. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2013.07.02.

Deliverable Name:

HP ProLiant DL360 G7 System ROM - P68

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue.
Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Ver. 2013.07.02 (E) contains updates to the component packaging and is functionally equivalent to ver. 2013.07.02. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2013.07.02.

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this
issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

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**Online ROM Flash Component for VMware ESXi - HP ProLiant DL360e Gen8/DL380e Gen8 (P73) Servers**

Version: 2014.08.02 (Optional)

Filename: CP026002.zip

**Important Note!**

**Important Notes:**

Ver. 2014.08.02 (C) contains updates to the component packaging and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.08.02.

**Deliverable Name:**

HP ProLiant DL360e/DL380e Gen8 System ROM - P73

**Release Date:**

08/02/2014

**Last Recommended or Critical Revision:**

12/20/2013

**Previous Revision:**

02/10/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**
Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

**Problems Fixed:**

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Ver. 2014.08.02 (C) contains updates to the component packaging and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.08.02.

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

**Known Issues:**

None

**Enhancements**

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

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**Online ROM Flash Component for VMware ESXi - HP ProLiant DL360p Gen8/DL360p Gen8 SE (P71) Servers**

Version: 2015.07.01 (Optional)

Filename: CP027728.zip

**Important Note!**
**Important Notes:**

None

**Deliverable Name:**

HP ProLiant DL360p Gen8/DL360p Gen8 SE System ROM - P71

**Release Date:**

07/01/2015

**Last Recommended or Critical Revision:**

12/20/2013

**Previous Revision:**

11/01/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

**Known Issues:**

None

### Fixes

**Important Notes:**

None

**Firmware Dependencies:**

None
Problems Fixed:

Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL380 G7 (P67) Servers
Version: 2013.07.02 (E) (Critical)
Filename: CP025991.zip

Important Note!

Important Notes:

Ver. 2013.07.02 (E) contains updates to the component packaging and is functionally equivalent to ver. 2013.07.02. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2013.07.02.

Deliverable Name:

HP ProLiant DL380 G7 System ROM - P67

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.
Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Ver. 2013.07.02 (E) contains updates to the component packaging and is functionally equivalent to ver. 2013.07.02. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2013.07.02.

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables,
and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL380p Gen8 (P70) Servers
Version: 2015.07.01 (Optional)
Filename: CP027724.zip

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL380p Gen8 System ROM - P70

Release Date:

07/01/2015

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

08/02/2014
Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL385 G7 (A18) Servers

Version: 2014.02.02 (E) (Optional)
Filename: CP026045.zip

Important Note!

Important Notes:

Ver. 2014.02.02 (E) contains updates to the component packaging and is functionally equivalent to ver.
2014.02.02. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2014.02.02.

**Deliverable Name:**

HP ProLiant DL385 G7 System ROM - A18

**Release Date:**

02/02/2014

**Last Recommended or Critical Revision:**

12/08/2012

**Previous Revision:**

12/08/2012

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Resolved a very rare condition where the system could become unresponsive or unexpectedly reset when running with AMD Opteron 6100 or 6200 processors.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Ver. 2014.02.02 (E) contains updates to the component packaging and is functionally equivalent to ver. 2014.02.02. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2014.02.02.

**Firmware Dependencies:**

None
Problems Fixed:

Resolved a very rare condition where the system could become unresponsive or unexpectedly reset when running with AMD Opteron 6100 or 6200 processors.

Known Issues:

None

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**Online ROM Flash Component for VMware ESXi - HP ProLiant DL385p Gen8 (A28) Servers**

Version: 2014.09.03 (C) *(Optional)*
Filename: CP026048.zip

**Important Note!**

**Important Notes:**

Ver. 2014.09.03 (C) contains updates to the component packaging and is functionally equivalent to ver. 2014.09.03. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.09.03.

**Deliverable Name:**

HP ProLiant DL385p Gen8 System ROM - A28

**Release Date:**

09/03/2014

**Last Recommended or Critical Revision:**

12/17/2012

**Previous Revision:**

02/06/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional...
Details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:

None

Fixes

Important Notes:

Ver. 2014.09.03 (C) contains updates to the component packaging and is functionally equivalent to ver. 2014.09.03. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.09.03.

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:

None

Enhancements

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

Online ROM Flash Component for VMware ESXi - HP ProLiant DL560 Gen8 (P77) Servers
Version: 2014.08.03 (C) (Optional)
Filename: CP026009.zip

Important Note!
Important Notes:

Ver. 2014.08.03 (C) contains updates to the component packaging and is functionally equivalent to ver. 2014.08.03. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.08.03.

Deliverable Name:

HP ProLiant DL560 Gen8 System ROM - P77

Release Date:

08/03/2014

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

02/10/2014

Firmware Dependencies:

None

Enhancements/New Features:

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Addressed a rare issue where systems configured with Intel Xeon E5 2600 v2 processors and Registered DIMMs (RDIMMs) in a 2 DIMM per Channel or 3 DIMM per Channel configuration may experience a 207 - Memory Initialization error message where certain DIMMs may not be initialized properly. This issue is seen intermittently after a system reboot.

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-4600 series processors.

Known Issues:
None

**Fixes**

**Important Notes:**

Ver. 2014.08.03 (C) contains updates to the component packaging and is functionally equivalent to ver. 2014.08.03. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.08.03.

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed a rare issue where systems configured with Intel Xeon E5 2600 v2 processors and Registered DIMMs (RDIMMs) in a 2 DIMM per Channel or 3 DIMM per Channel configuration may experience a 207 - Memory Initialization error message where certain DIMMs may not be initialized properly. This issue is seen intermittently after a system reboot.

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-4600 series processors.

**Known Issues:**

None

**Enhancements**

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

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**Online ROM Flash Component for VMware ESXi - HP ProLiant DL580 G7 (P65) Servers**

Version: 2013.10.01 (E) [Critical]
Filename: CP025989.zip

**Important Note!**

**Important Notes:**

Ver. 2013.10.01 (E) contains updates to the component packaging and is functionally equivalent to ver.
2013.10.01. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2013.10.01.

**Deliverable Name:**

HP ProLiant DL580 G7 System ROM - P65

**Release Date:**

10/01/2013

**Last Recommended or Critical Revision:**

10/01/2013

**Previous Revision:**

04/01/2013

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Addressed an issue with the 07/01/2013 revision of the System ROM that could result in decreased performance. Due to an issue with the thermal solution included in that revision of the System ROM, the processor may be "throttled" to a reduced frequency when not necessary. This issue does NOT affect other revisions of the System ROM.

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue where the Intelligent Platform Management Interface (IPMI) based power reporting would not function properly and report an incorrect wattage from the installed Power Supplies.
Known Issues:

None

Fixes

Important Notes:

Ver. 2013.10.01 (E) contains updates to the component packaging and is functionally equivalent to ver. 2013.10.01. It is not necessary to upgrade with Revision E if a previous component Revision was used to upgrade the system ROM to version 2013.10.01.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue with the 07/01/2013 revision of the System ROM that could result in decreased performance. Due to an issue with the thermal solution included in that revision of the System ROM, the processor may be "throttled" to a reduced frequency when not necessary. This issue does NOT affect other revisions of the System ROM.

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue where the Intelligent Platform Management Interface (IPMI) based power reporting would not function properly and report an incorrect wattage from the installed Power Supplies.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL585 G7 (A16) Servers

Version: 2014.09.03 (C) (Optional)
Filename: CP026042.zip

Important Note!

Important Notes:
Ver. 2014.09.03 (C) contains updates to the component packaging and is functionally equivalent to ver. 2014.09.03. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.09.03.

**Deliverable Name:**

HP ProLiant DL585 G7 System ROM

**Release Date:**

09/03/2014

**Last Recommended or Critical Revision:**

12/17/2012

**Previous Revision:**

02/02/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

**Problems Fixed:**

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Ver. 2014.09.03 (C) contains updates to the component packaging and is functionally equivalent to ver.
2014.09.03. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.09.03.

Firmware Dependencies:
None

Problems Fixed:
Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:
None

Enhancements
Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

Online ROM Flash Component for VMware ESXi - HP ProLiant DL980 G7 (P66) Servers
Version: 2014.08.15 (Optional)
Filename: CP024679.zip

Important Note!
Important Notes:
None

Deliverable Name:
HP ProLiant DL980 G7 System ROM - P66

Release Date:
08/15/2014

Last Recommended or Critical Revision:
12/31/2013
Previous Revision:
12/31/2013

Firmware Dependencies:
None

Enhancements/New Features:
Added the CMCI (Corrected Machine-Check Error Interrupt) enable/disable feature in the RBSU (ROM Based Setup Utility). Users can access the option by pressing F9 in the boot time to enter RBSU, then enter the "Advanced Options" menu and choose the "CMCI" option.

Problems Fixed:
None

Known Issues:
None

Enhancements

Important Notes:
None

Firmware Dependencies:
None

Enhancements/New Features:
Added the CMCI (Corrected Machine-Check Error Interrupt) enable/disable feature in the RBSU (ROM Based Setup Utility). Users can access the option by pressing F9 in the boot time to enter RBSU, then enter the "Advanced Options" menu and choose the "CMCI" option.

Known Issues:
None

Online ROM Flash Component for VMware ESXi - HP ProLiant MicroServer Gen8 (J06) Servers
Version: 2015.07.16 (Optional)
Filename: CP027633.zip

Important Note!
Important Notes:

None

Deliverable Name:

HP ProLiant MicroServer Gen8 System ROM - J06

Release Version:

07/16/2015

Last Recommended or Critical Revision:

08/24/2013

Previous Revision:

06/06/2014

Firmware Dependencies:

iLO Chassis Manager (CM) 1.30 is required for changing the hyperthreading setting from the iLO CM command-line.

Enhancements/New Features:

Added support for Intel i3-2130 and i3-3240 processors.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

iLO Chassis Manager (CM) 1.30 is required for changing the hyperthreading setting from the iLO CM command-line.
Enhancements/New Features:

Added support for Intel i3-2130 and i3-3240 processors.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant ML10 v2 (J10) Servers

Version: 2015.02.02 (B) (Recommended)
Filename: CP026126.zip

Important Note!

Important Notes:

Version 2015.02.02 (B) contains an update to the flash driver and replaces version 2015.02.02. The actual firmware contained within version 2015.02.02 (B) did not change as compared to version 2015.02.02 and therefore it is not necessary to upgrade if version 2015.02.02 has already been installed.

Deliverable Name:

HP ProLiant ML10 v2 System ROM - J10

Release Date:

02/02/2015

Last Recommended or Critical Revision:

This is the initial version of the firmware.

Previous Revision:

This is the initial version of the firmware.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Problems Fixed:

None
Known Issues:
None

Enhancements

Important Notes:
Version 2015.02.02 (B) contains an update to the flash driver and replaces version 2015.02.02. The actual firmware contained within version 2015.02.02 (B) did not change as compared to version 2015.02.02 and therefore it is not necessary to upgrade if version 2015.02.02 has already been installed.

Firmware Dependencies:
None

Enhancements/New Features:
This is the initial version of the firmware.

Known Issues:
None
Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM’s detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

Ver. 2013.11.09 (D) contains updates to the component packaging and is functionally equivalent to ver. 2013.11.09. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2013.11.09.

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version
1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant ML310e Gen8 v2 (P78) Servers
Version: 2014.03.28 (D) (Optional)
Filename: CP026010.zip

Important Note!

Important Notes:

Ver. 2014.03.28 (D) contains updates to the component packaging and is functionally equivalent to ver. 2014.03.28. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2014.03.28.

Deliverable Name:

HP ProLiant ML310e Gen8 v2 System ROM - P78

Release Date:

03/28/2014

Last Recommended or Critical Revision:

03/08/2014

Previous Revision:

03/08/2013

Firmware Dependencies:
None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where servers using the 03/08/2014 revision of the System ROM caused a problem with a Trusted Platform Module (TPM) operating system certification test. This issue has no known impact with TPM functionality under normal operating system environments. This problem only affects servers with the 03/08/2014 revision of the System ROM.

Known Issues:

None

Fixes

Important Notes:

Ver. 2014.03.28 (D) contains updates to the component packaging and is functionally equivalent to ver. 2014.03.28. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the system ROM to version 2014.03.28.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where servers using the 03/08/2014 revision of the System ROM caused a problem with a Trusted Platform Module (TPM) operating system certification test. This issue has no known impact with TPM functionality under normal operating system environments. This problem only affects servers with the 03/08/2014 revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant ML350e Gen8/ML350e Gen8 v2 (J02) Servers

Version: 2014.08.02 (C) (Optional)
Filename: CP025983.zip

Important Note:

Important Notes:
Ver. 2014.08.02 (C) contains updates to the component packaging and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.08.02.

Deliverable Name:

HP ProLiant ML350e Gen8/ML350e Gen8 v2 System ROM - J02

Release Date:

08/02/2014

Last Recommended or Critical Revision:

12/22/2013

Previous Revision:

02/10/2014

Firmware Dependencies:

None

Enhancements/New Features:

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Known Issues:

None

Fixes

Important Notes:

Ver. 2014.08.02 (C) contains updates to the component packaging and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision C if a previous component Revision was used to upgrade the system ROM to version 2014.08.02.

Firmware Dependencies:
None

**Problems Fixed:**

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

**Known Issues:**

None

**Enhancements**

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

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**Online ROM Flash Component for VMware ESXi - HP ProLiant ML350p Gen8 (P72) Servers**

Version: 2015.07.01 *(Optional)*

Filename: CP027699.zip

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant ML350p Gen8 System ROM - P72

**Release Date:**

07/01/2015

**Last Recommended or Critical Revision:**

12/20/2013

**Previous Revision:**

08/02/2014

**Firmware Dependencies:**

None
Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant SL210t Gen8 (P83) Servers

Version: 2014.11.01 (B) (Optional)
Filename: CP026014.zip

Important Note!

Important Notes:

Ver. 2014.11.01 (B) contains updates to the component packaging and is functionally equivalent to ver. 2014.11.01. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.01.
Deliverable Name:
HP ProLiant SL210t Gen8 System ROM - P83

Release Date:
11/01/2014

Last Recommended or Critical Revision:
12/20/2013

Previous Revision:
08/02/2014

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-2600 series processors.

Known Issues:
None

Fixes

Important Notes:
Ver. 2014.11.01 (B) contains updates to the component packaging and is functionally equivalent to ver. 2014.11.01. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.01.

Firmware Dependencies:
None

Problems Fixed:
Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-2600 series processors.

**Known Issues:**

None

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**Online ROM Flash Component for VMware ESXi - HP ProLiant SL230s/SL250s/SL270s Gen8/SL270s Gen8 SE (P75) Servers**

Version: 2015.05.01 *(Optional)*

Filename: CP027397.zip

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant SL230s/250s/270s Gen8/270s Gen8 SE System ROM - P75

**Release Version:**

05/01/2015

**Last Recommended or Critical Revision:**

12/20/2013

**Previous Revision:**

12/01/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Updated the thermal support for systems configured with AMD GPGPUs.

**Problems Fixed:**

None

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Known Issues:
None

Enhancements

Important Notes:
None

Firmware Dependencies:
None

Enhancements/New Features:
Updated the thermal support for systems configured with AMD GPGPU.

Known Issues:
None

Online ROM Flash Component for VMware ESXi - HP ProLiant SL4540 Gen8 (P74) Servers
Version: 2014.11.01 (B) (Optional)
Filename: CP026003.zip

Important Note!

Important Notes:
Ver. 2014.11.01 (B) contains updates to the component packaging and is functionally equivalent to ver. 2014.11.01. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.01.

Deliverable Name:
HP ProLiant SL4540 Gen8 System ROM - P74

Release Date:
11/01/2014

Last Recommended or Critical Revision:
12/20/2013
Previous Revision:
08/02/2014

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-2400 series processors.

Known Issues:
None

Fixes

Important Notes:
Ver. 2014.11.01 (B) contains updates to the component packaging and is functionally equivalent to ver. 2014.11.01. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2014.11.01.

Firmware Dependencies:
None

Problems Fixed:
Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-2400 series processors.

Known Issues:
None
Important Notes:

Version 2013.11.02 (B) contains an update to the flash driver and replaces version 2013.11.02. The actual firmware contained within version 2013.11.02 (B) did not change as compared to version 2013.11.02 and therefore it is not necessary to upgrade if version 2013.11.02 has already been installed.

Deliverable Name:

HP ProLiant SL4545 G7 System ROM - A31

Release Date:

11/02/2013

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

06/05/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added the latest product names of optional expansion cards in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

Version 2013.11.02 (B) contains an update to the flash driver and replaces version 2013.11.02. The actual firmware contained within version 2013.11.02 (B) did not change as compared to version 2013.11.02 and therefore it is not necessary to upgrade if version 2013.11.02 has already been installed.

Firmware Dependencies:

None
**Enhancements/New Features:**

Added the latest product names of optional expansion cards in the ROM-Based Setup Utility (RBSU).

**Known Issues:**

None

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**Online ROM Flash Component for VMware ESXi - HP ProLiant XL220a Gen8 v2 (P94) Servers**

Version: 2015.01.26 (B) *(Optional)*

Filename: CP026015.zip

**Important Note!**

**Important Notes:**

Ver. 2015.01.26 (B) contains updates to the component packaging and is functionally equivalent to ver. 2015.01.26. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2015.01.26.

**Fixes**

Ver. 2015.01.26 (B) contains updates to the component packaging and is functionally equivalent to ver. 2015.01.26. It is not necessary to upgrade with Revision B if a previous component Revision was used to upgrade the system ROM to version 2015.01.26.

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**Online ROM Flash Component for VMware ESXi - HP ProLiant DL580 Gen8 (P79) Servers**

Version: 1.90_07-20-2015 *(Optional)*

Filename: CP027616.zip

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant DL580 Gen8 System ROM - P79

**Release Version:**

1.90_07-20-2015
Last Recommended or Critical Revision:

1.01_03-19-2014

Previous Revision:

1.80_05-06-2015

Firmware Dependencies:

None

Enhancements/New Features:

Added a new System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy menu that allows the user to select how the UEFI BIOS will scan for valid Fibre Channel (or boot from SAN) boot targets. By default, the system will now only scan for Fibre Channel boot targets that are configured in each adapter. In the past, the system would scan for all Fibre Channel or FCoE available targets, potentially resulting in long boot times and large number of entries in the UEFI Boot Order list. The boot targets for adapters can be configured using the adapter specific menu in the System Utilities, System Configuration menu, or using management software such as HP Virtual Connect or HP OneView. This setting is applicable only in UEFI Boot Mode. A firmware update of the fibre channel controller might also be required to take full advantage of this feature.

Enhanced the thermal solution to provide better acoustics from the system fans.

Problems Fixed:

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

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Problems Fixed:

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Known Issues:

None

Enhancements

Added a new System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy menu that allows the user to select how the UEFI BIOS will scan for valid Fibre Channel (or boot from SAN) boot targets. By default, the system will now only scan for Fibre Channel boot targets that are configured in each adapter. In the past, the system would scan for all Fibre Channel or FCoE available targets, potentially resulting in long boot times and large number of entries in the UEFI Boot Order list. The boot targets for adapters can be configured using the adapter specific menu in the System Utilities, System Configuration menu, or using management software such as HP Virtual Connect or HP OneView. This setting is applicable only in UEFI Boot Mode. A firmware update of the fibre channel controller might also be required to take full advantage of this feature.

Enhanced the thermal solution to provide better acoustics from the system fans.

Online ROM Flash Component for VMware ESXi - HP ProLiant XL230a/XL250a Gen9 (U13) Servers

Version: 1.50_07-20-2015 (Recommended)
Filename: CP027413.zip

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant XL230a/XL250a Gen9 System ROM - U13

Release Version:

1.50_07-20-2015
Last Recommended or Critical Revision:

1.50_07-20-2015

Previous Revision:

1.40_05-06-2015

Firmware Dependencies:

None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.
Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None
**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

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Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for Windows - HP ProLiant BL280c G6 (I22) Servers**

Version: 2013.07.02 (B) **(Critical)**

Filename: cp024004.exe

**Important Note!**

**Important Notes:**

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Deliverable Name:
HP ProLiant BL280c G6 System ROM - I22

Release Date:
07/02/2013

Last Recommended or Critical Revision:
07/02/2013

Previous Revision:
12/02/2012

Firmware Dependencies:
None

Enhancements/New Features:
None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a
result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel’s microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a
result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

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**Online ROM Flash Component for Windows - HP ProLiant BL2x220c G6 (I26) Servers**

Version: 2013.07.02 (B) **(Critical)**
Filename: cp024005.exe

**Important Note!**

**Important Notes:**

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:


**Deliverable Name:**

HP ProLiant BL2x220c G6 System ROM - I26

**Release Date:**

07/02/2013

**Last Recommended or Critical Revision:**

07/02/2013

**Previous Revision:**

05/05/2011

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None.
Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:

None

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Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL2x220c G7 (I29) Servers
Version: 2013.07.02 (B) (Critical)
Filename: cp024008.exe

Important Note!

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375
Deliverable Name:
HP ProLiant BL2x220c G7 System ROM - I29

Release Date:
07/02/2013

Last Recommended or Critical Revision:
07/02/2013

Previous Revision:
12/02/2012

Firmware Dependencies:
None

Enhancements/New Features:
None.

Problems Fixed:
Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a
result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel’s microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a
result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

**Online ROM Flash Component for Windows - HP ProLiant BL420c Gen8 (I30) Servers**

Version: 2014.11.03 (Optional)
Filename: cp025454.exe

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant BL420c Gen8 System ROM - I30

**Release Date:**

11/03/2014

**Last Recommended or Critical Revision:**

09/01/2014

**Previous Revision:**

09/01/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to properly configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.
Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to properly configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL460c G6/WS460c G6 (I24) Servers

Version: 2015.01.22 (Recommended)
Filename: cp025980.exe

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Deliverable Name:

HP ProLiant BL460c G6 and WS460c G6 System ROM - I24

Release Date:
Eliminate the "row hammer" issue when susceptible DIMMs have been installed in the server. This BIOS update will program the memory controller for 2x memory refresh which prevents the "row hammer" issue that could result in correctable or uncorrectable memory errors.

Known Issues:
None

Important Notes:
Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Fixes
Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL460c G7 (I27) Servers
Version: 2013.07.02 (Critical)
Filename: cp024006.exe

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Deliverable Name:

HP ProLiant BL460c G7 System ROM - I27

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/03/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.
Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:

None

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Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel’s microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL460c/WS460c Gen8 (I31) Servers
Version: 2015.06.01 (Optional)
Filename: cp027279.exe

Important Notes:

None

Deliverable Name:

HP ProLiant BL460c Gen8/WS460c Gen8 System ROM - I31

Release Version:
Addressed an issue where systems configured with the ATI S4000x GPU adapter may experience unexpected shutdowns due to a thermal event.

Known Issues:
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:
Addressed an issue where systems configured with the ATI S4000x GPU adapter may experience unexpected shutdowns due to a thermal event.

Known Issues:
None
Filename: cp023998.exe

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Deliverable Name:

HP ProLiant BL465c G7 System ROM - A19

Release Date:

02/02/2014

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

12/08/2012

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Resolved a very rare condition where the system could become unresponsive or unexpectedly reset when running with AMD Opteron 6100 or 6200 processors.

Known Issues:

None

Fixes

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Firmware Dependencies:

None
Problems Fixed:

Resolved a very rare condition where the system could become unresponsive or unexpectedly reset when running with AMD Opteron 6100 or 6200 processors.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL465c Gen8 (A26) Servers
Version: 2014.11.02 (Optional)
Filename: cp025529.exe

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL465c Gen8 System ROM - A26

Release Date:

11/02/2014

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

09/03/2014

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.
Known Issues:
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

Known Issues:
None

Online ROM Flash Component for Windows - HP ProLiant BL490c G6 (I21) Servers
Version: 2013.07.02 (B) (Critical)
Filename: cp024003.exe

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Deliverable Name:

HP ProLiant BL490 G6 System ROM - I21

Release Date:
07/02/2013

Last Recommended or Critical Revision:
07/02/2013

Previous Revision:
05/05/2011

Firmware Dependencies:
None

Enhancements/New Features:
None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:
None

Fixes

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Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None
Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Deliverable Name:

HP ProLiant BL490c G7 System ROM - I28

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/03/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This
revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:
None

Fixes

Important Notes:
Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:
None

Problems Fixed:
Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue.
Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

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**Online ROM Flash Component for Windows - HP ProLiant BL660c Gen8 (I32) Servers**

Version: 2014.11.02 *(Optional)*
Filename: cp025423.exe

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant BL660c Gen8 System ROM - I32

**Release Date:**

11/02/2014

**Last Recommended or Critical Revision:**

12/20/2013

**Previous Revision:**

08/03/2014

**Firmware Dependencies:**

None
Enhancements/New Features:
None

Problems Fixed:

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

Known Issues:
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:

Addressed an issue where systems configured with Integrated Lights-Out (iLO) Firmware version 2.00 or later may not be able to configure the platform properly through HP Virtual Connect. This issue is not seen with earlier versions of iLO firmware.

Known Issues:
None

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**Online ROM Flash Component for Windows - HP ProLiant BL680c G7/BL620c G7 (I25) Servers**

Version: 2013.07.01 (B) **(Critical)**
Filename: cp024021.exe

**Important Note!**

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Deliverable Name:
HP ProLiant BL620c/BL680c G7 System ROM - I25

Release Date:
07/01/2013

Last Recommended or Critical Revision:
07/01/2013

Previous Revision:
04/01/2013

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:
None

Fixes

Important Notes:
Component packaging has been updated; no impact to product’s functionality.

Firmware Dependencies:
None
Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL685c G7 (A20) Servers
Version: 2014.09.03 (Optional)
Filename: cp024551.exe

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL685c G7 System ROM

Release Date:

09/03/2014

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

02/01/2014

Firmware Dependencies:

None

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Enhancements/New Features:

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:

None

Enhancements

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".
Online ROM Flash Component for Windows - HP ProLiant DL160 Gen8 (J03) Servers
Version: 2014.08.02 (B) (Recommended)
Filename: cp026578.exe

Important Notes:

This System ROM update is recommended to ensure that the system cooling is operating at maximum efficiency. Ver. 2014.08.02 (B) contains updates to the customer release notes and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision B if the previous Revision was used to upgrade the system ROM to version 2014.08.02. Please refer to the Customer Advisory at http://h20564.www2.hp.com/hpsc/doc/public/display?docId=emr_na-c04619916 for additional details.

Deliverable Name:

HP ProLiant DL160 Gen8 System ROM - J03

Release Date:

08/02/2014

Last Recommended or Critical Revision:

08/02/2014

Previous Revision:

02/10/2014

Firmware Dependencies:

None

Enhancements/New Features:

Improved the thermal cooling solution, update the System ROM to a version dated 02 August 2014 or later.

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Addressed a rare issue where systems configured with Intel Xeon E5 2600 v2 processors and Registered DIMMs (RDIMMs) in a 2 DIMM per Channel or 3 DIMM per Channel configuration may experience a 207 - Memory Initialization error message where certain DIMMs may not be initialized properly. This issue is seen intermittently after a system reboot.
Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

**Known Issues:**

None

**Fixes**

**Important Notes:**

This System ROM update is recommended to ensure that the system cooling is operating at maximum efficiency. Ver. 2014.08.02 (B) contains updates to the customer release notes and is functionally equivalent to ver. 2014.08.02. It is not necessary to upgrade with Revision B if the previous Revision was used to upgrade the system ROM to version 2014.08.02. Please refer to the Customer Advisory at [http://h20564.www2.hp.com/hpsc/doc/public/display?docId=emr_na-c04619916](http://h20564.www2.hp.com/hpsc/doc/public/display?docId=emr_na-c04619916) for additional details.

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed a rare issue where systems configured with Intel Xeon E5 2600 v2 processors and Registered DIMMs (RDIMMs) in a 2 DIMM per Channel or 3 DIMM per Channel configuration may experience a 207 - Memory Initialization error message where certain DIMMs may not be initialized properly. This issue is seen intermittently after a system reboot.

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

**Known Issues:**

None

**Enhancements**

Improved the thermal cooling solution, update the System ROM to a version dated 02 August 2014 or later.

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).
Online ROM Flash Component for Windows - HP ProLiant DL320 G6/ML330 G6 (W07) Servers
Version: 2013.07.02 (B) (Critical)
Filename: cp024020.exe

Important Note!

Important Notes:
Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:
HP ProLiant ML330 G6 and DL320 G6 System ROM - W07

Release Date:
07/02/2013

Last Recommended or Critical Revision:
07/02/2013

Previous Revision:
12/02/2012

Firmware Dependencies:
None

Enhancements/New Features:
None.

Problems Fixed:
Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be
affected by this issue the server must be operating in a virtualized environment, have Intel
Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables,
and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and
could impact any system utilizing affected processors operating with the conditions listed above. This
revision of the System ROM contains an updated version of Intel's microcode that addresses this issue.
Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM
upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon
Processor X5687 where a rare and complex combination of data and environmental conditions may result
in some instructions not executing properly causing unpredictable system behavior. This issue is not
unique to HP ProLiant servers and could impact any system using the affected processors listed above.
This revision of the System ROM contains and updated version of Intel's microcode that addresses this
issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors.
This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with
Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a
result of this issue, software may lose interrupts, receive spurious interrupts or cause a network
disconnect.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update
utility, the System ROM revision cannot be downgraded with the flash components available on the HP
Support site after updating to this revision of the System ROM. A customer can downgrade the System
ROM by creating a new flash component with the older System ROM revision as indicated in Advisory
C02838375 available at the following link:

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed a processor issue under which a rare and complex sequence of internal processor
microarchitecture events that occur in specific operating environments could cause a server system to
experience unexpected page faults, general protection faults, or machine check exceptions or other
unpredictable system behavior. While all processors supported by this server have this issue, to be
affected by this issue the server must be operating in a virtualized environment, have Intel
Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables,
and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None
Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect
the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

**Known Issues:**

None

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**Online ROM Flash Component for Windows - HP ProLiant DL320e Gen8 v2 (P80) Servers**

Version: 2015.04.02 *(Optional)*  
Filename: cp026841.exe

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant DL320e Gen8 v2 System ROM - P80

**Release Date:**

04/02/2015

**Last Recommended or Critical Revision:**

03/07/2014

**Previous Revision:**

03/28/2014

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None

**Problems Fixed:**

Addressed an issue with excessively loud fan noise when either SATA AHCI support is enabled in the Embedded SATA Configuration menu in RBSU (ROM-Based Setup Utility) or when Dynamic HP Smart Array
B120i RAID Support is enabled in the Embedded SATA Configuration menu in RBSU (ROM-Based Setup Utility) and the Dynamic HP Smart Array B120i RAID operating system driver is not loaded.

Addressed an issue where a system under heavy stress could experience an uncorrectable machine check. This issue is not unique to HP. It is recommended that customers experiencing this issue update to this version of the System ROM before replacing any hardware components.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue with excessively loud fan noise when either SATA AHCI support is enabled in the Embedded SATA Configuration menu in RBSU (ROM-Based Setup Utility) or when Dynamic HP Smart Array B120i RAID Support is enabled in the Embedded SATA Configuration menu in RBSU (ROM-Based Setup Utility) and the Dynamic HP Smart Array B120i RAID operating system driver is not loaded.

Addressed an issue where a system under heavy stress could experience an uncorrectable machine check. This issue is not unique to HP. It is recommended that customers experiencing this issue update to this version of the System ROM before replacing any hardware components.

**Known Issues:**

None

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**Online ROM Flash Component for Windows - HP ProLiant DL380 G6 (P64) Servers**

Version: 2015.01.22 *(Recommended)*

Filename: cp025977.exe

**Important Note!**

**Important Notes:**

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
Deliverable Name:

HP ProLiant DL360 G6 System ROM - P64

Release Date:

01/22/2015

Last Recommended or Critical Revision:

01/22/2015

Previous Revision:

07/02/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Eliminate the "row hammer" issue when susceptible DIMMs have been installed in the server. This BIOS update will program the memory controller for 2x memory refresh which prevents the "row hammer" issue that could result in correctable or uncorrectable memory errors.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:


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Firmware Dependencies:
None

Problems Fixed:
Eliminate the "row hammer" issue when susceptible DIMMs have been installed in the server. This BIOS update will program the memory controller for 2x memory refresh which prevents the "row hammer" issue that could result in correctable or uncorrectable memory errors.

Known Issues:
None

Online ROM Flash Component for Windows - HP ProLiant DL360 G7 (P68) Servers
Version: 2013.07.02 (B) [Critical]
Filename: cp024018.exe

Important Note:

Important Notes:
Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:
HP ProLiant DL360 G7 System ROM - P68

Release Date:
07/02/2013

Last Recommended or Critical Revision:
07/02/2013

Previous Revision:
12/02/2012
Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL360e Gen8/DL380e Gen8 (P73) Servers
Version: 2014.08.02 (Optional)
Filename: cp024453.exe

Important Note!

Important Notes:

None
Deliverable Name:
HP ProLiant DL360e/DL380e Gen8 System ROM - P73

Release Date:
08/02/2014

Last Recommended or Critical Revision:
12/20/2013

Previous Revision:
02/10/2014

Firmware Dependencies:
None

Enhancements/New Features:
Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

Problems Fixed:
Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Known Issues:
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:
Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Known Issues:

None

Enhancements

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

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**Online ROM Flash Component for Windows - HP ProLiant DL360p Gen8/DL360p Gen8 SE (P71) Servers**

Version: 2015.07.01 (Optional)

Filename: cp027725.exe

Important Notes:

None

Deliverable Name:

HP ProLiant DL360p Gen8/DL360p Gen8 SE System ROM - P71

Release Date:

07/01/2015

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/01/2014

Firmware Dependencies:

None

Enhancements/New Features:

None
Problems Fixed:

Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL380 G6 (P62) Servers

Version: 2015.01.22 (Recommended)
Filename: cp025973.exe

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

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Deliverable Name:
HP ProLiant DL380 G6 System ROM - P62

Release Date:
01/22/2015

Last Recommended or Critical Revision:
01/22/2015

Previous Revision:
07/02/2013

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Eliminate the "row hammer" issue when susceptible DIMMs have been installed in the server. This BIOS update will program the memory controller for 2x memory refresh which prevents the "row hammer" issue that could result in correctable or uncorrectable memory errors.

Known Issues:
None

Fixes

Important Notes:
Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:
None
**Problems Fixed:**

Eliminate the "row hammer" issue when susceptible DIMMs have been installed in the server. This BIOS update will program the memory controller for 2x memory refresh which prevents the "row hammer" issue that could result in correctable or uncorrectable memory errors.

**Known Issues:**

None

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**Online ROM Flash Component for Windows - HP ProLiant DL380 G7 (P67) Servers**

Version: 2013.07.02 (B) *(Critical)*

Filename: cp024012.exe

**Important Note:**

**Important Notes:**

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:


**Deliverable Name:**

HP ProLiant DL380 G7 System ROM - P67

**Release Date:**

07/02/2013

**Last Recommended or Critical Revision:**

07/02/2013

**Previous Revision:**

12/02/2012

**Firmware Dependencies:**

None
**Enhancements/New Features:**

None.

**Problems Fixed:**

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

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Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None
HP ProLiant DL380p Gen8 System ROM - P70

Release Date:
07/01/2015

Last Recommended or Critical Revision:
12/20/2013

Previous Revision:
08/02/2014

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:
Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Known Issues:
None

Online ROM Flash Component for Windows - HP ProLiant DL385 G7 (A18) Servers
Version: 2014.02.02 (Optional)
Filename: cp023997.exe

Important Note!

Important Notes:
Component packaging has been updated; no impact to product’s functionality.

Deliverable Name:
HP ProLiant DL385 G7 System ROM - A18

Release Date:
02/02/2014

Last Recommended or Critical Revision:
12/08/2012

Previous Revision:
12/08/2012

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Resolved a very rare condition where the system could become unresponsive or unexpectedly reset when running with AMD Opteron 6100 or 6200 processors.

Known Issues:
None
Fixes

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare condition where the system could become unresponsive or unexpectedly reset when running with AMD Opteron 6100 or 6200 processors.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL385p Gen8 (A28) Servers
Version: 2014.09.03 (Optional)
Filename: cp024546.exe

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL385p Gen8 System ROM - A28

Release Date:

09/03/2014

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

02/06/2014

Firmware Dependencies:

None
Enhancements/New Features:

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:

None

Enhancements

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".
Online ROM Flash Component for Windows - HP ProLiant DL560 Gen8 (P77) Servers
Version: 2014.08.03 (Optional)
Filename: cp024371.exe

Important Notes:

None

Deliverable Name:

HP ProLiant DL560 Gen8 System ROM - P77

Release Date:

08/03/2014

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

02/10/2014

Firmware Dependencies:

None

Enhancements/New Features:

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Addressed a rare issue where systems configured with Intel Xeon E5 2600 v2 processors and Registered DIMMs (RDIMMs) in a 2 DIMM per Channel or 3 DIMM per Channel configuration may experience a 207 - Memory Initialization error message where certain DIMMs may not be initialized properly. This issue is seen intermittently after a system reboot.

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.
Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-4600 series processors.

Known Issues:
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:

Addressed a rare issue where systems configured with Intel Xeon E5 2600 v2 processors and Registered DIMMs (RDIMMs) in a 2 DIMM per Channel or 3 DIMM per Channel configuration may experience a 207 - Memory Initialization error message where certain DIMMs may not be initialized properly. This issue is seen intermittently after a system reboot.

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-4600 series processors.

Known Issues:
None

Enhancements

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Windows - HP ProLiant DL580 G7 (P65) Servers
Version: 2013.10.01 (C) (Critical)
Filename: cp023988.exe

Important Note!
Important Notes:

Component packaging has been updated; no impact to product’s functionality.

IMPORTANT: The 07/01/2013 System ROM has an issue that can result in reduced performance and it has been removed from the HP Support Site. All HP ProLiant DL580 G7 servers should update to the 10/01/2013 System ROM instead. The 10/01/2013 System ROM revision addresses the performance issue. The performance issue was unique to the 07/01/2013 System ROM revision for the DL580 G7. It does not affect any other ProLiant servers or any other HP ProLiant DL580 G7 System ROM revisions.

Deliverable Name:

HP ProLiant DL580 G7 System ROM - P65

Release Date:

10/01/2013

Last Recommended or Critical Revision:

10/01/2013

Previous Revision:

04/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue with the 07/01/2013 revision of the System ROM that could result in decreased performance. Due to an issue with the thermal solution included in that revision of the System ROM, the processor may be "throttled" to a reduced frequency when not necessary. This issue does NOT affect other revisions of the System ROM.

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This
revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue where the Intelligent Platform Management Interface (IPMI) based power reporting would not function properly and report an incorrect wattage from the installed Power Supplies.

Known Issues:

None

Fixes

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

IMPORTANT: The 07/01/2013 System ROM has an issue that can result in reduced performance and it has been removed from the HP Support Site. All HP ProLiant DL580 G7 servers should update to the 10/01/2013 System ROM instead. The 10/01/2013 System ROM revision addresses the performance issue. The performance issue was unique to the 07/01/2013 System ROM revision for the DL580 G7. It does not affect any other ProLiant servers or any other HP ProLiant DL580 G7 System ROM revisions.

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue with the 07/01/2013 revision of the System ROM that could result in decreased performance. Due to an issue with the thermal solution included in that revision of the System ROM, the processor may be "throttled" to a reduced frequency when not necessary. This issue does NOT affect other revisions of the System ROM.

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue where the Intelligent Platform Management Interface (IPMI) based power reporting would not function properly and report an incorrect wattage from the installed Power Supplies.

Known Issues:
Online ROM Flash Component for Windows - HP ProLiant DL580 Gen8 (P79) Servers
Version: 1.90_07-20-2015 (Optional)
Filename: cp027617.exe

Important Note!

Important Notes:
None

Deliverable Name:
HP ProLiant DL580 Gen8 System ROM - P79

Release Version:
1.90_07-20-2015

Last Recommended or Critical Revision:
1.01_03-19-2014

Previous Revision:
1.80_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a new System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy menu that allows the user to select how the UEFI BIOS will scan for valid Fibre Channel (or boot from SAN) boot targets. By default, the system will now only scan for Fibre Channel boot targets that are configured in each adapter. In the past, the system would scan for all Fibre Channel or FCoE available targets, potentially resulting in long boot times and large number of entries in the UEFI Boot Order list. The boot targets for adapters can be configured using the adapter specific menu in the System Utilities, System Configuration menu, or using management software such as HP Virtual Connect or HP OneView. This setting is applicable only in UEFI Boot Mode. A firmware update of the fibre channel controller might also be required to take full advantage of this feature.

Enhanced the thermal solution to provide better acoustics from the system fans.

Problems Fixed:
Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

**Known Issues:**

None

**Enhancements**

Added a new System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy menu that allows the user to select how the UEFI BIOS will scan for valid Fibre Channel (or boot from SAN) boot targets. By default, the system will now only scan for Fibre Channel boot targets that are configured in each adapter. In the past, the system would scan for all Fibre Channel or FCoE available targets, potentially resulting in long boot times and large number of entries in the UEFI Boot Order list. The boot targets for adapters can be configured using the adapter specific menu in the System Utilities, System Configuration menu, or using management software such as HP Virtual Connect or HP OneView. This setting is applicable only in UEFI Boot Mode. A firmware update of the fibre channel controller might also be required to take full advantage of this feature.

Enhanced the thermal solution to provide better acoustics from the system fans.
Online ROM Flash Component for Windows - HP ProLiant DL585 G7 (A16) Servers
Version: 2014.09.03 (Optional)
Filename: cp024413.exe

Important Note!

Important Notes:
None

Deliverable Name:
HP ProLiant DL585 G7 System ROM

Release Date:
09/03/2014

Last Recommended or Critical Revision:
12/17/2012

Previous Revision:
02/02/2014

Firmware Dependencies:
None

Enhancements/New Features:

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

Problems Fixed:

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

Known Issues:
None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Resolved an issue where VMware may stop responding and display a Purple Screen with the message "Exception 14: Page Fault" when running on AMD Opteron 6300 series processors.

**Known Issues:**

None

**Enhancements**

Added a new ROM-Based Setup Utility (RBSU) option "Memory Proximity Reporting for I/O" that, when enabled, reports the proximity relationship between I/O devices and system memory to the operating system. Most operating systems can use this information to efficiently assign memory resources for devices such as network controllers and storage devices for improved performance. Certain I/O devices might not be able to take advantage of I/O handling benefits if their OS drivers are not properly optimized to support this feature. Please consult operating system and I/O device documentation for additional details. This option is disabled by default. This option is found in "Advanced Performance Tuning Options" under "Advanced Options".

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**Online ROM Flash Component for Windows - HP ProLiant DL785 G5/DL785 G6 (A15) Servers**

Version: 2011.05.02 (B) *(Critical)*

Filename: cp023992.exe

**Important Note!**

**Important Notes:**

Component packaging has been updated; no impact to product’s functionality.

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:


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Deliverable Name:

HP ProLiant DL785 G5/G6 System ROM - A15

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

12/04/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:


Problems Fixed:

Resolved an issue where the System ROM would not populate the System Enclosure or Chassis (type 3) SMBIOS record with text entered by the user in the Server Asset Tag Text Line in the ROM-Based Setup Utility (RBSU).

Resolved an issue where the user may be unable to select and use the '57600' and '115200' options in the "BIOS Serial Console Baud Rate" menu in the ROM-Based Setup Utility (RBSU).

Known Issues:

None
Important Notes:

Component packaging has been updated; no impact to product’s functionality.

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the System ROM would not populate the System Enclosure or Chassis (type 3) SMBIOS record with text entered by the user in the Server Asset Tag Text Line in the ROM-Based Setup Utility (RBSU).

Resolved an issue where the user may be unable to select and use the '57600' and '115200' options in the "BIOS Serial Console Baud Rate" menu in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Online ROM Flash Component for Windows - HP ProLiant DL980 G7 (P66) Servers
Version: 2014.08.15 (Optional)
Filename: cp024677.exe

Important Note!

Important Notes:

None
Deliverable Name:
HP ProLiant DL980 G7 System ROM - P66

Release Date:
08/15/2014

Last Recommended or Critical Revision:
12/31/2013

Previous Revision:
12/31/2013

Firmware Dependencies:
None

Enhancements/New Features:
Added the CMCI (Corrected Machine-Check Error Interrupt) enable/disable feature in the RBSU (ROM Based Setup Utility). Users can access the option by pressing F9 in the boot time to enter RBSU, then enter the "Advanced Options" menu and choose the "CMCI" option.

Problems Fixed:
None

Known Issues:
None

Enhancements

Important Notes:
None

Firmware Dependencies:
None

Enhancements/New Features:
Added the CMCI (Corrected Machine-Check Error Interrupt) enable/disable feature in the RBSU (ROM Based Setup Utility). Users can access the option by pressing F9 in the boot time to enter RBSU, then enter the "Advanced Options" menu and choose the "CMCI" option.

**Known Issues:**

None

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**Online ROM Flash Component for Windows - HP ProLiant MicroServer Gen8 (J06) Servers**

Version: 2015.07.16 *(Optional)*

Filename: cp027630.exe

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant MicroServer Gen8 System ROM - J06

**Release Version:**

07/16/2015

**Last Recommended or Critical Revision:**

08/24/2013

**Previous Revision:**

06/06/2014

**Firmware Dependencies:**

iLO Chassis Manager (CM) 1.30 is required for changing the hyperthreading setting from the iLO CM command-line.

**Enhancements/New Features:**

Added support for Intel i3-2130 and i3-3240 processors.

**Problems Fixed:**

None
Known Issues:
None

Enhancements

Important Notes:
None

Firmware Dependencies:
iLO Chassis Manager (CM) 1.30 is required for changing the hyperthreading setting from the iLO CM command-line.

Enhancements/New Features:
Added support for Intel i3-2130 and i3-3240 processors.

Known Issues:
None

Online ROM Flash Component for Windows - HP ProLiant ML10 (P88) Server
Version: 2013.08.16 (C) (Optional)
Filename: cp023989.exe

Important Note:

Important Notes:
Component packaging has been updated; no impact to product’s functionality.

Deliverable Name:
HP ProLiant ML10 System ROM - P88

Release Date:
08/16/2013

Last Recommended or Critical Revision:
07/02/2013

Previous Revision:
07/02/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Resolved an issue where the IRQ setting could not be changed in the ROM-Based Setup Utility (RBSU) for the BL110i SATA RAID device.

Removed the Removable Flash Media Boot Sequence option in the ROM-Based Setup Utility (RBSU) as the HP ProLiant ML10 does not support an internal SD card slot.

Updated text (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the IRQ setting could not be changed in the ROM-Based Setup Utility (RBSU) for the BL110i SATA RAID device.

Removed the Removable Flash Media Boot Sequence option in the ROM-Based Setup Utility (RBSU) as the HP ProLiant ML10 does not support an internal SD card slot.

Updated text (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None
Important Note!

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Deliverable Name:

HP ProLiant ML110 G7 and DL120 G7 System ROM - J01

Release Date:

07/01/2013

Last Recommended or Critical Revision:

07/01/2013

Previous Revision:

12/04/2012

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:
None

**Fixes**

**Important Notes:**
Component packaging has been updated; no impact to product’s functionality.

**Firmware Dependencies:**
None

**Problems Fixed:**

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

**Known Issues:**

None

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**Online ROM Flash Component for Windows - HP ProLiant ML310e Gen8 (J04) Servers**

Version: 2013.11.09 *(Optional)*

Filename: cp022263.exe

**Important Note!**

**Important Notes:**
None

**Deliverable Name:**

HP ProLiant ML310e Gen8 System ROM - J04

**Release Date:**

11/09/2013
Last Recommended or Critical Revision:
08/24/2013

Previous Revision:
08/24/2013

Firmware Dependencies:
None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM’s detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:
None

Known Issues:
None

Enhancements

Important Notes:
None

Firmware Dependencies:
None

Enhancements/New Features:
Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

**Known Issues:**

None

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**Online ROM Flash Component for Windows - HP ProLiant ML310e Gen8 v2 (P78) Servers**

Version: 2014.03.28 *(Optional)*

Filename: cp023155.exe

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant ML310e Gen8 v2 System ROM - P78

**Release Date:**

03/28/2014

**Last Recommended or Critical Revision:**

03/08/2014

**Previous Revision:**

03/08/2013

**Firmware Dependencies:**

None

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Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where servers using the 03/08/2014 revision of the System ROM caused a problem with a Trusted Platform Module (TPM) operating system certification test. This issue has no known impact with TPM functionality under normal operating system environments. This problem only affects servers with the 03/08/2014 revision of the System ROM.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where servers using the 03/08/2014 revision of the System ROM caused a problem with a Trusted Platform Module (TPM) operating system certification test. This issue has no known impact with TPM functionality under normal operating system environments. This problem only affects servers with the 03/08/2014 revision of the System ROM.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant ML350 G6 (D22) Servers
Version: 2013.07.02 (B) (Critical)
Filename: cp024002.exe

Important Note!

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP
Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

**Deliverable Name:**

HP ProLiant ML350 G6 System ROM - D22

**Release Date:**

07/02/2013

**Last Recommended or Critical Revision:**

07/02/2013

**Previous Revision:**

12/02/2012

**Firmware Dependencies:**

None

**Enhancements/New Features:**

None.

**Problems Fixed:**

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel’s microcode that addresses this issue.
issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this
This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant ML350e Gen8/ML350e Gen8 v2 (J02) Servers
Version: 2014.08.02 (Optional)
Filename: cp024408.exe

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML350e Gen8/ML350e Gen8 v2 System ROM - J02

Release Date:

08/02/2014

Last Recommended or Critical Revision:

12/22/2013

Previous Revision:

02/10/2014

Firmware Dependencies:

None

Enhancements/New Features:

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).
Problems Fixed:

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may become unresponsive during POST when an optional Video card is installed.

Addressed an issue where certain option cards that request very large amounts of non-prefetchable memory will not function properly. This issue only impacts a very small number of non-HP option cards.

Known Issues:

None

Enhancements

Added support for the latest names for PCIe expansion devices to the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Windows - HP ProLiant ML350p Gen8 (P72) Servers

Version: 2015.07.01 (Optional)
Filename: cp027696.exe

Important Note!

Important Notes:

None
Deliverable Name:

HP ProLiant ML350p Gen8 System ROM - P72

Release Date:

07/01/2015

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

08/02/2014

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:
Addressed an issue where a device interrupt may not be handled properly and result in a lost interrupt or an uncorrectable machine check exception. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

**Known Issues:**

None

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**Online ROM Flash Component for Windows - HP ProLiant ML370 G6/DL370 G6 (P63) Servers**

Version: 2013.07.02 (B) *(Critical)*
Filename: cp024010.exe

**Important Note!**

**Important Notes:**

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

**Deliverable Name:**
HP ProLiant ML370 G6/DL370 G6 System ROM - P63

**Release Date:**
07/02/2013

**Last Recommended or Critical Revision:**
07/02/2013

**Previous Revision:**
12/02/2012

**Firmware Dependencies:**

None

**Enhancements/New Features:**
Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Firmware Dependencies:

None
Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None
11/01/2014

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

08/02/2014

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-2600 series processors.

Known Issues:

None

**Fixes**

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-2600 series processors.

Known Issues:

None
Important Notes:

Important Notes:

None

Deliverable Name:

HP ProLiant SL230s/SL250s/SL270s Gen8/SL270s Gen8 SE (P75) System ROM - P75

Release Version:

05/01/2015

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

12/01/2014

Firmware Dependencies:

None

Enhancements/New Features:

Updated the thermal support for systems configured with AMD GPGPUs.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None
Firmware Dependencies:

None

Enhancements/New Features:

Updated the thermal support for systems configured with AMD GPGPUs.

Known Issues:

None

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**Online ROM Flash Component for Windows - HP ProLiant SL335s G7 (A24) Servers**

Version: 2012.12.08 (Recommended)

Filename: cp024000.exe

**Important Note!**

**Important Notes:**

Component packaging has been updated; no impact to product’s functionality.

**Deliverable Name:**

HP ProLiant SL335s G7 System ROM - A24

**Release Date:**

12/08/2012

**Last Recommended or Critical Revision:**

12/08/2012

**Previous Revision:**

09/01/2012

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Optimized the memory settings to improve the reliability of the memory system.
Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

**Problems Fixed:**

Resolved an issue that could result in a server reset or the inability to boot. Servers should be updated to this revision of the system ROM to minimize the potential for a system reset or the inability to boot.

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 09/01/2012 system ROM.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Component packaging has been updated; no impact to product’s functionality.

**Firmware Dependencies:**

None

**Problems Fixed:**

Resolved an issue that could result in a server reset or the inability to boot. Servers should be updated to this revision of the system ROM to minimize the potential for a system reset or the inability to boot.

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 09/01/2012 system ROM.

**Known Issues:**

None

**Enhancements**

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).
Online ROM Flash Component for Windows - HP ProLiant SL390s G7 (P69) Servers
Version: 2013.07.02 (B) (Critical)
Filename: cp024019.exe

Important Note:

Important Notes:
Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

Deliverable Name:
HP ProLiant SL390s G7 System ROM - P69

Release Date:
07/02/2013

Last Recommended or Critical Revision:
07/02/2013

Previous Revision:
12/02/2012

Firmware Dependencies:
None

Enhancements/New Features:
None.

Problems Fixed:
Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel
Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

**Fixes**

**Important Notes:**

Component packaging has been updated; no impact to product’s functionality.

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and
could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

**Known Issues:**

None

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**Online ROM Flash Component for Windows - HP ProLiant SL4540 Gen8 (P74) Servers**

Version: 2014.11.01 *(Optional)*

Filename: cp025304.exe

**Important Note**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant SL4540 Gen8 System ROM - P74

**Release Date:**

11/01/2014

**Last Recommended or Critical Revision:**

12/20/2013

**Previous Revision:**

08/02/2014
Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:
Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-2400 series processors.

Known Issues:
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:
Addressed an extremely rare issue where the server may experience an unexpected shutdown, usually seen as a power fault in the iLO Integrated Management Log (IML), when configured with certain Intel Xeon E5-2400 series processors.

Known Issues:
None

Online ROM Flash Component for Windows - HP ProLiant SL4545 G7 (A31) Servers
Version: 2013.11.02 (B) (Optional)
Filename: cp024001.exe

Important Note!

Important Notes:
Component packaging has been updated; no impact to product's functionality.
Deliverable Name:
HP ProLiant SL4545 G7 System ROM - A31

Release Date:
11/02/2013

Last Recommended or Critical Revision:
12/08/2012

Previous Revision:
06/05/2013

Firmware Dependencies:
None

Enhancements/New Features:
Added the latest product names of optional expansion cards in the ROM-Based Setup Utility (RBSU).

Problems Fixed:
None

Known Issues:
None

Enhancements

Important Notes:
Component packaging has been updated; no impact to product’s functionality.

Firmware Dependencies:
None

Enhancements/New Features:
Added the latest product names of optional expansion cards in the ROM-Based Setup Utility (RBSU).

Known Issues:
Online ROM Flash Component for Windows - HP ProLiant XL220a Gen8 v2 (P94) Servers
Version: 2015.01.26 (Optional)
Filename: cp025888.exe

Important Note:

Important Notes:

The firmware for the System Programmable Logic Device must be upgraded in addition to the System ROM. Please see the Firmware Dependencies section below.

Deliverable Name:

HP ProLiant XL220a Gen8 v2 System ROM - P94

Release Date:

01/26/2015

Last Recommended or Critical Revision:

06/20/2014

Previous Revision:

06/20/2014

Firmware Dependencies:

System Programmable Logic Device version 0x15 or later is required. The System Programmable Logic Device firmware is available for download at the following links:


Online Flash Component for Win64 - System Programmable Logic Device (HP ProLiant XL220a Gen8 v2) version 0x15: ftp://ftp.hp.com/pub/softlib2/software1/sc-windows-fw/p1281588026/v103857

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where a system under heavy stress could experience an uncorrectable machine check. This issue will be reported in the Integrated Management Log with the following error details

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(Uncorrectable Machine Check Exception: APIC ID 0x00000004, Bank 0x00000003, Status 0xF2000000'00800400, Address 0x00000000'00000000, Misc 0x00000000'00000000). This issue is not unique to HP. It is recommended that customers experiencing this issue update to this version of the System ROM before replacing any hardware components.

Addressed an issue where an uncorrectable machine check exception can cause the server to reboot continuously or stop responding. This solution requires the System Programmable Logic Device be upgraded to version 0x15 or later.

**Known Issues:**

None

**Fixes**

**Important Notes:**

The firmware for the System Programmable Logic Device must be upgraded in addition to the System ROM. Please see the Firmware Dependencies section below.

**Firmware Dependencies:**

System Programmable Logic Device version 0x15 or later is required. The System Programmamable Logic Device firmware is available for download at the following links:


Online Flash Component for Win64 - System Programmable Logic Device (HP ProLiant XL220a Gen8 v2) version 0x15: ftp://ftp.hp.com/pub/softlib2/software1/sc-windows-fw/p1281588026/v103857

**Problems Fixed:**

Addressed an issue where a system under heavy stress could experience an uncorrectable machine check. This issue will be reported in the Integrated Management Log with the following error details (Uncorrectable Machine Check Exception: APIC ID 0x00000004, Bank 0x00000003, Status 0xF2000000'00800400, Address 0x00000000'00000000, Misc 0x00000000'00000000). This issue is not unique to HP. It is recommended that customers experiencing this issue update to this version of the System ROM before replacing any hardware components.

Addressed an issue where an uncorrectable machine check exception can cause the server to reboot continuously or stop responding. This solution requires the System Programmable Logic Device be upgraded to version 0x15 or later.

**Known Issues:**

None
Online ROM Flash Component for Windows x64 - HP Apollo 4200 Gen9 (U19) Servers
Version: 1.50_07-20-2015 (Recommended)
Filename: cp027109.exe

Important Note!

Important Notes:
None

Deliverable Name:
HP Apollo 4200 Gen9 System ROM - U19

Release Version:
1.50_07-20-2015

Last Recommended or Critical Revision:
1.50_07-20-2015

Previous Revision:
1.40_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:
Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.
Updated the HP RESTful API HP BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.
Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Prerequisites**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.
Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API HP BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.
Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL120 Gen9 System ROM - P86

Release Version:

1.50_07-20-2015

Last Recommended or Critical Revision:

1.50_07-20-2015

Previous Revision:

1.40_05-06-2015

Firmware Dependencies:

None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

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Updated the language translations (non-English modes) for System Utilities.
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**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

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**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

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**Known Issues:**

None

**Enhancements**

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Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API HP BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.
Important Note!

Important Notes:
None

Deliverable Name:
HP ProLiant BL460c Gen9/WS460c Gen9 System ROM - I36

Release Version:
1.40_05-06-2015

Last Recommended or Critical Revision:
1.33_04-03-2015

Previous Revision:
1.33_04-03-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInititiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.
Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

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

Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.

Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.

Enhanced the System Utilities System Information and the Embedded UEFI Shell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

Reduced boot time when the Dynamic Smart Array B140i RAID is enabled.

Added a new Server Availability BIOS/Platform Configuration (RBSU) Automatic Power On configuration option setting. This option allows the user to configure the power on policy of the server when power is
first applied. The options are Enabled to allow the server to automatically power on when first installed into the enclosure or Disabled to allow the server to remain powered off when first installed into the enclosure.

Problems Fixed:

Addressed an issue where the platform may become unresponsive during system boot when the server is configured for Legacy Boot Mode and the USB Boot Support has been disabled.

Addressed an issue where the Intel NIC DMA Channels (IOAT) option could not be properly be configured from the Embedded UEFI Shell via the Sysconfig command.

Addressed an issue where the +/- keys in the BIOS/Platform Configuration (RBSU) Boot Options menu were not functioning properly when configuring the server through a BIOS Serial Console Session.

Addressed an issue where the fwupdate Embedded UEFI Shell command and the Firmware Update pre-boot application could hang during a firmware update and not successfully flash the device.

Addressed an issue where the server may fail to boot properly to a Windows Deployment Server (WDS) when configured for IPv6 network boot mode.

Addressed an issue where an optional PCIe adapter's legacy Expansion ROM may not run properly or the Expansion ROM's Setup Utility may not run properly when the server is configured for Legacy Boot Mode. This issue was seen with a Seagate storage adapter but may impact other devices.

Addressed an issue where the Administrator Password would not be properly configured from the Embedded UEFI Shell Sysconfig command.

Addressed an issue where a system could become unresponsive when booting to Linux Operating when serial output was enabled from the operating system and the iLO Virtual Serial Port was the only enabled UART.

Addressed various issues with webclient and ftp commands in the Embedded UEFI Shell.

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the system may experience a Linux kernel panic when booting from a SATA optical drive attached to the embedded SATA controller when the SATA controller is configured for Dynamic Smart Array B140i support.

Addressed an issue where the system health LED would remain blinking RED (indicating a failed state) due to a power supply failure after the power supply had been replaced. Once the power supply is replaced, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when a failed power supply is replaced.

Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in.
Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.

Addressed an issue where a system may become unresponsive when launching a guest operating system under a Hypervisor operating system such as Citrix or VMware when VT-d is enabled. This issue is NOT unique to HP servers.

Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

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Known Issues:

None

Enhancements

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Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInitiator resource type. This option is only available in UEFI Boot Mode.
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Enhanced the System Utilities System Information and the Embedded UEFI Shell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.
Reduced boot time when the Dynamic Smart Array B140i RAID is enabled.

Added a new Server Availability BIOS/Platform Configuration (RBSU) Automatic Power On configuration option setting. This option allows the user to configure the power on policy of the server when power is first applied. The options are Enabled to allow the server to automatically power on when first installed into the enclosure or Disabled to allow the server to remain powered off when first installed into the enclosure.

Online ROM Flash Component for Windows x64 - HP ProLiant BL660c Gen9 (I38) Servers
Version: 1.40_05-06-2015 (Optional)
Filename: cp027245.exe

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL660c Gen9 System ROM - I38

Release Version:

1.40_05-06-2015

Last Recommended or Critical Revision:

1.30_03-05-2015

Previous Revision:

1.30_03-05-2015

Firmware Dependencies:

None

Enhancements/New Features:

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Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

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Addressed an issue where the Intel NIC DMA Channels (IOAT) option could not be properly be configured from the Embedded UEFI Shell via the Sysconfig command.

Addressed an issue where the +/- keys in the BIOS/Platform Configuration (RBSU) Boot Options menu were not functioning properly when configuring the server through a BIOS Serial Console Session.

Addressed an issue where the fwupdate Embedded UEFI Shell command and the Firmware Update pre-boot application could hang during a firmware update and not successfully flash the device.

Addressed an issue where the server may fail to boot properly to a Windows Deployment Server (WDS) when configured for IPv6 network boot mode.
Addressed an issue where an optional PCIe adapter's legacy Expansion ROM may not run properly or the Expansion ROM's Setup Utility may not run properly when the server is configured for Legacy Boot Mode. This issue was seen with a Seagate storage adapter but may impact other devices.

Addressed an issue where the Administrator Password would not be properly configured from the Embedded UEFI Shell Sysconfig command.

Addressed an issue where a system could become unresponsive when booting to Linux Operating when serial output was enabled from the operating system and the iLO Virtual Serial Port was the only enabled UART.

Addressed various issues with webclient and ftp commands in the Embedded UEFI Shell.

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the system may experience a Linux kernel panic when booting from a SATA optical drive attached to the embedded SATA controller when the SATA controller is configured for Dynamic Smart Array B140i support.

Addressed an issue where the system health LED would remain blinking RED (indicating a failed state) due to a power supply failure after the power supply had been replaced. Once the power supply is replaced, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when a failed power supply is replaced.

Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in. Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.

Addressed an issue where a system may become unresponsive when launching a guest operating system under a Hypervisor operating system such as Citrix or VMware when VT-d is enabled. This issue is NOT unique to HP servers.

Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

Known Issues:

None

Enhancements

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.
Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInititiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

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

Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.
Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.

Enhanced the System Utilities System Information and the Embedded UEFI Shell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

Reduced boot time when the Dynamic Smart Array B140i RAID is enabled.

Added a new Server Availability BIOS/Platform Configuration (RBSU) Automatic Power On configuration option setting. This option allows the user to configure the power on policy of the server when power is first applied. The options are Enabled to allow the server to automatically power on when first installed into the enclosure or Disabled to allow the server to remain powered off when first installed into the enclosure.

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**Online ROM Flash Component for Windows x64 - HP ProLiant DL160 Gen9/DL180 Gen9 (U20) Servers**

Version: 1.50_07-20-2015 *(Recommended)*

Filename: cp027093.exe

**Important Note!**

**Important Notes:**

None

**Deliverable Name:**

HP ProLiant DL160/DL180 Gen9 System ROM - U20

**Release Version:**

1.50_07-20-2015

**Last Recommended or Critical Revision:**

1.50_07-20-2015

**Previous Revision:**

1.40_05-06-2015

**Firmware Dependencies:**

None
Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.
Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Prerequisites

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

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Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:
None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Online ROM Flash Component for Windows x64 - HP ProLiant DL380 Gen9/DL360 Gen9 (P89) Servers

Version: 1.50_07-20-2015 (Recommended)
Filename: cp027060.exe

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL360/DL380 Gen9 System ROM - P89

Release Version:

1.50_07-20-2015

Last Recommended or Critical Revision:

1.50_07-20-2015

Previous Revision:

1.40_05-06-2015

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Firmware Dependencies:

None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.
Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

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Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

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None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Online ROM Flash Component for Windows x64 - HP ProLiant DL560 Gen9 (P85) Servers
Version: 1.50_07-20-2015 (Recommended)
Filename: cp027036.exe

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL560 Gen9 System ROM - P85

Release Version:

1.50_07-20-2015

Last Recommended or Critical Revision:

1.50_07-20-2015

Previous Revision:
1.40_05-06-2015

Firmware Dependencies:

None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.
Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that
users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.
Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Online ROM Flash Component for Windows x64 - HP ProLiant DL580 Gen9 (U17) Servers
Version: 1.20_05-06-2015 (Recommended)
Filename: cp027218.exe

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL580 Gen9 System ROM - U17

Release Date:

1.20_05-06-2015

Last Recommended or Critical Revision:

1.20_05-06-2015

Previous Revision:
Enhancements/New Features:

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInititiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.

Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

Updated the default setting of the Power Management Minimum Processor Idle Power Package C-State to Package C6 (retention). Previous revisions of the server defaulted to Package C6 (non-retention). This change was made to be consistent with other ProLiant servers and does not address any particular issue.
Updated the HP RESTful API HP BIOS Attribute Registry resources to match the latest BIOS/Platform Configuration options.

Updated the HPRESTful API support to report and set the default UEFI Boot Order settings using the HpServerBootOrder resource type

Updated the language translations (non-English modes) for System Utilities

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.

Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.

Enhanced the System Utilities System Information and the Embedded UEFI SHell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

Problems Fixed:

Addressed an issue where Online Spare Memory Protection would not function properly when the system was configured with Quad Rank LRDIMMs. Failover to the spare memory would not occur due to a degraded DIMM.

Addressed an issue where the system may become unresponsive early in the boot process (approximately 20% to 23% POST progress) when configured with quad rank LRDIMMs populated in every DIMM socket on at least one memory channel and not in every DIMM socket on at least one other memory channels. This issue occurs on every system boot with the impacted DIMM configuration and is NOT intermittent.

Addressed an issue where the system may become unresponsive during system boot when configured with a single processor when configured in Legacy Boot Mode. This does not affect systems configured with two or more processors or systems configured for UEFI Boot Mode.

Addressed an issue where the QPI Bandwidth Optimization (RTID) setting could not be properly configured from the HP RESTful API.

Addressed an issue where the Intel NIC DMA Channels (IOAT) option could not be properly be configured from the Embedded UEFI Shell via the Sysconfig command.

Addressed an issue where the +/- keys in the BIOS/Platform Configuration (RBSU) Boot Options menu were not functioning properly when configuring the server through a BIOS Serial Console Session.
Addressed an issue where the fwupdate Embedded UEFI Shell command and the Firmware Update pre-boot application could hang during a firmware update and not successfully flash the device.

Addressed an issue where the server may fail to boot properly to a Windows Deployment Server (WDS) when configured for IPv6 network boot mode.

Addressed an issue where an optional PCIe adapter's legacy Expansion ROM may not run properly or the Expansion ROM's Setup Utility may not run properly when the server is configured for Legacy Boot Mode. This issue was seen with a Seagate storage adapter but may impact other devices.

Addressed an issue where the Administrator Password would not be properly configured from the Embedded UEFI Shell Sysconfig command.

Addressed an issue where a system could become unresponsive when booting to Linux Operating when serial output was enabled from the operating system and the iLO Virtual Serial Port was the only enabled UART.

Addressed various issues with webclient and ftp commands in the Embedded UEFI Shell.

Addressed an issue in which an Interphase audio streaming PCI-express expansion card may not achieve optimal performance resulting in dropped packets when streaming data. A similar issue could be seen with other PCI-express expansion cards implemented with a PCI device behind a PLX PCIe-to-PCI bridge. This type of PCI-express card implementation is more common with older PCI-express expansion cards.

Addressed an issue where the system health LED would remain blinking RED (indicating a failed state) due to a power supply failure after the power supply had been replaced. Once the power supply is replaced, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when a failed power supply is replaced.

Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in. Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.

Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

Known Issues:
None

Fixes

Important Notes:
None
Firmware Dependencies:
None

Problems Fixed:

Addressed an issue where Online Spare Memory Protection would not function properly when the system was configured with Quad Rank LRDIMMs. Failover to the spare memory would not occur due to a degraded DIMM.

Addressed an issue where the system may become unresponsive early in the boot process (approximately 20% to 23% POST progress) when configured with quad rank LRDIMMs populated in every DIMM socket on at least one memory channel and not in every DIMM socket on at least one other memory channels. This issue occurs on every system boot with the impacted DIMM configuration and is NOT intermittent.

Addressed an issue where the system may become unresponsive during system boot when configured with a single processor when configured in Legacy Boot Mode. This does not affect systems configured with two or more processors or systems configured for UEFI Boot Mode.

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Addressed an issue where the system health LED would remain blinking AMBER (indicating a degraded state) due to an installed power supply not being plugged in after the power supply had been plugged in. Once the power supply is plugged in, the system health LED should have returned to the blinking GREEN state. With previous revisions of the System ROM, the system health LED would not return to GREEN until after a reboot when an unplugged power supply is plugged in.

Addressed a possible issue where the platform may become unresponsive during POST when the user selects the Simplified Chinese language in System Utilities.

**Known Issues:**

None

**Enhancements**

Added a Server Security BIOS/Platform Configuration (RBSU) option to Enable or Disable "Processor AES-NI Support". This option enables or disables the Advanced Encryption Standard Instruction Set. The option is enabled by default and was enabled automatically with previous revisions of the BIOS.

Added support for UEFI iSCSI Software Initiator boot functionality. The iSCSI Software Initiator boot support can be enabled on any network card that is in Ethernet mode. The iSCSI network settings can be configured in the new System Utilities BIOS/Platform Configuration (RBSU) iSCSI Boot Configuration menu, as well as using the HP RESTful API HpiScsiSoftwareInititiator resource type. This option is only available in UEFI Boot Mode.

Added a BIOS/Platform Configuration (RBSU) Network Option for VLAN Configuration. This option allows the user to configure Virtual LAN (VLAN) settings for all network devices present in the system. This option is only available in UEFI Boot Mode.

Added a new System Utilities Embedded Applications Active Health System Log option. This option allows users to download Active Health System (AHS) Logs.

Added support for additional Storage Options to BIOS/Platform Configuration (RBSU). These new options allow the user to configure the number of boot targets that are listed per storage controller in the UEFI Boot Order. This option can be used to limit the number of boot targets to simplify the UEFI boot order and decrease boot time. These options are only available in UEFI Boot Mode.

Added pre-boot OHCI USB support. This will allow an optional PCIe USB controller, such as available on the Teradici PCoIP Zero Client card, to be functional in a pre-boot environment. This also adds support for booting from USB devices attached to optional PCIe OHCI USB controllers. Support for OHCI USB controllers should be available from operating system drivers when not in the pre-boot environment.
Added support for a new partitions command in the Embedded UEFI Shell. This command can be used to view all available drive partitions.

Added support for a new ahsdownload command in the Embedded UEFI Shell. This command can be used to download Active Health System (AHS) files.

Added support for a new restclient command in the Embedded UEFI Shell. This command can be used to configure the server through the HP RESTful services.

Updated the default setting of the Power Management Minimum Processor Idle Power Package C-State to Package C6 (retention). Previous revisions of the server defaulted to Package C6 (non-retention). This change was made to be consistent with other ProLiant servers and does not address any particular issue.

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

Updated the HpServerBootOrder resource type to report and set the default UEFI Boot Order settings.

Updated the language translations (non-English modes) for System Utilities.

Updated the HP RESTful API support for HpBios resource to rename "SecureBoot" property to "SecureBootStatus" to avoid conflict with the "SecureBoot" property in HpSecureBoot resource. This change will impact any scripts written with a dependency on the "SecureBoot" property in the HpBios resource.

Updated the System Utilities BIOS/Platform Configuration (RBSU) Fibre Channel/FCoE Scan Policy option to default to Scan Configured Targets only. Previous revisions of the System ROM defaulted to scanning all targets.

Enhanced the thermal solution to provide proper cooling for optional PCIe graphics and acceleration cards.

Enhanced the System Utilities System Information and the Embedded UEFI Shell sysinfo command to provide additional details for the processor, memory, PCI subsections. In addition, added a new Firmware Information menu to System Information to provide a list of current firmware revisions for supported components.

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**Online ROM Flash Component for Windows x64 - HP ProLiant DL60 Gen9/DL80 Gen9 (U15) Servers**

Version: 1.50_07-20-2015 (Recommended)
Filename: cp027132.exe

**Important Note!**

**Important Notes:**

None
Deliverable Name:

HP ProLiant DL60/DL80 Gen9 System ROM - U15

Release Version:

1.50_07-20-2015

Last Recommended or Critical Revision:

1.50_07-20-2015

Previous Revision:

1.40_05-06-2015

Firmware Dependencies:

None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None
Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

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Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Online ROM Flash Component for Windows x64 - HP ProLiant ML110 Gen9 (P99) Servers
Version: 1.50_07-20-2015 (Recommended)
Filename: cp027083.exe

Important Note!

Important Notes:
None

**Deliverable Name:**

HP ProLiant ML110 Gen9 System ROM - P99

**Release Version:**

1.50_07-20-2015

**Last Recommended or Critical Revision:**

1.50_07-20-2015

**Previous Revision:**

1.40_05-06-2015

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server's Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None
Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for Windows x64 - HP ProLiant ML150 Gen9 (P95) Servers**

Version: 1.50_07-20-2015 *(Recommended)*

Filename: cp027125.exe

**Important Note!**

**Important Notes:**

None
Deliverable Name:
HP ProLiant ML150 Gen9 System ROM - P95

Release Version:
1.50_07-20-2015

Last Recommended or Critical Revision:
1.50_07-20-2015

Previous Revision:
1.40_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None
Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.
Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for Windows x64 - HP ProLiant ML350 Gen9 (P92) Servers**

Version: 1.50_07-20-2015 *(Recommended)*

Filename: cp027052.exe

**Important Note:**

**Important Notes:**

None
Deliverable Name:
HP ProLiant ML350 Gen9 System ROM - P92

Release Version:
1.50_07-20-2015

Last Recommended or Critical Revision:
1.50_07-20-2015

Previous Revision:
1.40_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None
Fixes

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for Windows x64 - HP ProLiant XL170r/XL190r Gen9 (U14) Servers**

Version: 1.50_07-20-2015 (Recommended)

Filename: cp027106.exe

**Important Note!**

**Important Notes:**

None
**Deliverable Name:**

HP ProLiant XL170r/XL190r Gen9 System ROM - U14

**Release Version:**

1.50_07-20-2015

**Last Recommended or Critical Revision:**

1.50_07-20-2015

**Previous Revision:**

1.40_05-06-2015

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None
Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

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**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Online ROM Flash Component for Windows x64 - HP ProLiant XL230a/XL250a Gen9 (U13) Servers**

Version: 1.50_07-20-2015 *(Recommended)*

Filename: cp027411.exe

**Important Note!**

**Important Notes:**
None

**Deliverable Name:**

HP ProLiant XL230a/XL250a Gen9 System ROM - U13

**Release Version:**

1.50_07-20-2015

**Last Recommended or Critical Revision:**

1.50_07-20-2015

**Previous Revision:**

1.40_05-06-2015

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

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Updated the language translations (non-English modes) for System Utilities.

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

**Problems Fixed:**

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the HpBiosMappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.

Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

Known Issues:

None
Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

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Known Issues:

None

Enhancements

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

Online ROM Flash Component for Windows x64 - HP ProLiant XL450 Gen9 (U21) Servers
Version: 1.50_07-20-2015 (Recommended)
Filename: cp027049.exe

Important Note:

Important Notes:

None
Deliverable Name:
HP ProLiant XL450 Gen9 System ROM - U21

Release Version:
1.50_07-20-2015

Last Recommended or Critical Revision:
1.50_07-20-2015

Previous Revision:
1.40_05-06-2015

Firmware Dependencies:
None

Enhancements/New Features:

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

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Updated the language translations (non-English modes) for System Utilities.

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

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.
Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

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Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None
Prerequisites
None

Fixes

Important Notes:
None

Firmware Dependencies:
None

Problems Fixed:

Addressed an issue where the server may experience Machine Check Exceptions or unexpected reboots under heavy load and high temperature. This issue is NOT unique to HP servers. HP recommends that users experiencing these issues update to this revision of the System ROM before replacing any hardware components.

Addressed an issue where the System Utilities BIOS/Platform Configuration (RBSU) Dynamic Power Savings Mode Response Option when configured for Slow Mode may not efficiently switch processor performance modes resulting in lower than expected performance.

Addressed an issue where the system may not properly respond to error events from devices attached to certain PCI Express root ports.

Addressed an issue where the Channel Interleaving option in the ROM Based Setup Utility (RBSU) did not function when configured for Disabled. Even when this option was configured to Disabled, Channel Interleaving would be enabled.

Addressed an issue where a server configured for UEFI boot mode may become unresponsive during boot when configured with an optional graphics controller that does not support UEFI boot mode. This issue does not affect systems configured in Legacy Boot Mode.

Addressed an issue in the HP RESTful API data model with the reporting of "EmbSasXBoot" and "SlotXStorageBoot" properties in the H都被Mappings resource. The properties were not associated with the correct PCI devices for the embedded and optional storage controllers.

Addressed an issue where the server may become unresponsive during boot when configured with a very large number of disks such as fibre adapters.

Addressed an issue in the HP RESTful API BIOS support that resulted in internal HTTP sessions between BIOS and iLO left open during boot. This can result in the iLO Event Log indicating multiple events for HTTP session logins.

Addressed an issue where the system would become unresponsive during boot and display a NMI error when configured with an optional PCI Express device supporting older versions of the PCI Express specification.
Addressed an issue where the system would not reset configuration settings to defaults when using the Embedded UEFI Shell Sysconfig -d command.

Addressed an issue where the HP RESTful API and Embedded UEFI Shell description of the storage controller may begin with an instance of 2 instead of 1 when only one storage controller was installed in the server.

Addressed an issue where the system may fail to boot a Linux Operating System when using serial console redirection when the physical Serial Port is disabled and the iLO Virtual Serial Port is enabled.

Addressed an issue where a system configured for Legacy Boot Mode may become unresponsive during boot and display a NMI error when the Virtual Install Disk is enabled.

Addressed an issue where a system configured for UEFI Boot Mode with an optional PCI Express based USB 3.0 controller installed may not be able to properly load the USB driver under the operating system. This issue does not affect systems configured in Legacy Boot Mode.

**Known Issues:**

None

**Enhancements**

Added a Date and Time BIOS/Platform Configuration (RBSU) option to configure the Time Format. This option controls how the system date and time is stored in the Real Time Clock and presented to the operating system. By default, the time is formatted for Coordinated Universal Time (UTC). The users may optionally change the time format to Local Time which removes the use of the time zone. This option may be used to work around interaction issues between the system and Microsoft Windows operating systems running in legacy boot mode that can result in the time to be incorrect.

Added a new System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows the user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot. By default, the system will use the server’s Unique Universal Identifier (UUID). The user can now optionally select to use the DUID-LLT as the unique identifier for PXE Boot. This setting applies when the server is configured to UEFI Boot Mode.

Updated the language translations (non-English modes) for System Utilities.

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

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**Driver - Chipset**

**HP ProLiant PCI-express Power Management Update for Windows**

Version: 1.3.0.0 (E) *(Optional)*

Filename: cp025992.exe

**Fixes**
Component has been updated to correctly indicate to HP Smart Update Manager that a reboot is required after installation.

**Driver - Lights-Out Management**

*HP ProLiant Integrated Lights-Out Management Interface Driver for Windows Server 2003/2008*

Version: 1.16.0.0 (F) *(Optional)*
Filename: cp024608.exe

**Enhancements**
Component packaging has been updated; no impact to product’s functionality.

*HP ProLiant Integrated Lights-Out Management Interface Driver for Windows Server 2003/2008 x64 Editions*

Version: 1.16.0.0 (F) *(Optional)*
Filename: cp024609.exe

**Enhancements**
Component packaging has been updated; no impact to product’s functionality.

*HP ProLiant Integrated Lights-Out Management Interface Driver for Windows Server 2012*

Version: 1.18.0.0 *(Optional)*
Filename: cp020895.exe

**Enhancements**
Add support for Microsoft Windows Server 2012 R2 on selected HP ProLiant G6 servers.

**Driver - Network**

*HP Broadcom 1Gb Driver for Windows Server 2008*

Version: 17.2.0.0 *(Optional)*
Filename: cp026811.exe

**Important Note!**
HP recommends the firmware provided in *HP Broadcom NX1 Online Firmware Upgrade Utility for Windows Server 2008*, version 5.0.0.1, for use with this driver.

** Fixes**
This driver no longer causes a server crash while doing continuous upgrade/downgrade of firmware.
**Supported Devices and Features**

This driver supports the following network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (182D)
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter (3372)
- HP Ethernet 1Gb 4-port 331i-SPI Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

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**HP Broadcom 1Gb Driver for Windows Server x64 Editions**

Version: 17.2.0.0 *(Optional)*
Filename: cp026812.exe

**Important Note!**

HP recommends the firmware provided in *HP Broadcom NX1 Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 5.0.0.1 or later for use with this driver.

** Fixes**

This driver no longer causes a server crash while doing continuous upgrade/downgrade of firmware.

This driver corrects an issue where network connectivity fails in Windows Server 2012 R2 after adding Hyper-V service.

This driver corrects an issue where network connectivity fails with 5715 based adapters in Windows Server 2008 x64.

**Enhancements**

This driver now supports the HP Ethernet 1Gb 2-port 332i Adapter (22E8).

**Supported Devices and Features**

This driver supports the following network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (182D)
- HP Ethernet 1Gb 2-port 330i Adapter (22BD)
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter (3372)
- HP Ethernet 1Gb 4-port 331i-SPI 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 Broadcom 1Gb Multifunction Drivers for Windows Server 2008
Version: 7.8.50.0 (D) (Optional)
Filename: cp023429.exe

**Important Note!**
HP recommends the firmware provided in *HP Broadcom Online Firmware Upgrade Utility for Windows Server 2008*, version 4.0.1.11 or later for use with these drivers.

**Fixes**
These drivers address an issue that prevents the iSCSI driver from being installed when booting from a storage area network (SAN).

These drivers correct the “SpeedDuplex” advanced property options for several devices.

**Supported Devices and Features**
This driver supports the following network adapters:

- HP NC373F PCI Express Multifunction Gigabit Server Adapter
- HP NC373T PCI Express Multifunction Gigabit Server Adapter
- HP NC382I Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter

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HP Broadcom 1Gb Multifunction Drivers for Windows Server x64 Editions
Version: 7.8.50.0 (E) (Optional)
Filename: cp023430.exe

**Important Note!**
HP recommends the firmware provided in *HP Broadcom Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 4.0.1.11 or later for use with these drivers.

**Fixes**
These drivers address an issue that prevents the iSCSI driver from being installed when booting from a storage area network (SAN).

These drivers correct the “SpeedDuplex” advanced property options for several devices.

**Supported Devices and Features**
This driver supports the following network adapters:

- HP NC373F PCI Express Multifunction Gigabit Server Adapter
- HP NC373T PCI Express Multifunction Gigabit Server Adapter

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HP Broadcom tg3 Ethernet Drivers for Red Hat Enterprise Linux 6 i686
Version: 3.137k-6 (Optional)
Filename: kmod-tg3-3.137k-6.rhel6u6.i686.rpm; kmod-tg3-3.137k-6.rhel6u7.i686.rpm; README

Important Note!

HP recommends the firmware provided in HP NX1 Broadcom Online Firmware Upgrade Utility for Linux x86, version 2.16.4, for use with these drivers.

Fixes

This product addresses an MD5 sum mismatch error seen while unpacking the rpm source.

This product addresses an issue where it takes about 5 minutes for the driver to become operational after a reboot.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (182D)
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter (3372)
- HP Ethernet 1Gb 4-port 331i-SPI Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

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HP Broadcom tg3 Ethernet Drivers for Red Hat Enterprise Linux 6 x86_64
Version: 3.137k-6 (Optional)
Filename: kmod-tg3-3.137k-6.rhel6u6.x86_64.rpm; kmod-tg3-3.137k-6.rhel6u7.x86_64.rpm; README

Important Note!

HP recommends the firmware provided in HP NX1 Broadcom Online Firmware Upgrade Utility for Linux x86_64, version 2.16.4, for use with these drivers.

Fixes

This product addresses an MD5 sum mismatch error seen while unpacking the rpm source.
This product addresses an issue where it takes about 5 minutes for the driver to become operational after a reboot.

**Enhancements**

This driver product now supports the HP Ethernet 1Gb 2-port 332i Adapter (22E8).

**Supported Devices and Features**

These drivers support the following network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (182D)
- HP Ethernet 1Gb 2-port 330i Adapter (22BD)
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter (3372)
- HP Ethernet 1Gb 4-port 331i Adapter (22BE)
- HP Ethernet 1Gb 4-port 331i-SPi 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

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**HP Broadcom tg3 Ethernet Drivers for Red Hat Enterprise Linux 7 x86_64**

Version: 3.137k-6 *(Optional)*

Filename: kmod-tg3-3.137k-6.rhel7u0.x86_64.rpm; kmod-tg3-3.137k-6.rhel7u1.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP NX1 Broadcom Online Firmware Upgrade Utility for Linux x86_64*, version 2.16.4, for use with these drivers.

**Fixes**

This product addresses an MD5 sum mismatch error seen while unpacking the rpm source.

This product addresses an issue where it takes about 5 minutes for the driver to become operational after a reboot.

**Enhancements**

This driver product now supports the HP Ethernet 1Gb 2-port 332i Adapter (22E8).

**Supported Devices and Features**

These drivers support the following network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (182D)
- HP Ethernet 1Gb 2-port 330i Adapter (22BD)
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter (3372)
- HP Ethernet 1Gb 4-port 331i Adapter (22BE)
HP Broadcom tg3 Ethernet Drivers for SUSE Linux Enterprise Server 11 i586

Version: 3.137k-6 (Optional)
Filename: README; tg3-kmp-default-3.137k_3.0.101_63-6.sles11sp4.i586.rpm; tg3-kmp-default-3.137k_3.0.76_0.11-6.sles11sp3.i586.rpm; tg3-kmp-pae-3.137k_3.0.101_63-6.sles11sp4.i586.rpm; tg3-kmp-pae-3.137k_3.0.76_0.11-6.sles11sp3.i586.rpm; tg3-kmp-xen-3.137k_3.0.101_63-6.sles11sp4.i586.rpm; tg3-kmp-xen-3.137k_3.0.76_0.11-6.sles11sp3.i586.rpm

Important Note!

HP recommends the firmware provided in HP NX1 Broadcom Online Firmware Upgrade Utility for Linux x86, version 2.16.4, for use with these drivers.

Fixes

This product addresses an MD5 sum mismatch error seen while unpacking the the rpm source.

This product addresses an issue where it takes about 5 minutes for the driver to become operational after a reboot.

This product addresses an issue where KVM PCI pass through fails on a system running SUSE Linux Enterprise Server 11 Update 3.

Enhancements

This product now supports SUSE LINUX Enterprise Server 11 SP4.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (182D)
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter (3372)
- HP Ethernet 1Gb 4-port 331i-SP Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

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HP Broadcom tg3 Ethernet Drivers for SUSE Linux Enterprise Server 11 x86_64

Version: 3.137k-6 (Optional)
Important Note!

HP recommends the firmware provided in HP NX1 Broadcom Online Firmware Upgrade Utility for Linux x86_64, version 2.16.4, for use with these drivers.

Fixes

This product addresses an MD5 sum mismatch error seen while unpacking the rpm source.

This product addresses an issue where it takes about 5 minutes for the driver to become operational after a reboot.

This product addresses an issue where KVM PCI pass through fails on a system running SUSE Linux Enterprise Server 11 Update 3.

Enhancements

This driver product now supports the HP Ethernet 1Gb 2-port 332i Adapter (22E8).

This product now supports SUSE LINUX Enterprise Server 11 SP4.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (182D)
- HP Ethernet 1Gb 2-port 330i Adapter (22BD)
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter (3372)
- HP Ethernet 1Gb 4-port 331i Adapter (22BE)
- HP Ethernet 1Gb 4-port 331i-SPI 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

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Fixes

This product addresses an MD5 sum mismatch error seen while unpacking the rpm source.

This product addresses an issue where it takes about 5 minutes for the driver to become operational after a reboot.

Enhancements

This driver product now supports the HP Ethernet 1Gb 2-port 332i Adapter (22E8).

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (182D)
- HP Ethernet 1Gb 2-port 330i Adapter (22BD)
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter (3372)
- HP Ethernet 1Gb 4-port 331i Adapter (22BE)
- HP Ethernet 1Gb 4-port 331i-SPI 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

**HP Broadcom tg3 Ethernet Drivers for VMware ESXi 5.0/vSphere 5.1**

Version: 2015.10.01 *(Optional)*

Filename: cp026887.zip

**Important Note!**

HP recommends the firmware provided in *HP Broadcom NX1 Online Firmware Upgrade Utility for VMware*, version 1.8.6, for use with this driver.

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

Fixes

TBD

Enhancements

This driver is updated in order to remain in sync with other Linux driver versions.

Supported Devices and Features

These drivers support the following network adapters:
HP Broadcom tg3 Ethernet Drivers for VMware vSphere 5.5
Version: 2015.10.01 (Optional)
Filename: cp026888.zip

Important Note!

HP recommends the firmware provided in HP Broadcom NX1 Online Firmware Upgrade Utility for VMware, version 1.8.6, for use with this driver.

This component is intended to be used by HP applications. It is a zip file that contains the same driver deliverable available from the vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CP0xxxxxx.xml file.

Fixes
TBD

Enhancements
This driver now supports the HP Ethernet 1Gb 2-port 332i Adapter (22E8).

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 331i-SPI Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

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HP Broadcom tg3 Ethernet Drivers for VMware vSphere 6.0
Version: 2015.10.01 (Optional)
Filename: cp026889.zip

Important Note!
HP recommends the firmware provided in *HP Broadcom NX1 Online Firmware Upgrade Utility for VMware*, version 1.8.6, for use with this driver.

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

**Enhancements**

This driver now supports the HP Ethernet 1Gb 2-port 332i Adapter (22E8).

**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 331i-SPI Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

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**HP Emulex 10/20 GbE Driver for Windows Server 2008**

Version: 10.5.121.7 *(Optional)*

Filename: cp026412.exe

**Important Note!**

HP recommends the firmware provided in *HP Firmware Online Flash for Emulex Fibre Channel Host Bus Adapters - Windows 2008 x86*, version 2015.10.01 for use with this driver.

**Fixes**

This driver corrects an issue where the virtual function device shows a yellow bang in the device manager.

**Supported Devices and Features**

This driver supports the following HP network adapters:

- HP CN1100E Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
HP Emulex 10/20 GbE Driver for Windows Server 2008 R2
Version: 10.5.121.7 (Optional)
Filename: cp026414.exe

**Important Note!**

HP recommends the firmware provided in *HP Firmware Online Flash for Emulex Fibre Channel Host Bus Adapters - Windows 2008/2012/2012 R2 x64*, version 2015.10.01 for use with this driver.

**Fixes**

This driver corrects an issue where the virtual function device shows a yellow bang in the device manager.

**Supported Devices and Features**

This driver supports the following HP network adapters:

- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC5525FP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 557SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP Synergy 3520C 10/20Gb Converged Network Adapter

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HP Emulex 10/20 GbE Driver for Windows Server 2008 x64 Editions
Version: 10.5.121.7 (Optional)
Filename: cp026413.exe

**Important Note!**

HP recommends the firmware provided in *HP Firmware Online Flash for Emulex Fibre Channel Host Bus Adapters - Windows 2008/2012/2012 R2 x64*, version 2015.10.01 for use with this driver.

**Fixes**

This driver corrects an issue where the virtual function device shows a yellow bang in the device manager.
**Supported Devices and Features**

This driver supports the following HP network adapters:

- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC5525FP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter

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**HP Emulex 10/20 GbE Driver for Windows Server 2012**

Version: 10.5.121.7 (Optional)
Filename: cp026415.exe

**Important Note**

HP recommends the firmware provided in *HP Firmware Online Flash for Emulex Fibre Channel Host Bus Adapters - Windows 2008/2012/2012 R2 x64*, version 2015.10.01 for use with this driver.

**Fixes**

This driver corrects an issue where the virtual function device shows a yellow bang in the device manager.

**Supported Devices and Features**

This driver supports the following HP network adapters:

- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC5525FP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
o HP FlexFabric 20Gb 2-port 650M Adapter
o HP Synergy 3520C 10/20Gb Converged Network Adapter

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**HP Emulex 10/20 GbE Driver for Windows Server 2012 R2**

Version: 10.5.121.7 *(Optional)*
Filename: cp026416.exe

**Important Note!**

HP recommends the firmware provided in *HP Firmware Online Flash for Emulex Fibre Channel Host Bus Adapters - Windows 2008/2012/2012 R2 x64*, version 2015.10.01 for use with this driver.

**Fixes**

This driver corrects an issue where the virtual function device shows a yellow bang in the device manager.

**Supported Devices and Features**

This driver supports the following HP network adapters:

o HP CN1100E Converged Network Adapter
o HP StoreFabric CN1200E Dual Port Converged Network Adapter
o HP NC551i Dual Port FlexFabric 10Gb Network Adapter
o HP NC552m 10Gb 2-port Flex-10 Server Adapter
o HP NC552SFP 10Gb 2-port Ethernet Server Adapter
o HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
o HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
o HP Flex-10 10Gb 2-port 552M Adapter
o HP FlexFabric 10Gb 2-port 554FLB Adapter
o HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
o HP FlexFabric 10Gb 2-port 554M Adapter
o HP FlexFabric 10Gb 2-port 554M Adapter
o HP Ethernet 10Gb 2-port 557SFP+ Adapter
o HP FlexFabric 20Gb 2-port 650FLB Adapter
o HP FlexFabric 20Gb 2-port 650M Adapter
o HP Synergy 3520C 10/20Gb Converged Network Adapter

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**HP Emulex 10/20 GbE Drivers for Red Hat Enterprise Linux 6 i686**

Version: 10.5.154.0-1 *(Optional)*
Filename: kmod-be2net-10.5.154.0-1.rhel6u6.i686.rpm; kmod-be2net-10.5.154.0-1.rhel6u7.i686.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x86)*, version 2015.10.01 or later for use with these drivers.

**Enhancements**
This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

This driver supports the following HP network adapters:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1100E Converged Network Adapter

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**HP Emulex 10/20 GbE Drivers for Red Hat Enterprise Linux 6 x86_64**

Version: 10.5.154.0-1 *(Optional)*

Filename: kmod-be2net-10.5.154.0-1.rhel6u6.x86_64.rpm; kmod-be2net-10.5.154.0-1.rhel6u7.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x64)*, version 2015.10.01, for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

This driver supports the following HP network adapters:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 557SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
HP Emulex 10/20 GbE Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 10.5.154.0-1 (Optional)
Filename: kmod-be2net-10.5.154.0-1.rhel7u0.x86_64.rpm; kmod-be2net-10.5.154.0-1.rhel7u1.x86_64.rpm; README

Important Note!

HP recommends the firmware provided in HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x64), version 2015.10.01, for use with these drivers.

Enhancements
This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC5525FP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 5575FP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter

HP Emulex 10/20 GbE Drivers for SUSE Linux Enterprise Server 11 i586
Version: 10.5.154.0-1 (Optional)
Filename: be2net-kmp-default-10.5.154.0_3.0.101_63-1.sles11sp4.i386.rpm; be2net-kmp-default-10.5.154.0_3.0.76_0.11-1.sles11sp3.i386.rpm; be2net-kmp-pae-10.5.154.0_3.0.101_63-1.sles11sp4.i386.rpm; be2net-kmp-pae-10.5.154.0_3.0.76_0.11-1.sles11sp3.i386.rpm; be2net-kmp-xen-10.5.154.0_3.0.101_63-1.sles11sp4.i386.rpm; be2net-kmp-xen-10.5.154.0_3.0.76_0.11-1.sles11sp3.i386.rpm; README

Important Note!
HP recommends the firmware provided in *HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x86)*, version 2015.10.01 or later for use with these drivers.

**Enhancements**

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**

This driver supports the following HP network adapters:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1100E Converged Network Adapter

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**HP Emulex 10/20 GbE Drivers for SUSE Linux Enterprise Server 11 x86 _64**

Version: 10.5.154.0-1 *(Optional)*

Filename: be2net-kmp-default-10.5.154.0_3.0.101_63-1.sles11sp4.x86_64.rpm; be2net-kmp-default-10.5.154.0_3.0.76_0.11-1.sles11sp3.x86_64.rpm; be2net-kmp-xen-10.5.154.0_3.0.101_63-1.sles11sp4.x86_64.rpm; be2net-kmp-xen-10.5.154.0_3.0.76_0.11-1.sles11sp3.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x64)*, version 2015.10.01, for use with these drivers.

**Enhancements**

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**

This driver supports the following HP network adapters:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

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HP Emulex 10/20 GbE Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 10.5.154.0-1 (Optional)
Filename: be2net-kmp-default-10.5.154.0_k3.12.28_4-1.sles12sp0.x86_64.rpm; be2net-kmp-xen-10.5.154.0_k3.12.28_4-1.sles12sp0.x86_64.rpm; README

Important Note!

HP recommends the firmware provided in HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x64), version 2015.10.01, for use with these drivers.

Enhancements

This product now provides IRQ pinning support for the upper 32 CPU cores on a 64 core system.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC5525FP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 557FP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter

HP Emulex 10/20 GbE Drivers for VMware ESXi 5.0
Version: 2015.02.23 (C) (Optional)
Filename: cp027192.zip

Fixes
This driver corrects an issue that occurs when a physical function is configured in INTX Mode. Interrupts may suddenly stop, ultimately resulting in a loss of connection.

**Supported Devices and Features**

These drivers support the following network adapters:

- HP NC550m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC5525FP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1100E Converged Network Adapter

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**HP Emulex 10/20 GbE Drivers for VMware vSphere 5.1**

*Version: 2015.10.01 (Optional)*

*Filename: cp026421.zip*

**Important Note!**

HP recommends the firmware provided in *HP Firmware Flash for Emulex Fibre Channel Host Bus and Converged Network Adapters - VMware 5.1*, version 2015.06.01, for use with these driver.

**Fixes**

This driver addresses an issue where not all Flex NICs are visible to the operating system.

**Supported Devices and Features**

This driver supports the following network adapters:

- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC5525FP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 557SFP+ Adapter
HP Emulex 10/20 GbE iSCSI Driver for Windows Server 2008
Version: 10.5.121.7 (Optional)
Filename: cp026332.exe

Important Note!
HP recommends the firmware provided in HP Firmware Online Flash for Emulex Fibre Channel Host Bus Adapters - Windows 2008 x86, version 2015.10.01 for use with this driver.

Enhancements
This driver is updated to remain in sync with BE3 firmware version 10.5.135.1 and XE100 series firmware version 10.5.135.4.

Supported Devices and Features
This driver supports the following HP Emulex iSCSI adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

HP Emulex 10/20 GbE iSCSI Driver for Windows Server 2008 R2
Version: 10.5.121.7 (Optional)
Filename: cp026334.exe

Important Note!
HP recommends the firmware provided in HP Firmware Online Flash for Emulex Fibre Channel Host Bus Adapters - Windows 2008/2012/2012 R2 x64, version 2015.10.01 for use with this driver.

Enhancements
This driver is updated to remain in sync with BE3 firmware version 10.5.135.1 and XE100 series firmware version 10.5.135.4.

Supported Devices and Features
This driver supports the following HP iSCSI adapters:
HP Emulex 10/20 GbE iSCSI Driver for Windows Server 2008 x64 Editions
Version: 10.5.121.7 (Optional)
Filename: cp026333.exe

Important Note!
HP recommends the firmware provided in HP Firmware Online Flash for Emulex Fibre Channel Host Bus Adapters - Windows 2008/2012/2012 R2 x64, version 2015.10.01 for use with this driver.

Enhancements
This driver is updated to remain in sync with BE3 firmware version 10.5.135.1 and XE100 series firmware version 10.5.135.4.

Supported Devices and Features

This driver supports the following HP iSCSI adapters:

- HP CN1100E Dual Port Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter

HP Emulex 10/20 GbE iSCSI Driver for Windows Server 2012
Version: 10.5.121.7 (Optional)
Filename: cp026335.exe

Important Note!
HP recommends the firmware provided in *HP Firmware Online Flash for Emulex Fibre Channel Host Bus Adapters - Windows 2008/2012/2012 R2 x64*, version 2015.10.01 for use with this driver.

**Enhancements**
This driver is updated to remain in sync with BE3 firmware version 10.5.135.1 and XE100 series firmware version 10.5.135.4.

**Supported Devices and Features**

This driver supports the following HP iSCSI adapters:

- HP CN1100E Dual Port Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter

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**HP Emulex 10/20 GbE iSCSI Driver for Windows Server 2012 R2**

Version: 10.5.121.7 *(Optional)*
Filename: cp026336.exe

**Important Note!**

HP recommends the firmware provided in *HP Firmware Online Flash for Emulex Fibre Channel Host Bus Adapters - Windows 2008/2012/2012 R2 x64*, version 2015.10.01 for use with this driver.

**Enhancements**
This driver is updated to remain in sync with BE3 firmware version 10.5.135.1 and XE100 series firmware version 10.5.135.4.

**Supported Devices and Features**

This driver supports the following HP iSCSI adapters:

- HP CN1100E Dual Port Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
HP Emulex 10/20 GbE iSCSI Drivers for Red Hat Enterprise Linux 6 i686
Version: 10.5.154.0-1 (Optional)
Filename: kmod-be2iscsi-10.5.154.0-1.rhel6u6.i686.rpm; kmod-be2iscsi-10.5.154.0-1.rhel6u7.i686.rpm; README

Important Note!

HP recommends the firmware provided in HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x86), version 2015.10.01 or later for use with these drivers.

Fixes
This product no longer causes a system crash after a Protocol Data Unit (PDU) error.

Enhancements
This product now supports Red Hat Enterprise Linux 6 Update 7.

Supported Devices and Features
This driver supports the following HP network adapters:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1100E Converged Network Adapter

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HP Emulex 10/20 GbE iSCSI Drivers for Red Hat Enterprise Linux 6 x86_64
Version: 10.5.154.0-1 (Optional)
Filename: kmod-be2iscsi-10.5.154.0-1.rhel6u6.x86_64.rpm; kmod-be2iscsi-10.5.154.0-1.rhel6u7.x86_64.rpm; README

Important Note!

HP recommends the firmware provided in HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x64), version 2015.10.01, for use with these drivers.

Fixes
This product no longer causes a system crash after a Protocol Data Unit (PDU) error.

Enhancements
This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

This driver supports the following HP network adapters:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter

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**HP Emulex 10/20 GbE iSCSI Drivers for Red Hat Enterprise Linux 7 x86_64**

Version: 10.5.154.0-1 *(Optional)*
Filename: kmod-be2iscsi-10.5.154.0-1.rhel7u0.x86_64.rpm; kmod-be2iscsi-10.5.154.0-1.rhel7u1.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x64)*, version 2015.10.01, for use with these drivers.

**Fixes**

This product no longer causes a system crash after a Protocol Data Unit (PDU) error.

**Supported Devices and Features**

This driver supports the following HP network adapters:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter

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HP Emulex 10/20 GbE iSCSI Drivers for SUSE Linux Enterprise Server 11 i586
Version: 10.5.154.0-1 (Optional)
Filename: be2iscsi-kmp-default-10.5.154.0_3.0.101_63-1.sles11sp4.i386.rpm; be2iscsi-kmp-default-10.5.154.0_3.0.76_0.11-1.sles11sp3.i386.rpm; be2iscsi-kmp-pae-10.5.154.0_3.0.101_63-1.sles11sp4.i386.rpm; be2iscsi-kmp-pae-10.5.154.0_3.0.76_0.11-1.sles11sp3.i386.rpm; be2iscsi-kmp-xen-10.5.154.0_3.0.101_63-1.sles11sp4.i386.rpm; be2iscsi-kmp-xen-10.5.154.0_3.0.76_0.11-1.sles11sp3.i386.rpm; README

Important Note!

HP recommends the firmware provided in HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x86), version 2015.10.01 or later for use with these drivers.

Fixes
This product no longer causes a system crash after a Protocol Data Unit (PDU) error.

Enhancements
This product now supports SUSE LINUX Enterprise Server 11 SP4.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1100E Converged Network Adapter

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HP Emulex 10/20 GbE iSCSI Drivers for SUSE Linux Enterprise Server 11 x86_64
Version: 10.5.154.0-1 (Optional)
Filename: be2iscsi-kmp-default-10.5.154.0_3.0.101_63-1.sles11sp4.x86_64.rpm; be2iscsi-kmp-default-10.5.154.0_3.0.76_0.11-1.sles11sp3.x86_64.rpm; be2iscsi-kmp-xen-10.5.154.0_3.0.101_63-1.sles11sp4.x86_64.rpm; be2iscsi-kmp-xen-10.5.154.0_3.0.76_0.11-1.sles11sp3.x86_64.rpm; README

Important Note!

HP recommends the firmware provided in HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x64), version 2015.10.01, for use with these drivers.

Fixes
This product no longer causes a system crash after a Protocol Data Unit (PDU) error.

Enhancements
This product now supports SUSE LINUX Enterprise Server 11 SP4.

Supported Devices and Features
This driver supports the following HP network adapters:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter

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

Version: 10.5.154.0-1 *(Optional)*

Filename: be2iscsi-kmp-default-10.5.154.0_k3.12.28_4-1.sles12sp0.x86_64.rpm; be2iscsi-kmp-xen-10.5.154.0_k3.12.28_4-1.sles12sp0.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x64)*, version 2015.10.01, for use with these drivers.

**Fixes**

This product no longer causes a system crash after a Protocol Data Unit (PDU) error.

**Supported Devices and Features**

This driver supports the following HP network adapters:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter

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**HP Emulex 10/20 GbE iSCSI Drivers for VMware ESXi 5.0**

Version: 2015.02.23 *(Optional)*

Filename: cp024704.zip

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Fixes
This driver component can now be installed by the HP Smart Update Manager (HPSUM).

Supported Devices and Features

These drivers support the following HP network adapters:

- HP CN1100E Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

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**HP Emulex 10/20 GbE iSCSI Drivers for VMware vSphere 5.1**
Version: 2015.10.01 (Optional)
Filename: cp026418.zip

Important Note!

HP recommends the firmware provided in HP Firmware Flash for Emulex Fibre Channel Host Bus and Converged Network Adapters - VMware 5.1, version 2015.06.01, for use with these driver.

Enhancements

This driver has been updated to maintain compatibility with firmware version 10.5.125.x.

Supported Devices and Features

These drivers support the following HP network adapters:

- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter

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**HP Emulex 10/20 GbE iSCSI Drivers for VMware vSphere 5.5**
Version: 2015.10.01 (Optional)
Filename: cp026419.zip
**Important Note!**

HP recommends the firmware provided in *HP Firmware Flash for Emulex Fibre Channel Host Bus and Converged Network Adapters for VMware vSphere 5.5 and 6.0*, version 2015.10.01, for use with this driver.

**Enhancements**

This driver has been updated to maintain compatibility with firmware version 10.5.125.x.

**Supported Devices and Features**

These drivers support the following HP network adapters:

- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC554i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter

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**HP Emulex 10/20 GbE iSCSI Drivers for VMware vSphere 6.0**

Version: 2015.10.01 *(Optional)*

Filename: cp026500.zip

**Important Note!**

HP recommends the firmware provided in *HP Firmware Flash for Emulex Fibre Channel Host Bus and Converged Network Adapters for VMware vSphere 5.5 and 6.0*, version 2015.10.01, for use with this driver.

**Enhancements**

Initial release.

**Supported Devices and Features**

These drivers support the following HP network adapters:

- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
HP Emulex 10GbE Drivers VMware vSphere 5.5
Version: 2015.10.01 (Optional)
Filename: cp026422.zip

Important Note!

HP recommends the firmware provided in HP Firmware Flash for Emulex Fibre Channel Host Bus and Converged Network Adapters for VMware vSphere 5.5 and 6.0, version 2015.10.01 or later, for use with this driver.

Fixes
This driver resolves an issue that results in the VMkernel experiencing a critical error (PSOD) when a dump command is issued.

Supported Devices and Features

This driver supports the following network adapters:

- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-10Gb Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP Ethernet 10Gb 2-port 556FLR-10Gb Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter

HP Emulex 10GbE Drivers VMware vSphere 6.0
Version: 2015.10.01 (Optional)
Filename: cp026501.zip

Important Note!
HP recommends the firmware provided in *HP Firmware Flash for Emulex Fibre Channel Host Bus and Converged Network Adapters for VMware vSphere 5.5 and 6.0*, version 2015.10.01 or later, for use with this driver.

**Enhancements**

Initial release.

**Supported Devices and Features**

This driver supports the following network adapters:

- HP CN1100E Converged Network Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 557SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter

**HP Intel e1000e Drivers for Red Hat Enterprise Linux 6 i686**

Version: 3.2.2.1-20 *(Optional)*

Filename: kmod-hp-e1000e-3.2.2.1-20.rhel6u6.i686.rpm; kmod-hp-e1000e-3.2.2.1-20.rhel6u7.i686.rpm; README

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

These drivers support the following network adapters:

- HP NC112i 1-port Ethernet Server Adapter
- HP NC112T PCI Express Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter

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Enhancements

This product now supports Red Hat Enterprise Linux 6 Update 7.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC112i 1-port Ethernet Server Adapter
- HP NC112T PCI Express Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter

Enhancements

This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC112i 1-port Ethernet Server Adapter
- HP NC112T PCI Express Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter

Enhancements

This product now supports SUSE LINUX Enterprise Server 11 SP4.
Supported Devices and Features

These drivers support the following network adapters:

- HP NC112i 1-port Ethernet Server Adapter
- HP NC112T PCI Express Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter

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**HP Intel e1000e Drivers for SUSE Linux Enterprise Server 11 x86_64**

Version: 3.2.2.1-20 (Optional)
Filename: hp-e1000e-kmp-default-3.2.2.1_3.0.101_63-20.sles11sp4.x86_64.rpm; hp-e1000e-kmp-default-3.2.2.1_3.0.76_0.11-20.sles11sp3.x86_64.rpm; hp-e1000e-kmp-xen-3.2.2.1_3.0.101_63-20.sles11sp4.x86_64.rpm; hp-e1000e-kmp-xen-3.2.2.1_3.0.76_0.11-20.sles11sp3.x86_64.rpm; README

**Enhancements**

This product now supports SUSE LINUX Enterprise Server 11 SP4.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC112i 1-port Ethernet Server Adapter
- HP NC112T PCI Express Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter

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**HP Intel e1000e Drivers for SUSE Linux Enterprise Server 12 x86_64**

Version: 3.2.2.1-20 (Optional)
Filename: hp-e1000e-kmp-default-3.2.2.1_k3.12.28_4-20.sles12sp0.x86_64.rpm; hp-e1000e-kmp-xen-3.2.2.1_k3.12.28_4-20.sles12sp0.x86_64.rpm; README

**Enhancements**

This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC112i 1-port Ethernet Server Adapter
- HP NC112T PCI Express Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
HP Intel E1R Driver for Windows Server 2008
Version: 12.7.29.0 (C) (Optional)
Filename: cp019461.exe

Fixes
This driver addresses an issue where a “link down” message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

Enhancements
This driver now supports the following network adapters:
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

Supported Devices and Features
This driver supports the following HP Intel E1R network adapters:
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

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HP Intel E1R Driver for Windows Server 2008 R2
Version: 12.11.97.0 (B) (Optional)
Filename: cp025767.exe

Important Note!
HP recommends the firmware provided in HP Intel Online Firmware Upgrade Utility for Windows Server x64 Editions, version 4.0.0.17 or later, for use with this driver.

Fixes
This driver corrects an issue which can result in the driver improperly indicating Wake On Lan support when it is not supported by the device.

Enhancements
This product now supports the HP Ethernet 1Gb 4-port 366T Adapter.

**Supported Devices and Features**

This driver supports the following HP Intel E1R network adapters:

- HP NC365T PCI Express Quad Port Gigabit Server Adapter
- 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

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**HP Intel E1R Driver for Windows Server 2008 x64 Editions**

Version: 12.7.29.0 (C) *(Optional)*
Filename: cp019462.exe

**Fixes**

This driver addresses an issue where a “link down” message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

**Enhancements**

This driver now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

**Supported Devices and Features**

This driver supports the following HP Intel E1R network adapters:

- HP NC365T PCI Express Quad Port Gigabit Server Adapter
- 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 366FLR Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
**HP Intel E1R Driver for Windows Server 2012**
Version: 12.11.97.0 (Optional)
Filename: cp025765.exe

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 4.0.0.17 or later, for use with this driver.

**Fixes**

This driver corrects an issue which can result in the driver improperly indicating Wake On Lan support when it is not supported by the device.

**Enhancements**

This product now supports the HP Ethernet 1Gb 4-port 366T Adapter.

**Supported Devices and Features**

This driver supports the following HP 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

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**HP Intel E1R Driver for Windows Server 2012 R2**
Version: 12.11.97.1 (Optional)
Filename: cp025766.exe

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 4.0.0.17 or later for use with this driver.

**Fixes**

This driver corrects an issue which can result in the driver improperly indicating Wake On Lan support when it is not supported by the device.

**Enhancements**
This product now supports the HP Ethernet 1Gb 4-port 366T Adapter.

Supported Devices and Features

This driver supports the following HP 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

**HP Intel i40e Drivers for Red Hat Enterprise Linux 6 i686**

Version: 1.2.45-10 *(Optional)*
Filename: kmod-hp-i40e-1.2.45-10.rhel6u6.x86_64.rpm; kmod-hp-i40e-1.2.45-10.rhel6u7.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

This product supports the following HP network adapters:

- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

**HP Intel i40e Drivers for Red Hat Enterprise Linux 7 x86_64**

Version: 1.2.45-10 *(Optional)*
Filename: kmod-hp-i40e-1.2.45-10.rhel7u0.x86_64.rpm; kmod-hp-i40e-1.2.45-10.rhel7u1.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.
Enhancements
This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

Supported Devices and Features
This product supports the following HP network adapters:

- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

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HP Intel i40e Drivers for SUSE Linux Enterprise Server 11 x86_64
Version: 1.2.45-10 (Optional)
Filename: hp-i40e-kmp-default-1.2.45_3.0.101_63-10.sles11sp4.x86_64.rpm; hp-i40e-kmp-default-1.2.45_3.0.76_0.11-10.sles11sp3.x86_64.rpm; hp-i40e-kmp-xen-1.2.45_3.0.101_63-10.sles11sp4.x86_64.rpm; hp-i40e-kmp-xen-1.2.45_3.0.76_0.11-10.sles11sp3.x86_64.rpm; README

Important Note!
HP recommends the firmware provided in HP Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.9.12, for use with these drivers.

Enhancements
This product now supports SUSE LINUX Enterprise Server 11 SP4.

Supported Devices and Features
This product supports the following HP network adapters:

- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

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HP Intel i40e Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 1.2.45-10 (Optional)
Filename: hp-i40e-kmp-default-1.2.45_k3.12.28_4-10.sles12sp0.x86_64.rpm; hp-i40e-kmp-xen-1.2.45_k3.12.28_4-10.sles12sp0.x86_64.rpm; README

Important Note!
HP recommends the firmware provided in HP Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.9.12, for use with these drivers.

Enhancements
This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

**Supported Devices and Features**

This product supports the following HP network adapters:

- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

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**HP Intel i40e Drivers for VMware vSphere 5.1**

Version: 2015.07.17 *(Optional)*

Filename: cp025220.zip

**Important Note!**

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

**Enhancements**

Initial release.

**Supported Devices and Features**

This product supports the following HP network adapters:

- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

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**HP Intel i40e Drivers for VMware vSphere 5.5/6.0**

Version: 2015.07.17 *(Optional)*

Filename: cp025221.zip

**Important Note!**

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

**Enhancements**

Initial release.

**Supported Devices and Features**

This product supports the following HP network adapters:

- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
HP Intel i40ea Driver for Windows Server 2008 R2
Version: 1.1.121.0 (Optional)
Filename: cp025054.exe

Enhancements
Initial release.

Supported Devices and Features

This product supports the following HP network adapters:

- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

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HP Intel i40ea Driver for Windows Server 2012
Version: 1.1.121.0 (Optional)
Filename: cp025055.exe

Enhancements
Initial release.

Supported Devices and Features

This product supports the following HP network adapters:

- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

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HP Intel i40ea Driver for Windows Server 2012 R2
Version: 1.1.121.0 (Optional)
Filename: cp025056.exe

Enhancements
Initial release.

Supported Devices and Features

This product supports the following HP network adapters:

- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter
**HP Intel i40evf Drivers for Red Hat Enterprise Linux 6 x86_64**
Version: 1.2.34-5 *(Optional)*
Filename: kmod-hp-i40evf-1.2.34-5.rhel6u6.x86_64.rpm; kmod-hp-i40evf-1.2.34-5.rhel6u7.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

This product supports the following HP network adapters:

- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

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**HP Intel i40evf Drivers for Red Hat Enterprise Linux 7 x86_64**
Version: 1.2.34-5 *(Optional)*
Filename: kmod-hp-i40evf-1.2.34-5.rhel7u0.x86_64.rpm; kmod-hp-i40evf-1.2.34-5.rhel7u1.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

**Enhancements**

This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

**Supported Devices and Features**

This product supports the following HP network adapters:

- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

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**HP Intel i40evf Drivers for SUSE Linux Enterprise Server 11 x86_64**
Version: 1.2.34-5 *(Optional)*
Important Note!

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

Enhancements

This product now supports SUSE LINUX Enterprise Server 11 SP4.

Supported Devices and Features

This product supports the following HP network adapters:

- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

**HP Intel i40evf Drivers for SUSE Linux Enterprise Server 12 x86_64**

Version: 1.2.34-5 *(Optional)*

Filename: hp-i40evf-kmp-default-1.2.34_k3.12.28_4-5.sles12sp0.x86_64.rpm; hp-i40evf-kmp-xen-1.2.34_k3.12.28_4-5.sles12sp0.x86_64.rpm; README

Important Note!

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

Enhancements

This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

Supported Devices and Features

This product supports the following HP network adapters:

- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

**HP Intel igb Drivers for Red Hat Enterprise Linux 6 i686**

Version: 5.2.17-12 *(Optional)*

Filename: kmod-hp-igb-5.2.17-12.rhel6u6.i686.rpm; kmod-hp-igb-5.2.17-12.rhel6u7.i686.rpm; README

Important Note!
HP recommends the firmware provided in HP Intel Online Firmware Upgrade Utility for Linux x86, version 1.9.12, for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

These drivers support the following HP Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

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**HP Intel igb Drivers for Red Hat Enterprise Linux 6 x86_64**

Version: 5.2.17-12 *(Optional)*
Filename: kmod-hp-igb-5.2.17-12.rhel6u6.x86_64.rpm; kmod-hp-igb-5.2.17-12.rhel6u7.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in HP Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.9.12, for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

These drivers support the following HP Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet NC365T 4-port Ethernet Server Adapter
HP Intel igb Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 5.2.17-12 (Optional)
Filename: kmod-hp-igb-5.2.17-12.rhel7u0.x86_64.rpm; kmod-hp-igb-5.2.17-12.rhel7u1.x86_64.rpm; README

Important Note!
HP recommends the firmware provided in HP Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.9.12, for use with these drivers.

Enhancements
This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

Supported Devices and Features
These drivers support the following HP Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP NC365T 4-port Ethernet Server Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 4-port 366T Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

HP Intel igb Drivers for SUSE Linux Enterprise Server 11 i586
Version: 5.2.17-12 (Optional)
Filename: hp-igb-kmp-default-5.2.17_3.0.101_63-12.sles11sp4.i586.rpm; hp-igb-kmp-default-5.2.17_3.0.76_0.11-12.sles11sp3.i586.rpm; hp-igb-kmp-pae-5.2.17_3.0.101_63-12.sles11sp4.i586.rpm; hp-igb-kmp-pae-5.2.17_3.0.76_0.11-12.sles11sp3.i586.rpm; hp-igb-kmp-xen-5.2.17_3.0.101_63-12.sles11sp4.i586.rpm; hp-igb-kmp-xen-5.2.17_3.0.76_0.11-12.sles11sp3.i586.rpm; README

Important Note!
HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86*, version 1.9.12, for use with these drivers.

**Enhancements**

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**

These drivers support the following HP Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP NC365T 4-port Ethernet Server Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

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**HP Intel igb Drivers for SUSE Linux Enterprise Server 11 x86_64**

Version: 5.2.17-12 *(Optional)*

Filename: hp-igb-kmp-default-5.2.17_3.0.101_63-12.sles11sp4.x86_64.rpm; hp-igb-kmp-default-5.2.17_3.0.76_0.11-12.sles11sp3.x86_64.rpm; hp-igb-kmp-xen-5.2.17_3.0.101_63-12.sles11sp4.x86_64.rpm; hp-igb-kmp-xen-5.2.17_3.0.76_0.11-12.sles11sp3.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

**Enhancements**

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**

These drivers support the following HP Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
HP Intel igb Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 5.2.17-12 (Optional)
Filename: hp-igb-kmp-default-5.2.17_k3.12.28_4-12.sles12sp0.x86_64.rpm; hp-igb-kmp-xen-5.2.17_k3.12.28_4-12.sles12sp0.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

**Enhancements**

This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

**Supported Devices and Features**

These drivers support the following HP Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP NC365T 4-port Ethernet Server Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 4-port 366T Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

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HP Intel igb Drivers for VMware ESXi 5.0/vSphere 5.1
Version: 2015.07.17 (Optional)
Filename: cp025776.zip

**Important Note!**

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

**Enhancements**

This driver now supports the HP Ethernet 1Gb 4-port 366T Adapter.

**Supported Devices and Features**

These drivers support the following network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP NC365T 4-port Ethernet Server Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 4-port 366T Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP NC365T 4-port Ethernet Server Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 4-port 366T Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

HP Intel ixgbe Drivers for Red Hat Enterprise Linux 6 i686
Version: 4.0.3-10 (Optional)
Filename: kmod-hp-ixgbe-4.0.3-10.rhel6u6.i686.rpm; kmod-hp-ixgbe-4.0.3-10.rhel6u7.i686.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86*, version 1.9.12, for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbe Drivers for Red Hat Enterprise Linux 6 x86_64
Version: 4.0.3-10 (Optional)
Filename: kmod-hp-ixgbe-4.0.3-10.rhel6u6.x86_64.rpm; kmod-hp-ixgbe-4.0.3-10.rhel6u7.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.
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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbe Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 4.0.3-10 (Optional)
Filename: kmod-hp-ixgbe-4.0.3-10.rhel7u0.x86_64.rpm; kmod-hp-ixgbe-4.0.3-10.rhel7u1.x86_64.rpm; README

Important Note!

HP recommends the firmware provided in HP Intel Online Firmware Upgrade Utility for Linux x86_64, version 1.9.12, for use with these drivers.

Enhancements

This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbe Drivers for SUSE Linux Enterprise Server 11 i586
Version: 4.0.3-10 (Optional)
Filename: hp-ixgbe-kmp-default-4.0.3_3.0.101_63-10.sles11sp4.i586.rpm; hp-ixgbe-kmp-default-4.0.3_3.0.76_0.11-10.sles11sp3.i586.rpm; hp-ixgbe-kmp-pae-4.0.3_3.0.101_63-10.sles11sp4.i586.rpm; hp-ixgbe-kmp-pae-4.0.3_3.0.76_0.11-10.sles11sp3.i586.rpm; hp-ixgbe-kmp-xen-4.0.3_3.0.101_63-10.sles11sp4.i586.rpm; hp-ixgbe-kmp-xen-4.0.3_3.0.76_0.11-10.sles11sp3.i586.rpm; README

Important Note!
HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86*, version 1.9.12, for use with these drivers.

Enhancements

This product now supports SUSE LINUX Enterprise Server 11 SP4.

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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

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**HP Intel ixgbe Drivers for SUSE Linux Enterprise Server 11 x86_64**

Version: 4.0.3-10 *(Optional)*

Filename: hp-ixgbe-kmp-default-4.0.3_3.0.101_63-10.sles11sp4.x86_64.rpm; hp-ixgbe-kmp-default-4.0.3_3.0.76_0.11-10.sles11sp3.x86_64.rpm; hp-ixgbe-kmp-xen-4.0.3_3.0.101_63-10.sles11sp4.x86_64.rpm; hp-ixgbe-kmp-xen-4.0.3_3.0.76_0.11-10.sles11sp3.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

Enhancements

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter
**HP Intel ixgbe Drivers for SUSE Linux Enterprise Server 12 x86_64**

Version: 4.0.3-10 *(Optional)*
Filename: hp-ixgbe-kmp-default-4.0.3_k3.12.28-4-10.sles12sp0.x86_64.rpm; hp-ixgbe-kmp-xen-4.0.3_k3.12.28-4-10.sles12sp0.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

**Enhancements**

This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

**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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

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**HP Intel ixgbe Drivers for VMware ESXi 5.0/vSphere 5.1**

Version: 2015.02.23 *(Optional)*
Filename: cp024684.zip

**Important Note!**

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

**Fixes**

This driver component can now be installed by the HP Smart Update Manager (HPSUM).

**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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter
HP Intel ixgbe Drivers for VMware vSphere 5.5/6.0
Version: 2015.07.17 (Optional)
Filename: cp026691.zip

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

Fixes
This driver addresses a loss of network connectivity seen when changing the RX buffer size.

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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbevf Drivers for Red Hat Enterprise Linux 6 i686
Version: 2.16.1-13 (Optional)

Important Note!
HP recommends the firmware provided in HP Intel Online Firmware Upgrade Utility for Linux x86, version 1.9.12, for use with these drivers.

Enhancements
This product now supports Red Hat Enterprise Linux 6 Update 7.

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*
*HP Ethernet 10Gb 2-port 561FLR-T Adapter*
*HP Ethernet 10Gb 2-port 561T Adapter*
*HP Ethernet 10Gb 2-port 562i Adapter*

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**HP Intel ixgbevf Drivers for Red Hat Enterprise Linux 6 x86_64**

Version: 2.16.1-13 *(Optional)*
Filename: kmod-hp-ixgbevf-2.16.1-13.rhel6u6.x86_64.rpm; kmod-hp-ixgbevf-2.16.1-13.rhel6u7.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

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**HP Intel ixgbevf Drivers for Red Hat Enterprise Linux 7 x86_64**

Version: 2.16.1-13 *(Optional)*
Filename: kmod-hp-ixgbevf-2.16.1-13.rhel7u0.x86_64.rpm; kmod-hp-ixgbevf-2.16.1-13.rhel7u1.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

**Enhancements**

This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

**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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

**HP Intel ixgbevf Drivers for SUSE Linux Enterprise Server 11 i586**

Version: 2.16.1-13 *(Optional)*


**Important Note!**

HP recommends the firmware provided in **HP Intel Online Firmware Upgrade Utility for Linux x86**, version 1.9.12, for use with these drivers.

**Enhancements**

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

**HP Intel ixgbevf Drivers for SUSE Linux Enterprise Server 11 x86_64**

Version: 2.16.1-13 *(Optional)*

Filename: hp-ixgbevf-kmp-default-2.16.1_3.0.101_63-13.sles11sp4.x86_64.rpm; hp-ixgbevf-kmp-default-2.16.1_3.0.76_0.11-13.sles11sp3.x86_64.rpm; hp-ixgbevf-kmp-xen-2.16.1_3.0.101_63-13.sles11sp4.x86_64.rpm; hp-ixgbevf-kmp-xen-2.16.1_3.0.76_0.11-13.sles11sp3.x86_64.rpm; README

**Important Note!**
HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

**Enhancements**

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562I Adapter

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**HP Intel ixgbevf Drivers for SUSE Linux Enterprise Server 12 x86_64**

Version: 2.16.1-13 *(Optional)*

Filename: hp-ixgbevf-kmp-default-2.16.1_k3.12.28_4-13.sles12sp0.x86_64.rpm; hp-ixgbevf-kmp-xen-2.16.1_k3.12.28_4-13.sles12sp0.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.12, for use with these drivers.

**Enhancements**

This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

**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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562I Adapter
HP Intel ixn/ixt Drivers for Windows Server 2008
Version: 3.5.22.0 (D) (Optional)
Filename: cp019449.exe

**Fixes**
This driver addresses an issue where a “link down” message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

**Enhancements**
This component now supports the HP Ethernet 10Gb 2-port 562i Adapter.

**Supported Devices and Features**
This component supports the following HP Intel ixn 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

This component supports the following HP Intel ixt network adapters:

- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

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HP Intel ixn/ixt Drivers for Windows Server 2008 R2
Version: 3.9.58.9101 (B) (Optional)
Filename: cp026248.exe

**Important Note!**
HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 4.0.0.17 or later, for use with these drivers.

**Fixes**
The Intel Ethernet Thermal Sensor Monitor in this product now behaves correctly when a device is initialized with the input/output memory management unit (IOMMU) enabled.

This driver addresses an issue where PCI-e completion timeouts take longer than expected.

**Supported Devices and Features**
This component supports the following HP Intel ixn 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

This component supports the following HP Intel ixt network adapters:

- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

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**HP Intel ixn/ixt Drivers for Windows Server 2008 x64 Editions**

Version: 3.5.22.0 (D) *(Optional)*
Filename: cp019450.exe

**Fixes**
This driver addresses an issue where a “link down” message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

**Enhancements**
This component now supports the HP Ethernet 10Gb 2-port 562i Adapter.

**Supported Devices and Features**
This component supports the following HP Intel ixn network adapters:

- 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

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**HP Intel ixn/ixt Drivers for Windows Server 2012**

Version: 3.9.58.9101 (B) *(Optional)*
Filename: cp026246.exe

**Important Note!**
HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 4.0.0.17 or later, for use with these drivers.

**Fixes**
The Intel Ethernet Thermal Sensor Monitor in this product now behaves correctly when a device is initialized with the input/output memory management unit (IOMMU) enabled.

This driver addresses an issue where PCI-e completion timeouts take longer than expected.

**Supported Devices and Features**

This component supports the following HP Intel ixn network adapters:

- 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

This component supports the following HP Intel ixt network adapters:

- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

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**HP Intel ixn/ixt Drivers for Windows Server 2012 R2**

Version: 3.9.58.9101 (B) *(Optional)*

Filename: cp026247.exe

**Important Note!**

HP recommends the firmware provided in *HP Intel Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 4.0.0.17, or later for use with these drivers.

**Fixes**

The Intel Ethernet Thermal Sensor Monitor in this product now behaves correctly when a device is initialized with the input/output memory management unit (IOMMU) enabled.

This driver addresses an issue where PCI-e completion timeouts take longer than expected.

**Supported Devices and Features**

This component supports the following HP Intel ixn network adapters:

- 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

This component supports the following HP Intel ixt network adapters:
HP Mellanox CX3 Driver for Windows Server 2008 R2
Version: 4.95.10777.0 (Optional)
Filename: cp026814.exe

**Fixes**

This driver corrects an issue which results in a Windows Stop Error (BSOD) after a receive buffer size change in Virtual Machine Queue (VMQ) mode.

This driver corrects an issue with the Powershell setting of RDMA over Converged Ethernet (RoCE) mode when the machine has more than one Mellanox device installed.

This driver corrects an issue with the reporting of Network Virtualization using Generic Routing Encapsulation (NVGRE) capabilities to the operating system.

**Enhancements**

Explicit Congestion Notification (ECN) is now configurable via PowerShell.

This driver supports a new mode that ignores Frame Check Sequence (FCS) warnings and allows the Ethernet packets to be received by the NIC.

**Supported Devices and Features**

This driver supports the following HP Mellanox CX3 network adapters:

- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter
- 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 Mellanox CX3 Driver for Windows Server 2012
Version: 4.95.10777.0 (Optional)
Filename: cp026815.exe

**Fixes**

This driver corrects an issue which results in a Windows Stop Error (BSOD) after a receive buffer size change in Virtual Machine Queue (VMQ) mode.

This driver corrects an issue with the Powershell setting of RDMA over Converged Ethernet (RoCE) mode when the machine has more than one Mellanox device installed.

This driver corrects an issue with the reporting of Network Virtualization using Generic Routing Encapsulation (NVGRE) capabilities to the operating system.

**Enhancements**

Explicit Congestion Notification (ECN) is now configurable via PowerShell.

This driver supports a new mode that ignores Frame Check Sequence (FCS) warnings and allows the Ethernet packets to be received by the NIC.

**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
- 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

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HP Mellanox CX3 Driver for Windows Server 2012 R2
Version: 4.95.10777.0 (Optional)
Filename: cp026816.exe

**Fixes**
This driver corrects an issue which results in a Windows Stop Error (BSOD) after a receive buffer size change in Virtual Machine Queue (VMQ) mode.

This driver corrects an issue with the Powershell setting of RDMA over Converged Ethernet (RoCE) mode when the machine has more than one Mellanox device installed.

This driver corrects an issue with the reporting of Network Virtualization using Generic Routing Encapsulation (NVGRE) capabilities to the operating system.

**Enhancements**

Explicit Congestion Notification (ECN) is now configurable via PowerShell.

This driver supports a new mode that ignores Frame Check Sequence (FCS) warnings and allows the Ethernet packets to be received by the NIC.

**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
- 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/Ethernet 10Gb 2P 544i Adapter

**HP Mellanox RoCE (RDMA over Converged Ethernet) Driver for Red Hat Enterprise Linux 6 Update 4 (x86_64)**

Version: 2.4-1.0.6 *(Recommended)*

Filename: kmod-mlnx-ofa_kernel-2.4-OFED.2.4.1.0.6.1.g073fa1d.rhel6u4.x86_64.rpm; mlnx-ofa_kernel-2.4-OFED.2.4.1.0.6.1.g073fa1d.rhel6u4.x86_64.rpm

**Fixes**

Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

**Enhancements**
Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

**Supported Devices and Features**

**SUPPORTED KERNELS:**
The kernels of Red Hat Enterprise Linux 6U4 (x86_64) supported by this binary rpm are:
2.6.32-358.el6 - (x86_64) and future update kernels.

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**HP Mellanox RoCE (RDMA over Converged Ethernet) Driver for Red Hat Enterprise Linux 6 Update 5 (x86_64)**

Version: 2.4-1.0.6 *(Recommended)*

Filename: kmod-mlnx-ofa_kernel-2.4-OFED.2.4.1.0.6.1.g073fa1d.rhel6u5.x86_64.rpm; mlnx-ofa_kernel-2.4-OFED.2.4.1.0.6.1.g073fa1d.rhel6u5.x86_64.rpm

**Fixes**

Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

**Enhancements**

Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

**Supported Devices and Features**

**SUPPORTED KERNELS:**
The kernels of Red Hat Enterprise Linux 6U5 (x86_64) supported by this binary rpm are:
2.6.32-431.el6 - (x86_64) and future update kernels.

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**HP Mellanox RoCE (RDMA over Converged Ethernet) Driver for Red Hat Enterprise Linux 6 Update 6 (x86_64)**

Version: 2.4-1.0.6 *(Recommended)*

Filename: kmod-mlnx-ofa_kernel-2.4-OFED.2.4.1.0.6.1.g073fa1d.rhel6u6.x86_64.rpm; mlnx-ofa_kernel-2.4-OFED.2.4.1.0.6.1.g073fa1d.rhel6u6.x86_64.rpm

**Fixes**

Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

**Enhancements**

Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

**Supported Devices and Features**
SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6U6 (x86_64) supported by this binary rpm are:
2.6.32-504.el6 - (x86_64) and future update kernels.

HP Mellanox RoCE (RDMA over Converged Ethernet) Driver for Red Hat Enterprise Linux 6 Update 7 (x86_64)
Version: 3.0 (Recommended)
Filename: kmod-mlnx-ofa_kernel-3.0-OFED.3.0.2.0.0.1.gea32cb7.rhel6u7.x86_64.rpm; mlnx-ofa_kernel-3.0-OFED.3.0.2.0.0.1.gea32cb7.rhel6u7.x86_64.rpm

Fixes

Fixes in version 3.0-2.0.1:

- Hardware checksum call trace used to appear when receiving IPV6 traffic on PPC systems that uses CHECKSUM COMPLETE method.
- Ethertype proto 0x806 was not supported by ethtool.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6U6 (x86_64) supported by this binary rpm are:
2.6.32-573.el6 - (x86_64) and future update kernels.

HP Mellanox RoCE (RDMA over Converged Ethernet) Driver for Red Hat Enterprise Linux 7 (x86_64)
Version: 2.4-1.0.6 (Recommended)
Filename: kmod-mlnx-ofa_kernel-2.4-OFED.2.4.1.0.6.1.g073fa1d.rhel7u0.x86_64.rpm; mlnx-ofa_kernel-2.4-OFED.2.4.1.0.6.1.g073fa1d.rhel7u0.x86_64.rpm

Fixes

Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

Enhancements

Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 7 (x86_64) supported by this binary rpm are:
3.10.0-123.el7 - (x86_64) and future update kernels.

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HP Mellanox RoCE (RDMA over Converged Ethernet) Driver for Red Hat Enterprise Linux 7 Update 1 (x86_64)
Version: 2.4-1.0.6 (Recommended)
Filename: kmod-mlnx-ofa_kernel-2.4-OFED.2.4.1.0.6.1.g073fa1d.rhel7u1.x86_64.rpm; mlnx-ofa_kernel-2.4-OFED.2.4.1.0.6.1.g073fa1d.rhel7u1.x86_64.rpm

Fixes
Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

Enhancements
Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

Supported Devices and Features
SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 7 Update 1 (x86_64) supported by this binary rpm are:
3.10.0-229.el7 - (x86_64) and future update kernels.

HP Mellanox RoCE (RDMA over Converged Ethernet) Driver for SUSE LINUX Enterprise Server 11 SP2 (AMD64/EM64T)
Version: 2.4-1.0.6 (Recommended)
Filename: mlnx-ofa_kernel-2.4-OFED.2.4.1.0.6.1.g073fa1d.sles11sp2.x86_64.rpm; mlnx-ofa_kernel-kmp-default-2.4_3.0.13_0.27-OFED.2.4.1.0.6.1.g073fa1d.sles11sp2.x86_64.rpm; mlnx-ofa_kernel-kmp-trace-2.4_3.0.13_0.27-OFED.2.4.1.0.6.1.g073fa1d.sles11sp2.x86_64.rpm; mlnx-ofa_kernel-kmp-xen-2.4_3.0.13_0.27-OFED.2.4.1.0.6.1.g073fa1d.sles11sp2.x86_64.rpm

Fixes
Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

Enhancements
Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

Supported Devices and Features
SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server SP2 (AMD64/EM64T) supported by this binary rpm are:
3.0.13-0.27-default - (AMD64/EM64T) and future update kernels.
3.0.13-0.27-xen - (AMD64/EM64T) and future update kernels.
HP Mellanox RoCE (RDMA over Converged Ethernet) Driver for SUSE LINUX Enterprise Server 11 SP3 AMD64/EM64T)
Version: 2.4-1.0.6 (Recommended)
Filename: mlnx-ofa_kernel-2.4-OFED.2.4.1.0.6.1.g073fa1d.sles11sp3.x86_64.rpm; mlnx-ofa_kernel-kmp-default-2.4_3.0.76_0.11-OFED.2.4.1.0.6.1.g073fa1d.sles11sp3.x86_64.rpm; mlnx-ofa_kernel-kmp-trace-2.4_3.0.76_0.11-OFED.2.4.1.0.6.1.g073fa1d.sles11sp3.x86_64.rpm; mlnx-ofa_kernel-kmp-xen-2.4_3.0.76_0.11-OFED.2.4.1.0.6.1.g073fa1d.sles11sp3.x86_64.rpm

Fixes

Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

Enhancements

Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server SP3 (AMD64/EM64T) supported by this binary rpm are:
3.0.76-0.11-default - (AMD64/EM64T) and future update kernels.
3.0.76-0.11-xen - (AMD64/EM64T) and future update kernels.

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HP Mellanox RoCE (RDMA over Converged Ethernet) Driver for SUSE LINUX Enterprise Server 11 SP4 AMD64/EM64T)
Version: 3.0 (Recommended)
Filename: mlnx-ofa_kernel-3.0-OFED.3.0.0.3.7.1.g3c1d583.sles11sp4.x86_64.rpm; mlnx-ofa_kernel-kmp-default-3.0_3.0.101_63-OFED.3.0.0.3.7.1.g3c1d583.sles11sp4.x86_64.rpm; mlnx-ofa_kernel-kmp-xen-3.0_3.0.101_63-OFED.3.0.0.3.7.1.g3c1d583.sles11sp4.x86_64.rpm

Fixes

Fixes in version 3.0-1.0.1:

○ Enhancements only.

Enhancements

HP Mellanox RoCE driver v3.0-1.0.1 contains the following changes and new features:

○ RoCE per GID feature which provides the ability to use different RoCE versions/modes simultaneously.
○ Added Resource domain is a verb object which may be associated with QP and/or CQ objects on creation to enhance data-path performance.
○ Enabled the query_gid verb to return the admin desired value instead of the value that was approved by the SM.
- Virtualized QoS per VF, (supported in ConnectX-3/ConnectX-3 Pro adapter cards only with firmware v2.33.5100 and above), limits the chosen VFs' throughput rate limitations (Maximum throughput). The granularity of the rate limitation is 1 Mbits.
- Added Sockets Direct Protocol (SDP).
- Added Scalable Subnet Administration (SSA) feature.
- Added LLR max retransmission rate parameter.
- Added the following verbs:
  - `ibv_exp_create_res_domain`
  - `ibv_exp_destroy_res_domain`
  - `ibv_exp_query_intf`
  - `ibv_exp_release_intf`
- Added the following interface families:
  - `ibv_exp_qp_burst_family`
  - `ibv_exp_cq_family`

### Supported Devices and Features

**SUPPORTED KERNELS:**
The kernels of SUSE LINUX Enterprise Server SP3 (AMD64/EM64T) supported by this binary rpm are:
- 3.0.101-63-default - (AMD64/EM64T) and future update kernels.
- 3.0.101-63-xen - (AMD64/EM64T) and future update kernels.

### HP Mellanox RoCE (RDMA over Converged Ethernet) Driver for SUSE LINUX Enterprise Server 12 (AMD64/EM64T)

**Version:** 2.4-1.0.6 *(Recommended)*

**Filename:** mlnx-ofa_kernel-2.4-OFED.2.4.1.0.6.1.g073fa1d.sles12sp0.x86_64.rpm; mlnx-ofa_kernel-kmp-default-2.4_k3.12.28-4-OFED.2.4.1.0.6.1.g073fa1d.sles12sp0.x86_64.rpm; mlnx-ofa_kernel-kmp-xen-2.4_k3.12.28_4-OFED.2.4.1.0.6.1.g073fa1d.sles12sp0.x86_64.rpm

**Fixes**

Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

**Enhancements**

Initial release of Mellanox Ethernet driver which enables RoCE (RDMA over Converged Ethernet) feature for supported Mellanox adapter cards.

### Supported Devices and Features

**SUPPORTED KERNELS:**
The kernels of SUSE LINUX Enterprise Server 12 (AMD64/EM64T) supported by this binary rpm are:
- 3.12.28-4-default - (AMD64/EM64T) and future update kernels.
- 3.12.28-4-xen - (AMD64/EM64T) and future update kernels.

### HP NC-Series Intel E1E Driver for Windows Server 2008

**Version:** 9.15.17.0 *(Optional)*
Fixes
This driver addresses an issue where checksum offload computations were performed even when checksum offload was disabled.

Supported Devices and Features
This driver supports the following HP NC-Series Intel network adapters:

- HP NC110T PCI Express Single Port Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC360T PCI Express Dual Port Gigabit Server Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter
- HP NC364T PCI Express Quad Port Gigabit Server Adapter

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**HP NC-Series Intel E1E Driver for Windows Server 2008 R2**
Version: 9.15.17.0 (Optional)
Filename: cp018229.exe

Enhancements
This driver now supports Windows Server 2012.

Supported Devices and Features
This driver supports the following HP NC-Series Intel network adapters:

- HP NC110T PCI Express Single Port Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC360T PCI Express Dual Port Gigabit Server Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter
- HP NC364T PCI Express Quad Port Gigabit Server Adapter

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**HP NC-Series Intel E1E Driver for Windows Server 2008 x64 Editions**
Version: 9.15.17.0 (Optional)
Filename: cp017187.exe

Fixes
This driver addresses an issue where checksum offload computations were performed even when checksum offload was disabled.

Supported Devices and Features
This driver supports the following HP NC-Series Intel network adapters:

- HP NC110T PCI Express Single Port Gigabit Server Adapter
HP NC-Series Intel E1Q Driver for Windows Server 2008
Version: 12.7.29.0 (B) (Optional)
Filename: cp021179.exe

Fixes
This component addresses an issue which can result in installed adapters remaining in a disabled state when they should be enabled after installation is complete.

Supported Devices and Features
This driver supports the following HP NC-Series Intel E1Q network adapters:

- HP NC112T PCI Express Gigabit Server Adapter
- HP NC112i 1-port Ethernet Server Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter

HP NC-Series Intel E1Q Driver for Windows Server 2008 R2
Version: 12.7.27.0 (B) (Optional)
Filename: cp021181.exe

Fixes
This component addresses an issue which can result in installed adapters remaining in a disabled state when they should be enabled after installation is complete.

Supported Devices and Features
This driver supports the following HP NC-Series Intel E1Q network adapters:

- HP NC112T PCI Express Gigabit Server Adapter
- HP NC112i 1-port Ethernet Server Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter

HP NC-Series Intel E1Q Driver for Windows Server 2008 x64 Editions
Version: 12.7.29.0 (B) (Optional)
Filename: cp021180.exe

Fixes
This component addresses an issue which can result in installed adapters remaining in a disabled state when they should be enabled after installation is complete.
Supported Devices and Features
This driver supports the following HP NC-Series Intel E1Q network adapters:

- HP NC112T PCI Express Gigabit Server Adapter
- HP NC112i 1-port Ethernet Server Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter

HP NC-Series Intel E1Q Driver for Windows Server 2012
Version: 12.7.27.0 (B) (Optional)
Filename: cp021182.exe

Fixes
This component addresses an issue which can result in installed adapters remaining in a disabled state when they should be enabled after installation is complete.

Supported Devices and Features
This driver supports the following HP NC-Series Intel E1Q network adapters:

- HP NC112T PCI Express Gigabit Server Adapter
- HP NC112i 1-port Ethernet Server Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter

HP Network Configuration Utility for Windows Server 2008
Version: 10.90.0.0 (B) (Optional)
Filename: cp023337.exe

Important Note!
Attention Gen9 customers: This utility does not support Gen9 ProLiant platform NICs. See Customer Notice HP Network Configuration Utility (NCU) - HP NCU Does Not Support Ethernet / FlexFabric Adapters designed for HP ProLiant Gen9 Servers for more information: http://h20564.www2.hp.com/portal/site/hpsc/public/kb/docDisplay/?docId=c04539182.

Fixes
This component addresses an issue which results in extremely long installation times on systems with a large number of virtual miniports.

HP Network Configuration Utility for Windows Server 2008 R2
Version: 10.90.0.0 (B) (Optional)
Filename: cp023339.exe

Important Note!
Attention Gen9 customers: This utility does not support Gen9 ProLiant platform NICs. See Customer Notice HP Network Configuration Utility (NCU) - HP NCU Does Not Support Ethernet / FlexFabric Adapters
**Fixes**

This component addresses an issue which results in extremely long installation times on systems with a large number of virtual miniports.

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**HP Network Configuration Utility for Windows Server 2008 x64 Editions**

Version: 10.90.0.0 (Optional)

Filename: cp023338.exe

**Important Note!**

Attention Gen9 customers: This utility does not support Gen9 ProLiant platform NICs. See Customer Notice HP Network Configuration Utility (NCU) - HP NCU Does Not Support Ethernet / FlexFabric Adapters designed for HP ProLiant Gen9 Servers for more information:


**Fixes**

This component addresses an issue which results in extremely long installation times on systems with a large number of virtual miniports.

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**HP QLogic iSCSI Drivers for Red Hat Enterprise Linux 6 i686**

Version: 5.04.01.10.00.00-1 (Optional)

Filename: hp-qlgc-docs-1.0.3-1.noarch.rpm; hp-qlgc-utils-1.0.4-1.noarch.rpm; kmod-hpqlgc-qla4xxx-5.04.01.10.00.00_k0-1.rhel6u6.i686.rpm; kmod-hpqlgc-qla4xxx-5.04.01.10.00.00_k0-1.rhel6u7.i686.rpm; README

**Important Note!**

HP recommends the firmware provided in HP QLogic P3P Online Firmware Upgrade Utility for Linux x86, version 1.9.7 or later for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

This software supports the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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**HP QLogic iSCSI Drivers for Red Hat Enterprise Linux 6 x86_64**

Version: 5.04.01.10.00.00-1 (Optional)
Important Note!

HP recommends the firmware provided in HP QLogic P3P Online Firmware Upgrade Utility for Linux x86_64, version 1.9.7 or later for use with these drivers.

Enhancements

This product now supports Red Hat Enterprise Linux 6 Update 7.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic iSCSI Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 5.04.01.10.00.00-1 (Optional)
Filename: hp-qlgc-docs-1.0.3-1.noarch.rpm; hp-qlgc-utils-1.0.4-1.noarch.rpm; kmod-hpqlgc-qla4xxx-5.04.01.10.00.00_k0-1.rhel6u6.x86_64.rpm; kmod-hpqlgc-qla4xxx-5.04.01.10.00.00_k0-1.rhel6u7.x86_64.rpm; README

Important Note!

HP recommends the firmware provided in HP QLogic P3P Online Firmware Upgrade Utility for Linux x86_64, version 1.9.7 or later for use with these drivers.

Enhancements

This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic iSCSI Drivers for SUSE Linux Enterprise Server 11 i586
Version: 5.04.01.10.00.00-1 (Optional)
Filename: hp-qlgc-docs-1.0.3-1.noarch.rpm; hp-qlgc-utils-1.0.4-1.noarch.rpm; hpqlgc-qla4xxx-kmp-default-5.04.01.10.00.00_k0_3.0.101_63-1.sles11sp4.i586.rpm; hpqlgc-qla4xxx-kmp-default-
**Important Note!**

HP recommends the firmware provided in *HP QLogic P3P Online Firmware Upgrade Utility for Linux x86*, version 1.9.7 or later for use with these drivers.

**Enhancements**

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**

This software supports the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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**HP QLogic iSCSI Drivers for SUSE Linux Enterprise Server 11 x86_64**

Version: 5.04.01.10.00.00-1 *(Optional)*

Filename: hp-qlgc-docs-1.0.3-1.noarch.rpm; hp-qlgc-utils-1.0.4-1.noarch.rpm; hpqlgc-qla4xxx-kmp-default-5.04.01.10.00.00_k0_3.0.101_63-1.sles11sp4.x86_64.rpm; hpqlgc-qla4xxx-kmp-default-5.04.01.10.00.00_k0_3.0.76_0.11-1.sles11sp3.x86_64.rpm; hpqlgc-qla4xxx-kmp-xen-5.04.01.10.00.00_k0_3.0.101_63-1.sles11sp4.x86_64.rpm; hpqlgc-qla4xxx-kmp-xen-5.04.01.10.00.00_k0_3.0.76_0.11-1.sles11sp3.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP QLogic P3P Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.7 or later for use with these drivers.

**Enhancements**

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**

This software supports the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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HP QLogic iSCSI Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 5.04.01.10.00.00-1 (Optional)
Filename: hp-qlgc-docs-1.0.3-1.noarch.rpm; hp-qlgc-utils-1.0.4-1.noarch.rpm; hpqlgc-qla4xxx-kmp-default-5.04.01.10.00.00_k0_k3.12.28_4-1.sles12sp0.x86_64.rpm; hpqlgc-qla4xxx-kmp-xen-5.04.01.10.00.00_k0_k3.12.28_4-1.sles12sp0.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in HP QLogic P3P Online Firmware Upgrade Utility for Linux x86_64, version 1.9.7 or later for use with these drivers.

**Enhancements**

This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

**Supported Devices and Features**

This software supports the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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HP QLogic nx_nic Drivers for Red Hat Enterprise Linux 6 i686
Version: 4.0.596.1-6 (Optional)
Filename: hp-nx_nic-docs-1.0.0-4.noarch.rpm; hp-nx_nic-tools-4.0.596.1-4.noarch.rpm; kmod-hpqlgc-nx_nic-4.0.596.1-4.rhel6u6.i686.rpm; kmod-hpqlgc-nx_nic-4.0.596.1-6.rhel6u7.i686.rpm; README

**Important Note!**

HP recommends the firmware provided in HP QLogic P3 Online Firmware Upgrade Utility for Linux x86, version 5.6.10, for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

This software supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter

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HP QLogic nx_nic Drivers for Red Hat Enterprise Linux 6 x86_64
Version: 4.0.596.1-6 (Optional)
Filename: hp-nx_nic-docs-1.0.0-4.noarch.rpm; hp-nx_nic-tools-4.0.596.1-4.noarch.rpm; kmod-hpqlgc-nx_nic-4.0.596.1-4.rhel6u6.x86_64.rpm; kmod-hpqlgc-nx_nic-4.0.596.1-6.rhel6u7.x86_64.rpm; README

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**Important Note!**

HP recommends the firmware provided in *HP QLogic P3 Online Firmware Upgrade Utility for Linux x86_64*, version 5.6.10, for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

This software supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter

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**HP QLogic nx_nic Drivers for Red Hat Enterprise Linux 7 x86_64**

Version: 4.0.596.1-2 *(Optional)*

Filename: hp-nx_nic-docs-1.0.0-4.noarch.rpm; hp-nx_nic-tools-4.0.596.1-4.noarch.rpm; kmod-hpqlgc-nx_nic-4.0.596.1-2.rhel7u0.x86_64.rpm; kmod-hpqlgc-nx_nic-4.0.596.1-2.rhel7u1.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP QLogic P3 Online Firmware Upgrade Utility for Linux x86_64*, version 5.6.7 or later for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 7 Update 1.

**Supported Devices and Features**

This software supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter

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**HP QLogic nx_nic Drivers for SUSE Linux Enterprise Server 11 i586**

Version: 4.0.596.1-5 *(Optional)*

Filename: hp-nx_nic-docs-1.0.0-4.noarch.rpm; hp-nx_nic-tools-4.0.596.1-4.noarch.rpm; hpqlgc-nx_nic-kmp-default-4.0.596.1_3.0.101_63-5.sles11sp4.i586.rpm; hpqlgc-nx_nic-kmp-default-4.0.596.1_3.0.76_0.11-2.sles11sp3.i586.rpm; hpqlgc-nx_nic-kmp-pae-4.0.596.1_3.0.101_63-5.sles11sp4.i586.rpm; hpqlgc-nx_nic-kmp-pae-4.0.596.1_3.0.76_0.11-2.sles11sp3.i586.rpm; hpqlgc-nx_nic-kmp-xen-4.0.596.1_3.0.101_63-5.sles11sp4.i586.rpm; hpqlgc-nx_nic-kmp-xen-4.0.596.1_3.0.76_0.11-2.sles11sp3.i586.rpm; README

**Important Note!**
HP recommends the firmware provided in *HP QLogic P3 Online Firmware Upgrade Utility for Linux x86*, version 5.6.10, for use with these drivers.

**Enhancements**
This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**
This software supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter

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**HP QLogic nx_nic Drivers for SUSE Linux Enterprise Server 11 x86_64**
Version: 4.0.596.1-5 *(Optional)*
Filename: hp-nx_nic-docs-1.0.0-4.noarch.rpm; hp-nx_nic-tools-4.0.596.1-4.noarch.rpm; hpqlgc-nx_nic-kmp-default-4.0.596.1_3.0.101_63-5.sles11sp4.x86_64.rpm; hpqlgc-nx_nic-kmp-default-4.0.596.1_3.0.76_0.11-2.sles11sp3.x86_64.rpm; hpqlgc-nx_nic-kmp-xen-4.0.596.1_3.0.101_63-5.sles11sp4.x86_64.rpm; hpqlgc-nx_nic-kmp-xen-4.0.596.1_3.0.76_0.11-2.sles11sp3.x86_64.rpm; README

**Important Note!**
HP recommends the firmware provided in *HP QLogic P3 Online Firmware Upgrade Utility for Linux x86_64*, version 5.6.10, for use with these drivers.

**Enhancements**
This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**
This software supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter

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**HP QLogic nx_nic Drivers for SUSE Linux Enterprise Server 12 x86_64**
Version: 4.0.596.1-4 *(Optional)*
Filename: hp-nx_nic-docs-1.0.0-4.noarch.rpm; hp-nx_nic-tools-4.0.596.1-4.noarch.rpm; hpqlgc-nx_nic-kmp-default-4.0.596.1_k3.12.28_4-4.sles12sp0.x86_64.rpm; hpqlgc-nx_nic-kmp-xen-4.0.596.1_k3.12.28_4-4.sles12sp0.x86_64.rpm; README

**Important Note!**
HP recommends the firmware provided in *HP QLogic P3 Online Firmware Upgrade Utility for Linux x86_64*, version 5.6.7 or later for use with these drivers.

**Enhancements**
This driver source version was incremented to provide support for Red Hat Enterprise Linux 7 Update 1. This binary driver has no functional changes.

**Supported Devices and Features**

This software supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter

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**HP QLogic NX2 1/10/20 GbE Multifunction Drivers for Red Hat Enterprise Linux 6 i686**

Version: 7.12.37.1-1 *(Optional)*


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**Important Note!**

HP recommends the firmware provided in *HP QLogic NX2 Online Firmware Upgrade Utility for Linux x86*, version 2.16.20, for use with these drivers.

**Fixes**

This product addresses an "out of memory" issue seen when the adapter is reset.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
**HP QLogic NX2 1/10/20 GbE Multifunction Drivers for Red Hat Enterprise Linux 6 x86_64**

Version: 7.12.37.1-1 (Optional)
Filename: kmod-netxtreme2-7.12.37.1-1.rhel6u6.x86_64.rpm; kmod-netxtreme2-7.12.37.1-1.rhel6u7.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64*, version 2.6.20, for use with these drivers.

**Fixes**

This product addresses an "out of memory" issue seen when the adapter is reset.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB 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

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**HP QLogic NX2 1/10/20 GbE Multifunction Drivers for Red Hat Enterprise Linux 7 x86_64**

Version: 7.12.37.1-1 (Optional)
Filename: kmod-netxtreme2-7.12.37.1-1.rhel7u0.x86_64.rpm; kmod-netxtreme2-7.12.37.1-1.rhel7u1.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64*, version 2.6.20, for use with these drivers.

**Fixes**

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This product addresses an "out of memory" issue seen when the adapter is reset.

**Supported Devices and Features**

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB 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

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**HP QLogic NX2 1/10/20 GbE Multifunction Drivers for SUSE Linux Enterprise Server 11 i586**

**Version:** 7.12.37.1-1 (Optional)


**Important Note!**

HP recommends the firmware provided in *HP QLogic NX2 Online Firmware Upgrade Utility for Linux x86*, version 2.16.20, for use with these drivers.

**Fixes**

This product addresses an "out of memory" issue seen when the adapter is reset.

**Enhancements**

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter

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HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP QLogic NX2 1/10/20 GbE Multifunction Drivers for SUSE Linux Enterprise Server 11 x86_64
Version: 7.12.37.1-1 (Optional)
Filename: netxtreme2-kmp-default-7.12.37.1_3.0.101_63-1.sles11sp4.x86_64.rpm; netxtreme2-kmp-default-7.12.37.1_3.0.76_0.11-1.sles11sp3.x86_64.rpm; netxtreme2-kmp-xen-7.12.37.1_3.0.101_63-1.sles11sp4.x86_64.rpm; netxtreme2-kmp-xen-7.12.37.1_3.0.76_0.11-1.sles11sp3.x86_64.rpm; README

Important Note!
HP recommends the firmware provided in HP QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64, version 2.6.20, for use with these drivers.

Fixes
This product addresses an "out of memory" issue seen when the adapter is reset.

Enhancements
This product now supports SUSE LINUX Enterprise Server 11 SP4.

Supported Devices and Features

These drivers support the following network adapters:
- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB 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 QLogic NX2 1/10/20 GbE Multifunction Drivers for SUSE Linux Enterprise Server 12 x86_64
Version: 7.12.37.1-1 (Optional)
Filename: netxtreme2-kmp-default-7.12.37.1_k3.12.28_4-1.sles12sp0.x86_64.rpm; netxtreme2-kmp-xen-7.12.37.1_k3.12.28_4-1.sles12sp0.x86_64.rpm; README

Important Note!
HP recommends the firmware provided in HP QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64, version 2.6.20, for use with these drivers.

Fixes
This product addresses an "out of memory" issue seen when the adapter is reset.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB 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

HP QLogic NX2 1/10/20 GbE Multifunction Drivers for VMware ESXi 5.0/vSphere 5.1
Version: 2015.10.01 (Optional)
Filename: cp025189.zip

Important Note!
HP recommends the firmware provided in *HP QLogic NX2 Online Firmware Upgrade Utility for VMware*, version 1.9.16, for use with this driver.

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

**Fixes**

This driver corrects issues with creating a dump file using the "grcDump" parameter.

**Supported Devices and Features**

This driver supports the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

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**HP QLogic NX2 1/10/20 GbE Multifunction Drivers for VMware vSphere 5.5**

*Version: 2015.10.01 (Optional)*

*Filename: cp025190.zip*

**Important Note!**

HP recommends the firmware provided in *HP QLogic NX2 Online Firmware Upgrade Utility for VMware*, version 1.9.16, for use with this driver.

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

**Fixes**

This driver corrects issues with creating a dump file using the "grcDump" parameter.

**Supported Devices and Features**
This driver supports the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB 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

**HP QLogic NX2 1/10/20 GbE Multifunction Drivers for VMware vSphere 6.0**

Version: 2015.10.01 *(Optional)*

Filename: cp026786.zip

**Important Note!**

HP recommends the firmware provided in *HP QLogic NX2 Online Firmware Upgrade Utility for VMware*, version 1.9.16, for use with this driver.

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

**Enhancements**

Initial release.

**Supported Devices and Features**

This driver supports the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
HP QLogic NX2 10/20GbE Multifunction Drivers for Windows Server 2008
Version: 7.12.41.0 (Optional)
Filename: cp025086.exe

Important Note!

HP recommends the firmware provided in HP QLogic NX2 Online Firmware Upgrade Utility for Windows Server 2008, version 4.1.0.9 for use with these drivers.

Fixes

This driver's properties have been corrected to allow the VLAN ID on the VF in a Windows guest OS running on VMware/ESX hypervisor to be set.

This driver corrects a Windows Stop Error (BSOD) which occurs during license verification with BFS (boot from SAN) and NPAR (only) on more than one PF on the same port when miniports drivers are not loaded on one of these two physical functions.

This driver corrects an issue where autonegotiation resulted in incorrect asymmetric flow-control behavior.

This driver corrects an issue where connection to an iSCSI target fails when VLAN is configured.

This driver corrects handling of non-offloaded traffic which causes FCoE traffic to be unable to recover after a failure.

This driver corrects an issue which results in a system crash during live migration.

Enhancements

This driver now provides *RSSProfile and *NumaNodeId standard keys support.

Supported Devices and Features

This driver supports the following HP QLogic NX2 10/20GbE Multifunction network adapters:

- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP Flex-10 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Flex-10 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
HP QLogic NX2 10/20GbE Multifunction Drivers for Windows Server x64 Editions
Version: 7.12.41.0 (Optional)
Filename: cp025087.exe

Important Note!

HP recommends the firmware provided in HP QLogic NX2 Online Firmware Upgrade Utility for Windows Server 2008, version 4.1.0.9 for use with these drivers.

Fixes

This driver's properties have been corrected to allow the VLAN ID on the VF in a Windows guest OS running on VMware/ESX hypervisor to be set.

This driver corrects a Windows Stop Error (BSOD) which occurs during license verification with BFS (boot from SAN) and NPAR (only) on more than one PF on the same port when miniports drivers are not loaded on one of these two physical functions.

This driver corrects an issue where autonegotiation resulted in incorrect asymmetric flow-control behavior.

This driver corrects an issue where connection to an iSCSI target fails when VLAN is configured.

This driver corrects handling of non-offloaded traffic which causes FCoE traffic to be unable to recover after a failure.

This driver corrects an issue which results in a system crash during live migration.

This driver corrects an issue where the NDIS driver was not detected during BFS installation of Windows Server 2012 R2.

This driver corrects an issue where the network adapter shows "Nic Not Present" status with Microsoft Teaming on Windows Server 2012 R2.

Enhancements

This driver now provides *RSSProfile and *NumaNodeId standard keys support.

Supported Devices and Features

- HP Ethernet 10Gb 2-port 530T Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FL Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
This driver supports the following HP Broadcom 10/20GbE Multifunction network adapters:

- HP Flex-10 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Flex-10 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB 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

**HP QLogic NX2 Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 6 Update 7 i686**

Version: 2.11.3.0-1 *(Optional)*

Filename: iscsiuiio-2.11.3.0-1.rhel6u7.i686.rpm; README

**Enhancements**

Initial release.

**Supported Devices and Features**

This product supports the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP Flex-10 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Flex-10 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP FlexFabric 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
HP QLogic NX2 Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 6 Update 7 x86_64
Version: 2.11.3.0-1 (Optional)
Filename: iscsiuiio-2.11.3.0-1.rhel6u7.x86_64.rpm; README

**Enhancements**

Initial release.

**Supported Devices and Features**

This product supports the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP Flex-10 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Flex-10 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP FlexFabric 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB 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

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HP QLogic P3 Drivers for VMware ESXi 5.0/vSphere 5.1
Version: 2015.10.01 (Optional)
Filename: cp026077.zip

**Important Note!**

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

**Fixes**

This driver corrects a Page Fault that occurs when the driver loads the NIC's firmware.

**Supported Devices and Features**

These drivers support the following QLogic P3 network adapters:
HP QLogic P3 Drivers for VMware vSphere 5.5
Version: 2015.10.01 (Optional)
Filename: cp026078.zip

**Important Note!**

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

**Fixes**

This driver corrects a Page Fault that occurs when the driver loads the NIC's firmware.

**Supported Devices and Features**

These drivers support the following QLogic P3 network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter

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HP QLogic P3 Drivers for VMware vSphere 6.0
Version: 2015.10.01 (Optional)
Filename: cp027056.zip

**Important Note!**

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

**Enhancements**

Initial release.

**Supported Devices and Features**

These drivers support the following QLogic P3 network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter

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HP QLogic P3P Drivers for VMware ESXi 5.0/vSphere 5.1
Version: 2015.02.23 (Optional)
Filename: cp024729.zip
**Fixes**
This driver component can now be installed by the HP Smart Update Manager (HPSUM).

**Supported Devices and Features**

These drivers support the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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### HP QLogic P3P Drivers for VMware vSphere 5.5/6.0

**Version:** 2015.02.23 *(Optional)*

**Filename:** cp024734.zip

**Fixes**
This driver component can now be installed by the HP Smart Update Manager (HPSUM).

**Enhancements**
This product now supports VMware vSphere 6.0.

**Supported Devices and Features**

These drivers support the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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### HP QLogic P3P Drivers for VMware vSphere 6.0

**Version:** 2015.10.01 *(Optional)*

**Filename:** cp027058.zip

**Important Note!**
HP recommends the firmware provided in HP QLogic P3P Online Firmware Upgrade Utility for VMware, version 2.5.5, for use with this driver.

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

**Enhancements**
Initial release.

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Supported Devices and Features

These drivers support the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

**HP QLogic P3P iSCSI Driver for Windows Server 2008**

Version: 2.1.6.10 *(Optional)*
Filename: cp021538.exe

**Important Note!**
HP recommends the firmware provided in the *HP QLogic P3P Online Firmware Upgrade Utility for Windows Server 2008*, version 4.0.0.19 or later for use with this driver.

**Fixes**
This driver corrects an issue which can result in an adapter reset when enabling or disabling a Virtual Local Area Network (VLAN).

This driver corrects an issue which can result in an adapter reset while assigning a static IP address.

**Supported Devices and Features**

This driver supports the following HP P3P network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

**HP QLogic P3P iSCSI Driver for Windows Server 2008 x64 Editions**

Version: 2.1.6.10 *(Optional)*
Filename: cp021539.exe

**Important Note!**
HP recommends the firmware provided in the *HP QLogic P3P Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 4.0.0.19 or later for use with this driver.

**Fixes**
This driver corrects an issue which can result in an adapter reset when enabling or disabling a Virtual Local Area Network (VLAN).

This driver corrects an issue which can result in an adapter reset while assigning a static IP address.

**Supported Devices and Features**
This driver supports the following HP P3P network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

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**HP QLogic P3P iSCSI Driver for Windows Server 2012 and Windows Server 2012 R2**

Version: 2.1.6.10 *(Optional)*

Filename: cp021540.exe

**Important Note!**

HP recommends the firmware provided in the *HP QLogic P3P Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 4.0.0.19 or later for use with this driver.

**Fixes**

This driver corrects an issue which can result in an adapter reset when enabling or disabling a Virtual Local Area Network (VLAN).

This driver corrects an issue which can result in an adapter reset while assigning a static IP address.

**Supported Devices and Features**

This driver supports the following HP P3P network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

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**HP QLogic P3P iSCSI Drivers for VMware ESXi 5.0/vSphere 5.1**

Version: 2015.07.17 *(Optional)*

Filename: cp026505.zip

**Important Note!**

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

**Fixes**

This driver resolves mailbox timeout issues on slower targets.

**Supported Devices and Features**

These drivers support the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
HP QLogic P3P iSCSI Drivers for VMware vSphere 5.5/6.0
Version: 2015.07.17 (Optional)
Filename: cp026506.zip

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

Fixes
This driver resolves mailbox timeout issues on slower targets.

Supported Devices and Features
These drivers support the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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HP QLogic P3P iSCSI Drivers for VMware vSphere 6.0
Version: 2015.10.01 (Optional)
Filename: cp027057.zip

Important Note!
HP recommends the firmware provided in HP QLogic P3P Online Firmware Upgrade Utility for VMware, version 2.5.5, for use with this driver.

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

Enhancements
Initial release.

Supported Devices and Features
These drivers support the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter
HP QLogic P3P Multifunction Driver for Windows Server 2008
Version: 5.3.30.1001 (Optional)
Filename: cp024562.exe

Important Note!
HP recommends the firmware provided in the following firmware products, as applicable, for use with this driver:

- HP QLogic P3 Online Firmware Upgrade Utility for Windows Server 2008, version 4.0.0.19 or later
- HP QLogic P3P Online Firmware Upgrade Utility for Windows Server 2008, version 4.0.0.19(B) or later

Fixes
This driver addresses an issue where Receive Side Scaling (RSS) fails to perform correctly when the adapter is teamed.

Supported Devices and Features
This driver supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375T PCI Express Quad Port Gigabit Server Adapter
- HP NC523SFP 10Gb 2-port Flex-10 Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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HP QLogic P3P Multifunction Driver for Windows Server 2008 R2
Version: 5.3.30.1001 (Optional)
Filename: cp024564.exe

Important Note!
HP recommends the firmware provided in the following firmware products, as applicable, for use with this driver:

- HP QLogic P3 Online Firmware Upgrade Utility for Windows Server x64 Editions, version 4.0.0.19 or later
- HP QLogic P3P Online Firmware Upgrade Utility for Windows Server x64 Editions, version 4.0.0.19(C) or later

Fixes
This driver addresses an issue where Receive Side Scaling (RSS) fails to perform correctly when the adapter is teamed.

Supported Devices and Features
This driver supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375T PCI Express Quad Port Gigabit Server Adapter
- HP NC523SFP 10Gb 2-port Flex-10 Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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**HP QLogic P3P Multifunction Driver for Windows Server 2008 x64 Editions**

Version: 5.3.30.1001 *(Optional)*
Filename: cp024563.exe

**Important Note!**
HP recommends the firmware provided in the following firmware products, as applicable, for use with this driver:

- *HP QLogic P3 Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 4.0.0.19 or later
- *HP QLogic P3P Online Firmware Upgrade Utility for Windows Server x64 Editions*, version 4.0.0.19(C) or later

** Fixes**
This driver addresses an issue where Receive Side Scaling (RSS) fails to perform correctly when the adapter is teamed.

**Supported Devices and Features**

This driver supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375T PCI Express Quad Port Gigabit Server Adapter
- HP NC523SFP 10Gb 2-port Flex-10 Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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**HP QLogic P3P Multifunction Driver for Windows Server 2012**

Version: 5.3.30.1001 *(Optional)*
Filename: cp024560.exe

**Important Note!**
HP recommends the firmware provided in the following firmware products, as applicable, for use with this driver:
 Fixes
This driver addresses an issue where Receive Side Scaling (RSS) fails to perform correctly when the adapter is teamed.

Supported Devices and Features
This driver supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375T PCI Express Quad Port Gigabit Server Adapter
- HP NC523SFP 10Gb 2-port Flex-10 Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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HP QLogic P3P Multifunction Driver for Windows Server 2012 R2
Version: 5.3.30.1001 (Optional)
Filename: cp024561.exe

Important Note!
HP recommends the firmware provided in the following firmware products, as applicable, for use with this driver:

- HP QLogic P3 Online Firmware Upgrade Utility for Windows Server x64 Editions, version 4.0.0.19 or later
- HP QLogic P3P Online Firmware Upgrade Utility for Windows Server x64 Editions, version 4.0.0.19(C) or later

 Fixes
This driver addresses an issue where Receive Side Scaling (RSS) fails to perform correctly when the adapter is teamed.

Supported Devices and Features
This driver supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375T PCI Express Quad Port Gigabit Server Adapter
- HP NC523SFP 10Gb 2-port Flex-10 Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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**HP QLogic qlcnic Drivers for Red Hat Enterprise Linux 6 i686**

Version: 5.3.62.1-4 *(Optional)*
Filename: hp-qlgc-docs-1.0.3-1.noarch.rpm; hp-qlgc-utils-1.0.4-1.noarch.rpm; kmod-hpqlgc-qlcnic-5.3.62.1-1.rhel6u6.i686.rpm; kmod-hpqlgc-qlcnic-5.3.62.1-4.rhel6u7.i686.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP QLogic P3P Online Firmware Upgrade Utility for Linux x86*, version 1.9.7 or later for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

These drivers support the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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**HP QLogic qlcnic Drivers for Red Hat Enterprise Linux 6 x86_64**

Version: 5.3.62.1-4 *(Optional)*
Filename: hp-qlgc-docs-1.0.3-1.noarch.rpm; hp-qlgc-utils-1.0.4-1.noarch.rpm; kmod-hpqlgc-qlcnic-5.3.62.1-1.rhel6u6.x86_64.rpm; kmod-hpqlgc-qlcnic-5.3.62.1-4.rhel6u7.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP QLogic P3P Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.7 or later for use with these drivers.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

**Supported Devices and Features**

These drivers support the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter
HP QLogic qlcnic Drivers for Red Hat Enterprise Linux 7 x86_64
Version: 5.3.62.1-1 (Optional)
Filename: hp-qlgc-docs-1.0.3-1.noarch.rpm; hp-qlgc-utils-1.0.4-1.noarch.rpm; kmod-hpqlgc-qlcnic-5.3.62.1-1.rhel7u0.x86_64.rpm; kmod-hpqlgc-qlcnic-5.3.62.1-1.rhel7u1.x86_64.rpm; README

Important Note!

HP recommends the firmware provided in HP QLogic P3P Online Firmware Upgrade Utility for Linux x86_64, version 1.9.7 or later for use with these drivers.

Enhancements
This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

Supported Devices and Features

These drivers support the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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HP QLogic qlcnic Drivers for SUSE Linux Enterprise Server 11 i586
Version: 5.3.62.1-4 (Optional)
Filename: hp-qlgc-docs-1.0.3-1.noarch.rpm; hp-qlgc-utils-1.0.4-1.noarch.rpm; hpqlgc-qlcnic-kmp-default-5.3.62.1_3.0.101_63-4.sles11sp4.i586.rpm; hpqlgc-qlcnic-kmp-default-5.3.62.1_3.0.76_0.11-1.sles11sp3.i586.rpm; hpqlgc-qlcnic-kmp-pae-5.3.62.1_3.0.101_63-4.sles11sp4.i586.rpm; hpqlgc-qlcnic-kmp-pae-5.3.62.1_3.0.76_0.11-1.sles11sp3.i586.rpm; hpqlgc-qlcnic-kmp-xen-5.3.62.1_3.0.101_63-4.sles11sp4.i586.rpm; hpqlgc-qlcnic-kmp-xen-5.3.62.1_3.0.76_0.11-1.sles11sp3.i586.rpm; README

Important Note!

HP recommends the firmware provided in HP QLogic P3P Online Firmware Upgrade Utility for Linux x86, version 1.9.7 or later for use with these drivers.

Enhancements
This product now supports SUSE LINUX Enterprise Server 11 SP4.

Supported Devices and Features

These drivers support the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter
**HP QLogic qlcnic Drivers for SUSE Linux Enterprise Server 11 x86_64**

Version: 5.3.62.1-4 *(Optional)*

Filename: hp-qlgc-docs-1.0.3-1.noarch.rpm; hp-qlgc-utils-1.0.4-1.noarch.rpm; hpqlgc-qlcnic-kmp-default-5.3.62.1_3.0.101_63-4.sles11sp4.x86_64.rpm; hpqlgc-qlcnic-kmp-default-5.3.62.1_3.0.76_0.11-1.sles11sp3.x86_64.rpm; hpqlgc-qlcnic-kmp-xen-5.3.62.1_3.0.101_63-4.sles11sp4.x86_64.rpm; hpqlgc-qlcnic-kmp-xen-5.3.62.1_3.0.76_0.11-1.sles11sp3.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP QLogic P3P Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.7 or later for use with these drivers.

**Enhancements**

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**

These drivers support the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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**HP QLogic qlcnic Drivers for SUSE Linux Enterprise Server 12 x86_64**

Version: 5.3.62.1-1 *(Optional)*

Filename: hp-qlgc-docs-1.0.3-1.noarch.rpm; hp-qlgc-utils-1.0.4-1.noarch.rpm; hpqlgc-qlcnic-kmp-default-5.3.62.1_k3.12.28_4-1.sles12sp0.x86_64.rpm; hpqlgc-qlcnic-kmp-xen-5.3.62.1_k3.12.28_4-1.sles12sp0.x86_64.rpm; README

**Important Note!**

HP recommends the firmware provided in *HP QLogic P3P Online Firmware Upgrade Utility for Linux x86_64*, version 1.9.7 or later for use with these drivers.

**Enhancements**

This driver is updated in order to remain in sync with source updated to add support for Red Hat Enterprise Linux 6 Update 7 and SUSE Linux Enterprise Server 11 SP4.

**Supported Devices and Features**

These drivers support the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter
Mellanox InfiniBand and Ethernet Driver for SuSE Linux Enterprise Server 12
Version: 2.3-2.0.0 (Recommended)
Filename: MLNX_OFED_LINUX-2.3-2.0.0-sles12sp0-x86_64.tar.gz

Important Note!

If using secure boot mode operation, use signed Mellanox OFED driver which is distributed via the HP Software Delivery Repository: [http://downloads.linux.hp.com/SDR/downloads/MLNX_OFED/](http://downloads.linux.hp.com/SDR/downloads/MLNX_OFED/)

It is recommended to follow instructions from "Performance_Tuning_Guide_for_Mellanox_Network_Adapters.pdf", if using MLNX_EN (Ethernet driver) from this OFED version. The performance tuning guide helps you to setup the parameters that improves the performance of Mellanox VPI cards in Ethernet mode. "Performance_Tuning_Guide_for_Mellanox_Network_Adapters.pdf" is bundled with the driver.

Certain software including drivers and documents may be available from Mellanox. If you select a URL that directs you to [http://www.mellanox.com/](http://www.mellanox.com/), you are then leaving HP.com. Please follow the instructions on [http://www.mellanox.com/](http://www.mellanox.com/) to download Mellanox software or documentation. When downloading the Mellanox software or documentation, you may be subject to Mellanox terms and conditions, including licensing terms, if any, provided on its website or otherwise. HP is not responsible for your use of any software or documents that you download from [http://www.mellanox.com/](http://www.mellanox.com/), except that HP may provide a limited warranty for Mellanox software in accordance with the terms and conditions of your purchase of the HP product or solution.

For a list of known issues with this release, refer to Chapter 9 of "Mellanox OFED Release notes" available at: [http://www.mellanox.com/related-docs/prod_software/Mellanox_OFED_Linux_Release_Notes_2_3-2_0_0.pdf](http://www.mellanox.com/related-docs/prod_software/Mellanox_OFED_Linux_Release_Notes_2_3-2_0_0.pdf)

Prerequisites

Note: If the HP NC-Series Mellanox 10GbE Driver for Linux is already installed on the server, then you must uninstall the HP NC-Series Mellanox 10GbE Driver for Linux prior to installing the Mellanox OFED VPI driver.

-   uname -r

    3.12.28-4-default

    Note: Verify the kernel version matches exactly to the SuSE Linux Enterprise Server 12 kernel version. If errata patches have been added, then the kernel version would have changed.

If using a modified kernel, then you need to use "mlnx_add_kernel_support.sh" from MLNX_OFED_LINUX-2.3-2.0.0-sles12sp0-x86_64.iso to build a new iso image or tarball with modified kernel support. This image has to be used for MLNX OFED installation on the modified kernel.

Usage: mlnx_add_kernel_support.sh -m|--mlnx_ofed <path to MLNX_OFED directory> [--make-iso|--make-tgz]

    [--make-iso] Create MLNX_OFED ISO image.
    [--make-tgz] Create MLNX_OFED tarball. (Default)
    [-t|--tmpdir <local work dir>]

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Installation guide and user manual are provided in the docs directory of the iso file.

- tar -zxvf MLNX_OFED_LINUX-2.3-2.0.0-sles12sp0-x86_64.tar.gz
- cd MLNX_OFED_LINUX-2.3-2.0.0-sles12sp0-x86_64
- mount -o ro,loop MLNX_OFED_LINUX-2.3-2.0.0-sles12sp0-x86_64.iso /mnt
- cd /mnt/docs

**Fixes**

For details regarding the various fixes included in MLNX OFED 2.3-2.0.0, please refer "Fixes" section of release notes for each component in the docs directory of the iso file.

- tar -zxvf MLNX_OFED_LINUX-2.3-2.0.0-sles12sp0-x86_64.tar.gz
- cd MLNX_OFED_LINUX-2.3-2.0.0-sles12sp0-x86_64
- mount -o ro,loop MLNX_OFED_LINUX-2.3-2.0.0-sles12sp0-x86_64.iso /mnt
- cd /mnt/docs

**Enhancements**

MLNX OFED v2.3-2.0.0 contains the following changes and new features:

**Connect-IB:**

- Added "Suspend to RAM" feature.

**Reset Flow:**

- Added Enhanced Error Handling for PCI (EEH), a recovery strategy for I/O errors that occur on the PCI bus.

**Contiguous Pages:**

- Added the option to ask for a specific address when the registered memory is using contiguous pages.

**mlx5_core:**

- Moved the "mr_cache" subtree from "debugfs" to "mlx5_ib" while preserving all its semantics.

**InfiniBand Utilities:**

- Updated the ibutils package. Added the "ibdiagnet2.mlnx_cntrs" option to enable reading of Mellanox diagnostic counters.
MLNX OFED v2.3-1.0.1 contains the following changes and new features:

OpenSM:

- Added Routing Chains support with Minhop/UPDN/FTree/DOR/Torus-2QoS
- Added double failover elimination:

  When the Master SM is turned down for some reason, the Standby SM takes ownership over the fabric and remains the Master SM even when the old Master SM is brought up, to avoid any unnecessary reregistartions in the fabric. To enable this feature, set the “master_sm_priority” parameter to be greater than the “sm_priority” parameter in all SMs in the fabric. Once the Standby SM becomes the Master SM, its priority becomes equal to the “master_sm_priority”. So that additional SM handover is avoided. Default value of the master_sm_priority is 14. To disable this feature, set the “master_sm_priority” in opensm.conf to 0.

- Added credit-loop free unicast/multicast updn/ftree routing.
- Added multithreaded Minhop/UPDN/DOR routing.

RoCE:

- Added IP routable RoCE modes.

Installation:

- Added apt-get installation support.

Ethernet:

- Added support for arbitrary UDP port for VXLAN. From upstream 3.15-rc1 and onward, it is possible to use arbitrary UDP port for VXLAN. This feature requires firmware version 2.32.5100 or higher. Additionally, the kernel configuration option "CONFIG_MLX4_EN_VXLAN=y" must be enabled.
- MLNX_OFED no longer changes the OS sysctl TCP parameters.
- Added Explicit Congestion Notification (ECN) support.
- Added Flow Steering: A0 simplified steering support.
- Added RoCE v2 support.

InfiniBand Network:

- Added Secure host to enable the device to protect itself and the subnet from malicious software.
- Added User-Mode Memory Registration (UMR) to enable the usage of RDMA operations and to scatter the data at the remote side through the definition of appropriate memory keys on the remote side.
- Added On-Demand-Paging (ODP), a technique to alleviate much of the shortcomings of memory registration.
- Added Masked Atomics operation support
- Added Checksum offload for packets without L4 header support
- Added Memory re-registration to allow the user to change attributes of the memory region.

Resiliency:
Added Reset Flow for ConnectX-3 (+SR-IOV) support.

SR-IOV:

- Added Virtual Guest Tagging (VGT+), an advanced mode of Virtual Guest Tagging (VGT), in which a VF is allowed to tag its own packets as in VGT, but is still subject to an administrative VLAN trunk policy.

Ethtool:

- Added Cable EEPROM reporting support.
- Disable/Enable ethernet RX VLAN tag striping offload via ethtool.
- 128 Byte Completion Queue Entry (CQE).

Non-Linux Virtual Machines:

- Added Windows Virtual Machine over Linux KVM Hypervisor (SR-IOV with InfiniBand only) support.

**MLNX OFED v2.2-1.0.1 contains the following changes and new features:**

- 32-bit libraries are no longer installed by default on 64-bit OS. To install 32-bit libraries use the 'with-32bit' installation parameter.
- Added pre/post start/stop scripts support.
- Reset Flow is not activated by default. It is controlled by the mlx4_core 'internal_err_reset' module parameter.
- Asymmetric MSI-X vectors allocation for the SR-IOV hypervisor and guest instead of allocating 4 default MSI-X vectors. The maximum number of MSI-X vectors is num_cpu for port.
- ConnectX®-3 has 1024 MSI-X vectors, 28 MSI-X vectors are reserved.
  - Physical Function - gets the number of MSI-X vectors according to the pf_msix_table_size (multiple of 4 - 1) INI parameter
  - Virtual Functions - the remaining MSI-X vectors are spread equally between all VFs, according to the num_vfs mlx4_core module parameter
- Ethernet VXLAN support for kernels 3.12.10 or higher
- Power Management Quality of Service: when the traffic is active, the Power Management QoS is enabled by disabling the CPU states for maximum performance.
- Ethernet PTP Hardware Clock support on kernels/OSes that support it
- Added additional experimental verbs interface. This interface exposes new features which are not integrated yet in to the upstream libverbs. The Experimental API is an extended API therefor, it is backward compatible, meaning old application are not required to be recompiled to use MLNX-OFED v2.2-1.0.1.
- Out of the box performance improvements:
  - Use of affinity hints (based on NUMA node of the device) to indicate the IRQ balancer daemon on the optimal IRQ affinity
  - Improvement in buffers allocation schema (based on the hint above)
  - Improvement in the adaptive interrupt moderation algorithm

**MLNX OFED v2.1-1.0.6 contains the following changes and new features:**

- EoIB is supported only in SLES11SP2 and RHEL6.4.

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- Added the ability to resize CQs.
- Reusing DMA mapped SKB buffers: Performance improvements when IOMMU is enabled.
- Added reporting autonegotiation support.
- Added Transmit Packet Steering (XPS) support.
- Added reporting 56Gbit/s link speed support.
- Added Receive Flow Steering (RFS) support in UDP.
- Added Low Latency Socket (LLS) support.
- Added check for dma_mapping errors.

**MLNX OFED v2.0-3.0.0 contains the following changes and new features:**

- Added support for SuSE Linux Enterprise Server 11 SP3
- Added support for Connect-IB adapters
- Added support for SR-IOV (Single Root I/O Virtualization)
- Added YUM installation support.
- Added support for EoIB (Only on SuSE Linux Enterprise Server 11 SP2 and Red Hat Enterprise Linux 6 Update 2)
- Modified mlx4_core module parameters to associate configuration values with specific PCI devices identified by their bus/device/function value format
- Reusing DMA mapped buffers: major performance improvements when IOMMU is enabled
- Added Port level QoS support for mlx4_en
- Reduced memory consumption for IPoIB
- Limited the number TX and RX queues to 16 for IPoIB
- Default IPoIB mode is set to work in Datagram, except for Connect-IB adapter card which uses IPoIB with Connected mode as default.

**MLNX OFED v2.0-2.0.5 contains the following changes and new features:**

- SR-IOV for both Ethernet and InfiniBand (at Beta level). This feature is a ConnectX-3 HCA capability.
- RoCE over SR-IOV (at Beta level)
- eIPoIB to enable IPoIB in a Para-Virtualized environment (at Alpha level)
- HPC performance enhancement:
  - Contiguous pages - internal memory allocation improvements
  - Contiguous pages - register shared memory
  - Contiguous pages - control objects (QPs, CQs)
- Ethernet Performance Enhancements (NUMA Related and others) for 40GigE and 10GigE
- OFED_VMA integration to a single branch
- Ethernet Time Stamping (at Beta level). This feature is a ConnectX-3 HCA capability.
- Flow Steering for Ethernet and InfiniBand.(at Beta level). This feature is a ConnectX-3 HCA capability.
- Raw Eth QPs:
  - Checksum TX/RX
  - Flow Steering
- Errata Kernel upgrade support
- YUM update support
- Storage – iSER (iSCSI Extensions for RDMA) at Beta level and SRP (SCSI RDMA Protocol).
- 64bit wide counters (port xmit/recv data/packets unicast/mcast)
- VERSION query API: library and headers
net-mlx4_en driver component for VMware 5.0
Version: 2014.09.12 (Recommended)
Filename: cp024875.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.

**Fixes**
Initial version

**Enhancements**
Added support for the following adapters:
- HP Ethernet 10Gb 2-port 546FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 546SFP+ Adapter

net-mlx4_en driver component for VMware 5.1
Version: 2014.26.02 (A) (Recommended)
Filename: cp024464.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.

**Fixes**
Initial version

**Enhancements**
Added support for the following adapters:
- HP Ethernet 10Gb 2-port 546FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 546SFP+ Adapter

net-mlx4_en driver component for VMware 5.5
Version: 2015.05.02 (Recommended)
Filename: cp025935.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.
**Fixes**

Initial version

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**net-mst kernel module driver component for VMware 5.0**

Version: 2014.09.12 *(Recommended)*
Filename: cp024932.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.

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**Enhancements**

Added support for the following adapters:

- HP Ethernet 10Gb 2-port 546FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 546SFP+ Adapter

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**net-mst kernel module driver component for VMware 5.1**

Version: 2013.11.14 *(A) *(Recommended)*
Filename: cp024466.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.

---

**Fixes**

Initial version

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**Enhancements**

Added support for the following adapters:

- HP Ethernet 10Gb 2-port 546FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 546SFP+ Adapter

---

**net-mst kernel module driver component for VMware 5.5**

Version: 2015.05.20 *(Recommended)*
Filename: cp027070.zip

**Important Note!**
This component is intended to be used by HPE applications. It is a zip that contains the same driver deliverable available from the HPE vibsdepot.hp.com webpage, plus an HPE specific CPXXXX.xml file.

**Fixes**

Initial version of 4.0.0.20

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**net-mst kernel module driver component for VMware 6.0**

Version: 2015.05.07 (Recommended)
Filename: cp026980.zip

**Important Note!**

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

**Fixes**

Initial version

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**nmlx4_en driver component for VMware 6.0**

Version: 2015.05.08 (Recommended)
Filename: cp026983.zip

**Important Note!**

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

**Fixes**

Initial version

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**VMware ESX 5.1 MST Drivers Offline Bundle for Mellanox Adapters**

Version: 2.0.0.0 (A) (Recommended)
Filename: MLNX-MST-ESX-5.1.0-2.0.0.0.zip

**Fixes**
Fixed an issue while loading mst module on ESXi-5.1 because driver moved to mlx4_core module and /etc/init.d/hp-mst.ini needed to be independent of driver updates. No functionality change to mst kernel module.

VMware ESX 5.5 MST Drivers Offline Bundle for Mellanox Adapters
Version: 4.0.0.20 (Recommended)
Filename: MLNX-MST-ESX-5.5.0-4.0.0.20.zip

Fixes
Initial version

VMware ESX 6.0 MST Drivers Offline Bundle for Mellanox Adapters
Version: 4.0.0.20 (Recommended)
Filename: MLNX-MST-ESX-6.0.0-4.0.0.20.zip

Fixes
Initial version of VM60 nmst 4.0.0.20

Driver - Storage

Dynamic Smart Array B140i Controller Driver for Windows 2008 R2 x64 Editions
Version: 6.6.0.64 (Recommended)
Filename: cp026744.exe

Fixes
Fix issue where Port and Box # were not being reported correctly to certain applications.

Enhancements
- Significant performance improvements.
- Better CPU balancing.
- Increase limit for reporting overheated drive temperature.

Dynamic Smart Array B140i Controller Driver for Windows 2012/2012 R2 x64 and Windows 10 x64
Version: 62.6.0.64 (Recommended)
Filename: cp026743.exe

**Fixes**

- Fix issue where Port and Box # were not being reported correctly to certain applications.

**Enhancements**

- Significant performance improvements.
- Better CPU balancing.
- Increase limit for reporting overheated drive temperature.

---

**HP Dynamic Smart Array B120i/B320i SATA RAID Controller Driver for Windows Server 2008**

Version: 6.12.0.32 *(Recommended)*

Filename: cp024077.exe

**Fixes**

- Fixes issue with SCSI Verify that can cause bug check.
- Fixes issue where newer, larger drives may not show up during hot add.
- Fixes potential data mismatch to RAID5 volumes when read cache is enabled and physical drive fails.

---

**HP Dynamic Smart Array B120i/B320i SATA RAID Controller Driver for Windows Server 2008 x64 Editions**

Version: 6.12.0.64 *(Recommended)*

Filename: cp024078.exe

**Fixes**

- Fixes issue with SCSI Verify that can cause bug check.
- Fixes issue where newer, larger drives may not show up during hot add.
- Fixes potential data mismatch to RAID5 volumes when read cache is enabled and physical drive fails.

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**HP Dynamic Smart Array B120i/B320i SATA RAID Controller Driver for Windows Server 2012 and Microsoft Windows Server 2012 R2 x64 Editions**

Version: 62.12.0.64 *(Recommended)*

Filename: cp024079.exe

**Fixes**
- Fixes issue with SCSI Verify that can cause bug check.
- Fixes issue where newer, larger drives may not show up during hot add.
- Fixes potential data mismatch to RAID5 volumes when read cache is enabled and physical drive fails.

**HP ProLiant Smart Array Embedded SATA RAID Controller Driver for Microsoft Windows Server 2012 and Microsoft Windows Server 2012 R2**

Version: 6.18.4.64 (A) *(Optional)*  
Filename: cp022401.exe

**Enhancements**  
Added support for Microsoft Windows Server 2012 R2

**HP ProLiant Smart Array Embedded SATA RAID Controller Driver for Windows 2003/2008 x64 Editions**

Version: 6.18.0.64 (B) *(Optional)*  
Filename: cp020545.exe

**Important Note!**  
If the target controller was successfully updated to version 6.18.0.64(A) of this driver, then it is not necessary to update to version 6.18.0.64(B)

**Enhancements**  
Support added for Microsoft Windows Small Business Server 2011 Standard and Essentials

**HP ProLiant Smart Array Embedded SATA RAID Controller Driver for Windows Server 2003/2008**

Version: 6.18.0.32 (A) *(Optional)*  
Filename: cp018782.exe

**Important Note!**  
If the target controller was successfully updated to version 6.18.0.32, then it is not necessary to update to version 6.18.0.32(A)

**Fixes**

- Corrects an issue where HP B110i would try to resume the rebuild progress if the drive was replaced while the server was offline.
- To improve rebuild time, ensure that drive write cache is enabled during rebuild and disabled when rebuild completes.
Driver - Storage Controller

**HP Dynamic Smart Array B120i/B320i Controller Driver for VMware vSphere 5.1 (Driver Component).**
Version: 2015.10.01 *(Recommended)*
Filename: cp027443.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

**Fixes**

Fixed HDD logical volume detection.

---

**HP Dynamic Smart Array B120i/B320i Controller Driver for VMware vSphere 5.5 (Driver Component).**
Version: 2015.10.01 *(Recommended)*
Filename: cp027444.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

**Fixes**

Fixed HDD logical volume detection.

---

**HP Dynamic Smart Array B120i/B320i Controller Driver for VMware vSphere 6.0 (Driver Component).**
Version: 2015.10.01 *(Recommended)*
Filename: cp027445.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

**Fixes**

Fixed HDD logical volume detection.
Enhancements

Added support for RHEL6u7.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (AMD64/EM64T) supported by this driver diskette are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(AMD64/EM64T) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(AMD64/EM64T) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(AMD64/EM64T) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(AMD64/EM64T) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(AMD64/EM64T) and future errata kernels for update 5.
2.6.32-504.el6 - Red Hat Enterprise Linux 6 Update 6(AMD64/EM64T) and future errata kernels for update 6.
2.6.32-573.el6 - Red Hat Enterprise Linux 6 Update 7(AMD64/EM64T) and future errata kernels for update 7.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(x86) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(x86) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(x86) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(x86) and future errata kernels for update 5.
2.6.32-504.el6 - Red Hat Enterprise Linux 6 Update 6(x86) and future errata kernels for update 6.
2.6.32-573.el6 - Red Hat Enterprise Linux 6 Update 7(x86) and future errata kernels for update 7.

HP Dynamic Smart Array B120i/B320i SATA RAID Controller Driver for Red Hat Enterprise Linux 7 (AMD64/EM64T)
Version: 1.2.14-100 (Recommended)
Filename: kmod-hpvsa-1.2.14-100.rhel7u0.x86_64.rpm; kmod-hpvsa-1.2.14-100.rhel7u1.x86_64.rpm

Fixes

Fixes the below issue:

When issuing the "shutdown -h now" command at the Linux prompt, the server begins shutting down, but instead of halting and powering off, the server resets itself and boots back up.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 7 (AMD64/EM64T) supported by this binary rpm are:
3.10.0-123.el7 - Red Hat Enterprise Linux 7(AMD64/EM64T) and future errata kernels.
3.10.0-229.el7 - Red Hat Enterprise Linux 7 Update 1 (AMD64/EM64T) and future errata kernels for update 1.

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (AMD64/EM64T) supported by this binary rpm are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (AMD64/EM64T) and future errata kernels for SP 1.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (AMD64/EM64T) and future errata kernels for SP 2.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (AMD64/EM64T) and future errata kernels for SP 3.

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3.0.101-63-default - SUSE LINUX Enterprise Server 11 SP 4 (AMD64/EM64T) and future errata kernels for SP 4.

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**HP Dynamic Smart Array B120i/B320i SATA RAID Controller Driver for SUSE LINUX Enterprise Server 11 (x86)**

Version: 1.2.14 (B) *(Recommended)*

Filename: hpvsa-kmp-default-1.2.14-103.sles11sp1.i586.rpm; hpvsa-kmp-default-1.2.14-103.sles11sp2.i586.rpm; hpvsa-kmp-default-1.2.14-103.sles11sp3.i586.rpm; hpvsa-kmp-default-1.2.14-103.sles11sp4.i586.rpm; hpvsa-kmp-pae-1.2.14-103.sles11sp1.i586.rpm; hpvsa-kmp-pae-1.2.14-103.sles11sp2.i586.rpm; hpvsa-kmp-pae-1.2.14-103.sles11sp3.i586.rpm; hpvsa-kmp-pae-1.2.14-103.sles11sp4.i586.rpm; hpvsa-kmp-trace-1.2.14-103.sles11sp1.i586.rpm; hpvsa-kmp-trace-1.2.14-103.sles11sp2.i586.rpm; hpvsa-kmp-trace-1.2.14-103.sles11sp3.i586.rpm; hpvsa-kmp-trace-1.2.14-103.sles11sp4.i586.rpm; hpvsa-kmp-xen-1.2.14-103.sles11sp1.i586.rpm; hpvsa-kmp-xen-1.2.14-103.sles11sp2.i586.rpm; hpvsa-kmp-xen-1.2.14-103.sles11sp3.i586.rpm; hpvsa-kmp-xen-1.2.14-103.sles11sp4.i586.rpm

**Enhancements**

- Added support for SLES11SP4.

**Supported Devices and Features**

**SUPPORTED KERNELS:**

The kernels of SUSE LINUX Enterprise Server 11 (x86) supported by this binary rpm are:

- 2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (x86) and future errata kernels for SP 1.
- 3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (x86) and future errata kernels for SP 2.
- 3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (x86) and future errata kernels for SP 3.
- 3.0.101-63-default - SUSE LINUX Enterprise Server 11 SP 4 (x86) and future errata kernels for SP 4.

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**HP Dynamic Smart Array B120i/B320i SATA RAID Controller Driver for SUSE LINUX Enterprise Server 12 (AMD64/EM64T)**

Version: 1.2.14-100 *(Recommended)*

Filename: hpvsa-kmp-default-1.2.14-100.sles12sp0.x86_64.rpm; hpvsa-kmp-xen-1.2.14-100.sles12sp0.x86_64.rpm

**Fixes**

Fixes the below issue:

When issuing the "shutdown -h now" command at the Linux prompt, the server begins shutting down, but instead of halting and powering off, the server resets itself and boots back up.

**Supported Devices and Features**

**SUPPORTED KERNELS:**

The kernels of SUSE LINUX Enterprise Server 12 (AMD64/EM64T) supported by this binary rpm are:

- 3.12.18-4 - SUSE LINUX Enterprise Server 12 (AMD64/EM64T) and future update kernels.
**HP Dynamic Smart Array B120i/B320i SATA RAID Controller Driver for SUSE LINUX Enterprise Server 12 (AMD64/EM64T)**

Version: 1.2.14 *(Recommended)*
FILENAME: hpvsa-kmp-default-1.2.14-100.sles12sp0.x86_64.rpm

**Enhancements**

- Boot environment support

**Supported Devices and Features**

**SUPPORTED KERNELS:**
The kernels of SUSE LINUX Enterprise Server 12 (AMD64/EM64T) supported by this binary rpm are:
3.12.18-4 - SUSE LINUX Enterprise Server 12 (AMD64/EM64T) and future update kernels.

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**HP Dynamic Smart Array B140i Controller Driver for VMware vSphere 5.1 (Driver Component).**

Version: 2015.10.01 *(Recommended)*
FILENAME: cp027076.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

**Fixes**

Fixes the below:

- The issue preventing 8 port chipset device from being loaded over.
- The shutdown issue found in Linux SLES that could affect VMware.

**Enhancements**

Uses raidstack build 2145.

---

**HP Dynamic Smart Array B140i Controller Driver for VMware vSphere 5.5 (Driver Component).**

Version: 2015.10.01 *(Recommended)*
FILENAME: cp027077.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

**Fixes**

Fixes the below:

- The issue preventing 8 port chipset device from being loaded over.
- The shutdown issue found in Linux SLES that could affect VMware.

**Enhancements**

Uses raidstack build 2145.

---

**HP Dynamic Smart Array B140i Controller Driver for VMware vSphere 6.0 (Driver Component).**

Version: 2015.10.01 (*Recommended*)

Filename: cp027079.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

**Fixes**

Fixes the below:

- The issue preventing 8 port chipset device from being loaded over.
- The shutdown issue found in Linux SLES that could affect VMware.

**Enhancements**

Uses raidstack build 2145.

---

**HP Dynamic Smart Array B140i SATA RAID Controller Driver for Red Hat Enterprise Linux 6 (AMD64/EM64T)**

Version: 1.2.6-115 (*Recommended*)

Filename: kmod-hpdsa-1.2.6-115.rhel6u5.x86_64.rpm; kmod-hpdsa-1.2.6-115.rhel6u6.x86_64.rpm; kmod-hpdsa-1.2.6-115.rhel6u7.x86_64.rpm
Fixes

Fixes the issue where Port and Box # were not being reported correctly to certain applications.

Enhancements

Increase limit for reporting overheated drive temperature.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (AMD64/EM64T) supported by this driver diskette are:
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(AMD64/EM64T) and future errata kernels for update 5.
2.6.32-504.el6 - Red Hat Enterprise Linux 6 Update 6(AMD64/EM64T) and future errata kernels for update 6.
2.6.32-573.el6 - Red Hat Enterprise Linux 6 Update 7(AMD64/EM64T) and future errata kernels for update 7.

HP Dynamic Smart Array B140i SATA RAID Controller Driver for Red Hat Enterprise Linux 7 (AMD64/EM64T)
Version: 1.2.6-115 (Recommended)
Filename: kmod-hpdsa-1.2.6-115.rhel7u0.x86_64.rpm; kmod-hpdsa-1.2.6-115.rhel7u1.x86_64.rpm

Fixes

Fixes the issue where Port and Box # were not being reported correctly to certain applications.

Enhancements

Increase limit for reporting overheated drive temperature.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 7 (AMD64/EM64T) supported by this by this binary rpm are:
3.10.0-123.el7 - Red Hat Enterprise Linux 7(AMD64/EM64T) and future errata kernels.
3.10.0-229.el7 - Red Hat Enterprise Linux 7(AMD64/EM64T) and future errata kernels.

HP Dynamic Smart Array B140i SATA RAID Controller Driver for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)
Version: 1.2.6-115 (Recommended)
Filename: hpdsa-kmp-default-1.2.6-115.sles11sp3.x86_64.rpm; hpdsa-kmp-default-1.2.6-115.sles11sp4.x86_64.rpm; hpdsa-kmp-trace-1.2.6-115.sles11sp3.x86_64.rpm; hpdsa-kmp-trace-1.2.6-115.sles11sp4.x86_64.rpm; hpdsa-kmp-xen-1.2.6-115.sles11sp3.x86_64.rpm; hpdsa-kmp-xen-1.2.6-115.sles11sp4.x86_64.rpm
Fixes

Fixes the issue where Port and Box # were not being reported correctly to certain applications.

Enhancements

Increase limit for reporting overheated drive temperature.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (AMD64/EM64T) supported by this binary rpm are:
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (AMD64/EM64T) and future errata kernels for SP 3.

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**HP Dynamic Smart Array B140i SATA RAID Controller Driver for SUSE LINUX Enterprise Server 12 (AMD64/EM64T)**

Version: 1.2.6-115 (Recommended)
Filename: hpdsa-kmp-default-1.2.6-115.sles12sp0.x86_64.rpm; hpdsa-kmp-xen-1.2.6-115.sles12sp0.x86_64.rpm

Fixes

Fixes the issue where Port and Box # were not being reported correctly to certain applications.

Enhancements

Increase limit for reporting overheated drive temperature.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 12 (AMD64/EM64T) supported by this binary rpm are:
3.12.18-4 - SUSE LINUX Enterprise Server 12 (AMD64/EM64T) and future update kernels.

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**HP Dynamic Smart Array Controller Driver for VMware ESXi 5.0 (Bundle file).**

Version: 5.0.0.100-1 (Recommended)
Filename: hpvsa-5.0.0.100-1.zip

Fixes

Fixed HDD logical volume detection.

---

**HP Dynamic Smart Array Controller Driver for VMware ESXi 5.0 (Driver Component).**

Version: 2015.10.01 (Recommended)
Filename: cp027442.zip

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**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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

**Fixes**

Fixed HDD logical volume detection.

---

**HP Dynamic Smart Array Controller Driver for VMware vSphere 5.1 (Bundle file).**

Version: 5.1.0.46-1 *(Recommended)*

Filename: hpdsa-5.1.0.46-1.zip

**Fixes**

Fixes the below:

- The issue preventing 8 port chipset device from being loaded over.
- The shutdown issue found in Linux SLES that could affect VMware.

**Enhancements**

Uses raidstack build 2145.

---

**HP Dynamic Smart Array Controller Driver for VMware vSphere 5.5 (Bundle file).**

Version: 5.5.0.46-1 *(Recommended)*

Filename: hpdsa-5.5.0.46-1.zip

**Fixes**

Fixed HDD logical volume detection.

**Enhancements**

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Uses raidstack build 2145.

**HP Dynamic Smart Array Controller Driver for VMware vSphere 5.5 (Bundle file).**
Version: 5.5.0.100-1 *(Recommended)*
Filename: hpvsa-5.5.0.100-1.zip

**Fixes**

Fixed HDD logical volume detection.

**HP Dynamic Smart Array Controller Driver for VMware vSphere 6.0 (Bundle file).**
Version: 6.0.0.46-1 *(Recommended)*
Filename: hpdsa-5.5.0.46-1.zip

**Fixes**

Fixes the below:

- The issue preventing 8 port chipset device from being loaded over.
- The shutdown issue found in Linux SLES that could affect VMware.

**Enhancements**

Uses raidstack build 2145.

**HP Dynamic Smart Array Controller Driver for VMware vSphere 6.0 (Bundle file).**
Version: 6.0.0.100-1 *(Recommended)*
Filename: hpvsa-5.5.0.100-1.zip

**Fixes**

Fixed HDD logical volume detection.

**HP H2xx SAS/SATA Host Bus Adapter Driver for Microsoft Windows Server 2008 x86 Editions**
Version: 2.68.64.0 *(Optional)*
Filename: cp021866.exe

**Enhancements**

Updated for Version Control across all LSI_sas2 Windows Drivers.
**HP H2xx SAS/SATA Host Bus Adapter (AMD64/EM64T) Driver for VMware ESXi 5.0 and vSphere 5.1**
Version: 15.10.06.00.1 **(Recommended)**
Filename: mpt2sas-15.10.06.00.1vmw-1438034.zip

**Enhancements**
Added stateless-ready flag to indicate use with Auto Deploy.

---

**HP H2xx SAS/SATA Host Bus Adapter (AMD64/EM64T) Driver for VMware ESXi 5.0 (Driver Component).**
Version: 2014.09.10 **(Recommended)**
Filename: cp024635.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

**Fixes**
2014.09.10(A) resolved an installation issue that prevented the driver from being updated to version 2014.09.10. When this issue occurred, HP Smart Update Manager would not display a version value in the Available Version column of the HP Smart Update Manager Component Details Page and the driver would not be updated.

---

**HP H2xx SAS/SATA Host Bus Adapter (AMD64/EM64T) Driver for VMware vSphere 5.1 (Driver Component).**
Version: 2014.09.10 **(Recommended)**
Filename: cp024582.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

**Fixes**
2014.09.10(A) resolved an installation issue that prevented the driver from being updated to version 2014.09.10. When this issue occurred, HP Smart Update Manager would not display a version value in the Available Version column of the HP Smart Update Manager Component Details Page and the driver would not be updated.

---

**HP H2xx SAS/SATA Host Bus Adapter (AMD64/EM64T) Driver for vSphere 5.5**
Version: 15.10.06.00.01 **(Recommended)**
Filename: mpt2sas-15.10.06.00.1vmw-1403633.zip

**Enhancements**
Added stateless-ready flag to indicate use with Auto Deploy.
HP H2xx SAS/SATA Host Bus Adapter (AMD64/EM64T) Driver for vSphere 5.5 (Driver Component).
Version: 2014.09.10 (A) (Recommended)
Filename: cp024508.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

Fixes
2014.09.10(A) resolved an installation issue that prevented the driver from being updated to version 2014.09.10. When this issue occurred, HP Smart Update Manager would not display a version value in the Available Version column of the HP Smart Update Manager Component Details Page and the driver would not be updated.

HP H2xx SAS/SATA Host Bus Adapter (AMD64/EM64T) Driver for vSphere 6.0
Version: 15.10.06.00.02 (Optional)
Filename: mpt2sas-15.10.06.00.1vmw-1403633.zip

Enhancements
Added support for VMware vSphere 6.0

HP H2xx SAS/SATA Host Bus Adapter (AMD64/EM64T) Driver for vSphere 6.0 (Driver Component).
Version: 2015.02.23 (Optional)
Filename: cp025628.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

Enhancements
Added support for VMware vSphere 6.0

HP H2xx SAS/SATA Host Bus Adapter Driver for Microsoft Windows Server 2008 R2 Editions
Version: 2.68.64.0 (Optional)
Filename: cp021871.exe

Enhancements
Updated for Version Control across all LSI_sas2 Windows Drivers.
**HP H2xx SAS/SATA Host Bus Adapter Driver for Microsoft Windows Server 2008 x64 Editions**
Version: 2.68.64.0 *(Optional)*
Filename: cp021868.exe

**Enhancements**
Updated for Version Control across all LSI_sas2 Windows Drivers.

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**HP H2xx SAS/SATA Host Bus Adapter Driver for Microsoft Windows Server 2012 R2 x64 Editions**
Version: 2.68.64.1 *(Optional)*
Filename: cp023630.exe

**Enhancements**
- 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

---

**HP H2xx SAS/SATA Host Bus Adapter Driver for Microsoft Windows Server 2012 x64 Editions**
Version: 2.68.64.0 *(Optional)*
Filename: cp021873.exe

**Enhancements**
Updated for Version Control across all LSI_sas2 Windows Drivers.

---

**HP H2xx SAS/SATA Host Bus Adapter Driver for Red Hat Enterprise Linux 6 (AMD64/EM64T)**
Version: 15.10.04.00-4 *(Recommended)*
Filename: kmod-mpt2sas-15.10.02.00-8.rhel6u0.x86_64.rpm; kmod-mpt2sas-15.10.02.00-8.rhel6u1.x86_64.rpm; kmod-mpt2sas-15.10.02.00-8.rhel6u2.x86_64.rpm; kmod-mpt2sas-15.10.02.00-8.rhel6u3.x86_64.rpm; kmod-mpt2sas-15.10.02.00-8.rhel6u4.x86_64.rpm; kmod-mpt2sas-15.10.02.00-8.rhel6u5.x86_64.rpm; kmod-mpt2sas-15.10.04.00-3.rhel6u6.x86_64.rpm; kmod-mpt2sas-debug-15.10.02.00-8.rhel6u0.x86_64.rpm; kmod-mpt2sas-debug-15.10.02.00-8.rhel6u1.x86_64.rpm; kmod-mpt2sas-debug-15.10.02.00-8.rhel6u2.x86_64.rpm; kmod-mpt2sas-debug-15.10.02.00-8.rhel6u3.x86_64.rpm; kmod-mpt2sas-debug-15.10.02.00-8.rhel6u4.x86_64.rpm; kmod-mpt2sas-debug-15.10.02.00-8.rhel6u5.x86_64.rpm

**Enhancements**
Added support for Red Hat Enterprise Linux 6 Update 6.

**Supported Devices and Features**
SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (AMD64/EM64T) supported by this binary rpm are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(x86_64) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(x86_64) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(x86_64) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(x86_64) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(x86_64) and future errata kernels for update 5.
2.6.32-504.el6 - Red Hat Enterprise Linux 6 Update 6(x86_64) and future errata kernels for update 6.

Enhancements
Added support for Red Hat Enterprise Linux 6 Update 6.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (x86) supported by this binary rpm are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(x86) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(x86) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(x86) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(x86) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(x86) and future errata kernels for update 5.
2.6.32-504.el6 - Red Hat Enterprise Linux 6 Update 6(x86) and future errata kernels for update 6.

Enhancements
Initial support for Red Hat Enterprise Linux 7.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 7 (AMD64/EM64T) supported by this binary rpm are:
3.10.0-123.el7 - Red Hat Enterprise Linux 7(AMD64/EM64T) and future errata kernels.
Enhancements

RPMs are now signed. No other changes were made to the driver

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (AMD64/EM64T) supported by this driver diskette are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (AMD64/EM64T) plus future errata.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (AMD64/EM64T) plus future errata.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (AMD64/EM64T) plus future errata.

Enhancements

RPMs are now signed. No other changes were made to the driver

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (x86) supported by this driver diskette are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (x86) plus future errata.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (x86) plus future errata.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (x86) plus future errata.
Enhancements

Added support for SUSE Linux Enterprise Server 12.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 12 (AMD64/EM64T) supported by this driver diskette are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 12 (AMD64/EM64T) plus future errata.

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**HP ProLiant Integrated SATA Controller Driver for Microsoft Windows Server 2008 R2**
Version: 1.1.10273.1 (D) *(Optional)*
Filename: cp024596.exe

**Important Note!**
If the target system was previously updated to Version 1.1.10273.1, then it is NOT necessary to update to Version 1.1.10273.1 (D)

**Enhancements**
Component packaging has been updated; no impact to product’s functionality.

---

**HP ProLiant Integrated SATA Controller Driver for Windows Server 2008 x64 Edition**
Version: 1.1.10273.1 (B) *(Optional)*
Filename: cp024595.exe

**Important Note!**
If the target system was previously updated to Version 1.1.10273.1, then it is NOT necessary to update to Version 1.1.10273.1 (B).

**Enhancements**
Component packaging has been updated; no impact to product’s functionality.

---

**HP ProLiant Integrated SATA Controller Driver for Windows Server 2008 x86 Edition**
Version: 1.1.10273.1 (B) *(Optional)*
Filename: cp024592.exe

**Important Note!**
If the target system was previously updated to Version 1.1.10273.1, then it is NOT necessary to update to Version 1.1.10273.1 (B).

**Enhancements**
Component packaging has been updated; no impact to product’s functionality.
HP ProLiant Smart Array Controller (AMD64/EM64T) Driver for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)

Version: 4.6.28-24 (Recommended)
Filename: cciss-kmp-default-4.6.28-24.sles11sp1.x86_64.rpm; cciss-kmp-default-4.6.28-24.sles11sp2.x86_64.rpm; cciss-kmp-default-4.6.28-24.sles11sp3.x86_64.rpm; cciss-kmp-xen-4.6.28-24.sles11sp1.x86_64.rpm; cciss-kmp-xen-4.6.28-24.sles11sp2.x86_64.rpm; cciss-kmp-xen-4.6.28-24.sles11sp3.x86_64.rpm

 Fixes
Minor fix to tape drive error handling code.

Supported Devices and Features
SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (AMD64/EM64T) supported by this binary rpm are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (AMD64/EM64T) and future errata kernels for SP 1.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (AMD64/EM64T) and future errata kernels for SP 2.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (AMD64/EM64T) and future errata kernels for SP 3.

HP ProLiant Smart Array Controller (AMD64/EM64T) Driver for Red Hat Enterprise Linux 6 (AMD64/EM64T)

Version: 3.4.12 (Recommended)
Filename: kmod-hpsa-3.4.12-110.rhel6u1.x86_64.rpm; kmod-hpsa-3.4.12-110.rhel6u2.x86_64.rpm; kmod-hpsa-3.4.12-110.rhel6u3.x86_64.rpm; kmod-hpsa-3.4.12-110.rhel6u4.x86_64.rpm; kmod-hpsa-3.4.12-110.rhel6u5.x86_64.rpm; kmod-hpsa-3.4.12-110.rhel6u6.x86_64.rpm; kmod-hpsa-3.4.12-110.rhel6u7.x86_64.rpm

 Fixes
Fixes the problems when installing with multipath enabled.

Supported Devices and Features
SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (AMD64/EM64T) supported by this driver diskette are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1 (AMD64/EM64T) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2 (AMD64/EM64T) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3 (AMD64/EM64T) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4 (AMD64/EM64T) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5 (AMD64/EM64T) and future errata kernels for update 5.
2.6.32-504.el6 - Red Hat Enterprise Linux 6 Update 6 (AMD64/EM64T) and future errata kernels for update 6.
2.6.32-573.el6 - Red Hat Enterprise Linux 6 Update 7(AMD64/EM64T) and future errata kernels for update 7.
HP ProLiant Smart Array Controller (AMD64/EM64T) Driver for Red Hat Enterprise Linux 7 (AMD64/EM64T)

Version: 3.4.12 (Recommended)
Filename: kmod-hpsa-3.4.12-110.rhel7u0.x86_64.rpm; kmod-hpsa-3.4.12-110.rhel7u1.x86_64.rpm

Fixes

Fixes the problems when installing with multipath enabled.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 7 (AMD64/EM64T) supported by this binary rpms are:
3.10.0-123.el7 - Red Hat Enterprise Linux 7(AMD64/EM64T) and future errata kernels.
3.10.0-229.el7 - Red Hat Enterprise Linux 7(AMD64/EM64T) and future errata kernels.

HP ProLiant Smart Array Controller (AMD64/EM64T) Driver for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)

Version: 3.4.12 (Recommended)
Filename: hpsa-kmp-default-3.4.12-110.sles11sp1.x86_64.rpm; hpsa-kmp-default-3.4.12-110.sles11sp2.x86_64.rpm; hpsa-kmp-default-3.4.12-110.sles11sp3.x86_64.rpm; hpsa-kmp-default-3.4.12-110.sles11sp4.x86_64.rpm; hpsa-kmp-trace-3.4.12-110.sles11sp2.x86_64.rpm; hpsa-kmp-trace-3.4.12-110.sles11sp3.x86_64.rpm; hpsa-kmp-trace-3.4.12-110.sles11sp4.x86_64.rpm; hpsa-kmp-xen-3.4.12-110.sles11sp1.x86_64.rpm; hpsa-kmp-xen-3.4.12-110.sles11sp2.x86_64.rpm; hpsa-kmp-xen-3.4.12-110.sles11sp3.x86_64.rpm; hpsa-kmp-xen-3.4.12-110.sles11sp4.x86_64.rpm

Fixes

Fixes the problems when installing with multipath enabled.

Supported Devices and Features

The kernels of SUSE LINUX Enterprise Server 11 (AMD64/EM64T) supported by this driver diskette are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (AMD64/EM64T) and future errata kernels for SP 1.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (AMD64/EM64T) and future errata kernels for SP 2.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (AMD64/EM64T) and future errata kernels for SP 3.
3.0.101-63-default - SUSE LINUX Enterprise Server 11 SP 4 (AMD64/EM64T) and future errata kernels for SP 4.

HP ProLiant Smart Array Controller (AMD64/EM64T) Driver for SUSE LINUX Enterprise Server 12 (AMD64/EM64T)

Version: 3.4.12 (Recommended)
Filename: hpsa-kmp-default-3.4.12-110.sles12sp0.x86_64.rpm; hpsa-kmp-xen-3.4.12-110.sles12sp0.x86_64.rpm

Fixes
Fixes the problems when installing with multipath enabled.

**Supported Devices and Features**

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 12 (AMD64/EM64T) supported by this binary rpm are:
3.12.18-4 - SUSE LINUX Enterprise Server 12 (AMD64/EM64T) and future update kernels.

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**HP ProLiant Smart Array Controller (x86/AMD32) Driver for Red Hat Enterprise Linux 6 (x86)**

Version: 3.4.12 *(Recommended)*


Fixes

Fixes the problems when installing with multipath enabled.

**Supported Devices and Features**

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (x86) supported by this driver diskette are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(x86) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(x86) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(x86) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(x86) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(x86) and future errata kernels for update 5.
2.6.32-504.el6 - Red Hat Enterprise Linux 6 Update 6(x86) and future errata kernels for update 6.
2.6.32-573.el6 - Red Hat Enterprise Linux 6 Update 7(x86) and future errata kernels for update 7.

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**HP ProLiant Smart Array Controller (x86/AMD32) Driver for SUSE LINUX Enterprise Server 11 (x86)**

Version: 4.6.28-24 *(Recommended)*


Fixes

Minor fix to tape drive error handling code.

**Supported Devices and Features**

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (x86) supported by this binary rpm are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (x86) and future errata kernels for SP 1.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (x86) and future errata kernels for SP 2.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (x86) and future errata kernels for SP 3.

HP ProLiant Smart Array Controller (x86/AMD32) Driver for SUSE LINUX Enterprise Server 11 (x86)
Version: 3.4.12 (Recommended)

**Fixes**

Fixes the problems when installing with multipath enabled.

**Supported Devices and Features**

The kernels of SUSE LINUX Enterprise Server 11 (x86) supported by this driver diskette are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (x86) and future errata kernels for SP 1.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (x86) and future errata kernels for SP 2.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (x86) and future errata kernels for SP 3.
3.0.101-63-default - SUSE LINUX Enterprise Server 11 SP 4 (x86) and future errata kernels for SP 4.

HP ProLiant Smart Array HPCISSS3 Controller Driver for Windows Server 2008
Version: 6.4.0.32 (Optional)
Filename: cp020711.exe

**Enhancements**

- Performance improvements for MPIO bases solutions using MSA 2040 and P2000 storage enclosures.
- Improved performance for certain configurations using SSD SmartPath.

HP ProLiant Smart Array HPCISSS3 Controller Driver for Windows Server 2008 x64 Edition
Version: 6.10.0.64 (B) (Optional)
Filename: cp027373.exe

**Enhancements**

Changes to the component package were made to enable installation on new controllers. No changes to driver functionality have been made.

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**HP ProLiant Smart Array HPCISSS3 Controller Driver for Windows Server 2012 x64 Edition**

Version: 63.10.0.64 (B) *(Recommended)*  
Filename: cp027372.exe

**Enhancements**

Changes to the component package were made to enable installation on new controllers. No changes to driver functionality have been made.

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**HP ProLiant Smart Array SAS/SATA Controller Driver for Windows Server 2008**

Version: 6.28.0.32 *(Optional)*  
Filename: cp020622.exe

**Enhancements**

Minor performance enhancements

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**HP ProLiant Smart Array SAS/SATA Controller Driver for Windows Server 2008 x64 Edition**

Version: 6.28.0.64 *(Optional)*  
Filename: cp020623.exe

**Enhancements**

- Enables customers to make use of Microsoft HotFix which enables 64-bit command addressing described by MS KB2468345.

---

**HP ProLiant Smart Array SAS/SATA Controller Driver for Windows Server 2012 x64 Edition**

Version: 62.28.0.64 *(Critical)*  
Filename: cp020624.exe

**F** **ixes**

Fixed errors occurring with 62.26.0.64 version which included a possible bluescreen or system hang when running I/O on Windows Server 2012. This issue resolves the customer advisory c03793656 described at the following link: [http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?objectID=c03793656](http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?objectID=c03793656)

**Enhancements**

- Support for Windows 2012 R2

---

**HP Smart Array B110i SATA RAID Controller Driver for Red Hat Enterprise Linux 6 (AMD64/EM64T)**

Version: 1.2.6-18 (A) *(Recommended)*
Enhancements

RPMs are now signed. No other changes were made to the driver

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (AMD64/EM64T) supported by this binary rpm are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(AMD64/EM64T) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(AMD64/EM64T) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(AMD64/EM64T) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(AMD64/EM64T) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(AMD64/EM64T) and future errata kernels for update 5.
2.6.32-504.el6 - Red Hat Enterprise Linux 6 Update 6(AMD64/EM64T) and future errata kernels for update 6.

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**HP Smart Array B110i SATA RAID Controller Driver for Red Hat Enterprise Linux 6 (x86)**
Version: 1.2.6-18 (A) (Recommended)
Filename: kmod-hpahcisr-1.2.6-18.rhel6u1.i686.rpm; kmod-hpahcisr-1.2.6-18.rhel6u2.i686.rpm; kmod-hpahcisr-1.2.6-18.rhel6u3.i686.rpm; kmod-hpahcisr-1.2.6-18.rhel6u4.i686.rpm; kmod-hpahcisr-1.2.6-18.rhel6u5.i686.rpm; kmod-hpahcisr-1.2.6-18.rhel6u6.i686.rpm

Enhancements

RPMs are now signed. No other changes were made to the driver

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (x86) supported by this binary rpm are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(x86) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(x86) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(x86) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(x86) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(x86) and future errata kernels for update 5.
2.6.32-504.el6 - Red Hat Enterprise Linux 6 Update 6(x86) and future errata kernels for update 6.

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**HP Smart Array B110i SATA RAID Controller Driver for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)**
Version: 1.2.6-17 (A) (Recommended)
Enhancements

RPMs are now signed. No other changes were made to the driver.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (AMD64/EM64T) supported by this binary rpm are:
- 2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (AMD64/EM64T) and future errata kernels for SP 1.
- 3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (AMD64/EM64T) and future errata kernels for SP 2.
- 3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (AMD64/EM64T) and future errata kernels for SP 3.

Driver - Storage Fibre Channel

HP Storage Fibre Channel Adapter Kit for the QLogic Storport Driver for Windows Server 2012 and 2012 R2
Version: 9.1.15.21 (Recommended)
Filename: cp026553.exe

Important Note!
Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Fixes
Maintenance updates to driver including:

- Fixed firmware dump not being cleared after retrieval
- Added support to read MPI and PEP firmware versions from primary or secondary image

**Enhancements**

Updated the driver to version 9.1.15.21

**Supported Devices and Features**

This driver supports the following HP adapters:

- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- 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

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**HP Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver**

Version: 10.4.246.0 *(Recommended)*

Filename: cp025462.exe

**Important Note!**

Release Notes:

[HP StorageWorks Emulex Adapters Release Notes](#)

**Fixes**

This driver resolves an issue where the system inadvertently stops running when executing a diagnostic quick test on a disabled port if the port hasn't been reset yet.

**Enhancements**

Updated to Driver version 10.4.246.0

- 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:

```
elxdrvr-fc-version.exe /q2 extract=2
```

The extracted files are located:
Each kit folder has subsequent architecture folders with subsequent OS folders. For example,

C:\Users\Administrator\Documents\Emulex\Drivers\FC-version\x64\win2008

**Supported Devices and Features**

- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz Adapter

**HP Storage Fibre Channel Adapter Kit for the x64 QLogic Storport Driver**

Version: 9.1.15.21 *(Recommended)*
Filename: cp026552.exe

**Important Note!**
Release Notes:
HP StorageWorks QLogic Adapters Release Notes

**Fixes**

Maintenance updates to driver including:

- Fixed firmware dump not being cleared after retrieval
- Added support to read MPI and PEP firmware versions from primary or secondary image

**Enhancements**

Updated the Smart Component to Driver 9.1.15.21

**Supported Devices and Features**

This driver supports the following HP adapters:

- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter

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HP Storage Fibre Channel Adapter Kit for the x86 Emulex Storport Driver

Version: 10.4.246.0 *(Recommended)*
Filename: cp025463.exe

**Important Note!**

Release Notes:
[HP StorageWorks Emulex Adapters Release Notes](#)

**Fixes**

This driver resolves an issue where the system inadvertently stops running when executing a diagnostic quick test on a disabled port if the port hasn’t been reset yet.

**Enhancements**

Updated to driver version 10.4.246.0

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:

```
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\x86\win2008
```

**Supported Devices and Features**

- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
HP Storage Fibre Channel Adapter Kit for the x86 QLogic Storport Driver
Version: 9.1.15.21 (Recommended)
Filename: cp026551.exe

Important Note!
Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Prerequisites

Fixes

Maintenance updates to driver including:

- Fixed firmware dump not being cleared after retrieval
- Added support to read MPI and PEP firmware versions from primary or secondary image

Enhancements

Updated the Smart Component to driver version 9.1.15.21

Supported Devices and Features

This driver supports the following HP adapters:

- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2672 16Gb FC HBA 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

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**HP Storage Fibre Channel Over Ethernet Adapter Kit for the QLogic Storport Driver for Windows Server 2012 and 2012 R2**

Version: 9.1.13.10 *(Recommended)*  
Filename: cp025684.exe

**Important Note!**  
Release Notes:  
[HP StorageWorks QLogic Adapters Release Notes](#)

**Fixes**

- Fixed condition to account for tape retry delay time when SCSI status busy and queue full without other status bits.

**Enhancements**

Updated to driver version 9.1.13.10

**Supported Devices and Features**

This driver supports the following HP adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

---

**HP Storage Fibre Channel Over Ethernet Adapter Kit for the x64 Emulex Storport Driver**

Version: 10.4.246.0 *(Recommended)*  
Filename: cp025460.exe

**Important Note!**  
Release Notes:  
[HP StorageWorks Emulex Adapters Release Notes](#)

**Fixes**

This driver resolves an issue where the system inadvertently stops running when executing a diagnostic quick test on a disabled port if the port hasn't been reset yet.

**Enhancements**

Updated to driver version 10.4.246.0

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:

```
elxdrvr-fcoe-version.exe /q2 extract=2
```

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The extracted files are located:

```
C:\Users\Administrator\Documents\Emulex\Drivers\FCoE-version
```

Each kit folder has subsequent architecture folders with subsequent OS folders. For example,

```
C:\Users\Administrator\Documents\Emulex\Drivers\FCoE-version\x64\win2008
```

### Supported Devices and Features

This driver supports the following HP adapters:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric 10Gb Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric 10Gb Converged Network Adapter
- HP StorageWorks CN1100E Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter

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**HP Storage Fibre Channel Over Ethernet Adapter Kit for the x64 QLogic Storport Driver**

Version: 9.1.13.10 (Recommended)

Filename: cp025685.exe

**Important Note!**

Release Notes:

[HP StorageWorks QLogic Adapters Release Notes](#)

**Fixes**

- Fixed condition to account for tape retry delay time when SCSI status busy and queue full without other status bits.

**Enhancements**

9.1.13.10 version

**Supported Devices and Features**

This driver supports the following HP adapters:

- HP CN1000Q Dual Port Converged Network Adapter
HP Storage Fibre Channel Over Ethernet Adapter Kit for the x86 Emulex Storport Driver
Version: 10.4.246.0 (Recommended)
Filename: cp025461.exe

Important Note!
Release Notes:
HP StorageWorks Emulex Adapters Release Notes

Fixes
This driver resolves an issue where the system inadvertently stops running when executing a diagnostic quick test on a disabled port if the port hasn't been reset yet.

Enhancements
Updated driver version to 10.4.246.0

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:

```
elxdrvr-fcoe-version.exe /q2 extract=2
```

The extracted files are located:

C:\Users\Administrator\Documents\Emulex\Drivers\FCoE-version

Each kit folder has subsequent architecture folders with subsequent OS folders. For example,

C:\Users\Administrator\Documents\Emulex\Drivers\FCoE-version\x86\win2008

Supported Devices and Features

This driver supports the following HP adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
HP Storage Fibre Channel Over Ethernet Adapter Kit for the x86 QLogic Storport Driver
Version: 9.1.13.10 (Recommended)
Filename: cp025686.exe

Important Note!
Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Fixes
  o Fixed condition to account for tape retry delay time when SCSI status busy and queue full without other status bits.

Enhancements
  Updated the Smart Component to contain driver version 9.1.13.10

Supported Devices and Features
  This driver supports the following HP adapters:
    o HP CN1000Q Dual Port Converged Network Adapter
    o HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

---

HP Storage QLogic BR-series Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2012
Version: 3.2.5.0 (Recommended)
Filename: cp025313.exe

Important Note!
Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

To keep drivers and boot code synchronized, be sure to update your adapter with the latest boot image from www.hp.com before you install or update adapter driver packages.

Enhancements
  Updated driver version to 3.2.5.0. This driver will identify 8Gb HBA/mezzanine cards as "QLogic" or "QLogic BR-series" in product description displays.

Supported Devices and Features
  This driver supports the following HP adapters:
    o HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
    o HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
    o Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

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HP Storage QLogic BR-series Storport Fibre Channel Host Bus Adapter Driver for Microsoft
Windows Server 2012 R2
Version: 3.2.5.0 (Recommended)
Filename: cp025052.exe

Important Note!

Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

To keep drivers and boot code synchronized, be sure to update your adapter with the latest boot image from www.hp.com before you install or update adapter driver packages.

Enhancements
Updated driver version to 3.2.5.0. This driver will identify 8Gb HBA/mezzanine cards as "QLogic" or "QLogic BR-series" in product description displays.

Supported Devices and Features
This driver supports the following HP adapters:

- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

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HP Storage x64 QLogic BR-series Storport Fibre Channel Host Bus Adapter Driver for
Microsoft Windows Server 2008 R2
Version: 3.2.5.0 (Recommended)
Filename: cp025314.exe

Important Note!

Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

To keep drivers and boot code synchronized, be sure to update your adapter with the latest boot image from www.hp.com before you install or update adapter driver packages.

Enhancements
Updated driver version to 3.2.5.0. This driver will identify 8Gb HBA/mezzanine cards as "QLogic" or "QLogic BR-series" in product description displays.

Supported Devices and Features
This driver supports the following HP adapters:

- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

Red Hat Enterprise Linux 6 Server (x86-64) FCoE/FC Driver Kit for HP Emulex CNAs, HBAs and mezzanine HBAs and CNAs
Version: 10.5.152.1 (Recommended)
Filename: kmod-elx-lpfc-10.5.152.1-1.rhel6u6.x86_64.rpm; kmod-elx-lpfc-10.5.152.1-1.rhel6u7.x86_64.rpm

Important Note!
Release Notes:
HP StorageWorks Emulex Adapters Release Notes

Fixes
Resolved issue where Vport state is not set to FC_VPORT_NO_FABRIC_RSCS when fdisc command fails with no resource error code

Enhancements
- Updated driver to version 10.5.152.1-1
- Added support for Red Hat Enterprise Linux 6 update 7

Supported Devices and Features
- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe110S 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
**Red Hat Enterprise Linux 6 Server (x86-64) FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs**

Version: 8.07.00.28.06.0-k1 *(Recommended)*
Filename: kmod-hpqlgc-qla2xxx-8.07.00.28.06.0_k1-1.rhel6u6.x86_64.rpm; kmod-hpqlgc-qla2xxx-8.07.00.28.06.0_k1-5.rhel6u7.x86_64.rpm

**Important Note!**
[HP StorageWorks QLogic Adapters Release Notes](https://www.hp.com)

**Fixes**

Maintenance updates to driver including:

- Check if the INQ response buffer is > 170 (instead of >=)
- Fix for invalid offset reference of inquiry response data
- Hande INQ data changed check condition
- Fix for the scsi status getting overwritten
- Fix to avoid crossing initiator/target mode during AEN handling

**Enhancements**

- Updated to version 8.07.00.28.06.0-k1
- Added support for Red Hat Enterprise Linux 6 update 7
- Enabled T10 DIF

**Supported Devices and Features**

This driver supports the following HP adapters:

- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb PCIe Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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**Red Hat Enterprise Linux 7 Server FCoE/FC Driver Kit for HP Emulex CNAs, HBAs and mezzanine HBAs and CNAs**

Version: 10.5.152.1 *(Recommended)*
Filename: kmod-elx-lpfc-10.5.152.1-1.rhel7u0.x86_64.rpm; kmod-elx-lpfc-10.5.152.1-1.rhel7u1.x86_64.rpm

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Important Note!

The following card is supported on RHEL 7u0 only:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter

Release Notes:
HP StorageWorks Emulex Adapters Release Notes

Fixes

Resolved issue where Vport state is not set to FC_VPORT_NO_FABRIC_RSCS when fdisc command fails with no resource error code

Enhancements

Updated driver to version 10.5.152.1-1

Supported Devices and Features

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter

Red Hat Enterprise Linux 7 Server FCoE/FC Driver Kit for HP QLogic CNAs, HBAs and mezzanine HBAs and CNAs

Version: 8.07.00.28.07.0-k1 (Recommended)
Filename: kmod-hpqlgc-qla2xxx-8.07.00.28.07.0_k1-1.rhel7u0.x86_64.rpm; kmod-hpqlgc-qla2xxx-8.07.00.28.07.0_k1-1.rhel7u1.x86_64.rpm

Important Note!
Release Notes:

**HP StorageWorks QLogic Adapters Release Notes**

**Fixes**

Maintenance updates to driver including:

- Check if the INQ response buffer is > 170 (instead of >=)
- Fix for invalid offset reference of inquiry response data
- Handle INQ data changed check condition
- Fix for the scsi status getting overwritten
- Fix to avoid crossing initiator/target mode during AEN handling

**Enhancements**

- Updated driver to version 8.07.00.28.07.0-k
- Enabled T10 DIF

**Supported Devices and Features**

This driver supports the following HP adapters:

- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb PCIe Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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**SUSE Linux Enterprise Server 11 (AMD64/EM64T) FCoE/FC Driver Kit for HP Emulex CNAs, HBAs and mezzanine HBAs and CNAs**

Version: 10.5.158.0 *(Recommended)*

Filename: elx-lpfc-kmp-default-10.5.158.0_3.0.101_63-1.sles11sp4.x86_64.rpm; elx-lpfc-kmp-default-10.5.158.0_3.0.76_0.11-1.sles11sp3.x86_64.rpm; elx-lpfc-kmp-trace-10.5.158.0_3.0.101_63-1.sles11sp4.x86_64.rpm; elx-lpfc-kmp-trace-10.5.158.0_3.0.76_0.11-1.sles11sp3.x86_64.rpm; elx-lpfc-kmp-xen-10.5.158.0_3.0.101_63-1.sles11sp4.x86_64.rpm; elx-lpfc-kmp-xen-10.5.158.0_3.0.76_0.11-1.sles11sp3.x86_64.rpm

**Important Note!**
Fixes

Resolved issue where Vport state is not set to FC_VPORT_NO_FABRIC_RSCS when fdisc command fails with no resource error code

Enhancements

- Updated driver to version 10.5.158.0-1
- Added support for SUSE Linux Enterprise Server 11 SP4

Supported Devices and Features

- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554AM Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe110S 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC555i Dual Port FlexFabric 10Gb Network Adapter

SUSE Linux Enterprise Server 11 (AMD64/EM64T) FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs

Version: 8.07.00.28.11.3-k (Recommended)
Filename: hpqlgc-qla2xxx-kmp-default-8.07.00.28.11.3_k_3.0.101_63-1.sles11sp4.x86_64.rpm; hpqlgc-qla2xxx-kmp-default-8.07.00.28.11.3_k_3.0.76_0.11-1.sles11sp3.x86_64.rpm; hpqlgc-qla2xxx-kmp-xen-8.07.00.28.11.3_k_3.0.101_63-1.sles11sp4.x86_64.rpm; hpqlgc-qla2xxx-kmp-xen-8.07.00.28.11.3_k_3.0.76_0.11-1.sles11sp3.x86_64.rpm

Fixes
Maintenance updates to driver including:

- Check if the INQ response buffer is > 170 (instead of >=)
- Fix for invalid offset reference of inquiry response data
- Hande INQ data changed check condition
- Fix for the scsi status getting overwritten
- Fix to avoid crossing initiator/target mode during AEN handling

**Enhancements**

- Updated to version 8.07.00.28.11.3-k
- Added support for SUSE Linux Enterprise Server 11 SP4
- Enabled T10 DIF

**Supported Devices and Features**

This driver supports the following HP adapters:

- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb PCIe Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

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**SUSE Linux Enterprise Server 11 (x86) FCoE/FC Driver Kit for HP Emulex CNAs, HBAs and mezzanine HBAs and CNAs**

Version: 10.5.158.0 *(Recommended)*

Filename: elx-lpfc-kmp-default-10.5.158.0_3.0.101_63-1.sles11sp4.i586.rpm; elx-lpfc-kmp-default-10.5.158.0_3.0.76_0.11-1.sles11sp3.i586.rpm; elx-lpfc-kmp-pae-10.5.158.0_3.0.101_63-1.sles11sp4.i586.rpm; elx-lpfc-kmp-pae-10.5.158.0_3.0.76_0.11-1.sles11sp3.i586.rpm; elx-lpfc-kmp-trace-10.5.158.0_3.0.101_63-1.sles11sp4.i586.rpm; elx-lpfc-kmp-trace-10.5.158.0_3.0.76_0.11-1.sles11sp3.i586.rpm; elx-lpfc-kmp-xen-10.5.158.0_3.0.101_63-1.sles11sp4.i586.rpm; elx-lpfc-kmp-xen-10.5.158.0_3.0.76_0.11-1.sles11sp3.i586.rpm

**Important Note!**

Release Notes:  
[HP StorageWorks Emulex Adapters Release Notes](#)

** Fixes**
Resolved issue where Vport state is not set to FC_VPORT_NO_FABRIC_RSCS when fdisc command fails with no resource error code

Enhancements

- Updated driver to version 10.5.158.0-1
- Added support for SUSE Linux Enterprise Server 11 SP4

Supported Devices and Features

- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter

SUSE Linux Enterprise Server 11 (x86) FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs

Version: 8.07.00.28.11.3-k (Recommended)
Filename: hpqlgc-qla2xxx-kmp-default-8.07.00.28.11.3_k_3.0.101_63-1.sles11sp4.i586.rpm; hpqlgc-qla2xxx-kmp-default-8.07.00.28.11.3_k_3.0.76_0.11-1.sles11sp3.i586.rpm; hpqlgc-qla2xxx-kmp-pae-8.07.00.28.11.3_k_3.0.101_63-1.sles11sp4.i586.rpm; hpqlgc-qla2xxx-kmp-pae-8.07.00.28.11.3_k_3.0.76_0.11-1.sles11sp3.i586.rpm; hpqlgc-qla2xxx-kmp-xen-8.07.00.28.11.3_k_3.0.101_63-1.sles11sp4.i586.rpm; hpqlgc-qla2xxx-kmp-xen-8.07.00.28.11.3_k_3.0.76_0.11-1.sles11sp3.i586.rpm

Important Note!

HP StorageWorks QLogic Adapters Release Notes

Fixes

Maintenance updates to driver including:

- Check if the INQ response buffer is > 170 (instead of >=)
- Fix for invalid offset reference of inquiry response data
- Hande INQ data changed check condition
- Fix for the scsi status getting overwritten
- Fix to avoid crossing initiator/target mode during AEN handling

**Enhancements**

- Updated to version 8.07.00.28.11.3-k
- Added support for SUSE Linux Enterprise Server 11 SP4
- Enabled T10 DIF

**Supported Devices and Features**

This driver supports the following HP adapters:

- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb PCIe Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

---

**SUSE Linux Enterprise Server 12 FCoE/FC Driver Kit for HP Emulex CNAs, HBAs and mezzanine HBAs and CNAs**

Version: 10.5.152.1 *(Recommended)*

Filename: elx-lpfc-kmp-default-10.5.152.1_3.12.28_4-1.sles12sp0.x86_64.rpm; elx-lpfc-kmp-xen-10.5.152.1_3.12.28_4-1.sles12sp0.x86_64.rpm

**Important Note!**

Release Notes: [HP StorageWorks Emulex Adapters Release Notes](#)

**Fixes**

Resolved issue where Vport state is not set to FC_VPORT_NO_FABRIC_RSCS when fdisc command fails with no resource error code

**Enhancements**

Updated driver to version 10.5.152.1-1

**Supported Devices and Features**

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SUSE Linux Enterprise Server 12 FCoE/FC Driver Kit for HP QLogic CNAs, HBAs and mezzanine HBAs and CNAs

Version: 8.07.00.28.12.0-k (Recommended)
Filename: hpqlgc-qla2xxx-kmp-default-8.07.00.28.12.0_k_k3.12.28_4-1.sles12sp0.x86_64.rpm; hpqlgc-qla2xxx-kmp-xen-8.07.00.28.12.0_k_k3.12.28_4-1.sles12sp0.x86_64.rpm

Important Note!

Release Notes:

HP StorageWorks QLogic Adapters Release Notes

Fixes

Maintenance updates to driver including:

- Check if the INQ response buffer is > 170 (instead of >=)
- Fix for invalid offset reference of inquiry response data
- Hande INQ data changed check condition
- Fix for the scsi status getting overwritten
- Fix to avoid crossing initiator/target mode during AEN handling

Enhancements

- Updated to version 8.07.00.28.12.0-k
- Enabled T10 DIF
Supported Devices and Features

This driver supports the following HP adapters:

- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb PCIe Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

Driver - Storage Tape

HP StoreEver Tape Drivers for Windows

Version: 4.0.0.0 (a) (Recommended)
Filename: cp023805.exe

Enhancements

- Added HP LTO Tape Drive drivers version 1.0.7.2 for Microsoft Windows XP (x86), Microsoft Windows Vista (x64), Microsoft Windows Server 2003 (x64) and Microsoft Windows Server 2008 (x64).
- Added HP USB Mass Storage Controller driver version 8.00.2014 for Microsoft Windows 8.1 (x64) and Microsoft Windows Server 2012 R2 (x64).
- See table below for operating system support and driver versions
  - **bold** - new driver versions
  - * - not supported

<table>
<thead>
<tr>
<th>Driver Description</th>
<th>Microsoft Windows Client Operating Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>XP x86</td>
</tr>
<tr>
<td>HP LTO Tape Drive</td>
<td>1.0.7.1</td>
</tr>
<tr>
<td>HP DAT Tape Drive</td>
<td>1.7.1.0</td>
</tr>
<tr>
<td>HP SDLT/VS Tape Drive</td>
<td>*</td>
</tr>
<tr>
<td>HP ESL G3 Tape Library</td>
<td>*</td>
</tr>
<tr>
<td>HP MSL6480, G3, 1/8 Tape Library</td>
<td>3.0.0.0</td>
</tr>
<tr>
<td>Driver Description</td>
<td>2000 x86</td>
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<tr>
<td>HP LTO - (LTO6 not supported on IA64)</td>
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<tr>
<td>HP DAT Tape Drive</td>
<td>*</td>
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<tr>
<td>HP USB Mass Storage Controller - (DAT 72 &amp; 160 only)</td>
<td>*</td>
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<tr>
<td>HP SDLT/VS Tape Drive</td>
<td>*</td>
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<tr>
<td>HP ESL G3 Tape Library</td>
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<td>HP MSL6480, G3, 1/8 Tape Library</td>
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<td>HP ESL E Tape Library</td>
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<tr>
<td>HP MSL6000 Series Tape Library</td>
<td>*</td>
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<tr>
<td>HP DAT Tape Autoloader</td>
<td>*</td>
</tr>
</tbody>
</table>
Driver - System Management

Combined Chipset Identifier for Windows Server 2008
Version: 8.2.0.0 (Optional)
Filename: cp018410.exe

Important Note!
Version 8.1.0.0 of this component is the final version to support installation under Windows Server 2003.

Enhancements
Added support for new processor options on HP ProLiant Gen8 servers.

Combined Chipset Identifier for Windows Server 2008 R2
Version: 8.2.0.0 (Optional)
Filename: cp018411.exe

Enhancements
Added support for new processor options on HP ProLiant Gen8 servers.

Combined Chipset Identifier for Windows Server 2008 x64 Edition
Version: 8.2.0.0 (Optional)
Filename: cp018409.exe

Important Note!
Version 8.1.0.0 of this component is the final version to support installation under Windows Server 2003 x64 Edition.

Enhancements
Added support for new processor options on HP ProLiant Gen8 servers.

Combined Chipset Identifier for Windows Server 2012
Version: 8.2.0.0 (B) (Optional)
Filename: cp024839.exe

 Fixes
Updated component installer to only allow installation on Windows Server 2012 and Windows Server 2012 R2.

HP ProLiant DL580 Gen8 Supplemental Chipset Identifier for Windows
Version: 1.1.0.0 (B) (Optional)
Filename: cp024062.exe

 Fixes
Fixed a false installation failure message that could occur if this component was installed before the Combined Chipset Identifier component.
HP ProLiant Gen9 Chipset Identifier for Windows
Version: 1.2.0.0 (Optional)
Filename: cp026690.exe

Enhancements
Add support for new HP ProLiant Gen9 server models.

HP ProLiant iLO 2 Management Controller Driver for Windows Server 2008
Version: 1.14.0.0 (F) (Optional)
Filename: cp024612.exe

Enhancements
Component packaging has been updated; no impact to product’s functionality.

HP ProLiant iLO 2 Management Controller Driver for Windows Server 2008 x64 Editions
Version: 1.14.0.0 (F) (Optional)
Filename: cp024613.exe

Enhancements
Component packaging has been updated; no impact to product’s functionality.

HP ProLiant iLO 2 Management Controller Driver for Windows Server 2012
Version: 1.15.0.0 (C) (Optional)
Filename: cp021022.exe

Enhancements
Add support for Microsoft Windows Server 2012 R2 on selected HP ProLiant G6 servers.

HP ProLiant iLO 3/4 Channel Interface Driver for Windows X64
Version: 3.10.0.0 (H) (Optional)
Filename: cp024845.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
The component installer has been updated to log additional information in the event of an installation failure.
HP ProLiant iLO 3/4 Channel Interface Driver for Windows X86
Version: 3.10.0.0 (Optional)
Filename: cp024844.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**

The component installer has been updated to log additional information in the event of an installation failure.

---

HP ProLiant iLO 3/4 Management Controller Driver Package for Windows Server 2008 X86
Version: 3.20.0.0 (Optional)
Filename: cp025785.exe

**Prerequisites**

The *HP ProLiant iLO 3/4 Channel Interface Driver for Windows X86* (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.

**Fixes**

Corrected the reporting of the speed of dual-rotor fans when one rotor has failed.

---

HP ProLiant iLO 3/4 Management Controller Driver Package for Windows Server 2008/2012 X64
Version: 3.20.0.0 (Optional)
Filename: cp025786.exe

**Prerequisites**

The *HP ProLiant iLO 3/4 Channel Interface Driver for Windows X64* (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.

**Fixes**

Corrected the reporting of the speed of dual-rotor fans when one rotor has failed.
### Driver - USB

**Intel USB 3.0 Drivers for Windows Server 2008 R2**
Version: 3.0.4.65 *(Optional)*
Filename: cp025969.exe

**Fixes**
- Corrected potential Windows bugchecks during reboot cycling (bugcheck codes 0x50 and 0x7E)
- Correctly switch ports to USB3 speeds

**Renesas Electronics USB 3.0 Drivers for Windows Server 2008 R2**
Version: 3.0.23.0 *(Optional)*
Filename: cp019317.exe

**Enhancements**
- Initial release.

**USB Host Controller Identifier for Windows Server 2008**
Version: 1.0.0.0 *(Optional)*
Filename: cp019655.exe

**Enhancements**
- Initial release.

**USB Host Controller Identifier for Windows Server 2008 x64 Edition**
Version: 1.0.0.0 *(Optional)*
Filename: cp019656.exe

**Enhancements**
- Initial release.

### Driver - Video

**ATI ES1000 Video Controller Driver for Windows Server 2008**
Filename: cp011348.exe

**Enhancements**
- Enhanced component-level logging has been implemented in the Smart Component installer. The generated log file will be located on the target system in the %SystemRoot%\cpqsystem\log directory under the name CPQSETUP.LOG.
ATI ES1000 Video Controller Driver for Windows Server 2008 x64 Editions
Version: 6.14.10.6748 (Optional)
Filename: cp011349.exe

**Enhancements**
- Added support for Microsoft Windows Server 2008 R2.
- Enhanced component-level logging has been implemented in the Smart Component installer. The generated log file will be located on the target system in the %SystemRoot%\cpqsystem\log directory under the name CPQSETUP.LOG.

Matrox G200eH Video Controller Driver for Windows Server 2008 X64
Version: 6.12.1.1030 (B) (Optional)
Filename: cp023660.exe

**Fixes**
The digital signatures attached to MtxHotPlugService.exe and pduninst.exe have been updated with a valid Matrox release signature.

Matrox G200eH Video Controller Driver for Windows Server 2008 X86
Version: 6.12.1.1030 (B) (Optional)
Filename: cp023659.exe

**Fixes**
The digital signatures attached to MtxHotPlugService.exe and pduninst.exe have been updated with a valid Matrox release signature.

Matrox G200eH Video Controller Driver for Windows Server 2012 and Server 2012 R2
Version: 9.15.1.102 (B) (Optional)
Filename: cp024752.exe

**Enhancements**
Updated component installer to only allow installation on Windows Server 2012 and Windows Server 2012 R2.

Firmware - Blade Infrastructure

HP 3Gb SAS BL Switch Firmware Smart Component for Linux
Version: 2.2.17.0 (Optional)
Filename: CP015353.md5; CP015353.scexe

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Enhancements

Enhancements/New Features:

- The HP 3Gb SAS Switch will now publish external IP addresses to Onboard Administrator versions 3.20 or later instead of the internal IP address.

---

HP BladeSystem c-Class Virtual Connect Firmware, Ethernet plus 4/8Gb 20-port and 8/16Gb 24-port FC Edition Component for Windows

Version: 4.45 (Recommended)

Filename: cp026528.exe

Prerequisites

The latest version of HP Virtual Connect Release Notes contains the prerequisites and can also be found in the following URL: http://www.hp.com/go/vc/manuals

Fixes

The latest list of issues resolved can be found in the HP Virtual Connect Release Notes that can be found in the following URL: http://www.hp.com/go/vc/manuals

Enhancements

The latest list of enhancements can be found in the HP Virtual Connect Release Notes that can be found in the following URL: http://www.hp.com/go/vc/manuals

Supported Devices and Features

- HP Flex-10 10Gb Virtual Connect Ethernet Module for c-Class BladeSystem
- HP Virtual Connect FlexFabric 10Gb/24-port Module for c-Class BladeSystem
- HP Virtual Connect 4Gb Fibre Channel Module for c-Class BladeSystem
- HP Virtual Connect 8Gb 24-port Fibre Channel Module for c-Class BladeSystem
- HP Virtual Connect 8Gb 20-port Fibre Channel Module for c-Class BladeSystem
- HP Virtual Connect Flex-10/10D Module for c-Class BladeSystem
- HP Virtual Connect FlexFabric-20/40 F8 Module for HP BladeSystem c-Class
- HP Virtual Connect 16Gb 24-port Fibre Channel Module for c-Class BladeSystem
HP BladeSystem c-Class Virtual Connect Firmware, Ethernet plus 4/8Gb 20-port and 8/16Gb 24-port FC Edition Component for Linux
Version: 4.45 (Recommended)
Filename: CP026527.md5; CP026527.scexe; RPM5/i386/hp-firmware-vc4gb-4.45-1.1.i386.rpm

Prerequisites

The latest version of HP Virtual Connect Release Notes contains the prerequisites and can be found in the following URL: [http://www.hp.com/go/vc/manuals](http://www.hp.com/go/vc/manuals)

Fixes

The latest list of issues resolved can be found in the HP Virtual Connect Release Notes that can be found in the following URL: [http://www.hp.com/go/vc/manuals](http://www.hp.com/go/vc/manuals)

Enhancements

The latest list of enhancements can be found in the HP Virtual Connect Release Notes that can be found in the following URL: [http://www.hp.com/go/vc/manuals](http://www.hp.com/go/vc/manuals)

Supported Devices and Features

- HP Flex-10 10Gb Virtual Connect Ethernet Module for c-Class BladeSystem
- HP Virtual Connect FlexFabric 10Gb/24-port Module for c-Class BladeSystem
- HP Virtual Connect 4Gb Fibre Channel Module for c-Class BladeSystem
- HP Virtual Connect 8Gb 24-port Fibre Channel Module for c-Class BladeSystem
- HP Virtual Connect 8Gb 20-port Fibre Channel Module for c-Class BladeSystem
- HP Virtual Connect Flex-10/10D Module for c-Class BladeSystem
- HP Virtual Connect FlexFabric-20/40 F8 Module for HP BladeSystem c-Class
- HP Virtual Connect 16Gb 24-port Fibre Channel Module for c-Class BladeSystem

Online HP 3Gb SAS BL Switch Firmware Smart Component for Windows
Version: 2.2.17.0 (B) (Optional)
Filename: cp023979.exe

Important Note!

- Customers who already installed firmware version 2.2.17.0 do not need to update to 2.2.17.0 (B).

Component packaging has been updated; no impact to product’s functionality.
Enhancements

Enhancements/New Features:

- The HP 3Gb SAS Switch will now publish external IP addresses to Onboard Administrator versions 3.20 or later instead of the internal IP address.
- Component packaging has been updated; no impact to product’s functionality.

Online HP 6Gb SAS BL Switch Firmware Smart Component for Linux (x86/x64)
Version: 4.2.1.0 (Recommended)
Filename: RPMS/i586/hp-firmware-solex6gb-solex-4.2.1.0-1.1.i586.rpm

Fixes

- When a HP 6Gb SAS BL Switch is configured with a very large number of physical drive bays (such as, 400 or more) and/or a large number of zone groups (such as, 16 or more), the switch manager GUI may not be able to load the configuration and show enclosure information.

Online HP 6Gb SAS BL Switch Firmware Smart Component for Windows (x86/x64)
Version: 4.2.1.0 (Recommended)
Filename: cp027389.exe

Fixes

- When a HP 6Gb SAS BL Switch is configured with a very large number of physical drive bays (such as, 400 or more) and/or a large number of zone groups (such as, 16 or more), the switch manager GUI may not be able to load the configuration and show enclosure information.

Online HP BladeSystem c-Class Onboard Administrator Firmware Component for Linux
Version: 4.50 (Optional)
Filename: CP026220.md5; CP026220.scexe; RPMS/x86_64/hp-firmware-oa-4.50-1.1.x86_64.rpm

Important Note!

Update to this firmware version if any documented fixes or enhanced functionality provided by this version would be useful to your system.

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 HP 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 HP ProLiant BL servers. (When using HP SUM to create the custom ISO image, select Firmware as the Component Type, and select HP ProLiant BL Series as the Server Type.) For information about creating a custom ISO image compatible for OA EFM functionality, see the *HP BladeSystem Onboard Administrator User Guide*. More HP SUM information can be found via HP Smart Update Manager online help or at [http://www.hp.com/go/hpsum/documentation](http://www.hp.com/go/hpsum/documentation).

**FIPS**

**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**
  - Fixed an issue which was seen when connecting to the OA from HP SIM using a LDAP account with the user name containing an exclamation character (!) for the SSO.
  - Fixed an issue where LDAP search contexts are showing empty after firmware is upgraded in FIPS Mode.
Fixed an issue where a customer logging in to OA using AD/LDAP credentials as a member of both Domain Administrators and Domain Users groups, and where one enclosure is given Domain Administrators access to the full administrative rights of the enclosure, and the other is given Domain Users limited access.

Corrected a display issue where iLO logs listed in OA shows the order of events sorted incorrectly when the events are more than a year old. The events are displayed sorted on the month and hence events that occurred in the same month in two different years are incorrectly displayed together. The sorting now considers the year also.

Fixed an issue where the Device Bay Information page does not show the Management Processor/iLO NIC details under the Server NIC Information table, when the server is powered down.

Fixed an issue where OA reports incorrect values for Caution and Critical temperature limits when a blade is in Telco Mode.

Addressed an issue where Connect Server Serial command used to fail when server

**FIPS**
- Fixed an issue which prevented transition to FIPS mode OFF when the enclosure is in FIPS-Degraded state. The same failure was seen when the transition was performed on a linked enclosure which was in FIPS-Degraded state. The issue has been addressed and the FIPS mode transition is allowed.

**EFM**
- Addressed issues that would result in EFM failure with the following error messages:
  - Failed to boot ISO
  - Unable to Monitor HPSUM

**Security**

The following security vulnerabilities were fixed:

- CVE-2015-0204 – A remote server can supply a weak RSA temporary key for a non-export RSA key exchange cipher suite to downgrade the session security.
- CVE-2015-0286 - A vulnerability in ASN1_TYPE_cmp function can be exploited to launch a DoS (Denial of Service) attack by causing a crash during certificate validation operation.
- CVE-2015-3144 – A vulnerability can be exploited to allow remote attackers to cause a denial of service (out-of-bounds read or write and crash) or possibly have other unspecified impact.
- CVE-2015-3153 – The default CURL configuration sends custom HTTP headers to both the proxy and destination server, which might allow remote proxy servers to obtain sensitive information by reading the header contents.
- CVE-2015-2922 – A vulnerability in the Linux kernel can be exploited by sending a crafted Router Advertisement message and setting a low IPV6 hop limit and in turn cause DoS (Denial of Service).
- CVE-2015-1789 – A vulnerability in some OpenSSL versions allows remote attackers to cause a denial of service (out-of-bounds read and application crash) via a crafted length field in ASN1_TIME data.
- CVE-2015-1791 – A vulnerability in some OpenSSL versions allows remote attackers to cause a denial of service (double free and application crash) or possibly have unspecified other impact by providing a NewSessionTicket during an attempt to reuse a ticket that had been obtained earlier.

**Enhancements**

Onboard Administrator 4.50 provides support for the following enhancements:

- **Hardware Additions**
Added support for HP 2650W PSU -US PLATINUM DC c7000 power supplies.

Features Additions and Changes

- **General**
  - Introduced a standardized code signing and validation mechanism to enhance the firmware image authenticity.
  - Enhanced the OA CLI SET FACTORY command to set the Administrator password to the factory default "toe tag" password. This helps customers reset the module to the factory defaults including the password.
  
  New CLI command: SET FACTORY [RESTORE_FACTORY_PASSWORD]

- Enhanced the OA firmware to notify users when the network connectivity of the Standby OA is lost. This helps users restore the Standby OA’s connectivity to maintain redundancy.
- Added an option to allow selection of UEFI Target as a One Time Boot option for UEFI enabled blade servers. Now USB, UEFI_SHELL and UEFI_TARGET options have been added as One Time Boot options. The option has been added in both GUI and CLI.
- The OA bay number is now indicated in the Enclosure TCP/IP Settings page so users can know which bay currently hosts the Active and Standby OA module. The bay number labels would be shifted based on the Active-Standby role transition.
- Added diagnostics for Enclosure management network flooding situations. Now, in the enclosure management network flooding situations, OA will report the top 5 IP addresses in the network that are contributing to the network flood. This will help the customers to identify the source of the flood and take appropriate action.

- **Remote Support**
  - As an enhancement, SNMP traps for Insight Remote Support service event transmission failures have been added to enable users to monitor this specific trap to identify any service event transmission failures.
  - Added Insight Remote Support service event for indicating low OA RTC battery condition. The service event will give information on the OA module in which the battery is low or failed and the spare part for the replacement battery.

- **EFM**
  - Added a feature to prevent the flashing of OA firmware while the EFM process is in progress, thereby preventing the devices from getting into an indeterminate state.
  - Enhancements in the EFM feature have been made to handle issues seen in servers that take a longer duration to boot up.
  - Added a syslog notification when the EFM ISO is changed as to indicate the change to users.

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**Online HP BladeSystem c-Class Onboard Administrator Firmware Component for Windows**

Version: 4.50 (Optional)
Filename: cp026221.exe

**Important Note!**
Update to this firmware version if any documented fixes or enhanced functionality provided by this version would be useful to your system.

**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 HP 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 HP ProLiant BL servers. (When using HP SUM to create the custom ISO image, select Firmware as the Component Type, and select HP ProLiant BL Series as the Server Type.) For information about creating a custom ISO image compatible for OA EFM functionality, see the HP BladeSystem Onboard Administrator User Guide. More HP SUM information can be found via HP Smart Update Manager online help or at http://www.hp.com/go/hpsum/documentation.

- **FIPS**

- **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**
  - Fixed an issue which was seen when connecting to the OA from HP SIM using a LDAP account with the user name containing an exclamation character (!) for the SSO.
  - Fixed an issue where LDAP search contexts are showing empty after firmware is upgraded in FIPS Mode.
  - Fixed an issue where a customer logging in to OA using AD/LDAP credentials as a member of both Domain Administrators and Domain Users groups, and where one enclosure is given Domain Administrators access to the full administrative rights of the enclosure, and the other is given Domain Users limited access.
  - Corrected a display issue where iLO logs listed in OA shows the order of events sorted incorrectly when the events are more than a year old. The events are displayed sorted on the month and hence events that occurred in the same month in two different years are incorrectly displayed together. The sorting now considers the year also.
  - Fixed an issue where the Device Bay Information page does not show the Management Processor/iLO NIC details under the Server NIC Information table, when the server is powered down.
  - Fixed an issue where OA reports incorrect values for Caution and Critical temperature limits when a blade is in Telco Mode.
  - Addressed an issue where Connect Server Serial command used to fail when server is powered down.

- **FIPS**
  - Fixed an issue which prevented transition to FIPS mode OFF when the enclosure is in FIPS-Degraded state. The same failure was seen when the transition was performed on a linked enclosure which was in FIPS-Degraded state. The issue has been addressed and the FIPS mode transition is allowed.

- **EFM**
  - Addressed issues that would result in EFM failure with the following error messages:
    - Failed to boot ISO
    - Unable to Monitor HPSUM

- **Security**

The following security vulnerabilities were fixed:

- **CVE-2015-0204** – A remote server can supply a weak RSA temporary key for a non-export RSA key exchange cipher suite to downgrade the session security.
- **CVE-2015-0286** – A vulnerability in ASN1_TYPE_cmp function can be exploited to launch a DoS (Denial of Service) attack by causing a crash during certificate validation operation.
- **CVE-2015-3144** – A vulnerability can be exploited to allow remote attackers to cause a denial of service (out-of-bounds read or write and crash) or possibly have other unspecified impact.
- **CVE-2015-3153** – The default CURL configuration sends custom HTTP headers to both the proxy and destination server, which might allow remote proxy servers to obtain sensitive information by reading the header contents.
- **CVE-2015-2922** – A vulnerability in the Linux kernel can be exploited by sending a crafted Router Advertisement message and setting a low IPV6 hop limit and in turn cause DoS (Denial of Service).
- **CVE-2015-1789** – A vulnerability in some OpenSSL versions allows remote attackers to cause a denial of service (out-of-bounds read and application crash) via a crafted length field in ASN1_TIME data.
- **CVE-2015-1791** – A vulnerability in some OpenSSL versions allows remote attackers to cause a denial of service (double free and application crash) or possibly have unspecified other impact by providing a NewSessionTicket during an attempt to reuse a ticket that had been obtained earlier.
Enhancements

Onboard Administrator 4.50 provides support for the following enhancements:

- **Hardware Additions**
  - Added support for HP 2650W PSU -US PLATINUM DC c7000 power supplies.

Features Additions and Changes

- **General**
  - Introduced a standardized code signing and validation mechanism to enhance the firmware image authenticity.
  - Enhanced the OA CLI SET FACTORY command to set the Administrator password to the factory default "toe tag" password. This helps customers reset the module to the factory defaults including the password.
  
  New CLI command: **SET FACTORY [RESTORE_FACTORY_PASSWORD]**

- Enhanced the OA firmware to notify users when the network connectivity of the Standby OA is lost. This helps users restore the Standby OA’s connectivity to maintain redundancy.
- Added an option to allow selection of UEFI Target as a One Time Boot option for UEFI enabled blade servers. Now USB, UEFI_SHELL and UEFI_TARGET options have been added as One Time Boot options. The option has been added in both GUI and CLI.
- The OA bay number is now indicated in the Enclosure TCP/IP Settings page so users can know which bay currently hosts the Active and Standby OA module. The bay number labels would be shifted based on the Active-Standby role transition.
- Added diagnostics for Enclosure management network flooding situations. Now, in the enclosure management network flooding situations, OA will report the top 5 IP addresses in the network that are contributing to the network flood. This will help the customers to identify the source of the flood and take appropriate action.

- **Remote Support**
  - As an enhancement, SNMP traps for Insight Remote Support service event transmission failures have been added to enable users to monitor this specific trap to identify any service event transmission failures.
  - Added Insight Remote Support service event for indicating low OA RTC battery condition. The service event will give information on the OA module in which the battery is low or failed and the spare part for the replacement battery.

- **EFM**
  - Added a feature to prevent the flashing of OA firmware while the EFM process is in progress, thereby preventing the devices from getting into an indeterminate state.
  - Enhancements in the EFM feature have been made to handle issues seen in servers that take a longer duration to boot up.
  - Added a syslog notification when the EFM ISO is changed as to indicate the change to users.
Firmware - Lights-Out Management

Firmware CD Supplemental Update / Online ROM Flash Component for Linux - HP
Integrated Lights-Out 2
Version: 2.27 (Recommended)
Filename: CP025666.scexe

Fixes

- Fixes
  - Addressed possible security vulnerabilities mentioned in the HP Software Security Response Team reports SSRT101745 and SSRT101886.
  - Disabled SSL version 3. iLO 2 2.27 and later supports only TLS 1.0.
  - Addressed CVE-2014-0224 false positive.
  - The current user cannot be deleted by using the RIBCL command DELETE_CURRENT_USER.

Enhancements

- Enhancements
  - Added a CLI command to enable or disable the SSLv3 cryptographic protocol. The command is "set /map1/config1 oemhp_ssl_v3_enable=yes" to enable SSLv3 or "set /map1/config1 oemhp_ssl_v3_enable=no" to disable SSLv3. iLO will reset if the command state transitions from yes to no or from no to yes.
  - Hard drive status reporting on the System Health Summary web page now displays smart errors.
  - Added additional permission attributes to the JAR Manifest file for the Java Remote Console and Virtual Media applets.
  - Added a watchdog timer for firmware lockups. iLO 2 will reboot if the firmware does not respond for 60 minutes.
  - Added support for retrieving a certificate from a trusted HP SIM 7.0 and later server.

Firmware CD Supplemental Update / Online ROM Flash Component for Linux - HP
Integrated Lights-Out 3
Version: 1.85 (Recommended)
Filename: CP026424.scexe

Important Note!

KNOWN ISSUES:

- Authentication may work intermittently if you have a large number of Active Directory groups.

Prerequisites

Customers running a version of iLO 3 previous to v1.20 must upgrade v1.20 before upgrading to this version. iLO 3 v1.20 may be obtained from the following FTP locations:


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**Fixes**

- G7 blade servers report that maximum power is allocated after an iLO 3 1.80 firmware upgrade.
- iLO 3 does not accept the 100.64/10 IP address range for an SNTP client.
- iLO 3 LDAP client could fail, if DNS server returns more than 15 IPv6 addresses for LDAP Servers.
- DHCP client could fail to renew IP address.
- Unable to import SSL Certificates with RSASSA-PSS signatures.
- Virtual CDROM could randomly disconnect when booting to Microsoft Deployment Toolkit ISOs.
- Blade server could fail to power ON from Wake-On-LAN.
- iLO doesn’t connect to hosts using 100.64/10 IPv4 address range.
- LDAP authentication fails when password contains diacritic characters.
- Inconsistency between IPv4 and IPv6 when FIPS mode is enabled.
- SSO certificate import could fail or, iLO could incorrectly report that the database is full.
- After deleting a SSO Certificate, a corrupted one could be displayed.
- Workaround for IPMITool issue that requires two runs for flags to take effect on boot parameters.
- Unhandled Error message when toggling Drive UID while the server is in early POST.
- IML not including complete POST Error message.
- IPMI Get Session Info returning wrong user Id.
- iLO CLI and RIBCL accept invalid iLO host and domain names.
- iLO rebooting when modifying Access Options in the GUI and Port conflicts are detected.
- IPMI Get Interface Capabilities wasn’t returning error completion code when querying about SSIF.
- Workaround for IPMITool issue where link=on is defaulted to for set user access causing issues for user additions.
- Added oem parameter 194 (mac address) for get system information parameters.
- Added support for ipmi get device guid.
- SL390s G7 with GPUs could log false over temperatures warnings into IML.

**Enhancements**

- Added support for ‘Get Sensor Event Enable’ command.
- Added support for IPMI over IPv6 when iLO has multiple IPv6 addresses.

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**Firmware CD Supplemental Update / Online ROM Flash Component for Linux - HP Integrated Lights-Out 4**

Version: 2.30 *(Optional)*
Filename: CP026236.scexe; RPMS/i386/hp-firmware-ilo4-2.30-1.1.i386.rpm

**Important Note!**

- IPv6 network communications - Dedicated network connection only
- Supported Networking Features
  - IPv6 Static Address Assignment
  - IPv6 SLAAC Address Assignment

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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
For best performance and IPv6 support, HP recommends upgrading to the latest versions of the iLO utilities:

- HPQLOCFG 1.20 (replaced CPQLOCFG)
- HP Lights-Out XML Scripting Sample 4.40 bundle
- HPONCFG 4.4.0.0
- LOCFG.PL 4.40 (included in the HP Lights-Out XML Scripting Sample bundle)
- HPLOMIG 4.40 (upgrade HPLOMIG before installing this version of iLO 4)

Fixes
The following issues are resolved in this version:

- The iLO Federation group licensing feature does not decode license keys.
- A RESTful API Power Supply Health Status Warning occurs when no power supply is installed.
- License keys are displayed when snmpwalk is used.
- An incorrect URL is displayed for newly-registered providers.
- On Gen8 servers, when a TPM is present and enabled, the displayed TPM Module value is incorrect.
- On blade servers that support UEFI, an iLO CLI session hangs while executing the "show system1/bootconfig1" command.
- An incorrect error message is displayed when a user tries to edit a deleted user account.
- An LDAP login causes an invalid session URI.
- iLO hangs when a directory user tries to log in with encryption enabled.
- iLO Federation group power caps cannot be set or edited by using the RESTful API.
- On DL20 servers, MULTICAST_FEDERATION_ENABLED can be configured when the Shared Network Port is enabled.
- In Internet Explorer 11, the iLO Event Log and IML Last Update and Initial Update filter shows a blank filter option.
- A .NET IRC session closes when it is accessed by three different browser sessions.
- The wrong PSU firmware version is displayed in the iLO web interface and SNMP.
- A RESTful API Property Unknown Response message occurs during a firmware update.
- A RESTful API Property Unknown Response message occurs when iLO Functionality is set to Disabled.
- A RESTful API Property Unknown Response message occurs when the Virtual Power Press And Hold option is used.
- The RESTful API cannot be used to set iLO to the factory default settings.
- An error occurs when the Set_Persistent_Boot_Order.xml script is used on servers that support UEFI.
- A 500 Internal Server Error occurs when an Email Address, Sender Domain, or SMTP Server value with 63 characters is entered on the AlertMail page.
- The AlertMailEmail parameter does not display complete email addresses.
- External Storage trap events are not sent to the HP Support Center.
- The following error occurs during POST: 338-HP RESTful API Error - Unable to communicate with iLO FW.
- Test events can be sent when HP remote support is not configured.
- The Get_TPM_Status.xml script returns incorrect XML.
- Product names might be appended to version numbers on the Software Inventory page.
- An incorrect message is displayed when AES encryption is re-enabled by using the Mod_Global_Settings.xml script.
- When using the RESTful API, the SNMP AlertDestination does not validate the IP address.
- Acceptance of the SNMP Alert Destination IP address in the CLI and iLO web interface is inconsistent.
- Incorrect status information is displayed for empty PCI slots.
- The P840ar is displayed as a P840.
- False errors were reported after a successful Power Management Controller firmware update, and were followed by an inability to communicate with a rebooting Power Management Controller.
- Reduced the frequency of iLO Event Log additions for IPMI session login/logouts.

Enhancements

This version adds support for the following features and enhancements:

- IPMI Platform Event traps can now be sent to IPv6 destinations.
- The Smart Array drive media type is now available via SNMP, RESTful API, iLO web interface, and RIBCL.
- The Smart Array drive RPM is now available via SNMP and the RESTful API.
- Power capping can now be enabled via the RESTful API when the feature is disabled by the ROM settings.
- Support for new Access Settings options has been added to the RESTful API.
- Security enhancements:
  - Removed export ciphers from the default configuration to address false positives reported by scanning tools.
- Disabled TLS v1.0 in FIPS Mode and Enforce AES/3DES Encryption mode.
- Added SSH support for aes256-ctr cipher and hmac-sha2-256 mac to fix a connection issue in some default SSH configurations.
  - The Affected Systems list on iLO Federation pages can be exported to a CSV file.
  - The iLO Event Log is now searchable and can be filtered by event severity, last update, or initial update.
  - The IML is now searchable and can be filtered by event severity, class, last update, or initial update.
  - The following service event types are now supported by HP remote support:
    - SAS Physical Drive Status Changed Event
    - Storage System Fan Status Changed Event
    - Storage System Power Supply Status Changed Event
  - The new Chassis Information page is displayed for Apollo servers and SL and XL servers. For these server types, some information from the System Information > Power page has been moved to this page.
  - The new Software Information page displays HP and HP-recommended third-party software, running software, and installed software.
  - Troubleshooting information is available for selected IML events. Supported events are displayed as links in the Description column on the IML page.
  - Servers with a TPM or TM display the module type on the iLO Overview page.
  - Added a new IPMI OEM command to change channel assignments.
  - Increased the number of concurrent IPMI sessions.
  - Updated to DCMI 1.1, parameter revision 2.
  - Added IPMI over IPv6 support.
  - IPMI memory events in SEL now include the DIMM number.

Firmware CD Supplemental Update / Online ROM Flash Component for VMware ESXi - HP Integrated Lights-Out 3
Version: 1.85 (Recommended)
Filename: CP026423.zip

Important Note!

KNOWN ISSUES:

- Authentication may work intermittently if you have a large number of Active Directory groups.

Prerequisites
Customers running a version of iLO 3 previous to v1.20 must upgrade v1.20 before upgrading to this version. iLO 3 v1.20 may be obtained from the following FTP locations:


Fixes
G7 blade servers report that maximum power is allocated after an iLO 3 1.80 firmware upgrade.

- iLO 3 does not accept the 100.64/10 IP address range for an SNTP client.
- iLO 3 LDAP client could fail, if DNS server returns more than 15 IPv6 addresses for LDAP Servers.
- DHCP client could fail to renew IP address.
- Unable to import SSL Certificates with RSA-PSS signatures.
- Virtual CDROM could randomly disconnect when booting to Microsoft Deployment Toolkit ISOs.
- Blade server could fail to power ON from Wake-On-LAN.
- iLO doesn’t connect to hosts using 100.64/10 IPv4 address range.
- LDAP authentication fails when password contains diacritic characters.
- Inconsistency between IPv4 and IPv6 when FIPS mode is enabled.
- SSO certificate import could fail or, iLO could incorrectly report that the database is full.
- After deleting a SSO Certificate, a corrupted one could be displayed.
- Workaround for IPMITool issue that requires two runs for flags to take effect on boot parameters.
- Unhandled Error message when toggling Drive UID while the server is in early POST.
- IML not including complete POST Error message.
- IPMI Get Session Info returning wrong user Id.
- iLO CLI and RIBCL accept invalid iLO host and domain names.
- iLO rebooting when modifying Access Options in the GUI and Port conflicts are detected.
- IPMI Get Interface Capabilities wasn’t returning error completion code when querying about SSIF.
- Workaround for IPMITool issue where link=on is defaulted to for set user access causing issues for user additions.
- Added oem parameter 194 (mac address) for get system information parameters.
- Added support for ipmi get device guid.
- SL390s G7 with GPUs could log false over temperatures warnings into IML.

**Enhancements**

- Added support for 'Get Sensor Event Enable' command.
- Added support for IPMI over IPv6 when iLO has multiple IPv6 addresses.

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**Online ROM Flash Component for Windows - HP Integrated Lights-Out 2**

**Version:** 2.27 *(Recommended)*

**Filename:** cp025665.exe

**Fixes**

- Fixed
  - Addressed possible security vulnerabilities mentioned in the HP Software Security Response Team reports SSRT101745 and SSRT101886.
  - Disabled SSL version 3. iLO 2 2.27 and later supports only TLS 1.0.
  - Addressed CVE-2014-0224 false positive.
  - The current user cannot be deleted by using the RIBCL command DELETE_CURRENT_USER.

**Enhancements**

- Enhanced
  - Added a CLI command to enable or disable the SSLv3 cryptographic protocol. The command is "set /map1/config1 oemhp_ssl_v3_enable=yes" to enable SSLv3 or "set /map1/config1
oemhp_ssl_v3_enable=no" to disable SSLv3. iLO will reset if the command state transitions from yes to no or from no to yes.

- Hard drive status reporting on the System Health Summary web page now displays smart errors.
- Added additional permission attributes to the JAR Manifest file for the Java Remote Console and Virtual Media applets.
- Added a watchdog timer for firmware lockups. iLO 2 will reboot if the firmware does not respond for 60 minutes.
- Added support for retrieving a certificate from a trusted HP SIM 7.0 and later server.

**Online ROM Flash Component for Windows - HP Integrated Lights-Out 3**

Version: 1.85 *(Recommended)*
Filename: cp026425.exe

**Important Note!**

**KNOWN ISSUES:**

- Authentication may work intermittently if you have a large number of Active Directory groups.

**Prerequisites**

Customers running a version of iLO 3 previous to v1.20 must upgrade v1.20 before upgrading to this version. iLO 3 v1.20 may be obtained from the following FTP locations:


**Fixes**

- G7 blade servers report that maximum power is allocated after an iLO 3 1.80 firmware upgrade.
- iLO 3 does not accept the 100.64/10 IP address range for an SNTP client.
- iLO 3 LDAP client could fail, if DNS server returns more than 15 IPv6 addresses for LDAP Servers.
- DHCP client could fail to renew IP address.
- Unable to import SSL Certificates with RSASSA-PSS signatures.
- Virtual CDROM could randomly disconnect when booting to Microsoft Deployment Toolkit ISOs.
- Blade server could fail to power ON from Wake-On-LAN.
- iLO doesn't connect to hosts using 100.64/10 IPv4 address range.
- LDAP authentication fails when password contains diacritic characters.
- Inconsistency between IPv4 and IPv6 when FIPS mode is enabled.
- SSO certificate import could fail or, iLO could incorrectly report that the database is full.
- After deleting a SSO Certificate, a corrupted one could be displayed.
- Workaround for IPMITool issue that requires two runs for flags to take effect on boot parameters.
-Unhandled Error message when toggling Drive UID while the server is in early POST.
-IML not including complete POST Error message.
-IPMI Get Session Info returning wrong user Id.
iLO CLI and RIBCL accept invalid iLO host and domain names.
iLO rebooting when modifying Access Options in the GUI and Port conflicts are detected.
o IPMI Get Interface Capabilities wasn’t returning error completion code when querying about SSIF.
o Workaround for IPMITool issue where link=on is defaulted to for set user access causing issues for user additions.
o Added oem parameter 194 (mac address) for get system information parameters.
o Added support for ipmi get device guid.
o SL390s G7 with GPUs could log false over temperatures warnings into IML.

Enhancements

o Added support for 'Get Sensor Event Enable' command.
o Added support for IPMI over IPv6 when iLO has multiple IPv6 addresses.

Online ROM Flash Component for Windows - HP Integrated Lights-Out 4
Version: 2.30 (Optional)
Filename: cp026238.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
  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
For best performance and IPv6 support, HP recommends upgrading to the latest versions of the iLO utilities:

- HPQLOCFG 1.20 (replaced CPQLOCFG)
- HP Lights-Out XML Scripting Sample 4.40 bundle
- HPONCFG 4.4.0.0
- LOCFG.PL 4.40 (included in the HP Lights-Out XML Scripting Sample bundle)
- HPLOMIG 4.40 (upgrade HPLOMIG before installing this version of iLO 4)

Fixes
The following issues are resolved in this version:

- The iLO Federation group licensing feature does not decode license keys.
- A RESTful API Power Supply Health Status Warning occurs when no power supply is installed.
- License keys are displayed when snmpwalk is used.
- An incorrect URL is displayed for newly-registered providers.
- On Gen8 servers, when a TPM is present and enabled, the displayed TPM Module value is incorrect.
- On blade servers that support UEFI, an iLO CLI session hangs while executing the "show system1/bootconfig1" command.
- An incorrect error message is displayed when a user tries to edit a deleted user account.
- An LDAP login causes an invalid session URL.
- iLO hangs when a directory user tries to log in with encryption enabled.
- iLO Federation group power caps cannot be set or edited by using the RESTful API.
- On DL20 servers, MULTICAST_FEDERATION_ENABLED can be configured when the Shared Network Port is enabled.
- In Internet Explorer 11, the iLO Event Log and IML Last Update and Initial Update filter shows a blank filter option.
- A .NET IRC session closes when it is accessed by three different browser sessions.
- The wrong PSU firmware version is displayed in the iLO web interface and SNMP.
- A RESTful API Property Unknown Response message occurs during a firmware update.
- A RESTful API Property Unknown Response message occurs when iLO Functionality is set to Disabled.
- A RESTful API Property Unknown Response message occurs when the Virtual Power Press And Hold option is used.
- The RESTful API cannot be used to set iLO to the factory default settings.
- An error occurs when the Set_Persistent_Boot_Order.xml script is used on servers that support UEFI.
- A 500 Internal Server Error occurs when an Email Address, Sender Domain, or SMTP Server value with 63 characters is entered on the AlertMail page.
- The AlertMailEmail parameter does not display complete email addresses.
- External Storage trap events are not sent to the HP Support Center.
- The following error occurs during POST: 338-HP RESTful API Error - Unable to communicate with iLO FW.
- Test events can be sent when HP remote support is not configured.
- The Get_TPM_Status.xml script returns incorrect XML.
- Product names might be appended to version numbers on the Software Inventory page.
- An incorrect message is displayed when AES encryption is re-enabled by using the Mod_Global_Settings.xml script.
- When using the RESTful API, the SNMP AlertDestination does not validate the IP address.
- Acceptance of the SNMP Alert Destination IP address in the CLI and iLO web interface is inconsistent.
- Incorrect status information is displayed for empty PCI slots.
- The P840ar is displayed as a P840.
- False errors were reported after a successful Power Management Controller firmware update, and were followed by an inability to communicate with a rebooting Power Management Controller.
- Reduced the frequency of iLO Event Log additions for IPMI session login/logouts.

**Enhancements**

This version adds support for the following features and enhancements:

- IPMI Platform Event traps can now be sent to IPv6 destinations.
- The Smart Array drive media type is now available via SNMP, RESTful API, iLO web interface, and RIBCL.
- The Smart Array drive RPM is now available via SNMP and the RESTful API.
- Power capping can now be enabled via the RESTful API when the feature is disabled by the ROM settings.
- Support for new Access Settings options has been added to the RESTful API.
- Security enhancements:
  - Removed export ciphers from the default configuration to address false positives reported by scanning tools.
  - Disabled TLS v1.0 in FIPS Mode and Enforce AES/3DES Encryption mode.
  - Added SSH support for aes256-ctr cipher and hmac-sha2-256 mac to fix a connection issue in some default SSH configurations.
- The Affected Systems list on iLO Federation pages can be exported to a CSV file.
- The iLO Event Log is now searchable and can be filtered by event severity, last update, or initial update.
- The IML is now searchable and can be filtered by event severity, class, last update, or initial update.
- The following service event types are now supported by HP remote support:
  - SAS Physical Drive Status Changed Event
  - Storage System Fan Status Changed Event
  - Storage System Power Supply Status Changed Event
- The new Chassis Information page is displayed for Apollo servers and SL and XL servers. For these server types, some information from the System Information > Power page has been moved to this page.
- The new Software Information page displays HP and HP-recommended third-party software, running software, and installed software.
- Troubleshooting information is available for selected IML events. Supported events are displayed as links in the Description column on the IML page.
- Servers with a TPM or TM display the module type on the iLO Overview page.
- Added a new IPMI OEM command to change channel assignments.
- Increased the number of concurrent IPMI sessions.
- Updated to DCMI 1.1, parameter revision 2.
- Added IPMI over IPv6 support.
IPMI memory events in SEL now include the DIMM number.

---

**Firmware - Network**

**HP QLogic P3 Online Firmware Upgrade Utility for Windows Server x64 Editions**

Version: 4.0.0.21 (Optional)
Filename: cp025867.exe

**Prerequisites**

This package requires the appropriate driver version for your network adapter be installed before firmware can be updated. This package requires one of the following, as appropriate for your platform:

- HP QLogic P3P Multifunction Driver for Windows Server 2008 x64 Editions, version 5.3.26.605 or later
- HP QLogic P3P Multifunction Driver for Windows Server 2008 R2, version 5.3.26.605 or later
- HP QLogic P3P Multifunction Driver for Windows Server 2012, version 5.3.26.605 or later
- HP QLogic P3P Multifunction Driver for Windows Server 2012 R2, version 5.3.26.605 or later

**Enhancements**

This product contains an updated help file and component installer.

**Supported Devices and Features**

This software supports the following HP QLogic P3 network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter

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**HP QLogic P3P Online Firmware Upgrade Utility for Windows Server x64 Editions**

Version: 4.0.0.21 (B) (Optional)
Filename: cp027417.exe

**Important Note!**

HP recommends the appropriate *HP QLogic P3P Multifunction Driver*, versions 5.3.30.1001, for use with this firmware.

**Prerequisites**

This package requires the appropriate driver for your platform be installed before firmware can be updated:

**Fixes**
This product addresses an issue that results in the Fibre Channel Ping command (fcping) taking more than 3ms for each ping.

**Supported Devices and Features**

This package supports the following network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP NC523SFP 10Gb 2-port Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

---

**HP Broadcom NX1 Online Firmware Upgrade Utility for Linux x86**

Version: 2.16.4 (B) *(Optional)*

Filename: hp-firmware-nic-broadcom-2.16.4-2.i386.rpm

**Important Note!**

HP recommends *HP Broadcom tg3 Ethernet Drivers*, versions 3.137k-6, for use with this firmware.

**Prerequisites**

This package can be used with the HP Smart Update Manager (HPSUM) version 7.0.0.0 or later. Earlier versions of HPSUM cannot install this package correctly.

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.

This package requires the HP Broadcom tg3 Ethernet Driver RPM, version 3.137k or later, be installed before firmware can be updated.

**Fixes**

This product addresses an issue where Gen8 systems with a HP Ethernet 1Gb 4-port 331i Adapter LOM can no longer PXE boot after a firmware update.

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**HP Broadcom NX1 Online Firmware Upgrade Utility for Linux x86_64**

Version: 2.16.4 (B) *(Optional)*

Filename: hp-firmware-nic-broadcom-2.16.4-2.x86_64.rpm

**Important Note!**

HP recommends *HP Broadcom tg3 Ethernet Drivers*, versions 3.137k-6, for use with this firmware.

**Prerequisites**
This package can be used with the HP Smart Update Manager (HPSUM) version 7.0.0.0 or later. Earlier versions of HPSUM cannot install this package correctly.

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.

This package requires the HP Broadcom tg3 Ethernet Driver RPM be installed before firmware can be updated.

**Fixes**

This product addresses an issue where Gen8 systems with a HP Ethernet 1Gb 4-port 331i Adapter LOM can no longer PXE boot after a firmware update.

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**HP Broadcom NX1 Online Firmware Upgrade Utility for VMware**

Version: 1.8.7 *(Optional)*

Filename: CP027931.txt; CP027931.zip

**Important Note!**

HP recommends *HP Broadcom tg3 Ethernet Drivers for VMware*, versions 2015.10.01, for use with this firmware.

**Prerequisites**

This package requires the appropriate HP Broadcom driver for VMware for your device to be installed before firmware can be updated.

**Fixes**

This product addresses an issue where Gen8 systems with a HP Ethernet 1Gb 4-port 331i Adapter LOM can no longer PXE boot after a firmware update.

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**HP Broadcom NX1 Online Firmware Upgrade Utility for Windows Server 2008**

Version: 5.0.0.1 (B) *(Optional)*

Filename: cp027934.exe

**Important Note!**

HP recommends HP Broadcom 1Gb Driver for Windows Server 2008, version 17.2.0.0, for use with this firmware.

**Prerequisites**

This package requires the HP Broadcom 1Gb Driver for Windows Server 2008 be installed before firmware can be updated.

**Fixes**

This product addresses an issue where Gen8 systems with a HP Ethernet 1Gb 4-port 331i Adapter LOM can no longer PXE boot after a firmware update.
This product addresses an issue where Gen8 systems with a HP Ethernet 1Gb 4-port 331i Adapter LOM can no longer PXE boot after a firmware update.

**HP Broadcom NX1 Online Firmware Upgrade Utility for Windows Server x64 Editions**
Version: 5.0.0.1 (B) *(Optional)*
Filename: cp027935.exe

**Important Note!**

HP recommends HP Broadcom 1Gb Driver for Windows Server x64 Editions, version 17.2.0.0, for use with this firmware.

**Prerequisites**

This package requires the *HP Broadcom 1Gb Driver for Windows Server x64 Editions* be installed before firmware can be updated.

**Fixes**

This product addresses an issue where Gen8 systems with a HP Ethernet 1Gb 4-port 331i Adapter LOM can no longer PXE boot after a firmware update.

**HP Firmware Flash for Emulex Converged Network Adapters - Linux (x64)**
Version: 2015.10.02 *(Recommended)*
Filename: RPMS/x86_64/hp-firmware-cna-emulex-2015.10.02-1.1.x86_64.rpm

**Important Note!**

The firmware for the following CNA products is now frozen at version 4.9.416.7

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter (HP Proliant BL465c G7 Server)
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter (HP Proliant BL685c G7 Server)

**Release Notes:**

[HP StorageWorks Emulex Adapters Release Notes](http://www.hp.com/storage/spock/)

**Prerequisites**

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


The HP supplied NIC driver must be installed prior to this firmware component if you want to update the firmware for the CNA. Use the appropriate driver included in the HP Service Pack for ProLiant 2015.10.0, which is available at [www.hp.com/go/spp/download](http://www.hp.com/go/spp/download).
HP Emulex 10Gbe Driver for Linux, version 10.5.152.1-1

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 HP supplied Emulex FCoE/iSCSI driver included in HP Service Pack for Proliant 2015.10.0, which is available at www.hp.com/go/spp/download. The FCoE protocol also requires the HP Emulex Enablement Kit be installed. It's also available in HP Service Pack for Proliant 2015.10.0.

The Enablement Kit requires that the target environment have the libHBAAPI package installed from your OS installation media.

Install the FC/FCoE Driver Kit, reboot, and then install the Enablement Kit.

Fixes

Firmware

CNA (BE3) - 10.5.155.0

- Resolves an issue where after updating the firmware to 10.5.155.0 on an Emulex CNA adapter in a c-Class Virtual Connect environment with more than one uplink, only one uplink remains connected, the others are dropped.

CNA (XE100 series) - 10.5.160.0

- Resolves an issue where after updating the firmware to 10.5.156.0 on an Emulex CNA adapter in a c-Class Virtual Connect environment with more than one uplink, only one uplink remains connected, the others are dropped.

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 10.5.160.0
Updated CNA (BE3) firmware 10.5.155.0
Contains:
CNA (BE3) firmware 10.5.155.0
CNA (XE100 series) firmware 10.5.160.0
CNA (BE2) firmware 4.9.416.7

Supported Devices and Features

- HP CN1100E Dual Port Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC5525FP 10Gb 2-port Ethernet Server Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 557SFP+ Adapter

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HP Firmware Flash for Emulex Converged Network Adapters - Linux (x86)
Version: 2015.10.02 (Recommended)
Filename: RPMS/i386/hp-firmware-cna-emulex-2015.10.02-1.1.i386.rpm

Important Note!

The firmware for the following CNA products is now frozen at version 4.9.416.7

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter (HP Proliant BL465c G7 Server)
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter (HP Proliant BL685c G7 Server)

Release Notes:

[HP StorageWorks Emulex Adapters Release Notes](http://www.hp.com/storage/spock/)

Prerequisites

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

The HP supplied NIC driver must be installed prior to this firmware component if you want to update the firmware for the CNA. Use the appropriate driver included in the HP Service Pack for ProLiant 2015.10.0, which is available at [www.hp.com/go/spp/download](http://www.hp.com/go/spp/download).

HP Emulex 10Gbe Driver for Linux, version 10.5.152.1-1

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 HP supplied Emulex FCoE/iSCSI driver included in HP Service Pack for ProLiant 2015.10.0, which is available at [www.hp.com/go/spp/download](http://www.hp.com/go/spp/download). The FCoE protocol also requires the HP Emulex Enablement Kit be installed. It’s also available in HP Service Pack for ProLiant 2015.10.0.

The Enablement Kit requires that the target environment have the libHBAAPI package installed from your OS installation media.

Install the FC/FCoE Driver Kit, reboot, and then install the Enablement Kit.

**Fixes**

**Firmware**

CNA (BE3) - 10.5.155.0

- Resolves an issue where after updating the firmware to 10.5.155.0 on an Emulex CNA adapter in a c-Class Virtual Connect environment with more than one uplink, only one uplink remains connected, the others are dropped.

**Enhancements**

We have separate components to update fibre channel and converged network adapters. This is a converged network adapter update component.

Updated CNA (BE3) firmware 10.5.155.0

Contains:

CNA (BE3) firmware 10.5.155.0

CNA (BE2) firmware 4.9.416.7
Supported Devices and Features

- HP CN1100E Dual Port Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC5525FP 10Gb 2-port Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter

HP Firmware Flash for Emulex Converged Network Adapters - Windows (x64)
Version: 2015.10.02 (Recommended)
Filename: cp027732.exe

Important Note!

The firmware for the following CNA products is now frozen at version 4.9.416.7

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter (HP Proliant BL465c G7 Server)
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter (HP Proliant BL685c G7 Server)

Release Notes:

HP StorageWorks Emulex Adapters Release Notes

Prerequisites

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

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

The HP supplied Emulex NIC driver must be installed prior to this firmware component being identified by HP SUM for deployment. Use the appropriate driver included in the HP Support Pack for ProLiant 2015.10.0, which is available at www.hp.com/go/spp/download:

HP Emulex 10GbE Driver for Windows Server 2008 x64 Editions v10.5.121.7 cp026413.exe
HP Emulex 10GbE Driver for Windows Server 2008 R2 v10.5.121.7 cp026414.exe
HP Emulex 10Gbe Driver for Windows Server 2012 v10.5.121.7 cp026415.exe
HP Emulex 10Gbe Driver for Windows Server 2012 R2 v10.5.121.7 cp026416.exe

Note: To enable the FCoE/ISCSI protocol on devices that support it, please install the appropriate HP supplied Emulex FCoE/ISCSI driver included in HP Service Pack for Proliant 2015.10.0, which is available at www.hp.com/go/spp/download.

Fixes
Firmware

CNA (BE3) - 10.5.155.0

- Resolves an issue where after updating the firmware to 10.5.155.0 on an Emulex CNA adapter in a c-Class Virtual Connect environment with more than one uplink, only one uplink remains connected, the others are dropped.

CNA (XE100 series) - 10.5.160.0

- Resolves an issue where after updating the firmware to 10.5.160.0 on an Emulex CNA adapter in a c-Class Virtual Connect environment with more than one uplink, only one uplink remains connected, the others are dropped.

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 10.5.160.0
Updated CNA (BE3) firmware 10.5.155.0

Contains:
CNA (BE3) firmware 10.5.155.0
CNA (XE100 series) firmware 10.5.160.0
CNA (BE2) firmware 4.9.416.7

Supported Devices and Features

- HP CN1100E Dual Port Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 557SFP+ Adapter
HP Firmware Flash for Emulex Converged Network Adapters - Windows (x86)
Version: 2015.10.02 (Recommended)
Filename: cp027733.exe

Important Note!

The firmware for the following CNA products is now frozen at version 4.9.416.7

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter (HP Proliant BL465c G7 Server)
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter (HP Proliant BL685c G7 Server)

Release Notes:

HP StorageWorks Emulex Adapters Release Notes

Prerequisites

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

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

The HP supplied Emulex NIC driver must be installed prior to this firmware component being identified by HP SUM for deployment. Use the appropriate driver included in the HP Support Pack for ProLiant 2015.10.0, which is available at www.hp.com/go/spp/download:

HP Emulex 10GbE Driver for Windows Server 2008 x86 Editions v10.5.121.7 cp026412.exe

Note: To enable the FCoE/iSCSI protocol on devices that support it, please install the appropriate HP supplied Emulex FCoE/iSCSI driver included in HP Service Pack for Proliant 2015.10.0, which is available at www.hp.com/go/spp/download.

Fixes

Firmware

CNA (BE3) - 10.5.155.0

- Resolves an issue where after updating the firmware to 10.5.155.0 on an Emulex CNA adapter in a c-Class Virtual Connect environment with more than one uplink, only one uplink remains connected, the others are dropped.

Enhancements

We have separate components to update fibre channel and converged network adapters. This is a converged network adapter update component.
Updated CNA (BE3) firmware 10.5.155.0

Contains:

CNA (BE3) firmware 10.5.155.0

CNA (BE2) firmware 4.9.416.7

**Supported Devices and Features**

- HP CN1100E Dual Port Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552FP 10Gb 2-port Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter

**HP Intel Online Firmware Upgrade Utility for Linux x86**

Version: 1.9.12 *(Optional)*

Filename: hp-firmware-nic-intel-1.9.12-1.1.i386.rpm

**Important Note!**

HP recommends the following drivers, as appropriate, for use with this firmware:

- HP Intel i40e Drivers, versions 1.2.45-10
- HP Intel i40evf Drivers, versions 1.2.34-5
- HP Intel igb Drivers, versions 5.2.17-12
- HP Intel ixgbe Drivers, versions 4.0.3-10
- HP Intel ixgbevf Drivers, versions 2.16.1-13

**Prerequisites**

This package can be used with the HP Smart Update Manager (HPSUM) version 7.0.0.0 or later. Earlier versions of HPSUM cannot install this package correctly.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**
This package supports the following 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 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i 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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

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**HP Intel Online Firmware Upgrade Utility for Linux x86_64**

Version: 1.9.12 *(Optional)*
Filename: hp-firmware-nic-intel-1.9.12-1.1.x86_64.rpm

**Important Note!**

HP recommends the following drivers, as appropriate, for use with this firmware:

- HP Intel i40e Drivers, versions 1.2.45-10
- HP Intel i40evf Drivers, versions 1.2.34-5
- HP Intel igb Drivers, versions 5.2.17-12
- HP Intel ixgbe Drivers, versions 4.0.3-10
- HP Intel ixgbevf Drivers, versions 2.16.1-13

**Prerequisites**

This package can be used with the HP Smart Update Manager (HPSUM) version 7.0.0.0 or later. Earlier versions of HPSUM cannot install this package correctly.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**

This package supports the following network adapters:

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HP Intel Online Firmware Upgrade Utility for Windows Server 2008
Version: 4.0.0.17 (C) (Optional)
Filename: cp027414.exe

**Important Note!**

HP recommends at least one of the following drivers for use with this firmware:

- HP Intel E1R Driver for Windows Server 2008, package version 12.7.29.0(C)
- HP Intel ixn/ixt Drivers for Windows Server 2008, package version 3.5.22.0(D)

**Prerequisites**

This package requires the appropriate driver version for your network adapter be installed before firmware can be updated.

**Enhancements**

This product now provides improved downgrade functionality for the HP Ethernet 10Gb 2-port 560FLB Adapter.

This product provides improved handling of directory names with embedded spaces.

**Supported Devices and Features**

This package supports the following network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter

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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 366FLR Adapter
HP Ethernet 1Gb 4-port 366i Adapter
HP Ethernet 1Gb 4-port 366M Adapter
HP Ethernet 1Gb 2-port 367i 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
HP Ethernet 10Gb 2-port 561FLR-T Adapter
HP Ethernet 10Gb 2-port 561T Adapter
HP Ethernet 10Gb 2-port 562I Adapter

**HP Intel Online Firmware Upgrade Utility for Windows Server x64 Editions**
Version: 4.0.0.17 (C) *(Optional)*
Filename: cp027415.exe

**Important Note!**
HP recommends at least one of the following for use with this firmware:

- HP Intel E1R Driver for Windows Server 2008 x64 Editions, version 12.7.29.0(C)
- HP Intel E1R Driver for Windows Server 2008 R2, version 12.11.97.0(B)
- HP Intel E1R Driver for Windows Server 2012, version 12.11.97.0(B)
- HP Intel E1R Driver for Windows Server 2012 R2, version 12.11.97.1
- HP Intel ixn/ixt Drivers for Windows Server 2008 x64 Editions, version 3.5.22.0(D)
- HP Intel ixn/ixt Drivers for Windows Server 2008 R2, version 3.9.58.9101(B)
- HP Intel ixn/ixt Drivers for Windows Server 2012, version 3.9.58.9101(B)
- HP Intel ixn/ixt Drivers for Windows Server 2012 R2, version 3.9.58.9101(B)
- HP Intel i40ea Driver, versions 1.1.121.0

**Prerequisites**
This package requires the appropriate driver for your network adapter be installed before firmware can be updated.

**Enhancements**
This product now provides improved downgrade functionality for the HP Ethernet 10Gb 2-port 560FLB Adapter.
This product provides improved handling of directory names with embedded spaces.

**Supported Devices and Features**
This package supports the following 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 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 4-port 366T Adapter
- HP Ethernet 1Gb 2-port 367i 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
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter
- HP Ethernet 10Gb 2-port 562SFLR-FP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

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**HP QLogic NX2 Online Firmware Upgrade Utility for Linux x86**

Version: 2.16.20 *(Optional)*
Filename: hp-firmware-nic-qlogic-nx2-2.16.20-1.1.i386.rpm

**Important Note**

HP recommends *HP QLogic NX2 1/10/20 GbE Multifunction Drivers*, versions 7.12.37.1-1 for use with this firmware.

**Prerequisites**

This package can be used with the HP Smart Update Manager (HPSUM) version 7.0.0.0 or later. Earlier versions of HPSUM cannot install this package correctly.

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.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

This product now supports SUSE LINUX Enterprise Server 11 SP4.

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**HP QLogic NX2 Online Firmware Upgrade Utility for Linux x86_64**

Version: 2.16.20 *(Optional)*

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Filename: hp-firmware-nic-qlogic-nx2-2.16.20-1.1.x86_64.rpm

**Important Note!**

HP recommends **HP QLogic NX2 1/10/20 GbE Multifunction Drivers**, versions 7.12.37.1-1 for use with this firmware.

**Prerequisites**

This package can be used with the HP Smart Update Manager (HPSUM) version 7.0.0.0 or later. Earlier versions of HPSUM cannot install this package correctly.

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.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

This product now supports SUSE LINUX Enterprise Server 11 SP4.

---

**HP QLogic NX2 Online Firmware Upgrade Utility for VMware**

Version: 1.9.17 *(Optional)*  
Filename: CP026245.txt; CP026245.zip

**Important Note!**

HP recommends **HP QLogic NX2 1/10/20 GbE Multifunction Drivers for VMware**, versions 2015.10.01, for use with this firmware.

**Prerequisites**

This package requires the appropriate HP QLogic NX2 driver for VMware for your device to be installed before firmware can be updated.

**Enhancements**

This product now supports VMware vSphere 6.0 Update 1.

---

**HP QLogic NX2 Online Firmware Upgrade Utility for Windows Server 2008**

Version: 4.1.0.9 *(Optional)*  
Filename: cp026231.exe

**Important Note!**

HP recommends at least one of the following drivers for use with this firmware:

- HP QLogic NX2 1Gb Multifunction Drivers for Windows Server 2008, version 7.8.50.0(D)
- HP QLogic NX2 10/20GbE Multifunction Drivers for Windows Server 2008, version 7.12.41.0
Prerequisites

This package requires the appropriate driver for your network adapter be installed before firmware can be updated.

Enhancements

This product provides improved handling of directory names with embedded spaces.

---

**HP QLogic NX2 Online Firmware Upgrade Utility for Windows Server x64 Editions**

Version: 4.1.0.9 *(Optional)*

Filename: cp026232.exe

**Important Note!**

HP recommends at least one of the following drivers for use with this firmware, as applicable:

- HP QLogic NX2 1Gb Multifunction Drivers for Windows Server x64 Editions, version 7.8.50.0(E)
- HP QLogic NX2 10/20GbE Multifunction Drivers for Windows Server x64 Editions, version 7.12.41.0

---

**Prerequisites**

This package requires the appropriate driver for your network adapter be installed before firmware can be updated.

**Enhancements**

This product provides improved handling of directory names with embedded spaces.

---

**HP QLogic P3 Online Firmware Upgrade Utility for Linux x86**

Version: 5.6.10 *(Optional)*

Filename: hp-firmware-nic-netxen-5.6.10-1.1.i386.rpm

**Important Note!**

HP recommends *HP QLogic nx_nic Drivers*, versions 4.0.596.1-5, for use with this firmware.

**Prerequisites**

This package requires an HP QLogic nx_nic Drivers RPM for the appropriate platform be installed before firmware can be updated.

This package version can be used to upgrade adapters with firmware versioned 4.0.230 and later.

This package can be used with the HP Smart Update Manager (HPSUM) version 7.0.0.0 or later. Earlier versions of HPSUM cannot install this package correctly.

**Enhancements**
This product now supports Red Hat Enterprise Linux 6 Update 7.

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**

This software supports the following HP QLogic P3 network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter

---

**HP QLogic P3 Online Firmware Upgrade Utility for Linux x86_64**

Version: 5.6.10 *(Optional)*

Filename: hp-firmware-nic-netxen-5.6.10-1.1.x86_64.rpm

**Important Note!**

HP recommends the following drivers, as appropriate, for use with this firmware:

- HP QLogic nx_nic Drivers for Red Hat Enterprise Linux 6 x86_64, version 4.0.596.1-5
- HP QLogic nx_nic Drivers for Red Hat Enterprise Linux 7 x86_64, version 4.0.596.1-2
- HP QLogic nx_nic Drivers for SUSE Linux Enterprise Server 11 x86_64, version 4.0.596.1-5
- HP QLogic nx_nic Drivers for SUSE Linux Enterprise Server 12 x86_64, version 4.0.596.1-4

**Prerequisites**

This package requires an HP QLogic nx_nic Drivers RPM for the appropriate platform be installed before firmware can be updated.

This package version can be used to upgrade adapters with firmware versioned 4.0.230 and later.

This package can be used with the HP Smart Update Manager (HPSUM) version 7.0.0.0 or later. Earlier versions of HPSUM cannot install this package correctly.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**

This software supports the following HP QLogic P3 network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
HP QLogic P3 Online Firmware Upgrade Utility for Windows Server 2008
Version: 4.0.0.21 (Optional)
Filename: cp025866.exe

Prerequisites
This package requires HP QLogic P3P Multifunction Driver for Windows Server 2008, version 5.3.26.605 or later, be installed before firmware can be updated.

Enhancements
This product contains an updated help file and component installer.

Supported Devices and Features
This software supports the following HP QLogic P3 network adapter:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter

---

HP QLogic P3P Online Firmware Upgrade Utility for Linux x86
Version: 1.9.7 (Optional)
Filename: hp-firmware-nic-qlogic-p3p-1.9.7-1.1.i386.rpm

Important Note!
HP recommends HP QLogic qlcnic Drivers, versions 5.3.62.1-4, for use with this firmware.

Prerequisites
This package can be used with the HP Smart Update Manager (HPSUM) version 7.0.0.0 or later. Earlier versions of HPSUM cannot install this package correctly.

This package requires HP QLogic qlcnic Drivers RPM for the appropriate platform be installed before firmware can be updated.

Fixes
This product addresses an issue that results in the Fibre Channel Ping command (fcping) taking more than 3ms for each ping.

Enhancements
This product now supports Red Hat Enterprise Linux 6 Update 7.

This product now supports SUSE LINUX Enterprise Server 11 SP4.

Supported Devices and Features
This package supports the following network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP NC523SFP 10Gb 2-port Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

**HP QLogic P3P Online Firmware Upgrade Utility for Linux x86_64**

**Version:** 1.9.7 *(Optional)*

Filename: hp-firmware-nic-qlogic-p3p-nic-1.9.7-1.1.x86_64.rpm

**Important Note!**

HP recommends the following drivers, as appropriate, for use with this firmware:

- HP QLogic qlcnic Drivers for Red Hat Enterprise Linux 6 x86_64, version 5.3.62.1-4
- HP QLogic qlcnic Drivers for Red Hat Enterprise Linux 7 x86_64, version 5.3.62.1-1
- HP QLogic qlcnic Drivers for Red Hat Enterprise Linux 11 x86_64, version 5.3.62.1-4
- HP QLogic qlcnic Drivers for Red Hat Enterprise Linux 12 x86_64, version 5.3.62.1-1

**Prerequisites**

This package can be used with the *HP Smart Update Manager (HPSUM)* version 7.0.0.0 or later. Earlier versions of HPSUM cannot install this package correctly.

This package requires *HP QLogic qlcnic Drivers RPM* for the appropriate platform be installed before firmware can be updated.

**Fixes**

This product addresses an issue that results in the Fibre Channel Ping command (fcping) taking more than 3ms for each ping.

**Enhancements**

This product now supports Red Hat Enterprise Linux 6 Update 7.

This product now supports SUSE LINUX Enterprise Server 11 SP4.

**Supported Devices and Features**

This package supports the following network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP NC523SFP 10Gb 2-port Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
**HP QLogic P3P Online Firmware Upgrade Utility for VMware**

Version: 2.5.5 *(Optional)*  
Filename: CP026998.txt; CP026998.zip

**Important Note!**

HP recommends the following drivers, as appropriate, for use with the firmware provided in this package:

- HP QLogic P3P Drivers for VMware ESXi 5.0/vSphere 5.1, version 2015.02.23
- HP QLogic P3P iSCSI Drivers for VMware ESXi 5.0/vSphere 5.1, version 2015.07.17
- HP QLogic P3P Drivers for VMware vSphere 5.5/6.0, version 2015.02.23
- HP QLogic P3P iSCSI Drivers for VMware vSphere 5.5/6.0, version 2015.07.17
- HP QLogic P3P Drivers for VMware vSphere 6.0, version 2015.10.01
- HP QLogic P3P iSCSI Drivers for VMware vSphere 6.0, version 2015.10.01

**Prerequisites**

This package requires the appropriate HP QLogic driver for VMware for your device to be installed before firmware can be updated.

**Fixes**

This product addresses an issue that results in the Fibre Channel Ping command (fcping) taking more than 3ms for each ping.

**Enhancements**

This product now supports VMware vSphere 6.0 Update 1.

**Supported Devices and Features**

This package supports the following network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP NC523SFP 10Gb 2-port Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

---

**HP QLogic P3P Online Firmware Upgrade Utility for Windows Server 2008**

Version: 4.0.0.21 (B) *(Optional)*  
Filename: cp027416.exe

**Important Note!**

HP recommends *HP QLogic P3P Multifunction Driver for Windows Server 2008*, version 5.3.30.1001, for use with this firmware.
**Prerequisites**

This package requires the driver for your adapter be installed before firmware can be updated.

**Fixes**

This product addresses an issue that results in the Fibre Channel Ping command (fcping) taking more than 3ms for each ping.

**Supported Devices and Features**

This package supports the following network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP NC523SFP 10Gb 2-port Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

---

**Online Firmware Upgrade Utility (ESXi 5.1) for HP Mellanox VPI (Ethernet and Infiniband mode) devices on VMware ESXi 5.0/5.1**

Version: 1.0.2 *(Recommended)*

Filename: CP026746.zip

**Important Note!**

**Known Issues:**

- 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.
- 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.  
  **Workaround:** Enable SR-IOV in the BIOS.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1 FDIR-BV.
When working in VPI mode with port1 FDR and port2 40G, error counters misbehave and increase rapidly.

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: flnt -clear_semaphore

Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.

Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).

Bloom filter is currently not supported.

When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, Release the following message is displayed due to the mlxconfig tool:

DMFS steering mode with IB in Linux 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.

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.

**Fixes**

*Fixes in FW version 2.34.5000:*

- Fixed an issue with RX size counter not being reported.
- Fixed a rare issue with VPD init flow which caused read failures.
- Set the maximum EQN number to 1024.
- Fixed an issue with cable reading, which caused the link not to raise.
- Fixed a case where on rare cases, communication to BMC was lost during driver initialization.
- Fixed a case where the actual bandwidth did not match the user settings in VM QoS.
- Fixed a rare case of completion Error with Bad Opcode sequence status which occurred when retransmitting read requests.
- Fixed an issue where the port raised as SDR vs. InfiniScale IV QDR Switch.
- Fixed a failure to update RSSQP in steering rules.
- Fixed a case preventing broadcast traffic from arriving to their destination after detaching high priority broadcast rule on a port where NC-SI was enabled.
- Fixed a mistakenly dropped ETH packet with ethertype 0x600 by the NIC.

**Enhancements**

*Firmware for the following devices are updated to 2.34.5000:*

- 644161-B21
- 644160-B21
- 649282-B21
- 649281-B21
Firmware for the following devices are updated to 2.34.5000:

764282-B21
764283-B21
764284-B21
764285-B21
764286-B21

**Supported Devices and Features**

**Supported Devices:**

<table>
<thead>
<tr>
<th>HP Part Number</th>
<th>Device Name</th>
<th>PSID</th>
</tr>
</thead>
<tbody>
<tr>
<td>644161-B21</td>
<td>HP InfiniBand FDR/EN 10/40Gb Dual Port 544M Adapter</td>
<td>HP_0240230019</td>
</tr>
<tr>
<td>644160-B21</td>
<td>HP InfiniBand QDR/EN 10Gb Dual Port 544M Adapter</td>
<td>HP_0250230018</td>
</tr>
<tr>
<td>649281-B21</td>
<td>HP InfiniBand FDR/EN 10/40Gb Dual Port 544QSFP Adapter</td>
<td>HP_0280210019</td>
</tr>
<tr>
<td>649282-B21</td>
<td>HP InfiniBand FDR/EN 10/40Gb Dual Port 544FLR-QSFP Adapter</td>
<td>HP_0230240019 HP_0230220009</td>
</tr>
<tr>
<td>649283-B21</td>
<td>HP InfiniBand QDR/EN 10Gb Dual Port 544FLR-QSFP Adapter</td>
<td>HP_0230240009 HP_0230220009</td>
</tr>
<tr>
<td>764282-B21</td>
<td>HP InfiniBand QDR/Ethernet 10Gb 2-port 544+M Adapter</td>
<td>HP_1350110023</td>
</tr>
<tr>
<td>764283-B21</td>
<td>HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+M Adapter</td>
<td>HP_1360110017</td>
</tr>
<tr>
<td>764284-B21</td>
<td>HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter</td>
<td>HP_1370110017</td>
</tr>
<tr>
<td>764285-B21</td>
<td>HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter</td>
<td>HP_1380110017</td>
</tr>
<tr>
<td>764286-B21</td>
<td>HP InfiniBand FDR/Ethernet 10Gb 2-port 544+i Adapter</td>
<td>HP_1390110023</td>
</tr>
<tr>
<td>XL230b Gen9 LOM</td>
<td>HP XL230b Gen9 InfiniBand FDR/Ethernet 40Gb 2-port 544+i Adapter</td>
<td>HP_2020110019</td>
</tr>
</tbody>
</table>

Online Firmware Upgrade Utility (ESXi 5.1/5.0) for HP Mellanox Ethernet only adapters

Version: 1.0.2 *(Recommended)*
Filename: CP026747.zip

**Important Note!**

**Known Issues for FW version 2.34.5010:**

- Downgrading from v2.30.8000 or later to an earlier version than 2.30.8000 requires server reboot. **Workaround:** Reboot the server.
- On ConnectX-3 Ethernet adapter cards, there is a mismatch between the GUID value returned by firmware management tools and that returned by fabric/driver utilities that read the GUID via device firmware (e.g., using ibstat). Mxiburn/flint return 0xffff as GUID while the utilitie return a value derived from the MAC address. For all driver/firmware/software purposes, the latter value should be used.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed. **Workaround:** Production SL230 should be used for PCIe Gen3 operation.
- 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
  **Workaround:** Upgrade to MLNX_OFED-2.1-x.x.x or later.
- VPD read-only fields are writable.
  **Workaround:** Do not write to readonly 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.
- 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.
  **Workaround:**
  1. Unplug the cable from the switch
  2. Restart driver
  3. Change the protocol via the appropriate tools.
- MTU value in OCBB is displayed wrong. The MTU value in OCBB could be different from the MTU value displayed by the driver. The value displayed in OCBB is the value programmed to card firmware and includes overhead bytes inserted by the driver.

**Fixes**

**Fixes in 2.34.5010:**

- Fixed OCBB Section5 event 8 FEATFLAG
Fixed wrong host visible firmware string report when running the HP "OEM GET HOST PARAMETER" command.

**Enhancements**

**Firmware for the following devices are updated to 2.34.1300:**

- 779799-B21
- 779793-B21

**Supported Devices and Features**

<table>
<thead>
<tr>
<th>HP Part Number</th>
<th>InfiniBand Card Type</th>
<th>PSID</th>
</tr>
</thead>
<tbody>
<tr>
<td>779793-B21</td>
<td>HP Ethernet 10Gb 2-port S465FP+ Adapter</td>
<td></td>
</tr>
<tr>
<td>779799-B21</td>
<td>HP Ethernet 10Gb 2-port S46FLR-SFP+ Adapter</td>
<td></td>
</tr>
</tbody>
</table>

**Online Firmware Upgrade Utility (ESXi 5.5) for HP Mellanox Ethernet only adapters**

Version: 1.0.2 *(Recommended)*
Filename: CP026540.zip

**Important Note!**

**Known Issues for FW version 2.34.5010:**

- Downgrading from v2.30.8000 or later to an earlier version than 2.30.8000 requires server reboot.
  **Workaround:** Reboot the server.
- On ConnectX-3 Ethernet adapter cards, there is a mismatch between the GUID value returned by firmware management tools and that returned by fabric/driver utilities that read the GUID via device firmware (e.g., using ibstat). Mlxburn/flint return 0xffff as GUID while the utilitie return a value derived from the MAC address. For all driver/firmware/software purposes, the latter value should be used.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  **Workaround:** Production SL230 should be used for PCIe Gen3 operation.
- 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.

VDP 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.

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.

**Workaround:**
1. Unplug the cable from the switch
2. Restart driver
3. Change the protocol via the appropriate tools.

MTU value in OCBB is displayed wrong. The MTU value in OCBB could be different from the MTU value displayed by the driver. The value displayed in OCBB is the value programmed to card firmware and includes overhead bytes inserted by the driver.

**Fixes**

**Fixes in 2.34.5010:**

- Fixed OCBB Section5 event 8 FEATFLAG
- Fixed wrong host visible firmware string report when running the HP "OEM GET HOST PARAMETER" command.

**Enhancements**

**Firmware for the following devices are updated to 2.34.1300:**

- 779799-B21
- 779793-B21

**Supported Devices and Features**

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<td>779793-B21</td>
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<td>HP_1200111023</td>
</tr>
<tr>
<td>779799-B21</td>
<td>HP Ethernet 10Gb 2-port 546FLR-SFP+ Adapter</td>
<td>HP_2240110004</td>
</tr>
</tbody>
</table>
Online Firmware Upgrade Utility (ESXi 5.5) for HP Mellanox VPI (Ethernet and Infiniband mode) devices on VMware ESXi 5.5

Version: 1.0.2 (Recommended)
Filename: CP026544.zip

Important Note!

Known Issues:

- 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.
- 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.
  Workaround: Enable SR-IOV in the BIOS.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1 FDIR-BV.
- When working in VPI mode with port1 FDR and port2 40G, error counters misbehave and increase rapidly.
- 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.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- Bloom filter is currently not supported.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, Release the following message is displayed due to the mlxconfig tool:
  DMFS steering mode with IB in Linux You are trying to override configurable FW by non-configurable FW. If you continue, old FW con-figurations 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.
- 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.

**Fixes**

**Fixes in FW version 2.34.5000:**

- Fixed an issue with RX size counter not being reported.
- Fixed a rare issue with VPD init flow which caused read failures.
- Set the maximum EQN number to 1024.
- Fixed an issue with cable reading, which caused the link not to raise.
- Fixed a case where on rare cases, communication to BMC was lost during driver initialization.
- Fixed a case where the actual bandwidth did not match the user settings in VM QoS.
- Fixed a rare case of completion Error with Bad Opcode sequence status which occurred when retransmitting read requests.
- Fixed an issue where the port raised as SDR vs. InfiniScale IV QDR Switch.
- Fixed a failure to update RSS QP in steering rules.
- Fixed a case preventing broadcast traffic from arriving to their destination after detaching high priority broadcast rule on a port where NC-SI was enabled.
- Fixed a mistakenly dropped ETH packet with ethertype 0x600 by the NIC.

**Enhancements**

**Firmware for the following devices are updated to 2.34.5000:**

644161-B21  
644160-B21  
649282-B21  
649281-B21  
649283-B21

**Firmware for the following devices are updated to 2.34.5000:**

764282-B21  
764283-B21  
764284-B21  
764285-B21  
764286-B21

**Supported Devices and Features**

**Supported Devices:**

<table>
<thead>
<tr>
<th>HP Part Number</th>
<th>Device Name</th>
<th>PSID</th>
</tr>
</thead>
<tbody>
<tr>
<td>644161-B21</td>
<td>HP InfiniBand FDR/EN 10/40Gb Dual Port 544M Adapter</td>
<td>HP_0240230019</td>
</tr>
</tbody>
</table>
Online Firmware Upgrade Utility (ESXi 6.0) for HP Mellanox Ethernet only adapters
Version: 1.0.2 (Recommended)
Filename: CP026541.zip

Important Note!

Known Issues for FW version 2.34.5010:

- Downgrading from v2.30.8000 or later to an earlier version than 2.30.8000 requires server reboot.
  **Workaround:** Reboot the server.
- On ConnectX-3 Ethernet adapter cards, there is a mismatch between the GUID value returned by firmware management tools and that returned by fabric/driver utilities that read the GUID via device firmware (e.g., using ibstat). Mlxburn/flint return 0xffff as GUID while the utility returns a value derived from the MAC address. For all driver/firmware/software purposes, the latter value should be used.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  **Workaround:** Production SL230 should be used for PCIe Gen3 operation.
- 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 10°C/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 readonly 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.
  Workaround: Use the physical function device ID to identify the device.
- 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.
  Workaround:
  1. Unplug the cable from the switch
  2. Restart driver
  3. Change the protocol via the appropriate tools.
- MTU value in OCBB is displayed wrong. The MTU value in OCBB could be different from the MTU value displayed by the driver. The value displayed in OCBB is the value programmed to card firmware and includes overhead bytes inserted by the driver.

**Fixes**

**Fixes in 2.34.5010:**
- Fixed OCBB Section5 event 8 FEATFLAG
- Fixed wrong host visible firmware string report when running the HP “OEM GET HOST PARAMETER” command.

**Enhancements**

**Firmware for the following devices are updated to 2.34.1300:**

779799-B21
779793-B21

**Supported Devices and Features**

<table>
<thead>
<tr>
<th>HP Part Number</th>
<th>InfiniBand Card Type</th>
<th>PSID</th>
</tr>
</thead>
<tbody>
<tr>
<td>779793-B21</td>
<td>HP Ethernet 10Gb 2-port 546SFP+ Adapter</td>
<td>HP_1200111023</td>
</tr>
</tbody>
</table>

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Online Firmware Upgrade Utility (ESXi 6.0) for HP Mellanox VPI (Ethernet and InfiniBand mode) devices on VMware ESXi 6.0

Version: 1.0.2 (Recommended)
Filename: CP026545.zip

Important Note!

Known Issues:

- 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.
- 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.
  Workaround: Enable SR-IOV in the BIOS.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1 FDIR-BV.
- When working in VPI mode with port1 FDR and port2 40G, error counters misbehave and increase rapidly.
- 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.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- Bloom filter is currently not supported.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, Release the following message is displayed due to the mlxconfig tool: DMFS steering mode with IB in Linux 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
  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.
- 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.

**Fixes**

**Fixes in FW version 2.34.5000:**

- Fixed an issue with RX size counter not being reported.
- Fixed a rare issue with VPD init flow which caused read failures.
- Set the maximum EQN number to 1024.
- Fixed an issue with cable reading, which caused the link not to raise.
- Fixed a case where on rare cases, communication to BMC was lost during driver initialization.
- Fixed a case where the actual bandwidth did not match the user settings in VM QoS.
- Fixed a rare case of completion Error with Bad Opcode sequence status which occurred when retransmitting read requests.
- Fixed an issue where the port raised as SDR vs. InfiniScale IV QDR Switch.
- Fixed a failure to update RSS QP in steering rules.
- Fixed a case preventing broadcast traffic from arriving to their destination after detaching high priority broadcast rule on a port where NC-SI was enabled.
- Fixed a mistakenly dropped ETH packet with ethertype 0x600 by the NIC.

**Enhancements**

**Firmware for the following devices are updated to 2.34.5000:**

- 649282-B21
- 649281-B21
- 649283-B21

**Firmware for the following devices are updated to 2.34.5000:**

- 764282-B21
- 764283-B21
- 764284-B21
- 764285-B21
- 764286-B21

**Supported Devices and Features**

**Supported Devices:**

<table>
<thead>
<tr>
<th>HP Part Number</th>
<th>Device Name</th>
<th>PSID</th>
</tr>
</thead>
<tbody>
<tr>
<td>649281-B21</td>
<td>HP InfiniBand FDR/EN 10/40Gb Dual Port 544QSFP Adapter</td>
<td>HP_0280210019</td>
</tr>
</tbody>
</table>
Online Firmware Upgrade Utility (Linux x86_64) for HP Infiniband FDR 2P 545QSFP Adapter (HP Part # 702211-B21), HP Infiniband FDR 2P 545FLR-QSFP Adapter (HP Part # 702212-B21) and HP Infiniband FDR 2P 545M Adapter (HP Part # 702213-B21)

Version: 1.0.3 (Recommended)
Filename: hp-firmware-hca-mellanox-infiniband-only-1.0.3-1.1.1.x86_64.rpm

Important Note!

Known Issues:

- Flashing the firmware requires server reboot.
  Workaround: Reboot the server after firmware flashing.
- Setting the port to ‘sleep’ state is not supported.
- L1 power state enter requests are ignored by the device.
- Link width x1 might get Replay Timer Timeout, on speed change.
- 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.
- When connected to an InfiniScale4 based QDR switch 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.

Prerequisites

MLNX OFED driver (2.0-3.0.0 or above) has to be installed and loaded as a prerequisite for successfully upgrading the firmware using Connect-IB firmware smart components on Linux. MLNX OFED drivers are available at hp.com (“Drivers and Downloads” Page) as well as HP Software Delivery Repository: http://downloads.linux.hp.com/SDR/index.html

Before executing the smart component, install the MLNX OFED drivers and make sure that the InfiniBand modules are loaded using the following command:

```
# /etc/init.d/openibd status
```
HCA driver loaded

Configured IPoIB devices:
ib0 ib1

Currently active IPoIB devices:

The following OFED modules are loaded:

rdma_ucm
rdma_cm
ib_addr
ib_iopb
mlx4_core
mlx4_ib
mlx4_en
mlx5_core
mlx5_ib
ib_uverbs
ib_umad
ib_ucm
ib_sa
ib_cm
ib_mad
ib_core

This restriction also means that running the Connect-IB firmware smart components in “offline mode” (with server booted to the SPP ISO) is not supported. Linux Operating System needs to be installed and the MLNX OFED drivers should be installed/loaded for the smart components to function correctly, i.e. only SPP “online mode” is supported for Connect-IB firmware smart components.

**Fixes**

Fixes:

- 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, a false alarm thermal indication was reported when HP mezz cards were rebooted.
- 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.

**Enhancements**

Firmware for the following devices are updated to 10.10.5052:

702211-B21
702212-B21
**Supported Devices and Features**

**Supported Devices:**

<table>
<thead>
<tr>
<th>HP Part #</th>
<th>Device Name</th>
<th>PSID</th>
</tr>
</thead>
<tbody>
<tr>
<td>702211-B21</td>
<td>HP Infiniband FDR 2P 545QSFP Adapter</td>
<td>HP_02B0110019</td>
</tr>
<tr>
<td>702212-B21</td>
<td>HP Infiniband FDR 2P 545FLR-QSFP Adapter</td>
<td>HP_02C0110019</td>
</tr>
<tr>
<td>702213-B21</td>
<td>HP Infiniband FDR 2P 545M Adapter</td>
<td>HP_02A0110019</td>
</tr>
</tbody>
</table>

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**Online Firmware Upgrade Utility (Linux x86_64) for HP Mellanox Ethernet only adapters**

Version: 1.0.2 *(Recommended)*

Filename: hp-firmware-nic-mellanox-ethernet-only-1.0.2-1.1.1.x86_64.rpm

**Important Note!**

**Known Issues for FW version 2.34.5010:**

- Downgrading from v2.30.8000 or later to an earlier version than 2.30.8000 requires server reboot.  
  **Workaround:** Reboot the server.
- On ConnectX-3 Ethernet adapter cards, there is a mismatch between the GUID value returned by firmware management tools and that returned by fabric/driver utilities that read the GUID via device firmware (e.g., using ibstat). Mlxburn/flint return 0xffff as GUID while the utility return a value derived from the MAC address. For all driver/firmware/software purposes, the latter value should be used.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.  
  **Workaround:** Production SL230 should be used for PCIe Gen3 operation.
- 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 mxconfig 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 readonly 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.
- 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.
  **Workaround:**
  1. Unplug the cable from the switch
  2. Restart driver
  3. Change the protocol via the appropriate tools.
- MTU value in OCBB is displayed wrong. The MTU value in OCBB could be different from the MTU value displayed by the driver. The value displayed in OCBB is the value programmed to card firmware and includes overhead bytes inserted by the driver.

**Fixes**

**Fixes in 2.34.5010:**

- Fixed OCBB Section5 event 8 FEATFLAG
- Fixed wrong host visible firmware string report when running the HP "OEM GET HOST PARAMETER" command.

**Enhancements**

**Firmware for the following devices are updated to 2.34.1300:**

779799-B21
779793-B21

**Supported Devices and Features**

<table>
<thead>
<tr>
<th>HP Part Number</th>
<th>InfiniBand Card Type</th>
<th>PSID</th>
</tr>
</thead>
<tbody>
<tr>
<td>779793-B21</td>
<td>HP Ethernet 10Gb 2-port S46SFP+ Adapter</td>
<td>HP_1200111023</td>
</tr>
<tr>
<td>779799-B21</td>
<td>HP Ethernet 10Gb 2-port S46FLR-SFP+ Adapter</td>
<td>HP_2240110004</td>
</tr>
</tbody>
</table>
Online Firmware Upgrade Utility (Linux x86_64) for HP Mellanox VPI (Ethernet and Infiniiband mode) devices on Linux x86_64 platform
Version: 1.0.2 (Recommended)
Filename: hp-firmware-hca-mellanox-vpi-eth-ib-1.0.2-1.1.1.x86_64.rpm

Important Note!

Known Issues:

- 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 0xfffff).
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
- 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.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1 FDIR-BV.
- When working in VPI mode with port1 FDR and port2 40G, error counters misbehave and increase rapidly.
- 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.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- Bloom filter is currently not supported.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, Release the following message is displayed due to the mlxconfig tool:
  DMFS steering mode with IB in Linux You are trying to override configurable FW by non-configurable FW. If you continue, old FW con-figurations 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.
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.

**Fixes**

*Fixes in FW version 2.34.5000:*

- Fixed an issue with RX size counter not being reported.
- Fixed a rare issue with VPD init flow which caused read failures.
- Set the maximum EQN number to 1024.
- Fixed an issue with cable reading, which caused the link not to raise.
- Fixed a case where on rare cases, communication to BMC was lost during driver initialization.
- Fixed a case where the actual bandwidth did not match the user settings in VM QoS.
- Fixed a rare case of completion Error with Bad Opcode sequence status which occurred when retransmitting read requests.
- Fixed an issue where the port raised as SDR vs. InfiniScale IV QDR Switch.
- Fixed a failure to update RSS QP in steering rules.
- Fixed a case preventing broadcast traffic from arriving to their destination after detaching high priority broadcast rule on a port where NC-SI was enabled.
- Fixed a mistakenly dropped ETH packet with ethertype 0x600 by the NIC.

**Enhancements**

*Firmware for the following devices are updated to 2.34.5000:*

- 644161-B21
- 644160-B21
- 649282-B21
- 649281-B21
- 649283-B21

*Firmware for the following devices are updated to 2.34.5000:*

- 764282-B21
- 764283-B21
- 764284-B21
- 764285-B21
- 764286-B21

*Firmware for the following devices are updated to 2.34.5000:*

- 778509-B21

**Supported Devices and Features**

**Supported Devices:**
Online Firmware Upgrade Utility (Windows x64) for HP Mellanox Ethernet only adapters

Version: 1.0.0.2 (Recommended)
Filename: cp026542.exe

Important Note!

Known Issues for FW version 2.34.5010:

- Downgrading from v2.30.8000 or later to an earlier version than 2.30.8000 requires server reboot.
  Workaround: Reboot the server.
- On ConnectX-3 Ethernet adapter cards, there is a mismatch between the GUID value returned by firmware management tools and that returned by fabric/driver utilities that read the GUID via device firmware (e.g., using ibstat). Mllxburn/flint return 0xffff as GUID while the utilitie return a value derived from the MAC address. For all driver/firmware/software purposes, the latter value should be used.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- 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/minute (for MT27518A1-FDIR-BV only).
- PCIe Gen2 link unstable at temperature sweep of 10C/minute 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

  **Workaround:** Upgrade to MLNX_OFED-2.1-x.x.x or later.
- VPD read-only fields are writable. **Workaround:** Do not write to readonly 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.
- 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. **Workaround:**
  1. Unplug the cable from the switch
  2. Restart driver
  3. Change the protocol via the appropriate tools.
- MTU value in OCBB is displayed wrong. The MTU value in OCBB could be different from the MTU value displayed by the driver. The value displayed in OCBB is the value programmed to card firmware and includes overhead bytes inserted by the driver.

**Fixes**

**Fixes in 2.34.5010:**

- Fixed OCBB Section5 event 8 FEATFLAG
- Fixed wrong host visible firmware string report when running the HP “OEM GET HOST PARAMETER” command.
Enhancements

Firmware for the following devices are updated to 2.34.1300:

779799-B21
779793-B21

Supported Devices and Features

<table>
<thead>
<tr>
<th>HP Part Number</th>
<th>InfiniBand Card Type</th>
<th>PSID</th>
</tr>
</thead>
<tbody>
<tr>
<td>779793-B21</td>
<td>HP Ethernet 10Gb 2-port S46SFP+ Adapter</td>
<td>HP_1200111023</td>
</tr>
<tr>
<td>779799-B21</td>
<td>HP Ethernet 10Gb 2-port 546FLR-SFP+ Adapter</td>
<td>HP_2420110004</td>
</tr>
</tbody>
</table>

Online Firmware Upgrade Utility (Windows x64) for HP Mellanox VPI (Ethernet and InfiniBand mode) devices on Windows x86_64 platform

Version: 1.0.0.2 (Recommended)
Filename: cp026546.exe

Important Note!

Known Issues:

- 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.
- 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.
  Workaround: Enable SR-IOV in the BIOS.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1 FDIR-BV.
- When working in VPI mode with port1 FDR and port2 40G, error counters misbehave and increase rapidly.
- 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.

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Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).

Bloom filter is currently not supported.

When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, Release the following message is displayed due to the mlxconfig tool:
DMFS steering mode with IB in Linux You are trying to override configurable FW by non-configurable FW. If you continue, old FW con-figurations 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.

VDP read-only fields are writable.

**Workaround:** Do not write to read-only fields if you wish to preserve them.

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.

**Fixes**

**Fixes in FW version 2.34.5000:**

- Fixed an issue with RX size counter not being reported.
- Fixed a rare issue with VPD init flow which caused read failures.
- Set the maximum EQN number to 1024.
- Fixed an issue with cable reading, which caused the link not to raise.
- Fixed a case where on rare cases, communication to BMC was lost during driver initialization.
- Fixed a case where the actual bandwidth did not match the user settings in VM QoS.
- Fixed a rare case of completion Error with Bad Opcode sequence status which occurred when retransmitting read requests.
- Fixed an issue where the port raised as SDR vs. InfiniScale IV QDR Switch.
- Fixed a failure to update RSS QP in steering rules.
- Fixed a case preventing broadcast traffic from arriving to their destination after detaching high priority broadcast rule on a port where NC-SI was enabled.
- Fixed a mistakenly dropped ETH packet with ethertype 0x600 by the NIC.

**Enhancements**

**Firmware for the following devices are updated to 2.34.5000:**

644161-B21
644160-B21
649282-B21
649281-B21
649283-B21

**Firmware for the following devices are updated to 2.34.5000:**

764282-B21
764283-B21
Supported Devices and Features

Supported Devices:

<table>
<thead>
<tr>
<th>HP Part Number</th>
<th>Device Name</th>
<th>PSID</th>
</tr>
</thead>
<tbody>
<tr>
<td>644161-B21</td>
<td>HP InfiniBand FDR/EN 10/40Gb Dual Port 544M Adapter</td>
<td>HP_0240230019</td>
</tr>
<tr>
<td>644160-B21</td>
<td>HP InfiniBand QDR/EN 10Gb Dual Port 544M Adapter</td>
<td>HP_0250230018</td>
</tr>
<tr>
<td>649281-B21</td>
<td>HP InfiniBand FDR/EN 10/40Gb Dual Port 544QSFP Adapter</td>
<td>HP_0280210019</td>
</tr>
<tr>
<td>649282-B21</td>
<td>HP InfiniBand FDR/EN 10/40Gb Dual Port 544FLR-QSFP Adapter</td>
<td>HP_0230240019 HP_0230220019</td>
</tr>
<tr>
<td>649283-B21</td>
<td>HP InfiniBand QDR/EN 10Gb Dual Port 544FLR-QSFP Adapter</td>
<td>HP_0230240009 HP_0230220009</td>
</tr>
<tr>
<td>764282-B21</td>
<td>HP InfiniBand QDR/Ethernet 10Gb 2-port 544+i Adapter</td>
<td>HP_1350110023</td>
</tr>
<tr>
<td>764283-B21</td>
<td>HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+i Adapter</td>
<td>HP_1360110017</td>
</tr>
<tr>
<td>764284-B21</td>
<td>HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter</td>
<td>HP_1370110017</td>
</tr>
<tr>
<td>764285-B21</td>
<td>HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter</td>
<td>HP_1380110017</td>
</tr>
<tr>
<td>764286-B21</td>
<td>HP InfiniBand QDR/Ethernet 10Gb 2-port 544+i Adapter</td>
<td>HP_1390110023</td>
</tr>
<tr>
<td>SL4540 and SL4545 LOM</td>
<td>HP InfiniBand QDR/Ethernet 10Gb 2P 544i Adapter</td>
<td>HP_0280110018</td>
</tr>
</tbody>
</table>

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**Firmware - Power Management**

**Online ROM Flash for Linux - Advanced Power Capping Microcontroller Firmware for HP ProLiant BL/DL/MLGen9 Servers**

Version: 1.0.9 (C) **(Optional)**
Filename: RPMS/i386/hp-firmware-powerpic-gen9-1.0.9-3.i386.rpm

**Important Note!**

**Important Notes:**

Ver. 1.0.9 (C) contains support for new server products and a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup”. It is functionally equivalent to ver. 1.0.9. It is not
necessary to upgrade with Revision C if a previous component revision was used to upgrade the firmware to ver. 1.0.9.

**Deliverable Name:**

Advanced Power Capping Microcontroller Firmware for HP ProLiant BL/DL/MLGen9 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 (C) contains support for new server products and a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup”. It is functionally equivalent to ver. 1.0.9. It is not
necessary to upgrade with Revision C if a previous component revision was used to upgrade the firmware to ver. 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 Linux - Power Management Controller (HP ProLiant Gen8 Servers)
Version: 3.3 (D) (Recommended)
Filename: RPMS/i386/hp-firmware-powerpic-gen8-3.3-4.i386.rpm

Important Note!
Important Notes:

Ver. 3.3 (D) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 3.3. It is not necessary to upgrade with Revision D if a previous component revision was used to upgrade the firmware to version 3.3.

Deliverable Name:

Power Management Controller (HP ProLiant Gen8 Servers)

Release Version:

3.3

Last Recommended or Critical Revision:

3.3

Previous Revision:

3.2

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This firmware update addresses the issue described in Customer Advisory c03885073. For a description of the issue and a list of affected platforms, please consult this advisory at http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c03885073.

Known Issues:

None

Fixes

Important Notes:
Ver. 3.3 (D) contains a change to the Firmware RPM install command name from “cpqsetup” to “hpsetup” and is functionally equivalent to ver. 3.3. It is not necessary to upgrade with Revision D if a previous component revision was used to upgrade the firmware to version 3.3.

**Firmware Dependencies:**

None

**Problems Fixed:**

This firmware update addresses the issue described in Customer Advisory c03885073. For a description of the issue and a list of affected platforms, please consult this advisory at http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c03885073.

**Known Issues:**

None

---

**Online ROM Flash for VMware ESXi - Advanced Power Capping Microcontroller Firmware for HP ProLiant BL/DL/MLGen9 Servers**

Version: 1.0.9 (C) **(Optional)**
Filename: CP026995.zip

**Important Note!**

**Important Notes:**

Ver. 1.0.9 (C) contains support for new server products and is functionally equivalent to ver. 1.0.9. It is not necessary to upgrade with Revision C if a previous component revision was used to upgrade the firmware to ver. 1.0.9.

**Deliverable Name:**

Advanced Power Capping Microcontroller Firmware for HP ProLiant BL/DL/MLGen9 Servers

**Release Version:**

1.0.9(C)

**Last Recommended or Critical Revision:**

1.0.7

**Previous Revision:**

1.0.7

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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 (C) contains support for new server products and is functionally equivalent to ver. 1.0.9. It is not necessary to upgrade with Revision C if a previous component revision was used to upgrade the firmware to ver. 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 VMware ESXi - Power Management Controller (HP ProLiant Gen8 Servers)
Version: 3.3 (D) (Recommended)
Filename: CP026093.zip

Important Notes:

Ver. 3.3 (D) contains updates to the component packaging and is functionally equivalent to ver. 3.3. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the firmware to version 3.3.

Deliverable Name:

Power Management Controller (HP ProLiant Gen8 Servers)

Release Version:

3.3(D)

Last Recommended or Critical Revision:

3.3

Previous Revision:
3.3

Firmware Dependencies:
None

Enhancements/New Features:
None

Problems Fixed:

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. 3.3 (D) contains updates to the component packaging and is functionally equivalent to ver. 3.3. It is not necessary to upgrade with Revision D if a previous component Revision was used to upgrade the firmware to version 3.3.

Firmware Dependencies:
None

Problems Fixed:

Known Issues:
None

Enhancements
Online ROM Flash for Windows - Power Management Controller (HP ProLiant DL580 Gen8 Servers)
Version: 4.1 (B) (Recommended)
Filename: cp022555.exe

Important Note!

Important Notes:
None

Deliverable Name:
Power Management Controller (HP ProLiant DL580 Gen8 Servers)

Release Version:
4.1(B)

Last Recommended or Critical Revision:
4.1(B)

Previous Revision:
4.1

Firmware Dependencies:
None

Enhancements/New Features:
Ver. 4.1(B) includes minor documentation updates. The Power Management Controller Firmware contained within ver. 4.1(B) is equivalent to the Firmware contained within ver. 4.1. Therefore, it is not necessary to upgrade with ver. 4.1(B), if the Power Management Controller firmware version is 4.1.

Problems Fixed:
None

Known Issues:
None

Prerequisites
The "HP 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:**

None

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Ver. 4.1(B) includes minor documentation updates. The Power Management Controller Firmware contained within ver. 4.1(B) is equivalent to the Firmware contained within ver. 4.1. Therefore, it is not necessary to upgrade with ver. 4.1(B), if the Power Management Controller firmware version is 4.1.

**Known Issues:**

None

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**Online ROM Flash for Windows - Power Management Controller (HP ProLiant Gen8 Servers)**

Version: 3.3 *(Recommended)*

Filename: cp021612.exe

**Important Note!**

**Important Notes:**

If a server has a Dynamic Power Cap enabled, the server’s performance may be significantly affected during the duration of the flash update of the Power Management Controller Firmware. To prevent the impact to performance, the Dynamic Power Cap can be disabled prior to the flash update process.

**Deliverable Name:**

Power Management Controller (HP ProLiant Gen8 Servers)

**Release Version:**

3.3

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Last Recommended or Critical Revision:

3.3

Previous Revision:

3.2

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This firmware update addresses the issue described in Customer Advisory c03885073. For a description of the issue and a list of affected platforms, please consult this advisory at http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c03885073.

Known Issues:

None

Prerequisites

The "HP 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:

If a server has a Dynamic Power Cap enabled, the server’s performance may be significantly affected during the duration of the flash update of the Power Management Controller Firmware. To prevent the impact to performance, the Dynamic Power Cap can be disabled prior to the flash update process.

Firmware Dependencies:

None

Problems Fixed:
This firmware update addresses the issue described in Customer Advisory c03885073. For a description of the issue and a list of affected platforms, please consult this advisory at http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c03885073.

Known Issues:
None

Online ROM Flash for Windows x64 - Advanced Power Capping Microcontroller Firmware for HP ProLiant BL/DL/MLGen9 Servers
Version: 1.0.9 (Optional)
Filename: cp027006.exe

Important Note!

Important Notes:
Ver. 1.0.9 (C) contains support for new server products and is functionally equivalent to ver. 1.0.9. It is not necessary to upgrade with Revision C if a previous component revision was used to upgrade the firmware to ver. 1.0.9.

Deliverable Name:
Advanced Power Capping Microcontroller Firmware for HP ProLiant BL/DL/MLGen9 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 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 (C) contains support for new server products and is functionally equivalent to ver. 1.0.9. It is not necessary to upgrade with Revision C if a previous component revision was used to upgrade the firmware to ver. 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

Firmware - SAS Storage Disk

Online ROM Flash Component for VMware ESXi - DG0146FARVU, DG0300FARVV, DG0146BAMYQ, DG0300BAMYR, EG0146FAWJC, and EG0300FAWJD Drives

Version: HPDG (E) (Critical)
Filename: CP026619.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPD8 do not need to update to HPD8(E).

**Fixes**

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

**Enhancements**

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD8 (D):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPD8 (E):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

**Online ROM Flash Component for VMware ESXi - EG0300FBLSE, EG0450FBLSF, EG0600FBLSH, and EG0900FBLSK drives**

Version: HPD8 (B) (Recommended)

Filename: CP026625.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD8 do not need to update to HPD8 (B).
 Fixes

 Problems Fixed:

- HP ProLiant servers would power down due a hard drive overtemp condition that was falsely reported. Hard disk drive firmware HPD8 resolves this issue.

Enhancements

 Enhancements/New Features for HPD8 (B):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - EH0146FBQDC and EH0300FBQDD drives

Version: HPD5 (Recommended)
Filename: CP027316.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

 Problems Fixed:

- HP ProLiant servers would power down due a hard drive overtemp condition that was falsely reported. Hard disk drive firmware HPD5 resolves this issue.

Online ROM Flash Component for VMware ESXi - MB1000FAMYU and MB2000FAMYV Drives

Version: HPD7 (E) (Critical)
Filename: CP026635.zip

Important Note!
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPD7 do not need to update to HPD7 (E).

**Fixes**

**Problem Fixed:**

This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

**Enhancements**

**Enhancements/New Features:**

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for HPD7 (D):**

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

**Enhancements/New Features for HPD7 (E):**

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

**Online ROM Flash Component for VMware ESXi - MB4000JEQNL and MB6000JEQNN Drives**

Version: HPD7 (Critical)
Filename: CP027324.zip

**Important Note!**

Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

**Problems Fixed:**

- This firmware fixes a potential incorrect data issue in write-cached enabled multi-initiator unaligned write environments, where reservation commands are used.

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**Online ROM Flash Component for VMware ESXi - MM0500FBFVQ and MM1000FBFVR Drives**

Version: HPD8 (E) *(Critical)*

Filename: CP026642.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD8 do not need to update to HPD8 (E).

**Fixes**

**Problem Fixed:**

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD8 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

**Enhancements**

**Enhancements/New Features:**

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
Enhancements/New Features for HPD8 (D):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPD8 (E):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - MM1000FECVH Drives
Version: HPD1 (Recommended)
Filename: CP027608.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- This firmware resolved a potential multiport system failover condition where the drive might not be recognized, due to the drive responding too slowly to a link reset on port A if port B was unavailable. This firmware also fixed possible aborted command errors due to incorrect overlapped command tag checking being performed.

Online ROM Flash Component for VMware ESXi - MM1000JEFRB and MM2000JEFRC Drives
Version: HPD4 (Recommended)
Filename: CP027393.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- Version HPD4 prevents the potential for incorrect data to be written to the drive under extremely rare circumstances when the drive experiences a hard reset. This issue has only been observed in a rigorous test environment and has NOT been reported in a customer production environment.

Online ROM Flash Component for VMware ESXi - DH0072FAQRD, DH0146FAQRE, EH0146FAWJB, and EH0072FAWJA Drives

Version: HPDJ (E) (Critical)
Filename: CP026620.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDJ do not need to update to HPDJ (E).

Fixes

Problem Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDJ (D):

- Updated the flash engine to standardize logging across all SAS drive components.
Enhancements/New Features for HPDJ (E):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - EF0300FARMU, EF0450FARMV, EF0600FARNA drive
Version: HPD6 (E) (Critical)
Filename: CP026621.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6 (E).

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD6 (D):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPD6 (E):
VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - EF0300FATFD, EF0450FATFE, and EF0600FATFF Drives
Version: HPDB (E) (Critical)
Filename: CP026622.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDB do not need to update to HPDB (E).

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDB (D):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPDB (E):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.
Online ROM Flash Component for VMware ESXi - EG0300FBDBR, EG0450FBDBT and EG0600FBDBU Drives
Version: HPDA (F) (Critical)
Filename: CP026623.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDA do not need to update to HPDA (F).

Fixes

Firmware Dependency:

- Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDA (E):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPDA (F):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.
Online ROM Flash Component for VMware ESXi - EG0300FBDSP, EG0450FBDSQ, and EG0600FBDSR drives
Version: HPD6 (E) (Optional)
Filename: CP026624.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6 (E).

Fixes

Problems Fixed:

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD6 (D):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPD6 (E):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - EG0300FBVFL, EG0450FBVF, EG0600FBVF, and EG0900FBVFQ Drives
Version: HPDC (C) (Recommended)
Filename: CP026626.zip

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Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDC do not need to update to HPDC (C).

Fixes

Problems fixed:

- Addressed an issue with an HP Smart Array E200 controller which could fail to discover a drive when more than one identify frame was provided during discovery.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDC (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPDC (C):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - EG0300FCHHR, EG0450FCHHT, EG0600FCHHU, and EG0900FCHHV Drives

Version: HPD8 (Recommended)
Filename: CP026039.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

**Problems Fixed:**

- A potential issue existed where the drive would become unresponsive if the host sent a high number of overlapping task management commands. The drive would require a power cycle to be recovered.

**Enhancements**

**Enhancements/New Features:**

- Improved write protection robustness before drive spin down.
- Implemented minor performance improvements in RAID environments.

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**Online ROM Flash Component for VMware ESXi - EG0300FCVBF, EG0450FCVBH, EG0600FCVBK, and EG0900FCVBL Drives**

Version: HPD5 (D) *(Recommended)*

Filename: CP026627.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD5 do not need to update to HPD5 (D).

**Fixes**

**Problems Fixed:**

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

**Enhancements**

**Enhancements/New Features:**
Enhancements/New Features for HPDS (C):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPDS (D):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

**Online ROM Flash Component for VMware ESXi - EG0900FDJYR and EG1200FDJYT Drives**

Version: HPD1 (C) (Recommended)
Filename: CP026628.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD1 do not need to update to HPD1 (C).

**Fixes**

**Problems Fixed:**

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset. When the drives are connected to a HP Smart Array E200 controller, the drive firmware must be updated to version HPD1 before the controller will detect the drives.

**Enhancements**

**Enhancements/New Features:**

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for HPD1 (B):**

- Updated the flash engine to standardize logging across all SAS drive components.
Enhancements/New Features for HPD1 (C):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - EG1200FCVBQ Drives
Version: HPD6 (D) (Critical)
Filename: CP026629.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6 (D).

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD6 (C):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPD6 (D):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.
Online ROM Flash Component for VMware ESXi - EH0072FARUA and EH0146FARUB drives
Version: HPD9 (E) (Optional)
Filename: CP026630.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD9 do not need to update to HPD9 (E).

Fixes

Problems Fixed:

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD9 (D):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPD9 (E):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - EH0072FARWC and EH0146FARWD Drives
Version: HPDD (E) (Critical)
Filename: CP026631.zip
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDD do not need to update to HPDD (E).

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDD (D):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPDD (E):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - EH0146FCBVB and EH0300FCBVC drives

Version: HPD4 (E) (Recommended)
Filename: CP026633.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPD4 do not need to update to HPD4 (E).

Enhancements

Enhancements/New Features:

- This firmware revision reduces the possibility of Uncorrectable Read Errors due to poor writes to the media.
- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD4 (D):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPD4 (E):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - EH0300JDYTH, EH0450JDYTK, and EH0600JDYTL drives

Version: HPD2 (Recommended)
Filename: CP026434.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:
HPD2 firmware update resolved an issue in multiport systems where the hard disk drive (HDD) might not be recognized. This issue was due to the HDD responding too slowly to a link reset on port A if port B was unavailable (multiport failover condition).

**Enhancements**

**Enhancements/New Features:**

- Improved performance at higher drive temperatures.
- Improved link error rate counter accuracy before PHY was ready.

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**Online ROM Flash Component for VMware ESXi - EH0300JEDHC, EH0450JEDHD, and EH0600JEDHE Drives**

Version: HPD2 *(Recommended)*

Filename: CP027207.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

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**Fixes**

**Problems Fixed:**

- This firmware contains fixes to prevent incorrect data from potentially occurring. Failures have not been reported by a customer but were found in a lab testing environment. Exposure is limited due to a narrow window of opportunity following a hard reset or when two consecutive write faults occur causing an error in the Input/Output Data Error Detection & Correction scheme.

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**Online ROM Flash Component for VMware ESXi - EO0200FBRVW, MO0200FBRWB, EO0400FBRWA, MO0400FBRWC, and MO0800FBRWD drives**

Version: HPD9 (E) *(Optional)*

Filename: CP026634.zip

**Important Note!**
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPD9 do not need to update to HPD9 (E).

**Fixes**

**Problems Fixed:**

- In previous firmware revisions when the solid state drive was issued a Report Support Operation Code (RSOC) command (A3h) and the reporting options field was set to 001, the drive incorrectly responded with 05/24/00 indicating that the RSOC command was not supported. The error was logged in the system log files. The drive should have communicated non-support using the Command Data Parameter (CDP) format. The firmware now complies with the RSOC industry standard specification.

**Enhancements**

**Enhancements/New Features:**

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for HPD9 (D):**

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

**Enhancements/New Features for HPD9 (E):**

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

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**Online ROM Flash Component for VMware ESXi - MB1000FBZPL and MB2000FBZPN drives**

Version: HPD3 (E) [Critical]
Filename: CP026636.zip

**Important Note!**
- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD3 do not need to update to HPD3 (E).

**Fixes**

**Problems Fixed:**

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

**Enhancements**

**Enhancements/New Features:**

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for HPD3 (D):**

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

**Enhancements/New Features for HPD3 (E):**

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

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**Online ROM Flash Component for VMware ESXi - MB1000FCWDE, MB2000FCWDF, MB3000FCWDH, and MB4000FCWDK drives**

Version: HPD5 (D) *(Recommended)*

Filename: CP026637.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPD5 do not need to update to HPD5 (D).

Fixes

Problems Fixed:

This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD5 (C):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPD5 (D):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - MB1000FCWPP, MB2000FCVBV, MB3000FCVCA, and MB4000FCVCB Drives

Version: HPD2 (C) (Recommended)
Filename: CP026638.zip

Important Note:

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD2 do not need to update to HPD2 (C).
Enhancements/New Features:

- This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage applications (e.g., very long periods of small range seeks).
- Enhancements also include performance improvements.
- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD2 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPD2 (C):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

__Online ROM Flash Component for VMware ESXi - MB2000FBUCL and MB3000FBUCN drives__

Version: HPDA (D) (Critical)
Filename: CP026639.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDA do not need to update to HPDA (D).

**Fixes**

**Problems Fixed:**

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

**Enhancements**

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDA (C):
- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPDA (D):
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - MB2000FCQPF and MB3000FBNWV Drives
Version: HPD8 (Recommended)
Filename: CP026853.zip

Important Note!
- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Enhancements

Enhancements/New Features:
- This update provides enhanced seek recovery.

Online ROM Flash Component for VMware ESXi - MB2000FCZGH, MB3000FCZGK, and MB4000FCZGL Drives
Version: HPD6 (B) (Recommended)
Filename: CP026949.zip

Important Note!
- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPD6 do not need to update to HPD6(B).

Fixes

Problems Fixed:

- A file system creation operation would stop responding because the HDD incorrectly responded with an Abort command/Overlapped command. This issue is resolved in HDD firmware version HPD6.

Online ROM Flash Component for VMware ESXi - MB6000FEDAU Drives

Version: HPD2 (Recommended)
Filename: CP026685.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- HPD2 firmware update resolved an issue in multiport systems where the hard disk drive (HDD) might not be recognized. This issue was due to the HDD responding too slowly to a link reset on port A if port B was unavailable (multiport failover condition).

Enhancements

Enhancements/New Features:

- Improved performance for random read workloads.
- Improved link error rate counter accuracy before PHY was ready.

Online ROM Flash Component for VMware ESXi - MM0500FAMYT Drives

Version: HPD6 (E) (Critical)
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6 (E).

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD6 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD6 (D):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPD6 (E):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - MO0200FCTR, MO0400FCTR, and MO0800FCTR drives

Version: HPD4 (Recommended)
Filename: CP026964.zip

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Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- HPD4 firmware corrects an issue where the drive may not flush user data to media if an internal reset occurs due to a device memory parity error.

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**Online ROM Flash Component for VMware ESXi - MO0200JDVET, MO0400JDVEU, MO0800JDVEV, EO0200JDVFA, EO0400JDVFB, and EO0800JDVFC Drives**

Version: HPD2 (Optional)
Filename: CP027128.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- Solid-state drives (SSD) running firmware versions prior to HPD2 support Unmap commands. Application clients can make use of the Unmap command to specify certain LBAs do not contain vital data. The SSD can use the unmapped LBAs as needed. This feature will no longer be supported on these SSDs running firmware version HPD2 and later.

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**Online ROM Flash Component for VMware ESXi - MO0200JEFNV, MO0400JEFPA, MO0800JEFPB, MO1600JEFPD, EO0200JEFPD, EO0400JEFPE, and EO0800JEFPF Drives**

Version: HPD1 (B) (Critical)
Filename: CP026705.zip
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD1 do not need to update to HPD1(B).

Fixes

Problem Fixed:

- Incorrect data reads might occur when accessing unaligned 4k reads and the data read has zero content preceding customer data. For additional information please refer to the customer advisory #c04650586

Enhancements

Enhancements/New Features for HPD1(B):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

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Online ROM Flash Component for VMware ESXi · VO1920JEUQQ Drives

Version: HPD1 (Critical)
Filename: CP026702.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problem Fixed:
Incorrect data reads might occur when accessing unaligned 4k reads and the data read has zero content preceding customer data. (Additional information can be obtained for this issue in Customer Advisory c04650586)

Online ROM Flash Component for Windows (x64) - DG0146FARVU, DG0300FARVV, DG0146BAMYQ, DG0300BAMYR, EG0146FAWJC, and EG0300FAWJD Drives
Version: HPDG (B) (Critical)
Filename: cp024969.exe; cp024969.md5

Important Note

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDG do not need to update to HPDG (B).

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPciss3 Controller Driver (hpciss3.sys) is running on the system being updated.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDG (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - DH0072FAQRD, DH0146FAQRE, EHO146FAWJB, and EHO072FAWJA Drives
Version: HPDJ (B) (Critical)
Filename: cp024970.exe; cp024970.md5
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDJ do not need to update to HPDJ (B).

Fixes

Problem Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpcisss3.sys) is running on the system being updated.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDJ (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - EF0300FARMU, EF0450FARMV, EF0600FARNA drives

Version: HPD6 (B) (Critical)
Filename: cp024971.exe; cp024971.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6 (B).
Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpcisss3.sys) is running on the system being updated.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD6 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - EF0300FATFD, EF0450FATFE, and EF0600FATFF Drives
Version: HPDB (B) (Critical)
Filename: cp024972.exe; cp024972.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDB do not need to update to HPDB (B).

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:
The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCiSSS3 Controller Driver (hpcisss3.sys) is running on the system being updated.

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for HPDB (B):**

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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**Online ROM Flash Component for Windows (x64) - EG0300FBDBR, EG0450FBDBT and EG0600FBDBU Drives**

Version: HPDA (B) (Critical)

Filename: cp024973.exe; cp024973.md5

**Important Note:**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDA do not need to update to HPDA (B).

**Prerequisites**

- Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.

**Fixes**

**Firmware Dependency:**

- Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.

**Problems Fixed:**

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

**Enhancements**

**Enhancements/New Features:**
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for HPDA (B):**

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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**Online ROM Flash Component for Windows (x64) - EG0300FBDSP, EG0450FBDSQ, and EG0600FBDSR drives**

Version: HPD6 (B) *(Optional)*

Filename: cp024974.exe; cp024974.md5

**Important Note:**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6 (B).

**Fixes**

**Problems Fixed:**

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.

**Enhancements**

**Enhancements/New Features:**

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver *(hpcisss3.sys)* is running on the system being updated.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for HPD6 (B):**

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.
Online ROM Flash Component for Windows (x64) - EG0300FBLSE, EG0450FBLSF, EG0600FBLSH, and EG0900FBLSK drives
Version: HPD8 (Recommended)
Filename: cp025752.exe; cp025752.md5

**Fixes**

**Problems Fixed:**

- HP ProLiant servers would power down due a hard drive overtemp condition that was falsely reported. Hard disk drive firmware HPD8 resolves this issue.

Online ROM Flash Component for Windows (x64) - EG0300FBVFL, EG0450FBVFM, EG0600FBVFP, and EG0900FBVFQ Drives
Version: HPDC (B) (Recommended)
Filename: cp024976.exe; cp024976.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDC do not need to update to HPDC (B).

**Fixes**

**Problems fixed:**

- Addressed an issue with an HP Smart Array E200 controller which could fail to discover a drive when more than one identify frame was provided during discovery.

**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for HPDC (B):**

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.
Online ROM Flash Component for Windows (x64) - EG0300FCHHR, EG0450FCHHT, EG0600FCHHU, and EG0900FCHHV Drives
Version: HPD8 (Recommended)
Filename: cp026065.exe; cp026065.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- A potential issue existed where the drive would become unresponsive if the host sent a high number of overlapping task management commands. The drive would require a power cycle to be recovered.

Enhancements

Enhancements/New Features:

- Improved write protection robustness before drive spin down.
- Implemented minor performance improvements in RAID environments.

Online ROM Flash Component for Windows (x64) - EG0300FCVBH, EG0450FCVBH, EG0600FCVBK, and EG0900FCVBL Drives
Version: HPD5 (B) (Recommended)
Filename: cp024977.exe; cp024977.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD5 do not need to update to HPD5 (B).

Fixes
Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD5 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - EG1200FCVBQ Drives

Version: HPD6 (B) (Critical)
Filename: cp024302.exe; cp024302.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6 (B).

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD6 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.
Online ROM Flash Component for Windows (x64) - EH0072FARUA and EH0146FARUB drives
Version: HPD9 (B) (Optional)
Filename: cp024979.exe; cp024979.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD9 do not need to update to HPD9 (B).

Fixes

Problems Fixed:

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISS3 Controller Driver (hpciiss3.sys) is running on the system being updated.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD9 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - EH0072FARWC and EH0146FARWD Drives
Version: HPDD (B) (Critical)
Filename: cp024980.exe; cp024980.md5

Important Note!
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPDD do not need to update to HPDD (B).

**Fixes**

**Problems Fixed:**

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

**Enhancements**

**Enhancements/New Features:**

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpciss3.sys) is running on the system being updated.

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for HPDD (B):**

- Updated the flash engine to standardize logging across all SAS drive components.

- Enhanced logging capability to improve the details provided in the component log file.

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**Online ROM Flash Component for Windows (x64) - EH0146FBQDC and EH0300FBQDD drives**

Version: HPD5 (Recommended)

Filename: cp027315.exe; cp027315.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**
Problems Fixed:

- HP ProLiant servers would power down due a hard drive overtemp condition that was falsely reported. Hard disk drive firmware HPDS resolves this issue.

Online ROM Flash Component for Windows (x64) - EH0146FCBVB and EH0300FCBVC drives
Version: HPD4 (B) (Recommended)
Filename: cp024982.exe; cp024982.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD4 do not need to update to HPD4 (B).

Enhancements
Enhancements/New Features:

- This firmware revision reduces the possibility of Uncorrectable Read Errors due to poor writes to the media.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD4 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - EH0300JDYTH, EH0450JDYTK, and EH0600JDYTL drives
Version: HPD2 (Recommended)
Filename: cp026432.exe; cp026432.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

### Fixes

#### Problems Fixed:

- HPD2 firmware update resolved an issue in multiport systems where the hard disk drive (HDD) might not be recognized. This issue was due to the HDD responding too slowly to a link reset on port A if port B was unavailable (multiport failover condition).

### Enhancements

#### Enhancements/New Features:

- Improved performance at higher drive temperatures.
- Improved link error rate counter accuracy before PHY was ready.

### Online ROM Flash Component for Windows (x64) - EH0300JEDHC, EH0450JEDHD, and EH0600JEDHE Drives

Version: HPD2 (Recommended)
Filename: cp027209.exe; cp027209.md5

### Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

### Fixes

#### Problems Fixed:

- This firmware contains fixes to prevent incorrect data from potentially occurring. Failures have not been reported by a customer but were found in a lab testing environment. Exposure is limited due to a narrow window of opportunity following a hard reset or when two consecutive write faults occur causing an error in the Input/Output Data Error Detection & Correction scheme.
Online ROM Flash Component for Windows (x64) - EO0200FBRVV, MO0200FBRWB, EO0400FBRWA, MO0400FBRWC, and MO0800FBRWD drives
Version: HPD9 (B) (Optional)
Filename: cp024983.exe; cp024983.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD9 do not need to update to HPD9 (B).

Fixes

Problems Fixed:

- In previous firmware revisions when the solid state drive was issued a Report Support Operation Code (RSOC) command (A3h) and the reporting options field was set to 001, the drive incorrectly responded with 05/24/00 indicating that the RSOC command was not supported. The error was logged in the system log files. The drive should have communicated non-support using the Command Data Parameter (CDP) format. The firmware now complies with the RSOC industry standard specification.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpciss3.sys) is running on the system being updated.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD9 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - MB1000FAMYU and MB2000FAMYV Drives
Version: HPD7 (B) (Critical)
Filename: cp024984.exe; cp024984.md5

Important Note!
o Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
o Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.
o Customers who already installed firmware version HPD7 do not need to update to HPD7 (B).

Fixes

Problem Fixed:
o This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements
Enhancements/New Features:
o The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpciss3.sys) is running on the system being updated.
o Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD7 (B):
o Updated the flash engine to standardize logging across all SAS drive components.
o Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - MB1000FBZPL and MB2000FBZPN drives
Version: HPD3 (B) (Critical)
Filename: cp024985.exe; cp024985.md5

Important Note!
o Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
o Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.
o Customers who already installed firmware version HPD3 do not need to update to HPD3 (B).

Fixes
Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpciss3.sys) is running on the system being updated.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD3 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - MB1000FCWDE, MB2000FCWDF, MB3000FCWDH, and MB4000FCWDK drives

Version: HPD5 (B) (Recommended)
Filename: cp024986.exe; cp024986.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD5 do not need to update to HPD5 (B).

Fixes

Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Enhancements/New Features:
Enhancements/New Features for HPD5 (B):

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD2 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - MB1000FCWPP, MB2000FCVBV, MB3000FCVCA, and MB4000FCVCB Drives

Version: HPD2 (B) (Recommended)
Filename: cp024987.exe; cp024987.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD2 do not need to update to HPD2 (B).

Enhancements

Enhancements/New Features:

- This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage applications (e.g., very long periods of small range seeks).
- Enhancements also include performance improvements.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD2 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - MB2000FBUCL and MB3000FBUCN drives

Version: HPDA (B) (Critical)
Filename: cp024988.exe; cp024988.md5

Important Note!
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPDA do not need to update to HPDA (B).

**Fixes**

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

**Enhancements**

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDA (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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**Online ROM Flash Component for Windows (x64) - MB2000FCQPF and MB3000FBNWV Drives**

Version: HPD8 *(Recommended)*

Filename: cp026855.exe; cp026855.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Enhancements**

Enhancements/New Features:

- This update provides enhanced seek recovery.
Online ROM Flash Component for Windows (x64) - MB2000FCZGH, MB3000FCZGK, and MB4000FCZGL Drives
Version: HPD6 (Recommended)
Filename: cp026312.exe; cp026312.md5

Fixes

Problems Fixed:

- A file system creation operation would stop responding because the HDD incorrectly responded with an Abort command/Overlapped command. This issue is resolved in HDD firmware version HPD6.

Online ROM Flash Component for Windows (x64) - MB4000JEQNL and MB6000JEQNN Drives
Version: HPD7 (Critical)
Filename: cp027326.exe; cp027326.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- This firmware fixes a potential incorrect data issue in write-cached enabled multi-initiator unaligned write environments, where reservation commands are used.

Online ROM Flash Component for Windows (x64) - MB6000FEDAU Drives
Version: HPD2 (Recommended)
Filename: cp026687.exe; cp026687.md5

Important Note!
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

**Problems Fixed:**

- HPD6 firmware update resolved an issue in multiport systems where the hard disk drive (HDD) might not be recognized. This issue was due to the HDD responding too slowly to a link reset on port A if port B was unavailable (multiport failover condition).

**Enhancements**

Enhancements/New Features:

- Improved performance for random read workloads.
- Improved link error rate counter accuracy before PHY was ready.

**Online ROM Flash Component for Windows (x64) - MM0500FAMYT Drives**

Version: HPD6 (B) (Critical)
Filename: cp024989.exe; cp024989.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6 (B).

**Fixes**

**Problem Fixed:**

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD6 prevents this condition from occurring.

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This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements
Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (*hpcisss3.sys*) is running on the system being updated.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD6 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - MM0500FBFVQ and MM1000FBFVR Drives
Version: HPD8 (B) (Critical)
Filename: cp024990.exe; cp024990.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD8 do not need to update to HPD8 (B).

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD8 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpcisss3.sys) is running on the system being updated.

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD8 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

### Online ROM Flash Component for Windows (x64) - MM1000FECVH Drives

Version: HPD1 (Recommended)
Filename: cp027607.exe; cp027607.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

### Fixes

**Problems Fixed:**

- This firmware resolved a potential multiport system failover condition where the drive might not be recognized, due to the drive responding too slowly to a link reset on port A if port B was unavailable. This firmware also fixed possible aborted command errors due to incorrect overlapped command tag checking being performed.

### Online ROM Flash Component for Windows (x64) - MM1000JEFRC Drives

Version: HPD4 (Recommended)
Filename: cp027395.exe; cp027395.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

**Problems Fixed:**

- Version HPD4 prevents the potential for incorrect data to be written to the drive under extremely rare circumstances when the drive experiences a hard reset. This issue has only been observed in a rigorous test environment and has NOT been reported in a customer production environment.

**Online ROM Flash Component for Windows (x64) - MO0200FCTR, MO0400FCTR, and MO0800FCTRQ drives**

Version: HPD4 (Recommended)
Filename: cp026966.exe; cp026966.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.**

**Fixes**

**Problems Fixed:**

- HPD4 firmware corrects an issue where the drive may not flush user data to media if an internal reset occurs due to a device memory parity error.

**Online ROM Flash Component for Windows (x64) - MO0200JDVE, MO0400JDVEU, MO0800JDVEV, EO0200JDVFA, EO0400JDVFB, and EO0800JDVFC Drives**

Version: HPD2 (Optional)
Filename: cp027130.exe; cp027130.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

Problems Fixed:

- Solid-state drives (SSD) running firmware versions prior to HPD2 support Unmap commands. Application clients can make use of the Unmap command to specify certain LBAs do not contain vital data. The SSD can use the unmapped LBAs as needed. This feature will no longer be supported on these SSDs running firmware version HPD2 and later.

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**Online ROM Flash Component for Windows (x64) - MO0200JEFNV, MO0400JEFPA, MO0800JEFPB, MO1600JEFPC, EO0200JEFPD, EO0400JEFPE, and EO0800JEFPF Drives**

Version: HPD1 *(Critical)*

Filename: cp026707.exe; cp026707.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

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**Fixes**

Problem Fixed:

- Incorrect data reads might occur when accessing unaligned 4k reads and the data read has zero content preceding customer data. For additional information please refer to the customer advisory #c04650586

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**Online ROM Flash Component for Windows (x64) - VO1920JEUQQ Drives**

Version: HPD1 *(Critical)*

Filename: cp026704.exe; cp026704.md5

**Important Note!**
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problem Fixed:

- Incorrect data reads might occur when accessing unaligned 4k reads and the data read has zero content preceding customer data. (Additional information can be obtained for this issue in Customer Advisory c04650586)

Online ROM Flash Component for Windows - DG0146FARVU, DG0300FARV.V, DG0146BAMYQ, DG0300BAMYR, EG0146FAWJC, and EG0300FAWJD Drives
Version: HPDG (B) (Critical)
Filename: cp020424.exe; cp020424.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPDG do not need to update to HPDG(B).

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISS3 Controller Driver (hpciss.sys) is running on the system being updated.
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPDJ do not need to update to HPDJ(B).

Fixes

Problem Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpciss3.sys) is running on the system being updated.

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6(B).
Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpciess3.sys) is running on the system being updated.

Online ROM Flash Component for Windows - EF0300FATFD, EF0450FATFE, and EF0600FATFF Drives

Version: HPDB (B) (Critical)
Filename: cp020433.exe; cp020433.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPDB do not need to update to HPDB(B).

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpciess3.sys) is running on the system being updated.
Online ROM Flash Component for Windows - EG0300FBDBR, EG0450FBDBT and EG0600FBDBU Drives
Version: HPDA (B) (Critical)
Filename: cp020307.exe; cp020307.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDA do not need to update to HPDA(B).

Prerequisites

- Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.

Fixes

Firmware Dependency:

- Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Online ROM Flash Component for Windows - EG0300FBDSP, EG0450FBDSQ, and EG0600FBDSR drives
Version: HPD6 (B) (Optional)
Filename: cp020435.exe; cp020435.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

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Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

- Customers who already installed firmware version HPD6 do not need to update to HPD6(B).

**Fixes**

Problems Fixed:

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.

**Enhancements**

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISS3 Controller Driver (`hpcisss3.sys`) is running on the system being updated.

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**Online ROM Flash Component for Windows - EG0300FBLSE, EG0450FBLSF, EG0600FBLSH, and EG0900FBLSK drives**

Version: HPD8 *(Recommended)*

Filename: `cp025755.exe`

**Fixes**

Problems Fixed:

- HP ProLiant servers would power down due a hard drive overtemp condition that was falsely reported. Hard disk drive firmware HPD8 resolves this issue.

**Enhancements**

Enhancements/New Features:

- None

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**Online ROM Flash Component for Windows - EG0300FBVFL, EG0450FBVFM, EG0600FBVFP, and EG0900FBVFQ Drives**

Version: HPDC *(Recommended)*

Filename: `cp022570.exe`; `cp022570.md5`

**Important Note**
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems fixed:

- Addressed an issue with an HP Smart Array E200 controller which could fail to discover a drive when more than one identify frame was provided during discovery.

Online ROM Flash Component for Windows - EG0300FCVBF, EG0450FCVBH, EG0600FCVBK, and EG0900FCVBL Drives

Version: HPD5 (Recommended)
Filename: cp022185.exe; cp022185.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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, VMware ESXi, and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

Fixes

Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Online ROM Flash Component for Windows - EG0900FDJYR and EG1200FDJYT Drives

Version: HPD1 (Recommended)
Filename: cp023452.exe; cp023452.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

**Fixes**

**Problems Fixed:**

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset. When the drives are connected to a HP Smart Array E200 controller, the drive firmware must be updated to version HPD1 before the controller will detect the drives.

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**Online ROM Flash Component for Windows - EG0900FDJYR and EG1200FDJYT Drives**

Version: HPD1 (B) *(Recommended)*

Filename: cp024978.exe; cp024978.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD1 do not need to update to HPD1 (B).

**Fixes**

**Problems Fixed:**

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset. When the drives are connected to a HP Smart Array E200 controller, the drive firmware must be updated to version HPD1 before the controller will detect the drives.

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**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for HPD1 (B):**

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.
Online ROM Flash Component for Windows - EG1200FCVBQ Drives
Version: HPD6 (Critical)
Filename: cp021952.exe; cp021952.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Online ROM Flash Component for Windows - EH0072FARUA and EH0146FARUB drives
Version: HPD9 (B) (Optional)
Filename: cp020437.exe; cp020437.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPD9 do not need to update to HPD9(B).

Fixes

Problems Fixed:

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.

Enhancements

Enhancements/New Features:
The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpcisss3.sys) is running on the system being updated.

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**Online ROM Flash Component for Windows - EH0072FARWC and EH0146FARWD Drives**

Version: HPDD (B) *(Critical)*
Filename: cp020438.exe; cp020438.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPDD do not need to update to HPDD(B).

**Fixes**

**Problems Fixed:**

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

**Enhancements**

**Enhancements/New Features:**

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpcisss3.sys) is running on the system being updated.

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**Online ROM Flash Component for Windows - EH0146FBQDC and EH0300FBQDD drives**

Version: HPD5 *(Recommended)*
Filename: cp027318.exe; cp027318.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

**Problems Fixed:**

- HP ProLiant servers would power down due to a hard drive overtemp condition that was falsely reported. Hard disk drive firmware HPD5 resolves this issue.

**Online ROM Flash Component for Windows - EH0146FCBVB and EH0300FCBVC drives**

Version: HPD4 *(Recommended)*  
Filename: cp020536.exe; cp020536.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Enhancements**

**Enhancements/New Features:**

- This firmware revision reduces the possibility of Uncorrectable Read Errors due to poor writes to the media.

**Online ROM Flash Component for Windows - EO0200FBRVV, MO0200FBRWB, EO0400FBRWA, MO0400FBRWC, and MO0800FBRWD drives**

Version: HPD9 (B) *(Recommended)*  
Filename: cp020440.exe; cp020440.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
Customers who already installed firmware version HPD9 do not need to update to HPD9(B).

**Fixes**

**Problems Fixed:**

- In previous firmware revisions when the solid state drive was issued a Report Support Operation Code (RSOC) command (A3h) and the reporting options field was set to 001, the drive incorrectly responded with 05/24/00 indicating that the RSOC command was not supported. The error was logged in the system log files. The drive should have communicated non-support using the Command Data Parameter (CDP) format. The firmware now complies with the RSOC industry standard specification.

**Enhancements/New Features:**

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpciss3.sys) is running on the system being updated.

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**Online ROM Flash Component for Windows - MB1000FAMYU and MB2000FAMYV Drives**

Version: HPD7 (B) **(Critical)**

Filename: cp020455.exe; cp020455.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPD7 do not need to update to HPD7(B).

**Fixes**

**Problem Fixed:**

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

**Enhancements/New Features:**
The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpcisss3.sys) is running on the system being updated.

**Online ROM Flash Component for Windows - MB1000FBZPL and MB2000FBZPN drives**

Version: HPD3 (B) **(Critical)**
Filename: cp020456.exe; cp020456.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPD3 do not need to update to HPD3(B).

**Fixes**

**Problems Fixed:**

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

**Enhancements**

**Enhancements/New Features:**

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpcisss3.sys) is running on the system being updated.

**Online ROM Flash Component for Windows - MB1000FCWDE, MB2000FCWDF, MB3000FCWDH, and MB4000FCWDK drives**

Version: HPD5 **(Recommended)**
Filename: cp022188.exe; cp022188.md5

**Important Note!**
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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, VMware ESXi, and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

Fixes

Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Enhancements

Enhancements/New Features:

- This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage applications (e.g., very long periods of small range seeks).
- Enhancements also include performance improvements.

Important Note:

Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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, VMware ESXi, and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

Important Note!
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Online ROM Flash Component for Windows - MB2000FCQPF and MB3000FBNWV Drives
Version: HPD8 (Recommended)
Filename: cp026852.exe; cp026852.md5

Important Note!

Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Enhancements

Enhancements/New Features:

This update provides enhanced seek recovery.

Online ROM Flash Component for Windows - MM0500FAMYT Drives
Version: HPD6 (B) (Critical)
Filename: cp020466.exe; cp020466.md5

Important Note!

Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6(B).

**Fixes**

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD6 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

**Enhancements**

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpcisss3.sys) is running on the system being updated.

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**Online ROM Flash Component for Windows - MM0500FBFVQ and MM1000FBFVR Drives**

Version: HPD8 (B) (Critical)
Filename: cp020467.exe; cp020467.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPD8 do not need to update to HPD8(B).

**Fixes**

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD8 prevents this condition from occurring.
This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

**Enhancements/New Features:**

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (`hpciss3.sys`) is running on the system being updated.

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**Online ROM Flash Component for Windows - MO0200FCTRN, MO0400FCTRP, and MO0800FCTRQ drives**

Version: HPD4 *(Recommended)*

Filename: cp026963.exe; cp026963.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

---

**Problems Fixed:**

- HPD4 firmware corrects an issue where the drive may not flush user data to media if an internal reset occurs due to a device memory parity error.

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**Enhancements/New Features for HPD4:**

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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**Supplemental Update / Online ROM Flash Component for Linux - DG0146FARVU, DG0300FARVV, DG0146BAMYQ, DG0300BAMYR, EG0146FAWJC, and EG0300FAWJD Drives**

Version: HPDG (C) *(Critical)*
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDG do not need to update to HPDG(C).

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EG0300FBDBR, EG0450FBDBT and EG0600FBDBU Drives

Version: HPDA (C) (Critical)
Filename: CP022312.md5; CP022312.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDA do not need to update to HPDA(C).

Prerequisites
- Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.

**Fixes**

**Firmware Dependency:**

- Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.

**Problems Fixed:**

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - EG0300FBDSP, EG0450FBDSQ, and EG0600FBDSR drives**

Version: HPD6 (C) *(Optional)*

Filename: CP022313.md5; CP022313.scexe

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

- Customers who already installed firmware version HPD6 do not need to update to HPD6(C).

**Fixes**

**Problems Fixed:**

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.
Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Supplemental Update / Online ROM Flash Component for Linux - EG0300FBLSE, EG0450FBLSF, EG0600FBLSH, and EG0900FBLSK drives**

Version: HPD8 (Recommended)
Filename: rpm/RPMS/i386/hp-firmware-hdd-815e5e101b-HPD8-1.1.i386.rpm

**Fixes**

**Problems Fixed:**

- HP ProLiant servers would power down due a hard drive overtemp condition that was falsely reported. Hard disk drive firmware HPD8 resolves this issue.

**Supplemental Update / Online ROM Flash Component for Linux - EG0300FBVFL, EG0450FBVFM, EG0600FBVFP, and EG0900FBVFQ drives**

Version: HPDC (Recommended)
Filename: CP022569.md5; CP022569.scexe

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

**Problems fixed:**

- Addressed an issue with an HP Smart Array E200 controller which could fail to discover a drive when more than one identify frame was provided during discovery.
Supplemental Update / Online ROM Flash Component for Linux - EG0900FDJYR and EG1200FDJYT Drives
Version: HPD1 (Recommended)
Filename: CP023451.md5; CP023451.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

Fixes
Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset. When the drives are connected to a HP Smart Array E200 controller, the drive firmware must be updated to version HPD1 before the controller will detect the drives.

Supplemental Update / Online ROM Flash Component for Linux - EG1200FCVBQ drives
Version: HPD6 (B) (Critical)
Filename: CP022317.md5; CP022317.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6(B).

Fixes
Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Enhancements
Enhancements/New Features:
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - EH0072FARUA and EH0146FARUB drives**

Version: HPD9 (C) *(Optional)*  
Filename: CP022318.md5; CP022318.scexe

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD9 do not need to update to HPD9(C).

**Fixes**

Problems Fixed:

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

**Enhancements**

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - EH0146FBQDC and EH0300FBQDD drives**

Version: HPD5 *(Recommended)*  
Filename: rpm/RPMS/i386/hp-firmware-hdd-1ec3c02013-HPD5-1.1.i386.rpm

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

 Fixes

Problems Fixed:

HP ProLiant servers would power down due a hard drive overtemp condition that was falsely reported. Hard disk drive firmware HPD5 resolves this issue.

Supplemental Update / Online ROM Flash Component for Linux - EH0146FCBVB and EH0300FCBVC drives

Version: HPD4 (B) (Recommended)
Filename: CP022321.md5; CP022321.scexe

Important Note!

Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPD4 do not need to update to HPD4(B).

Enhancements

Enhancements/New Features:

This firmware revision reduces the possibility of Uncorrectable Read Errors due to poor writes to the media.
Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EO0200FBRVV, MO0200FBRWB, EO0400FBRWA, MO0400FBRWC, and MO0800FBRWD drives

Version: HPD9 (C) (Optional)
Filename: CP022322.md5; CP022322.scexe

Important Note!

Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

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Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.

Customers who already installed firmware version HPD9 do not need to update to HPD9(C).

**Fixes**

**Problems Fixed:**

- In previous firmware revisions when the solid state drive was issued a Report Support Operation Code (RSOC) command (A3h) and the reporting options field was set to 001, the drive incorrectly responded with 05/24/00 indicating that the RSOC command was not supported. The error was logged in the system log files. The drive should have communicated non-support using the Command Data Parameter (CDP) format. The firmware now complies with the RSOC industry standard specification.

- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - MB1000FAMYU and MB2000FAMYV Drives**

Version: HPD7 (D) [Critical]
Filename: CP022325.md5; CP022325.scexe

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

- Customers who already installed firmware version HPD7 do not need to update to HPD7(D).

**Fixes**

**Problem Fixed:**

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

- HPD7 (B) resolves an issue with offline flashing where the component would time out during the upgrade process.
Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - MB1000FBZPL and MB2000FBZPN drives**

Version: HPD3 (C) *(Critical)*  
Filename: CP022326.md5; CP022326.scexe

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD3 do not need to update to HPD3(C).

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**Fixes**

**Problems Fixed:**

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

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**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - MB1000FCWPP, MB2000FCVBV, MB3000FCVCA, and MB4000FCVCB Drives**

Version: HPD2 *(Recommended)*  
Filename: CP022638.md5; CP022638.scexe
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Enhancements

Enhancements/New Features:

- This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage applications (e.g., very long periods of small range seeks).
- Enhancements also include performance improvements.

Supplemental Update / Online ROM Flash Component for Linux - MM0500FAMYT Drives
Version: HPD6 (C) (Critical)
Filename: CP022338.md5; CP022338.sce

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6(C).

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD6 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements
Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - MM0500FBFVQ and MM1000FBFVR Drives**

Version: HPD8 (C) (Critical)
Filename: CP022339.md5; CP022339.scexe

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD8 do not need to update to HPD8(C).

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**Fixes**

**Problem Fixed:**

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD8 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

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**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - MO0200FCTR, MO0400FCTRP, and MO0800FCTRQ drives**

Version: HPD4 (Recommended)
Filename: rpm/RPMS/i386/hp-firmware-hdd-37893275d3-HPD4-1.1.i386.rpm

**Important Note!**
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

**Problems Fixed:**

- HPD4 firmware corrects an issue where the drive may not flush user data to media if an internal reset occurs due to a device memory parity error.

**Enhancements**

**Enhancements/New Features for HPD4:**

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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**Supplemental Update / Online ROM Flash Component for Linux (x64) - DG0146FARVU, DG0300FARVV, DG0146BAMYQ, DG0300BAMYR, EG0146FAWJC, and EG0300FAWJD Drives**

Version: HPDG (B) (Critical)
Filename: CP024707.md5; CP024707.scexe; deb/hp-firmware-hdd-fdfb5070cf_0HPDG-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-fdfb5070cf-HPDG-2.x86_64.rpm

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDG do not need to update to HPDG (B).

**Fixes**

**Problems Fixed:**

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.
Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements
Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDG (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG0300FBDBR, EG0450FBDBT and EG0600FBDBU Drives
Version: HPDA (B) (Critical)
Filename: CP024711.md5; CP024711.scexe; deb/hp-firmware-hdd-f1eafd9715_0HPDA-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-f1eafd9715-HPDA-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDA do not need to update to HPDA (B).

Prerequisites

- Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.

Fixes
Firmware Dependency:

- Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.

Problems Fixed:
This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDA (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MM1000FECVH Drives

Version: HPD1 (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-eb0a0d48e5-HPD1-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- This firmware resolved a potential multiport system failover condition where the drive might not be recognized, due to the drive responding too slowly to a link reset on port A if port B was unavailable. This firmware also fixed possible aborted command errors due to incorrect overlapped command tag checking being performed.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MM1000JEFRB and MM2000JEFRC Drives

Version: HPD4 (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-b04257b77b-HPD4-1.1.x86_64.rpm
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- Version HPD4 prevents the potential for incorrect data to be written to the drive under extremely rare circumstances when the drive experiences a hard reset. This issue has only been observed in a rigorous test environment and has NOT been reported in a customer production environment.

Supplemental Update / Online ROM Flash Component for Linux (x64) - DH0072FAQRD, DH0146FAQRE, EH0146FAWJB, and EH0072FAWJA Drives

Version: HPDJ (B) (Critical)
Filename: CP024708.md5; CP024708.scexe; deb/hp-firmware-hdd-ca173adbad_0HPDJ-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-ca173adbad-HPDJ-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDJ do not need to update to HPDJ (B).

Fixes

Problem Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:
Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDJ (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EF0300FARMU, EF0450FARMV, and EF0600FARNA Drives
Version: HPD6 (B) (Critical)
Filename: CP024709.md5; CP024709.exe; deb/hp-firmware-hdd-c7ed905f46_0HPD6-2_amd64.deb;
rpm/RPMS/x86_64/hp-firmware-hdd-c7ed905f46-HPD6-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6 (B).

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.
- HPG6(C) resolved a component installation issue where the drive model, EF0600FARNA, was being detected, but would fail to flash.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD6 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.
Supplemental Update / Online ROM Flash Component for Linux (x64) - EF0300FATFD, EF0450FATFE, and EF0600FATFF Drives

Version: HPDB (B) (Critical)
Filename: CP024710.md5; CP024710.scexe; deb/hp-firmware-hdd-009c9a2503_0HPDB-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-009c9a2503-HPDB-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDB do not need to update to HPDB (B).

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDB (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG0300FBDS, EG0450FBDSQ, and EG0600FBDSR Drives

Version: HPD6 (B) (Optional)
Filename: CP024712.md5; CP024712.scexe; deb/hp-firmware-hdd-06ac84a5d4_0HPD6-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-06ac84a5d4-HPD6-2.x86_64.rpm

Important Note!
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPD6 do not need to update to HPD6 (B).

Problems Fixed:

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD6 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG0300FBLSE, EG0450FBLSF, EG0600FBLSH, and EG0900FBLSK Drives

Version: HPD8 (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-815e5e101b-HPD8-1.1.x86_64.rpm

Problems Fixed:

- HP ProLiant servers would power down due a hard drive overtemp condition that was falsely reported. Hard disk drive firmware HPD8 resolves this issue.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG0300FBVFL, EG0450FBVFM, EG0600FBVFP, and EG0900FBVFQ Drives

Version: HPDC (B) (Recommended)
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDC do not need to update to HPDC (B).

Fixes

Problems fixed:

- Addressed an issue with an HP Smart Array E200 controller which could fail to discover a drive when more than one identify frame was provided during discovery.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPDC (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG0300FCHHR, EG0450FCHHT, EG0600FCHHU, and EG0900FCHHV Drives

Version: HPD8 (Recommended)

Filename: rpm/RPMS/x86_64/hp-firmware-hdd-8a9b54701e-HPD8-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes
Problems Fixed:

- A potential issue existed where the drive would become unresponsive if the host sent a high number of overlapping task management commands. The drive would require a power cycle to be recovered.

Enhancements

Enhancements/New Features:

- Improved write protection robustness before drive spin down.
- Implemented minor performance improvements in RAID environments.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG0300FCVBF, EG0450FCVBH, EG0600FCVBK, and EG0900FCVBL Drives

Version: HPD5 (B) (Recommended)
Filename: CP024715.md5; CP024715.scexe; deb/hp-firmware-hdd-415992e26f_0HPD5-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-415992e26f-HPD5-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD5 do not need to update to HPD5 (B).

Fixes

Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD5 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG0900FDJYR and EG1200FDJYT Drives
Version: HPD1 (B) (Recommended)
Filename: CP024716.md5; CP024716.scexe; deb/hp-firmware-hdd-7cfa9118b1_0HPD1-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-7cfa9118b1-HPD1-2.x86_64.rpm

Important Note:

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD1 do not need to update to HPD1 (B).

Fixes

Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset. When the drives are connected to a HP Smart Array E200 controller, the drive firmware must be updated to version HPD1 before the controller will detect the drives.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD1 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EG1200FCVBQ Drives
Version: HPD6 (B) (Critical)
Filename: CP024228.md5; CP024228.scexe; deb/hp-firmware-hdd-33aee979c2_0HPD6-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-33aee979c2-HPD6-2.x86_64.rpm

Important Note!
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPD6 do not need to update to HPD6 (B).

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD6 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EH0072FARUA and EH0146FARUB Drives

Version: HPD9 (B) (Optional)
Filename: CP024717.md5; CP024717.scexe; deb/hp-firmware-hdd-88df5ee1cd_0HPD9-2_amd64.deb; rpm/RPMs/x86_64/hp-firmware-hdd-88df5ee1cd-HPD9-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD9 do not need to update to HPD9 (B).

Fixes

Problems Fixed:
This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.

Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD9 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EH0072FARWC and EH0146FARWD Drives

Version: HPDD (B) (Critical)
Filename: CP024718.md5; CP024718.scexe; deb/hp-firmware-hdd-92875cb465_0HPDD-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-92875cb465-HPDD-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDD do not need to update to HPDD (B).

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:
Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for HPDD (B):**

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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**Supplemental Update / Online ROM Flash Component for Linux (x64) - EH0146FBQDC and EH0300FBQDD Drives**

Version: HPD5 *(Recommended)*

Filename: rpm/RPMS/x86_64/hp-firmware-hdd-1ec3c02013-HPD5-1.1.x86_64.rpm

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

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**Fixes**

**Problems Fixed:**

- HP ProLiant servers would power down due a hard drive overtemp condition that was falsely reported. Hard disk drive firmware HPD5 resolves this issue.

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**Supplemental Update / Online ROM Flash Component for Linux (x64) - EH0146FCBV and EH0300FCBVC Drives**

Version: HPD4 *(Recommended)*

Filename: CP024720.md5; CP024720.scexe; deb/hp-firmware-hdd-74df2d6c5c_0HPD4-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-74df2d6c5c-HPD4-2_x86_64.rpm

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

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Customers who already installed firmware version HPD4 do not need to update to HPD4 (B).

Enhancements
Enhancements/New Features:

- This firmware revision reduces the possibility of Uncorrectable Read Errors due to poor writes to the media.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD4(B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EH0300JDYTE, EH0450JDYTE, and EH0600JDYTE drives
Version: HPD2 (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-b9340d29be-HPD2-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- HPD2 firmware update resolved an issue in multiport systems where the hard disk drive (HDD) might not be recognized. This issue was due to the HDD responding too slowly to a link reset on port A if port B was unavailable (multiport failover condition).

Enhancements

Enhancements/New Features:

- Improved performance at higher drive temperatures.
- Improved link error rate counter accuracy before PHY was ready.
Supplemental Update / Online ROM Flash Component for Linux (x64) - EH0300JEDHC, EH0450JEDHD, and EH0600JEDHE Drives
Version: HPD2 (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-8c4a212f9-HPD2-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- This firmware contains fixes to prevent incorrect data from potentially occurring. Failures have not been reported by a customer but were found in a lab testing environment. Exposure is limited due to a narrow window of opportunity following a hard reset or when two consecutive write faults occur causing an error in the Input/Output Data Error Detection & Correction scheme.

Supplemental Update / Online ROM Flash Component for Linux (x64) - EO0200FBRVV, MO0200FBRWB, EO0400FBRWA, MO0400FBRWC, and MO0800FBRWD Drives
Version: HPD9 (Optional)
Filename: CP024721.md5; CP024721.scexe; deb/hp-firmware-hdd-792f35abb6_0HPD9-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-792f35abb6-HPD9-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD9 do not need to update to HPD9 (B).

Fixes

Problems Fixed:
In previous firmware revisions when the solid state drive was issued a Report Support Operation Code (RSOC) command (A3h) and the reporting options field was set to 001, the drive incorrectly responded with 05/24/00 indicating that the RSOC command was not supported. The error was logged in the system log files. The drive should have communicated non-support using the Command Data Parameter (CDP) format. The firmware now complies with the RSOC industry standard specification.

- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD9 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB1000FAMYU and MB2000FAMYV Drives

Version: HPD7 (B) [Critical]
Filename: CP024722.md5; CP024722.scexe; deb/hp-firmware-hdd-2db44cb024_0HPD7-2_.amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-2db44cb024-HPD7-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD7 do not need to update to HPD7 (B).

Fixes

Problem Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- HPD7 (B) resolves an issue with offline flashing where the component would time out during the upgrade process.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.
Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD7 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB1000FBZPL and MB2000FBZPN Drives

Version: HPD3 (B) [Critical]
Filename: CP024723.md5; CP024723.scexe; deb/hp-firmware-hdd-b33fedbbdf_0HPD3-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-b33fedbbdf-HPD3-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD3 do not need to update to HPD3 (B).

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD3 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.
Supplemental Update / Online ROM Flash Component for Linux (x64) - MB1000FCWDE, MB2000FCWDF, MB3000FCWDH, and MB4000FCWDK Drives
Version: HPD5 (B) (Recommended)
Filename: CP024724.md5; CP024724.scexe; deb/hp-firmware-hdd-4892d09bcf_0HPD5-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-4892d09bcf-HPD5-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD5 do not need to update to HPD5 (B).

Fixes

Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD5 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB1000FCWPP, MB2000FCVBV, MB3000FCVCA, and MB4000FCVCB Drives
Version: HPD2 (B) (Recommended)
Filename: CP024725.md5; CP024725.scexe; deb/hp-firmware-hdd-64ffa21017_0HPD2-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-64ffa21017-HPD2-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPD2 do not need to update to HPD2 (B).

Enhancements

Enhancements/New Features:

- This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage applications (e.g., very long periods of small range seeks).
- Enhancements also include performance improvements.

Enhancements/New Features HPD2(B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000FBUCL and MB3000FBUCN Drives

Version: HPDA (B) [Critical]
Filename: CP024726.md5; CP024726.scexe; deb/hp-firmware-hdd-e0a45065fd_0HPDA-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-e0a45065fd-HPDA-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDA do not need to update to HPDA (B).

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Enhancements

Enhancements/New Features:
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for HPDA (B):**

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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### Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000FCQPF and MB3000FBNWV Drives

**Version:** HPD8 *(Recommended)*  
**Filename:** rpm/RPMS/x86_64/hp-firmware-hdd-52de99d707-HPD8-1.1.x86_64.rpm

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

### Enhancements

**Enhancements/New Features:**

- This update provides enhanced seek recovery.

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### Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000FCZGH, MB3000FCZGK, and MB4000FCZGL Drives

**Version:** HPD6 *(Recommended)*  
**Filename:** rpm/RPMS/x86_64/hp-firmware-a8d1969535-HPD6-1.1.x86_64.rpm

** Fixes**

**Problems Fixed:**

- A file system creation operation would stop responding because the HDD incorrectly responded with an Abort command/Overlapped command. This issue is resolved in HDD firmware version HPD6.
Supplemental Update / Online ROM Flash Component for Linux (x64) - MB4000JEQNL and MB6000JEQNN Drives
Version: HPD7 (Critical)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-2cfac41db-HPD7-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- This firmware fixes a potential incorrect data issue in write-cached enabled multi-initiator unaligned write environments, where reservation commands are used.

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Supplemental Update / Online ROM Flash Component for Linux (x64) - MB6000FEDAU Drives
Version: HPD2 (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-85e544eca4-HPD2-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- HPD2 firmware update resolved an issue in multiport systems where the hard disk drive (HDD) might not be recognized. This issue was due to the HDD responding too slowly to a link reset on port A if port B was unavailable (multiport failover condition).

Enhancements
Enhancements/New Features:

- Improved performance for random read workloads.
- Improved link error rate counter accuracy before PHY was ready.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MM0500FAMYT Drives

Version: HPD6 (B) (Critical)
Filename: CP024727.md5; CP024727.scexe; deb/hp-firmware-hdd-ff472f94c8_0HPD6-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-ff472f94c8-HPD6-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6 (B).

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD6 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD6 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.
Supplemental Update / Online ROM Flash Component for Linux (x64) - MM0500FBFVQ and MM1000FBFVR Drives
Version: HPD8 (B) (Critical)
Filename: CP024728.md5; CP024728.scexe; deb/hp-firmware-hdd-4b3e11848c_0HPD8-2_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-4b3e11848c-HPD8-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD8 do not need to update to HPD8 (B).

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD8 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for HPD8 (B):

- Updated the flash engine to standardize logging across all SAS drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MO0200FCTRN, MO0400FCTRP, and MO0800FCTRQ Drives
Version: HPD4 (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-37893275d3-HPD4-1.1.x86_64.rpm

Important Note!
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- HPD4 firmware corrects an issue where the drive may not flush user data to media if an internal reset occurs due to a device memory parity error.

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Supplemental Update / Online ROM Flash Component for Linux (x64) - MO0200JDVET, MO0400JDVEU, MO0800JDVEV, EO0200JDVFA, EO0400JDVFB, and EO0800JDVFC Drives
Version: HPD2 (Optional)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-8c5d34ba77-HPD2-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- Solid-state drives (SSD) running firmware versions prior to HPD2 support Unmap commands. Application clients can make use of the Unmap command to specify certain LBAs do not contain vital data. The SSD can use the unmapped LBAs as needed. This feature will no longer be supported on these SSDs running firmware version HPD2 and later.

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Supplemental Update / Online ROM Flash Component for Linux (x64) - MO0200JEFPV, MO0400JEFPA, MO0800JEFPB, MO1600JEFPD, EO0200JEFPD, EO0400JEFPE, and EO0800JEFPF Drives
Version: HPD1 (Critical)
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problem Fixed:

- Incorrect data reads might occur when accessing unaligned 4k reads and the data read has zero content preceding customer data. For additional information please refer to the customer advisory #c04650586

Supplemental Update / Online ROM Flash Component for Linux (x64) - VO1920JEUQQ Drives
Version: HPD1 (Critical)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-5d9e841607-HPD1-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problem Fixed:

- Incorrect data reads might occur when accessing unaligned 4k reads and the data read has zero content preceding customer data.

Supplemental Update / Online ROM Flash Component for Linux - DH0072FAQRD, DH0146FAQRE, EH0146FAWJB, and EH0072FAWJA Drives
Version: HPDJ (C) (Critical)
Filename: CP022309.md5; CP022309.scexe

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Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDJ do not need to update to HPDJ(C).

Fixes

Problem Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EF0300FARMU, EF0450FARMV, and EF0600FARNA drives

Version: HPD6 (D) [Critical]
Filename: CP022310.md5; CP022310.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD6 do not need to update to HPD6(D).

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

HPG6(C) resolved a component installation issue where the drive model, EF0600FARNA, was being detected, but would fail to flash.

**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - EF0300FATFD, EF0450FATFE, and EF0600FATFF Drives**

Version: HPDB (C) (Critical)

Filename: CP022311.md5; CP022311.scexe

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

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

**Fixes**

**Problems Fixed:**

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - EG0300FCVBF, EG0450FCVBH, EG0600FCVBK, and EG0900FCVBL Drives**

Version: HPD5 (B) (Recommended)

Filename: CP022316.md5; CP022316.scexe

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Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD5 do not need to update to HPD5(B).

Fixes

Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EH0072FARWC and EH0146FARWD Drives

Version: HPDD (C) [Critical]
Filename: CP022319.md5; CP022319.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPDD do not need to update to HPDD(C).

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.
Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements
Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB1000FCWDE, MB2000FCWDF, MB3000FCWDH, and MB4000FCWDK drives
Version: HPD5 (B) (Recommended)
Filename: CP022327.md5; CP022327.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPD5 do not need to update to HPD5(B).

Fixes
Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Enhancements
Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB2000FBUCL and MB3000FBUCN drives
Version: HPDA (B) (Critical)
Filename: CP022332.md5; CP022332.scexe

Important Note!
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPDA do not need to update to HPDA(B).

**Fixes**

**Problems Fixed:**

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - MB2000FCQPF and MB3000FBNWV Drives**

Version: HPD8 *(Recommended)*

Filename: CP026851.scexe; rpm/RPMS/i386/hp-firmware-52de99d707-HPD8-1.1.i386.rpm

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Enhancements**

**Enhancements/New Features:**

- This update provides enhanced seek recovery.
Firmware - SATA Storage Disk

Online ROM Flash Component for ESXi - MB3000EBKAB Drives
Version: HPG6 (E) (Critical)
Filename: CP026599.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG6 do not need to update to HPG6(E).

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPG6 prevents this condition from occurring.
- This firmware corrects “command timeouts” and seek errors which can result in poor performance or a Device Fault condition, the latter of which will result in the drive failed by the Controller or sub system.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
- Added support for HP Dynamic Smart Array B140i Controller.

Enhancements/New Features for HPG6 (E):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPGD do not need to update to HPGD(F).

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGD prevents this condition from occurring.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
- Added support for HP Dynamic Smart Array B140i Controller.

Enhancements/New Features for HPGD(F):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.
Enhancements

Enhancements/New Features:

- Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.

Enhancements/New Features for HPG4 (B):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Enhancements/New Features for HPG4 (C):

- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - MB1000GCEEK Drives

Version: HPG2 (Recommended)
Filename: CP026946.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Enhancements

Enhancements/New Features:
This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage applications (e.g., very long periods of small range seeks).

**Online ROM Flash Component for VMware ESXi - MB1000GCWCV, MB2000GCWDA, MB3000GCWDB, and MB4000GCWDC Drives**

Version: HPGE (B) *(Recommended)*
Filename: CP026593.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPGE do not need to update to HPGE(B).

**Enhancements**

**Enhancements/New Features:**

- Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.

**Enhancements/New Features for HPGE (B):**

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

**Online ROM Flash Component for VMware ESXi - MB2000EAZNL Drives**

Version: HPG4 (E) *(Optional)*
Filename: CP026594.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPG4 do not need to update to HPG4(E).

**Fixes**

Problems Fixed:

- This firmware contains general maintenance release and code improvement items. Drives built with or upgraded to hard drive firmware version HPG4 should not be downgraded to an earlier version of firmware due to hard drive manufacturing process changes.

**Enhancements**

**Enhancements/New Features:**

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
- Added support for HP Dynamic Smart Array B140i Controller.

**Enhancements/New Features for HPG4 (E):**

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

**Online ROM Flash Component for VMware ESXi - MB2000EBUCF and MB3000EBUCH Drives**

Version: HPG4 (E) **(Recommended)**
Filename: CP026595.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(E).

**Fixes**

Problems Fixed:
The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

**Enhancements**

**Enhancements/New Features:**

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
- Added support for HP Dynamic Smart Array B140i Controller.

**Enhancements/New Features for HPG4 (E):**

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

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**Online ROM Flash Component for VMware ESXi - MB2000ECVJF, MB3000ECVJH, and MB4000ECVJK Drives**

Version: HPG5 (B) **(Critical)**

Filename: CP026596.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG5 do not need to update to HPG5(B).

**Fixes**

**Problem Fixed:**

- Fixes a rare but potential data integrity error during low 5v drive voltage and specific sequential data streaming conditions, which could result in data written to incorrect sectors.
Enhancements/New Features for HPG5 (B):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - MB2000GBUPB and MB3000GBUCK drives
Version: HPG4 (E) (Recommended)
Filename: CP026597.zip

Important Note:

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(E).

Fixes

Problems Fixed:

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
- Added support for HP Dynamic Smart Array B140i Controller.

Enhancements/New Features for HPG4 (E):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

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Online ROM Flash Component for VMware ESXi - MB2000GCQXQ and MB3000GBKAC Drives
Version: HPGJ (E) (Critical)
Filename: CP026600.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPGJ do not need to update to HPGJ(E).

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGJ prevents this condition from occurring.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
- Added support for HP Dynamic Smart Array B140i Controller.

Enhancements/New Features for HPGJ (E):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - MB2000GCVBR, MB3000GCVBT, and MB4000GCVBU Drives
Version: HPG5 (B) (Critical)
Filename: CP026598.zip
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG5 do not need to update to HPG5(B).

Fixes

Problem Fixed:

- Fixes a rare but potential data integrity error during low 5v drive voltage and specific sequential data streaming conditions, which could result in data written to incorrect sectors.

Enhancements

Enhancements/New Features for HPG5 (B):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - MB4000GEQNH and MB6000GEQNK Drives

Version: HPG7 (Recommended)
Filename: CP027321.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:
This firmware corrects possible unrecovered errors caused by the track refresh algorithm not working properly.

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**Online ROM Flash Component for VMware ESXi - MB6000GEQUT and MB8000GEQUU Drives**

Version: HPG7 *(Recommended)*  
Filename: CP027331.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

**Problems Fixed:**

- This firmware corrects possible unrecovered errors caused by the track refresh algorithm not working properly.

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**Online ROM Flash Component for VMware ESXi - MK0100GCTYU, MK0200GCTYV, MK0400GCTZA, and MK0800GCTZB Drives**

Version: HPG4 *(C) (Optional)*  
Filename: CP026601.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(C).

**Fixes**

**Problems Fixed:**
This maintenance release corrects a failure seen during a HP Insight Diagnostic hard drive test. The failure was due to Device Extended Self-Test not completing in the drives advertised Self-Test completion time. This failure is not an indication that the drive is bad or marginal.

Enhancements

Enhancements/New Features:

- Added support for HP Dynamic Smart Array B140i Controller.

Enhancements/New Features for HPG4 (C):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

Fixes

Problems Fixed:

- Firmware resolves a data mismanagement issue associated with unaligned sequential write operations.

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Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPGC do not need to update to HPGC(E).

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGC prevents this condition from occurring.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
- Added support for HP Dynamic Smart Array B140i Controller.

Enhancements/New Features for HPGC (E):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Online ROM Flash Component for VMware ESXi - TK0120GECQL, VK0240GECQN, and VK0480GECQP Drives

Version: HPG3 (Critical)
Filename: CP026030.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

**Problems Fixed:**

- Firmware resolves a data mismanagement issue associated with unaligned sequential write operations.

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**Online ROM Flash Component for VMware ESXi** - VK0240GDJXU, VK0300GDUQV, VK0480GDJXV, VK0600GDUTQ, and VK0800GDJYA Drives

Version: HPG1 (B) *(Optional)*
Filename: CP026950.zip

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.

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**Online ROM Flash Component for Windows (x64)** - MB0500GCEHF, MB1000GCEHH, and MB2000GCEHK Drives

Version: HPGD (B) *(Critical)*
Filename: cp026130.exe; cp026130.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.
Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGD prevents this condition from occurring.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISS3 Controller Driver (hpciss3.sys) is running on the system being updated.
- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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Online ROM Flash Component for Windows (x64) - MB1000ECWCQ, MB2000ECWCR, MB3000ECWCT, and MB4000ECWCU Drives

Version: HPG4 (B) (Recommended)
Filename: cp026155.exe; cp026155.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(B).

Enhancements

Enhancements/New Features:
Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.

Enhancements/New Features for (B):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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**Online ROM Flash Component for Windows (x64) - MB1000GCEEK Drives**

Version: HPG2 (Recommended)
Filename: cp026947.exe; cp026947.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Enhancements**

Enhancements/New Features:

- This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage applications (eg, very long periods of small range seeks).

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**Online ROM Flash Component for Windows (x64) - MB1000GCWCV, MB2000GCWDA, MB3000GCWDB, and MB4000GCWDC Drives**

Version: HPGE (Recommended)
Filename: cp025819.exe; cp025819.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
**Enhancements**

**Enhancements/New Features:**

- Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.
- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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**Online ROM Flash Component for Windows (x64) - MB2000EAZNL Drives**

Version: HPG4 (B) *(Optional)*

Filename: cp026797.exe; cp026797.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(B).

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**Fixes**

**Problems Fixed:**

- This firmware contains general maintenance release and code improvement items. Drives built with or upgraded to hard drive firmware version HPG4 should not be downgraded to an earlier version of firmware due to hard drive manufacturing process changes.

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**Enhancements**

**Enhancements/New Features:**

- Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.
- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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**Online ROM Flash Component for Windows (x64) - MB2000EBUCF and MB3000EBUCH Drives**

Version: HPG4 (B) *(Recommended)*

Filename: cp026798.exe; cp026798.md5
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(B).

Fixes

Problems Fixed:

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

Enhancements

Enhancements/New Features:

- Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.
- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - MB2000ECVF, MB3000ECVJH, and MB4000ECVJK Drives

Version: HPG5 (Critical)
Filename: cp025328.exe; cp025328.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes
Problem Fixed:

- Fixes a rare but potential data integrity error during low 5v drive voltage and specific sequential data streaming conditions, which could result in data written to incorrect sectors.

Enhancements

Enhancements/New Features:

- Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.
- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - MB2000GBUPB and MB3000GBUCK Drives
Version: HPG4 (B) (Recommended)
Filename: cp026799.exe; cp026799.md5

Important Note:

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(B).

 Fixes

Problems Fixed:

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

Enhancements

Enhancements/New Features:

- Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.
- Updated the flash engine to standardize logging across all SATA drive components.
Enhanced logging capability to improve the details provided in the component log file.

**Online ROM Flash Component for Windows (x64) - MB2000GCQXQ and MB3000GBKAC Drives**

Version: HPGJ (B) *(Critical)*  
Filename: cp026801.exe; cp026801.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPGJ do not need to update to HPGJ(B).

**Fixes**

**Problem Fixed:**

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGJ prevents this condition from occurring.

**Enhancements**

**Enhancements/New Features:**

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver *(hpcissss3.sys)* is running on the system being updated.

**Enhancements/New Features for (B):**

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

**Online ROM Flash Component for Windows (x64) - MB2000GCVBR, MB3000GCVBT, and MB4000GCVBU Drives**

Version: HPG5 *(Critical)*  
Filename: cp025323.exe; cp025323.md5

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Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problem Fixed:

- Fixes a rare but potential data integrity error during low 5V drive voltage and specific sequential data streaming conditions, which could result in data written to incorrect sectors.

Enhancements

Enhancements/New Features:

- Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.
- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - MB3000EBKAB Drives

Version: HPG6 (B) (Critical)
Filename: cp026800.exe; cp026800.md5; temp/cp026800.xml

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG6 do not need to update to HPG6(B).

Fixes

Problems Fixed:
After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPG6 prevents this condition from occurring.

This firmware corrects “command timeouts” and seek errors which can result in poor performance or a Device Fault condition, the latter of which will result in the drive failed by the Controller or sub system.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpciss3.sys) is running on the system being updated.

Enhancements/New Features for (B):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - MB4000GEFNA and MB6000GEFNB Drives

Version: HPG2 (Recommended)
Filename: cp026241.exe; cp026241.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Enhancements

Enhancements/New Features:

- Implemented new servo code for improved seek recovery process in extreme conditions.
**Online ROM Flash Component for Windows (x64) - MB4000GEQNH and MB6000GEQNK Drives**
Version: HPG7 *(Recommended)*
Filename: cp027323.exe; cp027323.md5

**Important Note!**
- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

**Problems Fixed:**
- This firmware corrects possible unrecovered errors caused by the track refresh algorithm not working properly.

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**Online ROM Flash Component for Windows (x64) - MB6000GEQUT and MB8000GEQUU Drives**
Version: HPG7 *(Recommended)*
Filename: cp027333.exe; cp027333.md5

**Important Note!**
- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

**Problems Fixed:**
- This firmware corrects possible unrecovered errors caused by the track refresh algorithm not working properly.
Online ROM Flash Component for Windows (x64) - MK0100GCTYU, MK0200GCTYV, MK0400GCTZA, and MK0800GCTZB Drives
Version: HPG4 (B) (Optional)
Filename: cp026802.exe; cp026802.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(B).

Fixes

Problems Fixed:

- This maintenance release corrects a failure seen during a HP Insight Diagnostic hard drive test. The failure was due to Device Extended Self-Test not completing in the drives advertised Self-Test completion time. This failure is not an indication that the drive is bad or marginal.

Enhancements

Enhancements/New Features:

- Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.
- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Online ROM Flash Component for Windows (x64) - MK0960GECQK Drives
Version: HPG3 (Critical)
Filename: cp026025.exe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

Fixes
Problems Fixed:

- Firmware resolves a data mismanagement issue associated with unaligned sequential write operations.

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**Online ROM Flash Component for Windows (x64) - MM0500GBKAK and MM1000GBKAL Drives**

*Version: HPGC (B) (Critical)*  
*Filename: cp026803.exe; cp026803.md5*

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPGC do not need to update to HPGC(B).

---

**Fixes**

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGC prevents this condition from occurring.

---

**Enhancements**

**Enhancements/New Features:**

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (*hpcisss3.sys*) is running on the system being updated.

**Enhancements/New Features for (B):**

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
Online ROM Flash Component for Windows (x64) - MO0100EBTJT, MO0200EBTJU, and MO0400EBTJV drives
Version: HPG4 (Optional)
Filename: cp024523.exe; cp024523.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- Firmware version HPG4 resolved a wear-out issue which was caused by frequently issued PIO commands and resulted in a non-responsive drive.

Online ROM Flash Component for Windows (x64) - TK0120GECQL, VK0240GECQN, and VK0480GECQP Drives
Version: HPG3 (Critical)
Filename: cp026031.exe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- Firmware resolves a data mismanagement issue associated with unaligned sequential write operations.
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG9 do not need to update to HPG9(B).

Fixes

Problems Fixed:

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISS3 Controller Driver (hpcisss3.sys) is running on the system being updated.

Enhancements/New Features for (B):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.

Customers who already installed firmware version HPG9 do not need to update to HPG9(B).

**Fixes**

Problems Fixed:

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.

**Enhancements**

**Enhancements/New Features:**

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISS3 Controller Driver (hpciss3.sys) is running on the system being updated.

**Enhancements/New Features for (B):**

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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**Online ROM Flash Component for Windows (x64) - VK0240GDJXU, VK0300GDUQV, VK0480GDJXV, VK0600GDUTQ, and VK0800GDJYA Drives**

Version: HPG1 (Optional)
Filename: cp026954.exe; cp026954.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

Problems Fixed:
Online ROM Flash Component for Windows - MB0500GCEHF, MB1000GCEHH, and MB2000GCEHK Drives

Version: HPGD (B) (Critical)
Filename: cp020453.exe; cp020453.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPGD do not need to update to HPGD(B).

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGD prevents this condition from occurring.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpcissss3.sys) is running on the system being updated.

Online ROM Flash Component for Windows - MB1000ECWCQ, MB2000ECWCR, MB3000ECWCT, and MB4000ECWCU Drives

Version: HPG4 (Recommended)
Filename: cp025998.exe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Enhancements

Enhancements/New Features:

- Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.

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**Online ROM Flash Component for Windows - MB1000GCWCV, MB2000GCWDA, MB3000GCWDB, and MB4000GCWDC Drives**

Version: HPGE *(Recommended)*
Filename: cp025821.exe

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

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**Enhancements**

Enhancements/New Features:

- Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.

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**Online ROM Flash Component for Windows - MB2000EAZNL Drives**

Version: HPG4 *(Optional)*
Filename: cp020390.exe; cp020390.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

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Fixes

Problems Fixed:

- This firmware contains general maintenance release and code improvement items. Drives built with or upgraded to hard drive firmware version HPG4 should not be downgraded to an earlier version of firmware due to hard drive manufacturing process changes.

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**Online ROM Flash Component for Windows - MB2000EBUCF and MB3000EBUCH Drives**

Version: HPG4 *(Recommended)*

Filename: cp020667.exe; cp020667.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

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Fixes

Problems Fixed:

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

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**Online ROM Flash Component for Windows - MB2000ECVFJ, MB3000ECVJH, and MB4000ECVJK Drives**

Version: HPG5 *(Critical)*

Filename: cp025326.exe; cp025326.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
Problem Fixed:

- Fixes a rare but potential data integrity error during low 5v drive voltage and specific sequential data streaming conditions, which could result in data written to incorrect sectors.

**Online ROM Flash Component for Windows - MB2000GBUPB and MB3000GBUCK Drives**

Version: HPG4 *(Recommended)*
Filename: cp020664.exe; cp020664.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

**Problems Fixed:**

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

**Online ROM Flash Component for Windows - MB2000GCQXQ and MB3000GBKAC Drives**

Version: HPGJ *(Critical)*
Filename: cp020463.exe; cp020463.md5

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPGJ do not need to update to HPGJ(B).
Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGJ prevents this condition from occurring.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (hpcissss3.sys) is running on the system being updated.

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Online ROM Flash Component for Windows - MB2000GCVBR, MB3000GCVBT, and MB4000GCVBU Drives

Version: HPG5 (Critical)
Filename: cp025321.exe; cp025321.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problem Fixed:

- Fixes a rare but potential data integrity error during low 5v drive voltage and specific sequential data streaming conditions, which could result in data written to incorrect sectors.

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Online ROM Flash Component for Windows - MB3000EBKAB Drives

Version: HPG6 (B) (Critical)
Filename: cp020461.exe; cp020461.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

Customers who already installed firmware version HPG6 do not need to update to HPG6(B).

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPG6 prevents this condition from occurring.
- This firmware corrects “command timeouts” and seek errors which can result in poor performance or a Device Fault condition, the latter of which will result in the drive failed by the Controller or sub system.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISS3 Controller Driver (hpciss3.sys) is running on the system being updated.

Online ROM Flash Component for Windows - MK0100GCTYU, MK0200GCTYV, MK0400GCTZA, and MK0800GCTZB Drives

Version: HPG4 (Optional)
Filename: cp022699.exe; cp022699.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- This maintenance release corrects a failure seen during a HP Insight Diagnostic hard drive test. The failure was due to Device Extended Self-Test not completing in the drives advertised Self-Test completion time. This failure is not an indication that the drive is bad or marginal.
Online ROM Flash Component for Windows - MM0500GBKAK and MM1000GBKAL Drives
Version: HPGC (B) (Critical)
Filename: cp020468.exe; cp020468.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPGC do not need to update to HPGC(B).

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGC prevents this condition from occurring.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCIiSS3 Controller Driver (hpcisss3.sys) is running on the system being updated.

Online ROM Flash Component for Windows - MO0100EBTJT, MO0200EBTJU, and MO0400EBTJV drives
Version: HPG4 (Optional)
Filename: cp024525.exe; cp024525.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

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Fixes

Problems Fixed:

- Firmware version HPG4 resolved a wear-out issue which was caused by frequently issued PIO commands and resulted in a non-responsive drive.

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Online ROM Flash Component for Windows - VB0160EAVEQ and VB0160CBCDE Drives

Version: HPG9 (B) (Recommended)
Filename: cp020477.exe; cp020477.md5

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version HPG9 do not need to update to HPG9(B).

---

Fixes

Problems Fixed:

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.

---

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCSISS3 Controller Driver (hpciss3.sys) is running on the system being updated.

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Online ROM Flash Component for Windows - VB0250EAVER Drives

Version: HPG9 (B) (Recommended)
Filename: cp020478.exe; cp020478.md5

Important Note!
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

Customers who already installed firmware version HPG9 do not need to update to HPG9(B).

**Fixes**

**Problems Fixed:**

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.

**Enhancements**

**Enhancements/New Features:**

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (*hpcissss3.sys*) is running on the system being updated.

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**Online ROM Flash Component for Windows - VK0240GDJXU, VK0300GDUQV, VK0480GDJXV, VK0600GDUTQ, and VK0800GDJYA Drives**

Version: HPG1 (B) *(Optional)*

Filename: cp026952.exe; cp026952.md5

**Important Note:**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

- Customers who already installed firmware version HPG1 do not need to update to HPG1(B).

**Fixes**

**Problems Fixed:**
This maintenance firmware updates temperature reporting, Sanitize Block Erase and includes read performance improvements.

Supplemental Update / Online ROM Flash Component for ESXi - MB4000GEFNA and MB6000GEFNB Drives
Version: HPG2 (Recommended)
Filename: CP026239.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Enhancements

Enhancements/New Features:

- Implemented new servo code for improved seek recovery process in extreme conditions.

Supplemental Update / Online ROM Flash Component for ESXi - MO0100EBTJT, MO0200EBTJU, and MO0400EBTJV drives
Version: HPG4 (Optional)
Filename: CP024521.zip

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:
Firmware version HPG4 resolved a wear-out issue which was caused by frequently issued PIO commands and resulted in a non-responsive drive.

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### Supplemental Update / Online ROM Flash Component for ESXi - VB0160EAVEQ and VB0160CBCDE Drives

**Version:** HPG9 (E) *(Recommended)*

**Filename:** CP026603.zip

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**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG9 do not need to update to HPG9(E).

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### Fixes

**Problems Fixed:**

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.

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### Enhancements

**Enhancements/New Features:**

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
- Added support for HP Dynamic Smart Array B140i Controller.

**Enhancements/New Features for HPG9 (E):**

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

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### Supplemental Update / Online ROM Flash Component for ESXi - VB0250EAVER Drives

**Version:** HPG9 (E) *(Recommended)*

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Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG9 do not need to update to HPG9(E).

Fixes

Problems Fixed:

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
- Added support for HP Dynamic Smart Array B140i Controller.

Enhancements/New Features for HPG9 (E):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.
- VMware Firmware Smart component packaging has changed from a *.scexe package to a *.zip package, which contains an executable binary that provides enhanced security during installation. The functionality of the VMware Smart Component has not changed.

Supplemental Update / Online ROM Flash Component for Linux - MB2000EAZNL drives

Version: HPG4 (B) (Optional)
Filename: CP022329.md5; CP022329.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Customers who already installed firmware version HPG4 do not need to update to HPG4(B).

**Fixes**

Problems Fixed:

- This firmware contains general maintenance release and code improvement items. Drives built with or upgraded to hard drive firmware version HPG4 should not be downgraded to an earlier version of firmware due to hard drive manufacturing process changes.

**Enhancements**

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - MB2000EBUCF and MB3000EBUCH Drives**

Version: HPG4 (B) *(Recommended)*

Filename: CP022330.md5; CP022330.scexe

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(B).

**Fixes**

Problems Fixed:

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

**Enhancements**

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
Supplemental Update / Online ROM Flash Component for Linux - MB2000GBUPB and MB3000GBUCK drives
Version: HPG4 (B) (Recommended)
Filename: CP022333.md5; CP022333.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(B).

Fixes

Problems Fixed:

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB0500GCEHF, MB1000GCEHH, and MB2000GCEHK Drives
Version: HPGD (C) (Critical)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-b583d96f94-HPGD-3.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPGD do not need to update to HPGD(C).

Fixes
Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGD prevents this condition from occurring.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.
- Resolved a component installation issue where the drive model, MB2000GCEHK, was being detected, but would fail to flash.
- Linux Smart Component fails to update firmware on SATA drive connected behind a SATA HBA controller. Component reports the firmware update was successful. However, after a power cycle, the firmware version remains unchanged.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for (C):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB1000ECWCQ, MB2000ECWCR, MB3000ECWCT, and MB4000ECWCU Drives

Version: HPG4 (B) (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-a92b4196b5-HPG4-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(B).

Enhancements

Enhancements/New Features:
Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.

Enhancements/New Features for (B):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB1000GCEEK Drives
Version: HPG2 (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-7aa341f927-HPG2-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Enhancements
Enhancements/New Features:

- This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage applications (e.g., very long periods of small range seeks).

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB1000GCWCV, MB2000GCWDA, MB3000GCWDB, and MB4000GCWDC Drives
Version: HPGE (B) (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-a1b08f8a6b-HPGE-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPGE do not need to update to HPGE(B).
Enhancements

Enhancements/New Features:

- Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.

Enhancements/New Features for (B):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000EAZNL Drives

Version: HPG4 (C) (Optional)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-800c4d6b2e-HPG4-3.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(C).

Fixes

Problems Fixed:

- This firmware contains general maintenance release and code improvement items. Drives built with or upgraded to hard drive firmware version HPG4 should not be downgraded to an earlier version of firmware due to hard drive manufacturing process changes.
- Linux Smart Component fails to update firmware on SATA drive connected behind a SATA HBA controller. Component reports the firmware update was successful. However, after a power cycle, the firmware version remains unchanged.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for (C):

- Updated the flash engine to standardize logging across all SATA drive components.
Enhanced logging capability to improve the details provided in the component log file.

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**Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000EBUCF and MB3000EBUCH Drives**

Version: HPG4 (C) *(Recommended)*
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-74febf9767-HPG4-3.x86_64.rpm

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

**Fixes**

**Problems Fixed:**

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.
- Linux Smart Component fails to update firmware on SATA drive connected behind a SATA HBA controller. Component reports the firmware update was successful. However, after a power cycle, the firmware version remains unchanged.

**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for (C):**

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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**Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000ECVJF, MB3000ECVJH, and MB4000ECVJK Drives**

Version: HPG5 *(Critical)*
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-b923956874-HPG5-1.1.x86_64.rpm

**Important Note!**
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problem Fixed:

- Fixes a rare but potential data integrity error during low 5v drive voltage and specific sequential data streaming conditions, which could result in data written to incorrect sectors.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000GBUPB and MB3000GBUCK Drives

Version: HPG4 (C) (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-166dc88573-HPG4-3.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(C).

Fixes

Problems Fixed:

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.
Linux Smart Component fails to update firmware on SATA drive connected behind a SATA HBA controller. Component reports the firmware update was successful. However, after a power cycle, the firmware version remains unchanged.

**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for (C):**

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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**Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000GCQXQ and MB3000GBKAC Drives**

Version: HPGJ (C) (Critical)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-c9026c29f7-HPGJ-3.x86_64.rpm

**Important Note:**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPGJ do not need to update to HPGJ(C).

**Fixes**

**Problem Fixed:**

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGJ prevents this condition from occurring.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.
- Linux Smart Component fails to update firmware on SATA drive connected behind a SATA HBA controller. Component reports the firmware update was successful. However, after a power cycle, the firmware version remains unchanged.

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**Enhancements**
Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for (C):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB2000GCVBR, MB3000GCVBT, and MB4000GCVBU Drives
Version: HPG5 (Critical)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-e4f5b5c9a7-HPG5-1.1.x86_64.rpm

Important Note:

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problem Fixed:

- Fixes a rare but potential data integrity error during low 5v drive voltage and specific sequential data streaming conditions, which could result in data written to incorrect sectors.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB3000EBKAB Drives
Version: HPG6 (Critical)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-3675aa63c9-HPG6-3.x86_64.rpm
Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG6 do not need to update to HPG6(C).

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPG6 prevents this condition from occurring.
- This firmware corrects “command timeouts” and seek errors which can result in poor performance or a Device Fault condition, the latter of which will result in the drive failed by the Controller or sub system.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.
- Linux Smart Component fails to update firmware on SATA drive connected behind a SATA HBA controller. Component reports the firmware update was successful. However, after a power cycle, the firmware version remains unchanged.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for (C):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB4000GEFNA and MB6000GEFNB Drives

Version: HPG2 (Recommended)

Filename: CP026240.md5; CP026240.scexe; deb/hp-firmware-hdd-40277d55d3_0HPG2-1.1_amd64.deb; rpm/RPMS/x86_64/hp-firmware-hdd-40277d55d3-HPG2-1.1.x86_64.rpm

Important Note!
Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Enhancements

Enhancements/New Features:

- Implemented new servo code for improved seek recovery process in extreme conditions.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB4000GEOQNH and MB6000GEOQNK Drives
Version: HPG7 (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-bfc95f0628-HPG7-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- This firmware corrects possible unrecovered errors caused by the track refresh algorithm not working properly.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MB6000GEOQUT and MB8000GEQUU Drives
Version: HPG7 (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-1d7f19120b-HPG7-1.1.x86_64.rpm

Important Note!
Fixes

Problems Fixed:

- This firmware corrects possible unrecovered errors caused by the track refresh algorithm not working properly.

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**Supplemental Update / Online ROM Flash Component for Linux (x64) - MK0100GCTYU, MK0200GCTYV, MK0400GCTZA, and MK0800GCTZB Drives**

Version: HPG4 (C) *(Optional)*
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-b2d9e3a264-HPG4-3.x86_64.rpm

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4(C).

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Fixes

Problems Fixed:

- This maintenance release corrects a failure seen during a HP Insight Diagnostic hard drive test. The failure was due to Device Extended Self-Test not completing in the drives advertised Self-Test completion time. This failure is not an indication that the drive is bad or marginal.
- Linux Smart Component fails to update firmware on SATA drive connected behind a SATA HBA controller. Component reports the firmware update was successful. However, after a power cycle, the firmware version remains unchanged.

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Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.
Updated the flash engine to standardize logging across all SATA drive components.
Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MK0960GECQK Drives
Version: HPG3 (Critical)
Filename: CP026027.md5; CP026027.scexe; deb/hp-firmware-hdd-3e34285be7_0HPG3-1.1_amd64.deb;
RPMS/x86_64/hp-firmware-hdd-3e34285be7-HPG3-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

Fixes

Problems Fixed:

- Firmware resolves a data mismanagement issue associated with unaligned sequential write operations.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MM0500GBKAK and MM1000GBKAL Drives
Version: HPGC (C) (Critical)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-a08f92a4f9-HPGC-3.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPGC do not need to update to HPGC(C).

Fixes

Problems Fixed:
After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGC prevents this condition from occurring.

- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.
- Linux Smart Component fails to update firmware on SATA drive connected behind a SATA HBA controller. Component reports the firmware update was successful. However, after a power cycle, the firmware version remains unchanged.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for (C):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - MO0100EBTJT, MO0200EBTJU, and MO0400EBTJV drives

Version: HPG4 (B) (Optional)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-72e5d6942f-HPG4-2.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG4 do not need to update to HPG4 (B).

Fixes

Problems Fixed:

- Firmware version HPG4 resolved a wear-out issue which was caused by frequently issued PIO commands and resulted in a non-responsive drive.

Enhancements
Enhancements/New Features for HPG4 (B):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - TK0120GECQL, VK0240GECQN, and VK0480GECQP Drives

Version: HPG3 (Critical)
Filename: CP026029.md5; CP026029.scexe; deb/hp-firmware-hdd-5699d4778d_0HPG3-1.1_amd64.deb; RPMS/x86_64/hp-firmware-hdd-5699d4778d-HPG3-1.1.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- Firmware resolves a data mismanagement issue associated with unaligned sequential write operations.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VB0160EAVEQ and VB0160CBCDE Drives

Version: HPG9 (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-181eec78ee-HPG9-3.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG9 do not need to update to HPG9(C).

Fixes
Problems Fixed:

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.
- Linux Smart Component fails to update firmware on SATA drive connected behind a SATA HBA controller. Component reports the firmware update was successful. However, after a power cycle, the firmware version remains unchanged.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Enhancements/New Features for (C):

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

Supplemental Update / Online ROM Flash Component for Linux (x64) - VB0250EAVER

Drives

Version: HPG9 (C) (Recommended)
Filename: rpm/RPMS/x86_64/hp-firmware-hdd-e6bc718d4e-HPG9-3.x86_64.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG9 do not need to update to HPG9(C).

Fixes

Problems Fixed:

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.
Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Linux Smart Component fails to update firmware on SATA drive connected behind a SATA HBA controller. Component reports the firmware update was successful. However, after a power cycle, the firmware version remains unchanged.

**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

**Enhancements/New Features for (C):**

- Updated the flash engine to standardize logging across all SATA drive components.
- Enhanced logging capability to improve the details provided in the component log file.

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**Supplemental Update / Online ROM Flash Component for Linux (x64) - VK0240GDJXU, VK0300GDUQV, VK0480GDJXV, VK0600GDUTQ, and VK0800GDJYA Drives**

Version: HPG1 **(Optional)**

Filename: rpm/RPMS/x86_64/hp-firmware-ef3ea1e703-HPG1-1.1.x86_64.rpm

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

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**Fixes**

**Problems Fixed:**

- This maintenance firmware updates temperature reporting, Sanitize Block Erase and includes read performance improvements.

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**Supplemental Update / Online ROM Flash Component for Linux - MB0500GCEHF, MB1000GCEHH, and MB2000GCEHK Drives**

Version: HPGD (E) **(Critical)**

Filename: CP022323.md5; CP022323.scexe

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Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPGD do not need to update to HPGD(E).

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGD prevents this condition from occurring.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.
- HPGD (D) resolved a component installation issue where the drive model, MB2000GCEHK, was being detected, but would fail to flash.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB1000ECWCQ, MB2000ECWCQ, MB3000ECWCQ, and MB4000ECWCU Drives

Version: HPG4 (Recommended)
Filename: CP026001.md5; CP026001.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Enhancements

Enhancements/New Features:
Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.

Supplemental Update / Online ROM Flash Component for Linux - MB1000GCWCV, MB2000GCWDA, MB3000GCWDB, and MB4000GCWDC Drives
Version: HPGE (Recommended)
Filename: CP025820.md5; CP025820.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Enhancements
Enhancements/New Features:

- Improvements have been made to enhance drive reliability, performance and handle sudden shock situations.

Supplemental Update / Online ROM Flash Component for Linux - MB2000ECVJF, MB3000ECVJH, and MB4000ECVJK Drives
Version: HPG5 (Critical)
Filename: rpm/RPMS/i386/hp-firmware-b923956874-HPG5-1.1.i386.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes
Problem Fixed:

- Fixes a rare but potential data integrity error during low 5v drive voltage and specific sequential data streaming conditions, which could result in data written to incorrect sectors.
Supplemental Update / Online ROM Flash Component for Linux - MB2000GCQXQ and MB3000GBKAC Drives
Version: HPGJ (C) (Critical)
Filename: CP022337.md5; CP022337.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPGJ do not need to update to HPGJ(C).

 Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGJ prevents this condition from occurring.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

 Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB2000GCVBR, MB3000GCVBT, and MB4000GCVBU Drives
Version: HPG5 (Critical)
Filename: rpm/RPMS/i386/hp-firmware-e4f5b5c9a7-HPG5-1.1.i386.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
Fixes

Problem Fixed:

- Fixes a rare but potential data integrity error during low 5v drive voltage and specific sequential data streaming conditions, which could result in data written to incorrect sectors.

Supplemental Update / Online ROM Flash Component for Linux - MB3000EBKAB Drives
Version: HPG6 (C) [Critical]
Filename: CP022335.md5; CP022335.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG6 do not need to update to HPG6(C).

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPG6 prevents this condition from occurring.
- This firmware corrects “command timeouts” and seek errors which can result in poor performance or a Device Fault condition, the latter of which will result in the drive failed by the Controller or sub system.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MK0100GCTYU, MK0200GCTYV, MK0400GCTZA, and MK0800GCTZB Drives
Version: HPG4 [Optional]
Filename: CP022698.md5; CP022698.scexe

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Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes

Problems Fixed:

- This maintenance release corrects a failure seen during a HP Insight Diagnostic hard drive test. The failure was due to Device Extended Self-Test not completing in the drives advertised Self-Test completion time. This failure is not an indication that the drive is bad or marginal.

Supplemental Update / Online ROM Flash Component for Linux - MM0500GBKAK and MM1000GBKAL Drives

Version: HPGC (C) (Critical)
Filename: CP022340.md5; CP022340.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPGC do not need to update to HPGC(C).

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGC prevents this condition from occurring.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:
Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MO0100EBTJT, MO0200EBTJU, and MO0400EBTJV drives
Version: HPG4 (Optional)
Filename: rpm/RPMS/i386/hp-firmware-72e5d6942f-HPG4-1.1.i386.rpm

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.

Fixes
Problems Fixed:

- Firmware version HPG4 resolved a wear-out issue which was caused by frequently issued PIO commands and resulted in a non-responsive drive.

Supplemental Update / Online ROM Flash Component for Linux - VB0160EAVEQ and VB0160CBCDE Drives
Version: HPG9 (C) (Recommended)
Filename: CP022342.md5; CP022342.scexe

Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG9 do not need to update to HPG9(C).

Fixes
Problems Fixed:

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to
the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.

- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - VB0250EAVER Drives**

**Version:** HPG9 (C) *(Recommended)*  
**Filename:** CP022343.md5; CP022343.scexe

**Important Note!**

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG9 do not need to update to HPG9(C).

**Fixes**

**Problems Fixed:**

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

**Enhancements**

**Enhancements/New Features:**

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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**Supplemental Update / Online ROM Flash Component for Linux - VK0240GDJXU, VK0300GDUQV, VK0480GDJXV, VK0600GDUTQ, and VK0800GDJYA Drives**

**Version:** HPG1 (C) *(Optional)*  
**Filename:** rpm/RPMS/i386/hp-firmware-ef3ea1e703-HPG1-3.i386.rpm

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Important Note!

- Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP 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 SPP and HP SUM.
- Customers who already installed firmware version HPG1 do not need to update to HPG1(C).

Fixes

Problems Fixed:

- This maintenance firmware updates temperature reporting, Sanitize Block Erase and includes read performance improvements.

Problem fixed in HPG1(B):

- Linux Smart Component fails to update firmware on SATA drive connected behind a SATA HBA controller. Component reports the firmware update was successful. However, after a power cycle, the firmware version remains unchanged.

Firmware - Storage Controller

HP D2600/D2700 6Gb SAS Disk Enclosure ROM Flash Component for Linux
Version: 0149 (D) (Recommended)
Filename: CP026680.scexe

Important Note!

Upgrade to D2600/D2700 firmware 0149(D) is not necessary if the device is currently running 0149 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.
NOTE: 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.

NOTE: All firmware flash progress messages are logged to /var/cpq/Component.log for inband and /var/cpq/MSA2000_ip.log for network flash.

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.

NOTE: 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.

NOTE: All firmware flash progress messages are logged to /var/cpq/Component.log for inband and /var/cpq/MSA2000_ip.log for network flash.

Fixes

The following items were fixed in firmware 0149:

- Fixed an issue where a small percentage of UID button presses did not register correctly.
- Fixed an issue where a drive insertion might not correctly illuminate the LEDs.

Enhancements

The following enhancement was done in this version of the smart component:

- Added Support for RHEL 7 and SLES 12
- Added GEN9 support and converted SOULAPI to 8.2.6.0

Supported Devices and Features

The D2600/ D2700 Enclosure can be attached to any of the following HP Smart Array storage controllers:

- HP Smart Array P431 controller
- HP Smart Array P212 controller
- HP Smart Array P411 controller
- HP Smart Array P812 controller
- HP Smart Array P222 controller
- HP Smart Array P421 controller
- HP Smart Array P822 controller
Alternatively, it can also be connected behind a HP MSA 2040/1040 and P2000 G3 arrays.

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**HP D2600/D2700 6Gb SAS Disk Enclosure ROM Flash Component for Windows**

Version: 0149 (D) *(Recommended)*

Filename: cp026783.exe

**Important Note!**

Upgrade to D2600/D2700 firmware 0149(D) is not necessary if the device is currently running 0149 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.

**NOTE:** 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.

**NOTE:** All firmware flash progress messages are logged to %systemdrive%\CPQSYSTEM\Log\MSA2000_IP.log for Array Configurations and %systemdrive%\CPQSYSTEM\Log\MSA-D2000.log for Smart Array configurations and flashing 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.

**NOTE:** 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.
NOTE: All firmware flash progress messages are logged to %systemdrive%\CPQSYSTEM\Log\MSA2000_IP.log for Array Configurations and %systemdrive%\CPQSYSTEM\Log\MSA-D2000.log for Smart Array configurations and flashing summary is logged to %systemdrive%\CPQSYSTEM\Log\cpqsetup.log.

Fixes

The following items were fixed in firmware 0149:

- Fixed an issue where a small percentage of UID button presses did not register correctly.
- Fixed an issue where a drive insertion might not correctly illuminate the LEDs.

Enhancements

The following enhancement was done in this version of the smart component:

- Added GEN9 support and converted SOULAPI to 8.2.6.0

Supported Devices and Features

The D2600/ D2700 Enclosure can be attached to any of the following HP storage controllers:

- HP Smart Array P212 controller
- HP Smart Array P222 controller
- HP Smart Array P411 controller
- HP Smart Array P421 controller
- HP Smart Array P812 controller
- HP Smart Array P822 controller
- HP Smart Array P431 controller
- HP H221 Host Bus Adapter
- HP H222 Host Bus Adapter
- HP Smart HBA H241

Alternatively, it can also be connected behind a HP MSA 2040/1040 and P2000 G3 arrays.

Offline Firmware Supplemental Update - HP SAS Expander Card

Version: 2.10 (C) (Recommended)
Filename: CP022989.md5; CP022989.scexe

Prerequisites

A minimum FW version 3.66 is required on your HP Smart Array controller when updating to 2.10 FW on your HP SAS Expander Card.

Fixes

Firmware Dependency:
A minimum FW version 3.66 is required on your HP Smart Array controller when updating to 2.10 FW on your HP SAS Expander Card.
Problems Fixed:
  o On rare occasions during a power-up sequence, the HP SAS Expander, would be unresponsive. When the HP SAS Expander was unresponsive, the attached HP Smart Array P410 or P410i Controller was not allowed to discover drives that were attached.

Problems Fixed in version 2.10(C):
  o Fixed an issue where the offline check protocol was not included in the component installer, allowing the component to run in an online environment.

Enhancements
  Enhancements/New Features:
    o Resolved an issue where the Smart Component would hang during hardware discovery when an unknown device was present.

Online ROM Flash Component for Linux (x64) – HP Apollo 2000 System
Version: 1.00 (Recommended)
Filename: hp-firmware-smartarray-3bf7ece88e-1.00-1.1.x86_64.rpm

Enhancements
  o 1.00 is the initial firmware release

Online ROM Flash Component for Linux (x64) – HP Apollo 4200 Gen9
Version: 1.03 (Recommended)
Filename: hp-firmware-smartarray-f18fdefd0b-1.03-1.1.x86_64.rpm

Important Note!
  o Power cycle / cold reboot is required if firmware is upgraded from version 1.03 or earlier.

Enhancements
  o 1.03 is the initial firmware release.

Online ROM Flash Component for Linux - HP Host Bus Adapters H220, H221, H222, H210i and H220i
Version: 15.10.09.00 (Recommended)
Fixes

Firmware Version 15.10.09.00

- Resolves a performance issue that was caused by a 90 msec timeout on all read/write operations when no Smart Carrier was present. This firmware reduces the read/write timeout to 2 msec.
- Resolves a lockup issue during boot up on the HP ProLiant DL580 Gen8 Server when configured with the HP Host Bus Adapter H220 connected to SATA SSD or HDD drives.

Online ROM Flash Component for VMware ESXi - Smart Array H240ar, H240, H240nr, H241, H244br, P240nr, P244br, P246br, P440ar, P440, P441, P542D, P741m, P840, P840ar, and P841
Version: 3.00 (Recommended)
Filename: CP027640.zip

Fixes

- Controller might stop responding in the following situations:
  - During reboot or at power-up, if multiple Raw Device Mappings (RDM’s) are configured under VMware
  - During reboot or at power-up, if multiple logical volumes are queued for rebuild, expansion, or transformation
  - When flashing SATA drive firmware on a system running a supported Windows OS, if a drive had previously been removed or failed (POST Lockup 0x13)
- Drives reported as overheating when not above temperature limits

Enhancements

- Support booting from controllers in HBA-mode when running with legacy BIOS
- Improved controller performance following a cold boot of the server

Online ROM Flash Component for VMware ESXi - Smart Array P212, P410, P410i, P411, P711m, P712m, and P812
Version: 6.64 (B) (Recommended)
Filename: CP027482.zip

Fixes

- Running SMARTCTL (smartmontools) on HP Proliant G6/G7 (Px1x) Smart Array controllers that have firmware version 5.70 to 6.62 installed with SATA drives attached may result in system not responding or reboot. When reboot occurred, a reboot 1719 POST error message with lockup 0x15 displayed.
Fixes

- HP Smart Array Px3x controller with HP SmartCache enabled on boot volume could potentially encounter file corruption when booting the system if the Super-cap is not fully charged due to being replaced or being in a power down condition for several days (Example 7 days). File corruption is less likely to occur on non-boot volumes than on boot volumes. For additional information please refer to the customer advisory # c04719000.

- I/O may halt when the drive write cache is enabled.

Enhancements

- Increased performance for tape drives when using variable block sizes.

Fixes

- HP Smart Array Px3x controller with HP SmartCache enabled on boot volume could potentially encounter file corruption when booting the system if the Super-cap is not fully charged due to being replaced or being in a power down condition for several days (Example 7 days). File corruption is less likely to occur on non-boot volumes than on boot volumes. For additional information please refer to the customer advisory # c04719000.

- Increased performance for tape drives when using variable block sizes.

Fixes

- HP Smart Array Px3x controller with HP SmartCache enabled on boot volume could potentially encounter file corruption when booting the system if the Super-cap is not fully charged due to being replaced or being in a power down condition for several days (Example 7 days). File corruption is less likely to occur on non-boot volumes than on boot volumes. For additional information please refer to the customer advisory # c04719000.

- Increased performance for tape drives when using variable block sizes.
While performing a firmware upgrade on an HP 12Gb/s SAS Expander card, an issue infrequently occurred that caused the card to become unusable. HP 12Gb/s SAS Expander firmware version 2.07 resolved this issue.

**Online ROM Flash Component for VMware ESXi – HP Apollo 2000 System**
Version: 1.00 (Recommended)
Filename: CP026926.zip

**Enhancements**
- 1.00 is the initial firmware release

**Online ROM Flash Component for VMware ESXi – HP Apollo 4200 Gen9**
Version: 1.03 (Recommended)
Filename: CP027030.zip

**Enhancements**
- 1.03 is the initial firmware release.

**Online ROM Flash Component for VMware ESXi – HP Apollo 45xx Gen9 Backplane Expander Firmware**
Version: 1.04 (Optional)
Filename: CP027418.zip

**Important Note!**
- Please un-plug and re-plug the power cord to the server for firmware upgrade from version 1.04 or earlier to take effect.

**Enhancements**
- HP Apollo 45xx Gen9 Backplane Expander firmware version 1.04 provides enhanced functionality so that upgrades from version 1.04 to a later version no longer requires a power cycle/cold reboot of the server after the firmware is flashed.
  NOTE: Upgrading from a firmware version older than version 1.04 to version 1.04 or later still requires a power cycle/cold reboot to complete the upgrade process.
Online ROM Flash Component for VMware ESXi – HP D6000 Disk Enclosure
Version: 2.70 (A) (Recommended)
Filename: CP026810.md5; CP026810.zip

**Important Note!**
Upgrade to D6000 firmware 2.70(A) is not necessary if the device is currently running 2.70 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:** All firmware flash progress messages are logged to /var/cpq/Verbose.log and flashing summary is logged to /var/cpq/Component.log.

**Fixes**

**Problems Fixed:**

- In rare cases, the Smart Array controller would become inaccessible after multiple IO module resets were performed. If a controller lockup occurred because of this issue, the error code 0xAB would display in the following locations after a subsequent server reboot:
  - Server POST
  - System event log
  - ADU reports / HPSSA diagnostic reports

**Enhancements**

- Added Support for ESXi 6.0
- Added GEN9 support and converted SOULAPI to 8.2.6.0
- Converted the smart component from scexe to zip format

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Online ROM Flash Component for VMware ESXi – HP Gen8 Server Backplane Expander
Firmware for HP Smart Array Controllers and HP HBA Controllers
Version: 3.30 (D) (Recommended)
Filename: CP026535.zip

**Fixes**

**Problems Fixed in version 3.30:**

- Fixed an issue with the SAS connector element which reported invalid connector type/physical link for disabled PHYs.
- Fixed the Logical Link Rate because the Rate was not set properly when PHY is disabled.

**Problems Fixed in version 3.30 (B):**

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- Fixed an issue where installing a VMware Smart Component for an HP Expander through an HP H22x Host Bus Adapters using any version of HP Smart Update Manager (HP SUM) will fail. Return code (4202967293) was displayed in the HP SUM log, hpsum_detail_log.txt.

**Enhancements**

**Enhancements/New Features for 3.30 (C):**

- Added support for VMware vSphere 6.0

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**Online ROM Flash Component for Windows (x64) - HP 12Gb/s SAS Expander Firmware for HP Smart Array Controllers and HP HBA Controllers**

Version: 2.07 *(Optional)*

Filename: cp027582.exe; cp027582.md5

**Fixes**

- While performing a firmware upgrade on an HP 12Gb/s SAS Expander card, an issue infrequently occurred that caused the card to become unusable. HP 12Gb/s SAS Expander firmware version 2.07 resolved this issue.

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**Online ROM Flash Component for Windows (x64) - HP Apollo 2000 System**

Version: 1.00 *(Recommended)*

Filename: cp026928.exe; cp026928.md5

**Enhancements**

- 1.00 is the initial firmware release

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**Online ROM Flash Component for Windows (x64) - HP Apollo 4200 Gen9**

Version: 1.03 *(Recommended)*

Filename: cp027032.exe; cp027032.md5

**Enhancements**

- 1.03 is the initial firmware release.

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**Online ROM Flash Component for Windows (x64) - HP Apollo 45xx Gen9 Backplane Expander Firmware**

Version: 1.04 *(Optional)*
Important Note!

- Please un-plug and re-plug the power cord to the server for firmware upgrade from version 1.04 or earlier to take effect.

Enhancements

- HP Apollo 45xx Gen9 Backplane Expander firmware version 1.04 provides enhanced functionality so that upgrades from version 1.04 to a later version no longer requires a power cycle/cold reboot of the server after the firmware is flashed. NOTE: Upgrading from a firmware version older than version 1.04 to version 1.04 or later still requires a power cycle/cold reboot to complete the upgrade process.

Online ROM Flash Component for Windows (x64) - HP Express Bay Enablement Switch Card
Version: 1.72 (B) (Optional)
Filename: cp027164.exe; cp027164.md5

Important Note!

- 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
Enhancements/New Features:

- 1.72 is the initial firmware release

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**Online ROM Flash Component for Windows (x64) - HP Gen8 Server Backplane Expander**

**Firmware for HP Smart Array Controllers and HP HBA Controllers**

Version: 3.30 *(Recommended)*

Filename: cp023330.exe; cp023330.md5

**Important Note!**

- Online backplane expander firmware update available for Smart Array Controllers configured in systems running supported Linux, VMware ESXi, and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

**Fixes**

**Problems Fixed:**

- Fixed an issue with the SAS connector element which reported invalid connector type/physical link for disabled PHYs.
- Fixed the Logical Link Rate because the Rate was not set properly when PHY is disabled.

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**Online ROM Flash Component for Windows (x64) - Smart Array H240ar, H240, H240nr, H241, H244br, P240nr, P244br, P246br, P440ar, P440, P441, P542D, P741m, P840, P840ar, and P841**

Version: 3.00 *(Recommended)*

Filename: cp027639.exe; cp027639.md5

**Fixes**

- Controller might stop responding in the following situations:
  - During reboot or at power-up, if multiple Raw Device Mappings (RDM’s) are configured under VMware
  - During reboot or at power-up, if multiple logical volumes are queued for rebuild, expansion, or transformation
  - When flashing SATA drive firmware on a system running a supported Windows OS, if a drive had previously been removed or failed (POST Lockup 0x13)
- Drives reported as overheating when not above temperature limits

**Enhancements**

- Support booting from controllers in HBA-mode when running with legacy BIOS
o Improved controller performance following a cold boot of the server

Online ROM Flash Component for Windows (x64) - Smart Array P212, P410, P410i, P411, P711m, P712m, and P812
Version: 6.64 (Recommended)
Filename: cp027485.exe; cp027485.md5

Fixes

- Running SMARTCTL (smartmontools) on HP Proliant G6/G7 (Px1x) Smart Array controllers that have firmware version 5.70 to 6.62 installed with SATA drives attached may result in system not responding or reboot. When reboot occurred, a reboot 1719 POST error message with lockup 0x15 displayed.

Online ROM Flash Component for Windows (x64) - Smart Array P220i, P222, P420i, P420, P421, P721m, and P822
Version: 6.68 (Recommended)
Filename: cp027527.exe; cp027527.md5

Fixes

- HP Smart Array Px3x controller with HP SmartCache enabled on boot volume could potentially encounter file corruption when booting the system if the Super-cap is not fully charged due to being replaced or being in a power down condition for several days (Example 7 days). File corruption is less likely to occur on non-boot volumes than on boot volumes. For additional information please refer to the customer advisory # c04719000
- I/O may halt when the drive write cache is enabled.

Enhancements

- Increased performance for tape drives when using variable block sizes.

Online ROM Flash Component for Windows (x64) - Smart Array P230i, P430, P431, P731m, P830i, and P830
Version: 2.80 (Recommended)
Filename: cp027518.exe; cp027518.md5

Fixes

- HP Smart Array Px3x controller with HP SmartCache enabled on boot volume could potentially encounter file corruption when booting the system if the Super-cap is not fully charged due to being replaced or being in a power down condition for several days (Example 7 days). File
corruption is less likely to occur on non-boot volumes than on boot volumes. For additional information please refer to the customer advisory # c04719000.

**Enhancements**

- Increased performance for tape drives when using variable block sizes.

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**Online ROM Flash Component for Windows - HP 512MB Flash Backed Write Cache for B-Series Smart Array**

Version: 0.50 (C) **(Optional)**

Filename: cp027302.exe; cp027302.md5

** Fixes **

**Problems Fixed in version 0.50:**

- When the power was applied to the system, the Smart Array controller would report that the supercap was charging even though charging had completed. The supercap charging message would display in the following locations:
  - POST
  - HP Smart Storage Administrator (HP SSA)

**Problems Fixed in version 0.50(B):**

- When attempting to install firmware under Microsoft Windows Server 2012 R2, the firmware installation would fail resulting in an APPCRASH exception error.

**Problems Fixed in version 0.50 (C):**

- Attempts to downgrade HP 512MB Flash Backed Write Cache for B-Series Smart Array controller firmware were reported to be successful by the deployment tool, but the installed firmware version remained the same. Now, using component version 0.50(B), if a firmware downgrade is attempted for an HP 512MB Flash Backed Write Cache for B-Series Smart Array controller, then a message displays to indicate that downgrading firmware is not supported. For additional details see customer advisory c04725368.

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**Online ROM Flash Component for Windows - HP D6000 Disk Enclosure**

Version: 2.70 (A) **(Recommended)**

Filename: cp026363.exe; cp026363.md5

**Important Note!**

Upgrade to D6000 firmware 2.70(A) is not necessary if the device is currently running 2.70 firmware.

** Fixes **
Problems Fixed:

- In rare cases, the Smart Array controller would become inaccessible after multiple IO module resets were performed. If a controller lockup occurred because of this issue, the error code 0xAB would display in the following locations after a subsequent server reboot:
  - Server POST
  - System event log
  - ADU reports / HPSSA diagnostic reports

**Supported Devices and Features**

HP D6000 Disk Enclosure can connect behind any of the following devices

- HP H221 Host Bus Adapter
- HP Smart Array P822 Controller
- Smart Array P721m
- Smart Array P421
- HP Smart HBA H241

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**Online ROM Flash Component for Windows - HP Gen8 Server Backplane Expander Firmware for HP Smart Array Controllers and HP HBA Controllers**

Version: 3.30 (B) *(Optional)*
Filename: cp026992.exe; cp026992.md5

**Important Note!**

- Customers who already installed firmware version 3.30 do not need to update to 3.30(B).

**Fixes**

*Problems Fixed in version 3.30:*

- Fixed an issue with the SAS connector element which reported invalid connector type/physical link for disabled PHYs.
- Fixed the Logical Link Rate because the Rate was not set properly when PHY is disabled.

*Problems Fixed in version 3.30(B):*

- When attempting to install firmware under Microsoft Windows Server 2012 R2, the firmware installation would fail resulting in an APPCRASH exception error.
Online ROM Flash Component for Windows - HP Host Bus Adapters H220, H221, H222, H210i and H220i
Version: 15.10.09.00 (Recommended)
Filename: cp027594.exe; cp027594.md5

**Fixes**

Firmware Version 15.10.09.00

- Resolves a performance issue that was caused by a 90 msec timeout on all read/write operations when no Smart Carrier was present. This firmware reduces the read/write timeout to 2 msec.
- Resolves a lockup issue during boot up on the HP ProLiant DL580 Gen8 Server when configured with the HP Host Bus Adapter H220 connected to SATA SSD or HDD drives.

Online ROM Flash Component for Windows - HP Smart Array B320i RAID controller
Version: 15.10.07.00 (Recommended)
Filename: cp023361.exe; cp023361.md5

**Fixes**

**Problems Fixed in version 15.10.07.00:**

- Resolves POST error 'MPT BIOS Fault 13h'. If this error occurs, the system will not boot from any boot device attached to an HP Smart Array B320i RAID controller and will be unable to access data on drives attached to the HP Smart Array B320i RAID controller. The fault is triggered if the link between the HP Smart Array B320i RAID controller and the drives goes down during link tuning process. Updated firmware will no longer trigger this fault and the link is now allowed to re-establish itself. This issue is seen only with Solid State Drives (SSD).

Online ROM Flash Component for Windows - Smart Array P212, P410, P410i, P411, P711m, P712m, and P812
Version: 6.64 (B) (Recommended)
Filename: cp027484.exe; cp027484.md5

**Fixes**

- Running SMARTCTL (smartmontools) on HP Proliant G6/G7 (Px1x) Smart Array controllers that have firmware version 5.70 to 6.62 installed with SATA drives attached may result in system not responding or reboot. When reboot occurred, a reboot 1719 POST error message with lockup 0x15 displayed.
Fixes

- HP Smart Array Px3x controller with HP SmartCache enabled on boot volume could potentially encounter file corruption when booting the system if the Super-cap is not fully charged due to being replaced or being in a power down condition for several days (Example 7 days). File corruption is less likely to occur on non-boot volumes than on boot volumes. For additional information please refer to the customer advisory # c04719000
- I/O may halt when the drive write cache is enabled.

Enhancements

- Increased performance for tape drives when using variable block sizes.

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**Online ROM Flash Component for Windows - Smart Array P230i, P430, P431, P731m, P830i, and P830**

Version: 2.80 (Recommended)
Filename: cp027520.exe; cp027520.md5

Fixes

- HP Smart Array Px3x controller with HP SmartCache enabled on boot volume could potentially encounter file corruption when booting the system if the Super-cap is not fully charged due to being replaced or being in a power down condition for several days (Example 7 days). File corruption is less likely to occur on non-boot volumes than on boot volumes. For additional information please refer to the customer advisory # c04719000
- Increased performance for tape drives when using variable block sizes.

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**Online ROM Flash Component for Windows - Smart Array P700m**

Version: 7.24 (B) (Recommended)
Filename: cp019156.exe; cp019156.md5

**Important Note!**
Customers who already installed firmware version 7.24 do not need to update to 7.24(B).

Fixes

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Firmware Dependency:

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality.

Problems Fixed:

- Resolved an issue where the server’s system event log would fill with Event ID 129 warnings and the Smart Array controller would become unresponsive.
- FW version 7.24(B) - Fixed an issue where a decimal conversion was not being interpreted correctly when installing the component under certain regional settings in Windows. This would cause the component installation to end with a return code 3 (already up to date) and a force install would be required to successfully update the FW.

Supplemental Update / Online ROM Flash Component for Linux (x64) - HP 512MB Flash Backed Write Cache for B-Series Smart Array
Version: 0.50 (B) [Optional]
Filename: hp-firmware-smartarray-c85df48e20-0.50-2.x86_64.rpm

Fixes

Problems Fixed in version 0.50:

- In some cases, when the power was applied to the system, the Smart Array controller would report that the supercap was charging even though charging had completed. The supercap charging message would display in the following locations:
  - POST
  - HP Smart Storage Administrator (HP SSA)

Problems Fixed in version 0.50 (B):

- Attempts to downgrade HP 512MB Flash Backed Write Cache for B-Series Smart Array controller firmware were reported to be successful by the deployment tool, but the installed firmware version remained the same. Now, using component version 0.50(B), if a firmware downgrade is attempted for an HP 512MB Flash Backed Write Cache for B-Series Smart Array controller, then a message displays to indicate that downgrading firmware is not supported. For additional details see customer advisory c04725368.

Supplemental Update / Online ROM Flash Component for Linux (x64) - Smart Array H240ar, H240, H240nr, H241, H244br, P240nr, P244br, P246br, P440ar, P440, P441, P542D, P741m, P840, P840ar, and P841
Version: 3.00 (Recommended)
Filename: hp-firmware-smartarray-ea3138d8e8-3.00-1.1.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 workaround 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

- Controller might stop responding in the following situations:
  - During reboot or at power-up, if multiple Raw Device Mappings (RDM’s) are configured under VMware
  - During reboot or at power-up, if multiple logical volumes are queued for rebuild, expansion, or transformation
  - When flashing SATA drive firmware on a system running a supported Windows OS, if a drive had previously been removed or failed (POST Lockup 0x13)
- Drives reported as overheating when not above temperature limits

Enhancements

- Support booting from controllers in HBA-mode when running with legacy BIOS
- Improved controller performance following a cold boot of the server

Supplemental Update / Online ROM Flash Component for Linux (x64) - Smart Array P212, P410, P410i, P411, P711m, P712m, and P812
Version: 6.64 (B) (Recommended)
Filename: hp-firmware-smartarray-14ef73e580-6.64-2.x86_64.rpm

Important Note!

- Customers who already installed firmware version 6.64 do not need to update to 6.64 (B).

Fixes

- Running SMARTCTL (smartmontools) on HP Proliant G6/G7 (P1x1) Smart Array controllers that have firmware version 5.70 to 6.62 installed with SATA drives attached may result in system not responding or reboot. When reboot occurred, a reboot 1719 POST error message with lockup 0x15 displayed.
**Supplemental Update / Online ROM Flash Component for Linux (x64) - Smart Array P220i, P222, P420i, P420, P421, P721m, and P822**

Version: 6.68 *(Recommended)*
Filename: hp-firmware-smartarray-46a4d957a7-6.68-1.1.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**

- HP Smart Array Px3x controller with HP SmartCache enabled on boot volume could potentially encounter file corruption when booting the system if the Super-cap is not fully charged due to being replaced or being in a power down condition for several days (Example 7 days). File corruption is less likely to occur on non-boot volumes than on boot volumes. For additional information please refer to the customer advisory # c04719000
- I/O may halt when the drive write cache is enabled.

**Enhancements**

- Increased performance for tape drives when using variable block sizes.

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**Supplemental Update / Online ROM Flash Component for Linux (x64) - Smart Array P230i, P430, P431, P731m, P830i, and P830**

Version: 2.80 *(Recommended)*
Filename: hp-firmware-smartarray-112204add8-2.80-1.1.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**

- HP Smart Array Px3x controller with HP SmartCache enabled on boot volume could potentially encounter file corruption when booting the system if the Super-cap is not fully charged due to being replaced or being in a power down condition for several days (Example 7 days). File corruption is less likely to occur on non-boot volumes than on boot volumes. For additional information please refer to the customer advisory # c04719000
- I/O may halt when the drive write cache is enabled.
being replaced or being in a power down condition for several days (Example 7 days). File corruption is less likely to occur on non-boot volumes than on boot volumes. For additional information please refer to the customer advisory # c04719000

Enhancements

- Increased performance for tape drives when using variable block sizes.

Supplemental Update / Online ROM Flash Component for Linux (x64) – HP 12Gb/s SAS Expander Firmware for HP Smart Array Controllers and HP HBA Controllers
Version: 2.07 (Optional)
Filename: hp-firmware-smartarray-2de15b6882-2.07-1.1.x86_64.rpm

Fixes

- While performing a firmware upgrade on an HP 12Gb/s SAS Expander card, an issue infrequently occurred that caused the card to become unusable. HP 12Gb/s SAS Expander firmware version 2.07 resolved this issue.

Supplemental Update / Online ROM Flash Component for Linux (x64) – HP Apollo 45xx Gen9 Backplane Expander Firmware
Version: 1.04 (Optional)
Filename: hp-firmware-smartarray-7bdfcd246b-1.04-1.1.x86_64.rpm

Important Note!

- Please un-plug and re-plug the power cord to the server for firmware upgrade from version 1.04 or earlier to take effect.

Enhancements

- HP Apollo 45xx Gen9 Backplane Expander firmware version 1.04 provides enhanced functionality so that upgrades from version 1.04 to a later version no longer requires a power cycle/cold reboot of the server after the firmware is flashed.
  NOTE: Upgrading from a firmware version older than version 1.04 to version 1.04 or later still requires a power cycle/cold reboot to complete the upgrade process.

Supplemental Update / Online ROM Flash Component for Linux (x64) – HP Express Bay Enablement Switch Card
Version: 1.72 (B) (Optional)
Filename: hp-firmware-smartarray-94189dca85-1.72-2.x86_64.rpm
Important Note!

- 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:

  "CIERROR: CPQCIDRV driver is not loaded"

- 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

Enhancements/New Features:

- 1.72 is the initial firmware release

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Supplemental Update / Online ROM Flash Component for Linux (x64) – HP Gen8 Server Backplane Expander Firmware for HP Smart Array Controllers and HP HBA Controllers

Version: 3.30 (B) (Recommended)
Filename: CP025507.md5; CP025507.scexe; deb/hp-firmware-smartarray-6bb114f7f5_3.30-2_amd64.deb; RPMs/x86_64/hp-firmware-smartarray-6bb114f7f5-3.30-2.x86_64.rpm

Important Note!

- Customers who already installed firmware version 3.30 do not need to update to 3.30 (B).

Fixes

Problems Fixed:

- Fixed an issue with the SAS connector element which reported invalid connector type/physical link for disabled PHYs.
Fixed the Logical Link Rate because the Rate was not set properly when PHY is disabled.

Enhancements

Supplemental Update / Online ROM Flash Component for Linux - HP 512MB Flash Backed Write Cache for B-Series Smart Array
Version: 0.50 (B) (Optional)
Filename: hp-firmware-smartarray-c85df48e20-0.50-2.i386.rpm

Fixes

Problems Fixed in version 0.50:

- In some cases, when the power was applied to the system, the Smart Array controller would report that the supercap was charging even though charging had completed. The supercap charging message would display in the following locations:
  - POST
  - HP Smart Storage Administrator (HP SSA)

Problems Fixed in version 0.50 (B):

- Attempts to downgrade HP 512MB Flash Backed Write Cache for B-Series Smart Array controller firmware were reported to be successful by the deployment tool, but the installed firmware version remained the same. Now, using component version 0.50(B), if a firmware downgrade is attempted for an HP 512MB Flash Backed Write Cache for B-Series Smart Array controller, then a message displays to indicate that downgrading firmware is not supported. For additional details see customer advisory c04725368.

Supplemental Update / Online ROM Flash Component for Linux - HP Smart Array B320i RAID controller
Version: 15.10.07.00 (Recommended)
Filename: CP023360.md5; CP023360.scexe

Fixes

Problems Fixed in version 15.10.07.00:

- Resolves POST error ‘MPT BIOS Fault 13h’. If this error occurs, the system will not boot from any boot device attached to an HP Smart Array B320i RAID controller and will be unable to access data on drives attached to the HP Smart Array B320i RAID controller. The fault is triggered if the link between the HP Smart Array B320i RAID controller and the drives goes down during link tuning process. Updated firmware will no longer trigger this fault and the link is now allowed to re-establish itself. This issue is seen only with Solid State Drives (SSD).
Supplemental Update / Online ROM Flash Component for Linux - Smart Array P212, P410, P410i, P411, P711m, P712m, and P812
Version: 6.64 (B) (Recommended)
Filename: hp-firmware-smartarray-14ef73e580-6.64-2.i386.rpm

Fixes

- Running SMARTCTL (smartmontools) on HP Proliant G6/G7 (Px1x) Smart Array controllers that have firmware version 5.70 to 6.62 installed with SATA drives attached may result in system not responding or reboot. When reboot occurred, a reboot 1719 POST error message with lockup 0x15 displayed.

Supplemental Update / Online ROM Flash Component for Linux - Smart Array P220i, P222, P420i, P420, P421, P721m, and P822
Version: 6.68 (Recommended)
Filename: hp-firmware-smartarray-46a4d957a7-6.68-1.1.i386.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

- HP Smart Array Px3x controller with HP SmartCache enabled on boot volume could potentially encounter file corruption when booting the system if the Super-cap is not fully charged due to being replaced or being in a power down condition for several days (Example 7 days). File corruption is less likely to occur on non-boot volumes than on boot volumes. For additional information please refer to the customer advisory # c04719000
- I/O may halt when the drive write cache is enabled.

Enhancements

- Increased performance for tape drives when using variable block sizes.

Supplemental Update / Online ROM Flash Component for Linux - Smart Array P230i, P430, P431, P731m, P830i, and P830
Version: 2.80 (Recommended)
Filename: hp-firmware-smartarray-112204add8-2.80-1.1.i386.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

- HP Smart Array Px3x controller with HP SmartCache enabled on boot volume could potentially encounter file corruption when booting the system if the Super-cap is not fully charged due to being replaced or being in a power down condition for several days (Example 7 days). File corruption is less likely to occur on non-boot volumes than on boot volumes. For additional information please refer to the customer advisory # c04719000.

Enhancements

- Increased performance for tape drives when using variable block sizes.

Supplemental Update / Online ROM Flash Component for Linux - Smart Array P700m

Version: 7.24 (Recommended)
Filename: CP017696.md5; CP017696.scexe

Important Note!

When running VMware ESX/ESXi, only offline updates are supported using the HP Smart Update Manager on the Firmware Maintenance CD.

Fixes

Firmware Dependency:

- Updating the HP DL360G5 System ROM to revision PS8 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality.

Problems Fixed:

- Resolved an issue where the server’s system event log would fill with Event ID 129 warnings and the Smart Array controller would become unresponsive.
Important Note!
Upgrade to D6000 firmware 2.70(B) is not necessary if the device is currently running 2.70 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:** All firmware flash progress messages are logged to /var/cpq/Verbose.log and flashing summary is logged to /var/cpq/Component.log.

**Fixes**

Problems Fixed:

- In rare cases, the Smart Array controller would become inaccessible after multiple IO module resets were performed. If a controller lockup occurred because of this issue, the error code 0xAB would display in the following locations after a subsequent server reboot:
  - Server POST
  - System event log
  - ADU reports / HPSSA diagnostic reports

**Enhancements**

Added GEN9 support.

**Supported Devices and Features**

HP D6000 Disk Enclosure can connect behind any of the following devices:

- HP H221 Host Bus Adapter
- HP Smart Array P822 Controller
- Smart Array P721m
- Smart Array P421
Online backplane expander firmware update available for Smart Array Controllers configured in systems running supported Linux, VMware ESXi, and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

Fixes

Problems Fixed:

- Fixed an issue with the SAS connector element which reported invalid connector type/physical link for disabled PHYs.
- Fixed the Logical Link Rate because the Rate was not set properly when PHY is disabled.

Firmware - Storage Fibre Channel

HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x64)
Version: 2015.10.02 (Recommended)
Filename: RPMs/x86_64/hp-firmware-fc-emulex-2015.10.02-1.1.x86_64.rpm

Important Note!

Release Notes:
HP StorageWorks Emulex Adapters Release Notes

Prerequisites

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

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

The HP supplied Emulex driver and enablement kit must be installed prior to this firmware component being identified by HP SUM for deployment. The driver and enablement kit are available on the HP Service Pack for Proliant (SPP) version 2015.10.0 which is available at www.hp.com/go/spp/download.

Linux FC Driver Kit for HP Branded Emulex FC HBAs and mezz cards, version 10.5.152.1, for RedHat 6, RedHat 7, and Novell SUSE 11, SUSE 12

HP Fibre Channel Enablement Kit for Linux, HP-CNA-FC-Emulex_Enablement-Kit, version 10.5.152.1-1

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 HBAs

**Fixes**

**Boot Image**

8Gb Standup - 5.21x5

UEFI:

- Initialize PrivateData earlier from RegisterSPT so it is ready for Driver Health

8Gb Mezzanine - 6.20x11

BIOS:

- Fix unresponsiveness seen in the configuration utility when a key is pressed
- Use HII option to disable HP Shared Memory features

UEFI:

- Initialize PrivateData earlier from RegisterSPT so it is ready for Driver Health

**Firmware**

16Gb Standup & Mezzanine - 10.5.160.0

- Resolved issue where WWN's from VC are not being set on the HBA
- Resolved issue where the "Boot Path Discovered Targets" Boot Target Scan Method is not working

**Enhancements**

We have separate components to update fibre channel and converged network adapters. This is a fibre channel update component.

**Boot Image**

8Gb Standup - 5.21x5

UEFI:

- Implemented HII to disable HP Memory features

8Gb Mezzanine - 6.20x11
UEFI:

- Implemented HII to disable HP Memory features

Updated 16 Gb HBA/Mezz universal boot to 10.5.160.0
Updated 8Gb standup boot bios to 5.21x5
Updated 8Gb mezz boot bios to 6.20x11

Contains:

16 Gb HBA/Mezz universal boot 10.5.160.0

8 Gb Gen8 Mezz (LPe1205A) firmware 2.02X12
8 Gb standup firmware 2.02x13
8 Gb Mezz firmware 2.02x13
8 Gb HBA boot image 5.21x5 (2.20a6 BIOS, 4.20a9 UEFI)
8 Gb Mezz boot image 6.20x11 (3.30a10 BIOS, 4.20a9 UEFI)

**Supported Devices and Features**

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz

---

**HP Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x86)**

Version: 2015.10.02 (Recommended)
Filename: RPMs/i386/hp-firmware-fc-emulex-2015.10.02-1.1.i386.rpm

**Important Note!**

Release Notes:
HP StorageWorks Emulex Adapters Release Notes

**Prerequisites**

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

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

The HP supplied Emulex driver and enablement kit must be installed prior to this firmware component being identified by HP SUM for deployment. The driver and enablement kit are available on the HP Service Pack for Proliant (SPP) version 2015.10.0 which is available at www.hp.com/go/spp/download.
Linux FC Driver Kit for HP Branded Emulex FC HBAs and mezz cards, version 10.5.152.1, for RedHat 6, RedHat 7, and Novell SUSE 11, SUSE12

HP Fibre Channel Enablement Kit for Linux, HP-CNA-FC-Emulex_Enablement-Kit, version 10.5.152.1-1

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 HBAs

Fixes

Boot Image

8Gb Standup - 5.21x5

UEFI:

- Initialize PrivateData earlier from RegisterSPT so it is ready for Driver Health

8Gb Mezzanine - 6.20x11

BIOS:

- Fix unresponsiveness seen in the configuration utility when a key is pressed
- Use HII option to disable HP Shared Memory features

UEFI:

- Initialize PrivateData earlier from RegisterSPT so it is ready for Driver Health

Firmware

16Gb Standup & Mezzanine - 10.5.160.0

- Resolved issue where WWN's from VC are not being set on the HBA
- Resolved issue where the "Boot Path Discovered Targets" Boot Target Scan Method is not working

Enhancements
We have separate components to update fibre channel and converged network adapters. This is a fibre channel update component.

**Boot Image**

8Gb Standup - 5.21x5

UEFI:

- Implemented HII to disable HP Memory features

8Gb Mezzanine - 6.20x11

UEFI:

- Implemented HII to disable HP Memory features

Updated 16 Gb HBA/Mezz universal boot to 10.5.160.0
Updated 8Gb standup boot bios to 5.21x5
Updated 8Gb mezz boot bios to 6.20x11

Contains:

- 16 Gb HBA/Mezz universal boot 10.5.160.0
- 8 Gb Gen8 Mezz (LPe1205A) firmware 2.02x12
- 8 Gb standup firmware 2.02x13
- 8 Gb Mezz firmware 2.02x13
- 8 Gb HBA boot image 5.21x5 (2.20a6 BIOS, 4.20a9 UEFI)
- 8 Gb Mezz boot image 6.20x11 (3.30a10 BIOS, 4.20a9 UEFI)

**Supported Devices and Features**

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz

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**HP Firmware Flash for Emulex Fibre Channel Host Bus and Converged Network Adapters - VMware 5.1**

<table>
<thead>
<tr>
<th>Version: 2015.06.03</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filename: CP027843.md5; CP027843.zip</td>
<td></td>
</tr>
</tbody>
</table>

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**Important Note!**

The firmware for the following CNA products is now frozen at version 4.9.416.7

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter (HP Proliant BL465c G7 Server)
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter (HP Proliant BL685c G7 Server)

**Release Notes:**

[HP StorageWorks Emulex Adapters Release Notes](#)

**Fixes**

**Firmware**

CNA (XE100 series) - 10.5.65.25

- Resolves an issue when the HP FlexFabric 650FLB Adapter is upgraded from firmware version 10.2.477.23 to 10.5.65.21, the card enters into an unrecoverable state if there is a FAT dump stored on the card from firmware version 10.4.179.0 or earlier.

**Enhancements**

Updated CNA (XE100 series) firmware 10.5.65.25

**Contains:**

- CNA (BE2) firmware 4.9.416.7
- CNA (BE3) firmware 10.5.65.21
- CNA (XE100 series) firmware 10.5.65.25
- 16 Gb HBA/Mezz universal boot 10.5.65.14
- 8 Gb Gen8 Mezz (LPe1205A) firmware 2.02X12
- 8 Gb standup firmware 2.02x13
- 8Gb Mezz firmware 2.02x13
- 8Gb HBA boot image 5.21x4 (2.20a6 BIOS, 4.20a7 UEFI)
- 8Gb mezz boot image 6.20x10 (3.30a10 BIOS, 4.20a7 UEFI)

**Supported Devices and Features**

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1100E Dual Port Converged Network Adapter
HP Firmware Flash for Emulex Fibre Channel Host Bus and Converged Network Adapters for VMware vSphere 5.5 and 6.0
Version: 2015.10.02 (Recommended)
Filename: CP027734.md5; CP027734.zip

Important Note!

The firmware for the following CNA products is now frozen at version 4.9.416.7

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter (HP Proliant BL465c G7 Server)
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter (HP Proliant BL685c G7 Server)

Release Notes:

[HP StorageWorks Emulex Adapters Release Notes](#)

Prerequisites

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


Fixes

Boot Image

8Gb Standup - 5.21x5
UEFI:
- Initialize PrivateData earlier from RegisterSPT so it is ready for Driver Health

8Gb Mezzanine - 6.20x11

BIOS:
- Fix unresponsiveness seen in the configuration utility when a key is pressed
- Use HII option to disable HP Shared Memory features

UEFI:
- Initialize PrivateData earlier from RegisterSPT so it is ready for Driver Health

Firmware

16Gb Standup & Mezzanine - 10.5.160.0
- Resolved issue where WWN's from VC are not being set on the HBA
- Resolved issue where the "Boot Path Discovered Targets" Boot Target Scan Method is not working

CNA (BE3) - 10.5.155.0
- Resolves an issue where after updating the firmware to 10.5.155.0 on an Emulex CNA adapter in a c-Class Virtual Connect environment with more than one uplink, only one uplink remains connected, the others are dropped.

CNA (XE100 series) - 10.5.160.0
- Resolves an issue where after updating the firmware to 10.5.160.0 on an Emulex CNA adapter in a c-Class Virtual Connect environment with more than one uplink, only one uplink remains connected, the others are dropped.

Enhancements

Updated CNA (XE100 series) firmware 10.5.160.0
Updated CNA (BE3) firmware 10.5.155.0
Updated 16Gb HBA/Mezz universal boot 10.5.160.0
Updated 8Gb standup HBA boot image 5.21x5
Updated 8Gb mezz boot image 6.20x11

Boot Image
8Gb Standup - 5.21x5

UEFI:

- Implemented HII to disable HP Memory features

8Gb Mezzanine - 6.20x11

UEFI:

- Implemented HII to disable HP Memory features

Contains:

- CNA (BE3) firmware 10.5.155.0
- CNA (XE100 series) firmware 10.5.160.0

- 16Gb HBA/Mezz universal boot 10.5.160.0

- 8 Gb Gen8 Mezz (LPe1205A) firmware 2.02X12
- 8 Gb standup firmware 2.02x13
- 8Gb Mezz firmware 2.02x13
- 8Gb HBA boot image 5.21x5 (2.20a6 BIOS, 4.20a9 UEFI)
- 8Gb mezz boot image 6.20x11 (3.30a12 BIOS, 4.20a9 UEFI)

Supported Devices and Features

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
The following device is only supported on VMware 5.5:

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter

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**HP Firmware Flash for QLogic BR-series Fibre Channel Host Bus Adapters - Linux (x86_64)**

**Version:** 2015.02.01 (B) *(Recommended)*  
**Filename:** RPMS/x86_64/hp-firmware-fc-brocade-2015.02.01-2.x86_64.rpm

**Important Note!**

Release Notes:  
[HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes](#)

**Prerequisites**

The HP supplied enablement kit must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from [www.hp.com/go/fchba](http://www.hp.com/go/fchba). Select your product and then select the Software and Drivers page to find the enablement kit. The enablement kit is also available on the HP Service Pack for Proliant (SPP) version 2015.03.0 which is available at [www.hp.com/go/spp/download](http://www.hp.com/go/spp/download).

- HP Fibre Channel Enablement Kit for Linux, HP-FC-Brocade-Enablement-Kit-5.0.0.0-3.x86_64.rpm

**Enhancements**

This component contains the same payload as version 2015.02.01. However, the resulting executable files contained within the rpm have been renamed for commonality across all HP Linux firmware components.

Contains updated boot bios version 3.2.5.0. This version is supported on the following operating systems:

- Red Hat Enterprise Linux 6 updates 5 and 6  
- Red Hat Enterprise Linux 7  
- SUSE Linux Enterprise Server 12

**Supported Devices and Features**

This firmware supports the following HP adapters:

- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter  
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter  
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem
HP Firmware Flash for QLogic BR-series Fibre Channel Host Bus Adapters - VMWare 5.1
Version: 2015.02.01 (Recommended)
Filename: CP025933.md5; CP025933.zip

Important Note!
   Release Notes:
   HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

Enhancements
   This component contains the same payload as version 2015.02.01. However, the resulting executable format has been changed from .scexe to .zip.

   Contains boot bios, version 3.2.5.0.

Supported Devices and Features
   This firmware supports the following HP adapters:
   - HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
   - HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
   - Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

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HP Firmware Flash for QLogic BR-series Fibre Channel Host Bus Adapters for vSphere 5.5 and 6.0
Version: 2015.02.01 (Recommended)
Filename: CP025934.md5; CP025934.zip

Important Note!
   Release Notes:
   HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

Enhancements
   This component contains the same payload as version 2015.02.01. However, the resulting executable format has been changed from .scexe to .zip.

   Contains boot bios, version 3.2.5.0.

Supported Devices and Features
   This firmware supports the following HP adapters:
   - HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
   - HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
   - Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem
**HP Firmware Flash for QLogic Fibre Channel Host Bus Adapters - Linux (x86)**

Version: 2015.10.01 *(Recommended)*

Filename: RPMs/i386/hp-firmware-fc-qlogic-2015.10.01-1.1.i386.rpm

**Important Note!**

Release Notes:

HP StorageWorks QLogic Adapters Release Notes

**Prerequisites**

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

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

The HP supplied QLogic driver and enablement kit must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from [www.hp.com/go/fchba](http://www.hp.com/go/fchba) or use the appropriate software included in the HP Service Pack for ProLiant 2015.10.0, which is available at [www.hp.com/go/spp/download](http://www.hp.com/go/spp/download):

- Linux FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs version 8.07.00.28.11.3, for Novell SUSE 11
- HP Fibre Channel Enablement Kit for Linux - QLogic, version 5.0.0.0-3

**Fixes**

**8Gb Standup & 8Gb Mezzanine**

**BIOS**

- Maintenance updates

**UEFI**

- Fixed OCBB bug that caused DMA errors during Linux boot
- HII WWN Database menu allows the user to pick from a list of targets and LUNs
- Fixed Windows Server 2012 boot issue on target storage array
- Fixed OCSD checksum error on certain HP blade servers. Added PCI bus and device information to the firmware OCSD structure

**16Gb Standup & 16Gb Mezzanine**

**BIOS**

- Maintenance updates

**UEFI**
- Fixed OCBB bug that caused DMA errors during Linux boot
- HII WWN Database menu allows the user to pick from a list of targets and LUNs
- Fixed Windows Server 2012 boot issue on target storage array
- Fixed OCSD checksum error on certain HP blade servers. Added PCI bus and device information to the firmware OCSD structure
- Fixed OCBB polling error on servers
- Fixed memory leak issue when driver exits due to NVRAM error
- Fixed driver mapping issues on CLP enabled servers

**Enhancements**

Updated the Firmware/BIOS/UEFI packages for 8 Gb and 16 Gb products.

- 8 Gb HBA/Mezz
  - Package 3.73.05 (Binary 373A5)
  - Firmware 8.01.02
  - UEFI 6.42
  - BIOS 3.31

- 16 Gb HBA/Mezz
  - Package 6.00.14
  - Firmware 8.01.42
  - UEFI 6.37
  - BIOS 3.31

**Supported Devices and Features**

This firmware supports the following HP adapters:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem

---

**HP Firmware Flash for QLogic Fibre Channel Host Bus Adapters - Linux (x86_64)**

Version: 2015.10.01 *(Recommended)*
Filename: RPMS/x86_64/hp-firmware-fc-qlogic-2015.10.01-1.1.x86_64.rpm

**Important Note**

Release Notes:
[HP StorageWorks QLogic Adapters Release Notes](#)

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

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

The HP supplied QLogic driver and enablement kit must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from www.hp.com/go/fchba or use the appropriate software included in the HP Service Pack for ProLiant 2015.10.0, which is available at www.hp.com/go/spp/download:

- Linux FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs, version 8.07.00.28.06.0, for Red Hat 6
- Linux FCoE/FC Driver Kit for HP QLogic CNAs, HBAs and mezzanine HBAs and CNAs, version 8.07.00.28.07.0, for Red Hat 7
- Linux FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs, version 8.07.00.28.11.3, for Novell SUSE 11
- Linux FCoE/FC Driver Kit for HP QLogic CNAs, HBAs and mezzanine HBAs and CNAs, version 8.07.00.28.12.0, for Novell SUSE 12
- HP Fibre Channel Enablement Kit for Linux - QLogic, version 5.0.0.0-3

**Fixes**

**8Gb Standup & 8Gb Mezzanine**

**BIOS**

- Maintenance updates

**UEFI**

- Fixed OCBB bug that caused DMA errors during Linux boot
- HII WWN Database menu allows the user to pick from a list of targets and LUNs
- Fixed Windows Server 2012 boot issue on target storage array
- Fixed OCSD checksum error on certain HP blade servers. Added PCI bus and device information to the firmware OCSD structure

**16Gb Standup & 16Gb Mezzanine**

**BIOS**

- Maintenance updates

**UEFI**

- Fixed OCBB bug that caused DMA errors during Linux boot

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Enhancements

Updated the Firmware/BIOS/UEFI packages for 8 Gb and 16 Gb products.

- 8 Gb HBA/Mezz
  - Package 3.73.05 (Binary 373A5)
  - Firmware 8.01.02
  - UEFI 6.42
  - BIOS 3.31

- 16 Gb HBA/Mezz
  - Package 6.00.14
  - Firmware 8.01.42
  - UEFI 6.37
  - BIOS 3.31

Supported Devices and Features

This firmware supports the following HP adapters:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem

HP Firmware Flash for QLogic Fibre Channel Host Bus Adapters - VMware 5.1

Version: 2015.02.01 (B) (Recommended)
Filename: CP026107.md5; CP026107.zip

Important Note!

HP StorageWorks QLogic Adapters Release Notes

Fixes

- Corrects an unexpected behavior when 8Gb FC HBAs load the UEFI driver.
### Enhancements

Updated the Firmware/BIOS/UEFI package for 8 Gb products.

- **4 Gb HBA/Mezz**
  - Package 2.03AF
  - Firmware 5.03.15
  - BIOS 3.13

- **8 Gb HBA/Mezz**
  - Package 3.72.03 (Binary 372A3)
  - Firmware 7.04.00
  - UEFI 6.36
  - BIOS 3.28

- **16 Gb HBA/Mezz**
  - Package 4.00.19
  - Firmware 7.04.00
  - UEFI 6.31
  - BIOS 3.28

### Supported Devices and Features

This firmware supports the following HP adapters:

- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem

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**HP Firmware Flash for QLogic Fibre Channel Host Bus Adapters for VMware vSphere 5.5 and VMware vSphere 6.0**

Version: 2015.10.01 *(Recommended)*

Filename: CP026567.md5; CP026567.zip

**Important Note!**

[HP StorageWorks QLogic Adapters Release Notes](http://www.hp.com/storage/spock/)

**Prerequisites**

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


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**Fixes**

**8Gb Standup & 8Gb Mezzanine**

**BIOS**
- Maintenance updates

**UEFI**
- Fixed OCBB bug that caused DMA errors during Linux boot
- HII WWN Database menu allows the user to pick from a list of targets and LUNs
- Fixed Windows Server 2012 boot issue on target storage array
- Fixed OCSD checksum error on certain HP blade servers. Added PCI bus and device information to the firmware OCSD structure

**16Gb Standup & 16Gb Mezzanine**

**BIOS**
- Maintenance updates

**UEFI**
- Fixed OCBB bug that caused DMA errors during Linux boot
- HII WWN Database menu allows the user to pick from a list of targets and LUNs
- Fixed Windows Server 2012 boot issue on target storage array
- Fixed OCSD checksum error on certain HP blade servers. Added PCI bus and device information to the firmware OCSD structure
- Fixed OCBB polling error on servers
- Fixed memory leak issue when driver exits due to NVRAM error
- Fixed driver mapping issues on CLP enabled servers

**Enhancements**

Updated the Firmware/BIOS/UEFI packages for 8 Gb and 16 Gb products.

- **8 Gb HBA/Mezz**
  - Package 3.73.05 (Binary 373A5)
  - Firmware 8.01.02
  - UEFI 6.42
  - BIOS 3.31

- **16 Gb HBA/Mezz**
  - Package 6.00.14
  - Firmware 8.01.42
  - UEFI 6.37
  - BIOS 3.31

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**Supported Devices and Features**

This firmware supports the following HP adapters:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem

---

**HP Firmware Online Flash for Emulex Fibre Channel Host Bus Adapters - Windows 2008 x86**

Version: 2015.10.02 *(Recommended)*

Filename: cp027768.exe

**Important Note!**

Release Notes: [HP StorageWorks Emulex Adapters Release Notes](#)

**Prerequisites**

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


The HP supplied Emulex driver must be installed prior to this firmware component being identified by HP SUM for deployment. Use the appropriate driver included in the HP Support Pack for ProLiant 2015.10.0, which is available at [www.hp.com/go/spp/download](http://www.hp.com/go/spp/download):  

HP Storage Fibre Channel Adapter Kit for the x86 Emulex Storport Driver v10.4.246.0 cp026585.exe

**Fixes**

**Boot Image**

8Gb Standup - 5.21x5

**UEFI:**

- Initialize PrivateData earlier from RegisterSPT so it is ready for Driver Health

8Gb Mezzanine - 6.20x11

**BIOS:**

- Fix unresponsiveness seen in the configuration utility when a key is pressed
- Use HII option to disable HP Shared Memory features

**UEFI:**

- Initialize PrivateData earlier from RegisterSPT so it is ready for Driver Health

**Firmware**

16Gb Standup & Mezzanine - 10.5.160.0

- Resolved issue where WWN's from VC are not being set on the HBA
- Resolved issue where the "Boot Path Discovered Targets" Boot Target Scan Method is not working

**Enhancements**

We have separate components to update fibre channel and converged network adapters. This is a fibre channel update component.

**Boot Image**

8Gb Standup - 5.21x5

**UEFI:**

- Implemented HII to disable HP Memory features

8Gb Mezzanine - 6.20x11

**UEFI:**

- Implemented HII to disable HP Memory features

Updated 16 Gb HBA/Mezz universal boot to 10.5.160.0
Updated 8Gb standup boot bios to 5.21x5
Updated 8Gb mezz boot bios to 6.20x11

Contains:

16 Gb HBA/Mezz universal boot 10.5.160.0

8 Gb Gen8 Mezz (LPe1205A) firmware 2.02X12
8 Gb standup firmware 2.02x13
8 Gb Mezz firmware 2.02x13
8 Gb HBA boot image 5.21x5 (2.20a6 BIOS, 4.20a9 UEFI)
8 Gb Mezz boot image 6.20x11 (3.30a10 BIOS, 4.20a9 UEFI)

**Supported Devices and Features**

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HP Firmware Online Flash for Emulex Fibre Channel Host Bus Adapters - Windows

2008/2012/2012 R2 x64

Version: 2015.10.02 (Recommended)
Filename: cp027769.exe

Important Note!

Release Notes:
HP StorageWorks Emulex Adapters Release Notes

Prerequisites

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

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

The HP supplied Emulex driver must be installed prior to this firmware component being identified by HP SUM for deployment. Use the appropriate driver included in the HP Support Pack for ProLiant 2015.10.0, which is available at www.hp.com/go/spp/download:

HP Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver v10.4.246.0 cp026584.exe

Fixes

Boot Image

8Gb Standup - 5.21x5

UEFI:

- Initialize PrivateData earlier from RegisterSPT so it is ready for Driver Health

8Gb Mezzanine - 6.20x11

BIOS:

- Fix unresponsiveness seen in the configuration utility when a key is pressed
- Use HII option to disable HP Shared Memory features

**UEFI:**
- Initialize PrivateData earlier from RegisterSPT so it is ready for Driver Health

**Firmware**

16Gb Standup & Mezzanine - 10.5.160.0
- Resolved issue where WWN's from VC are not being set on the HBA
- Resolved issue where the "Boot Path Discovered Targets" Boot Target Scan Method is not working

**Enhancements**

We have separate components to update fibre channel and converged network adapters. This is a fibre channel update component.

**Boot Image**

8Gb Standup - 5.21x5

**UEFI:**
- Implemented HII to disable HP Memory features

8Gb Mezzanine - 6.20x11

**UEFI:**
- Implemented HII to disable HP Memory features

Updated 16 Gb HBA/Mezz universal boot to 10.5.160.0
Updated 8Gb standup boot bios to 5.21x5
Updated 8Gb mezz boot bios to 6.20x11

Contains:

16 Gb HBA/Mezz universal boot 10.5.160.0

8 Gb Gen8 Mezz (LPe1205A) firmware 2.02X12
8 Gb standup firmware 2.02x13
8 Gb Mezz firmware 2.02x13
8 Gb HBA boot image 5.21x5 (2.20a6 BIOS, 4.20a9 UEFI)
8 Gb Mezz boot image 6.20x11 (3.30a10 BIOS, 4.20a9 UEFI)

**Supported Devices and Features**
HP Firmware Online Flash for QLogic BR-series Fibre Channel Host Bus Adapters - Windows 2008 R2/2012/2012 R2 (x64)
Version: 2015.02.01 (Recommended)
Filename: cp025186.exe

Important Note!
Release Notes:
   HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

Prerequisites
The HP supplied QLogic BR-series driver must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from www.hp.com/go/fchba. Select your product and then select the Software and Drivers page to find the required driver. The HP Brocade driver is also available on the HP Service Pack for Proliant (SPP) version 2015.03.0 which is available at www.hp.com/go/spp/download.

   o HP Storage x64 QLogic BR-series Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2008 R2, version 3.2.5.0, cp025314.exe
   o HP Storage x64 QLogic BR-series Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2012, version 3.2.5.0, cp025313.exe
   o HP Storage x64 QLogic BR-series Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2012 R2, version 3.2.5.0, cp025052.exe

Enhancements
   Boot bios updated to version 3.2.5.0 to synchronize with HP's QLogic BR-series 3.2.5.0 driver.

Supported Devices and Features
   This firmware supports the following HP adapters:

   o HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
   o HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
   o Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem
HP Firmware Online Flash for QLogic Fibre Channel Host Bus Adapters - Windows 2008 (x86)
Version: 2015.10.01 (Recommended)
Filename: cp026562.exe

Important Note!
Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Prerequisites

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

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

The HP supplied QLogic driver must be installed prior to this firmware component being identified by HP SUM for deployment. Use the appropriate driver included in the HP Service Pack for ProLiant 2015.10.0, which is available at www.hp.com/go/spp/download:

- HP Storage Fibre Channel Adapter Kit for the x86 QLogic Storport Driver v9.1.15.21, cp026551.exe
- HP Storage Fibre Channel Over Ethernet Adapter Kit for the x86 QLogic Storport Driver v9.1.13.10, cp025686.exe

Fixes

8Gb Standup & 8Gb Mezzanine

BIOS

- Maintenance updates

UEFI

- Fixed OCBB bug that caused DMA errors during Linux boot
- HII WWN Database menu allows the user to pick from a list of targets and LUNs
- Fixed Windows Server 2012 boot issue on target storage array
- Fixed OCSD checksum error on certain HP blade servers. Added PCI bus and device information to the firmware OCSD structure

16Gb Standup & 16Gb Mezzanine

BIOS

- Maintenance updates

UEFI
Fixed OCBB bug that caused DMA errors during Linux boot
HII WWN Database menu allows the user to pick from a list of targets and LUNs
Fixed Windows Server 2012 boot issue on target storage array
Fixed OCSD checksum error on certain HP blade servers. Added PCI bus and device information to the firmware OCSD structure
Fixed OCBB polling error on servers
Fixed memory leak issue when driver exits due to NVRAM error
Fixed driver mapping issues on CLP enabled servers

Enhancements

Updated the Firmware/BIOS/UEFI packages for 8 Gb and 16 Gb products.

- 8 Gb HBA/Mezz
  - Package 3.73.05 (Binary 373A5)
  - Firmware 8.01.02
  - UEFI 6.42
  - BIOS 3.31

- 16 Gb HBA/Mezz
  - Package 6.00.14
  - Firmware 8.01.42
  - UEFI 6.37
  - BIOS 3.31

Supported Devices and Features

This firmware supports the following HP adapters:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem

HP Firmware Online Flash for QLogic Fibre Channel Host Bus Adapters - Windows 2008/2012 (x64)
Version: 2015.10.01 (Recommended)
Filename: cp026563.exe

Important Note!
Release Notes:
  HP StorageWorks QLogic Adapters Release Notes

Prerequisites

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

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

The HP supplied QLogic driver must be installed prior to this firmware component being identified by HP SUM for deployment. Use the appropriate driver included in the HP Service Pack for ProLiant 2015.10.0, which is available at www.hp.com/go/spp/download:

- HP Storage Fibre Channel Adapter Kit for the x64 QLogic Storport Driver v9.1.15.21, cp026552.exe
- HP Storage Fibre Channel Adapter Kit for the QLogic Storport Driver for Windows Server 2012 and 2012 R2 v9.1.15.21, cp026553.exe
- HP Storage Fibre Channel Over Ethernet Adapter Kit for the x64 QLogic Storport Driver v9.1.13.10, cp025685.exe
- HP Storage Fibre Channel Over Ethernet Adapter Kit for the QLogic Storport Driver for Windows Server 2012 and 2012 R2 v9.1.13.10, cp025684.exe

**Fixes**

**8Gb Standup & 8Gb Mezzanine**

**BIOS**

- Maintenance updates

**UEFI**

- Fixed OCBB bug that caused DMA errors during Linux boot
- HII WWN Database menu allows the user to pick from a list of targets and LUNs
- Fixed Windows Server 2012 boot issue on target storage array
- Fixed OCSD checksum error on certain HP blade servers. Added PCI bus and device information to the firmware OCSD structure

**16Gb Standup & 16Gb Mezzanine**

**BIOS**

- Maintenance updates

**UEFI**

- Fixed OCBB bug that caused DMA errors during Linux boot
- HII WWN Database menu allows the user to pick from a list of targets and LUNs
- Fixed Windows Server 2012 boot issue on target storage array
- Fixed OCSD checksum error on certain HP blade servers. Added PCI bus and device information to the firmware OCSD structure

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Fixed OCBB polling error on servers
Fixed memory leak issue when driver exits due to NVRAM error
Fixed driver mapping issues on CLP enabled servers

**Enhancements**

Updated the Firmware/BIOS/UEFI packages for 8 Gb and 16 Gb products.

- **8 Gb HBA/Mezz**
  - Package 3.73.05 (Binary 373A5)
  - Firmware 8.01.02
  - UEFI 6.42
  - BIOS 3.31

- **16 Gb HBA/Mezz**
  - Package 6.00.14
  - Firmware 8.01.42
  - UEFI 6.37
  - BIOS 3.31

**Supported Devices and Features**

This firmware supports the following HP adapters:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem

---

**Firmware - Storage Tape**

**HP StoreEver Tape Firmware for Microsoft Windows**

Version: 4.0.0.0 **(Optional)**
Filename: cp025421.exe

**Fixes**

The following issues are resolved in firmware revisions listed below:

HP StoreEver LTO-6 Ultrium 6250 SAS Tape Drive
Drive firmware version 353D  
Supersedes 338D

- New tape usage could lead to a read or write failure tape alert followed by a cleaning request.
- The drive could not decrypt data from an LTO-4 tape after the previously loaded cartridge was an LTO-5 or LTO-6 tape.
- The drive could report write error 0x40AA if the update of the cartridge memory timed out during writing.
- Removed a drive reset that could occur if the L&TT Drive Assessment test was run after the Data Assessment test.
- Corner cases:
  - The drive reported 0x508F/0x5090 read errors.
  - An uninitialized LTO-5 or LTO-6 WORM cartridge could incorrectly be marked as read only until the cartridge was reloaded.
  - The drive could appear unresponsive while reading an encrypted tape.
- Rare cases:
  - In LTFS (Linear Tape File System) environments where the drive incorrectly reported end of tape (EOT).
  - The drive could append data in the incorrect location.
  - The drive could become unresponsive if an end-to-end data protection error occurred when writing in an unbuffered mode.
  - A drive configured for encryption would report error 0x3804 after a specific command sequence.
  - A tape could not be read if the cartridge memory was not accessible.
  - Increased the reliability of future firmware downloads.

HP StoreEver LTO-6 Ultrium 6650 SAS Tape Drive

Drive firmware version 053D  
Supersedes 039D

- New tape usage could lead to a read or write failure tape alert followed by a cleaning request.
- The drive could not decrypt data from an LTO-4 tape after the previously loaded cartridge was an LTO-5 or LTO-6 tape.
- The drive could report write error 0x40AA if the update of the cartridge memory timed out during writing.
- Removed a drive reset that could occur if the L&TT Drive Assessment test was run after the Data Assessment test.
- Corner cases:
  - The drive reported 0x508F/0x5090 read errors.
  - An uninitialized LTO-5 or LTO-6 WORM cartridge could incorrectly be marked as read only until the cartridge was reloaded.
  - The drive could appear unresponsive while reading an encrypted tape.
- Rare cases:
  - In LTFS (Linear Tape File System) environments where the drive incorrectly reported end of tape (EOT).
  - The drive could append data in the incorrect location.
  - The drive could become unresponsive if an end-to-end data protection error occurred when writing in an unbuffered mode.
  - A drive configured for encryption would report error 0x3804 after a specific command sequence.
  - A tape could not be read if the cartridge memory was not accessible.
Increased the reliability of future firmware downloads.

Enhancements

The enhancements below are only applicable for the following firmware revisions and devices:

HP StoreEver LTO-6 Ultrium 6250 SAS Tape Drive

**Drive firmware version** 353D
**Supersedes** 338D

- The following functionality has been added:
  - Firmware image protection.
  - A cleaning request now follows a space failure.
  - Ability to append to a tape with an invalid CRC in the cartridge memory for the end of data (EOD).
- Support for the following features has been added:
  - Verify to end-of-data (VTE) bit in the VERIFY command.
  - Two new Host-type MAM attributes to support new LTFS functionality being defined in the LTFS standard.
  - Last Logical Object Position for the READ POSITION command.
- Enhanced or improved the following features:
  - Enhanced Cartridge Memory (CM) information logging and added support for correcting data if a CM CRC error is reported.
  - Tape space usage improved for a few corner case patterns.
  - Retry algorithms enhanced to reduce the incidences of 0x7519 errors.
  - Improved supportability by enhancing internal drive logging.
  - Enhancing the tape load algorithm improved tape load reliability.

HP StoreEver LTO-6 Ultrium 6650 SAS Tape Drive

**Drive firmware version** O53D
**Supersedes** O39D

- The following functionality has been added:
  - Firmware image protection.
  - A cleaning request now follows a space failure.
  - Ability to append to a tape with an invalid CRC in the cartridge memory for the end of data (EOD).
- Support for the following features has been added:
  - Verify to end-of-data (VTE) bit in the VERIFY command.
  - Two new Host-type MAM attributes to support new LTFS functionality being defined in the LTFS standard.
  - Last Logical Object Position for the READ POSITION command.
- Enhanced or improved the following features:
  - Enhanced Cartridge Memory (CM) information logging and added support for correcting data if a CM CRC error is reported.
  - Tape space usage improved for a few corner case patterns.
  - Retry algorithms enhanced to reduce the incidences of 0x7519 errors.
  - Improved supportability by enhancing internal drive logging.
### Supported Devices and Features

Supported tape drives and firmware revisions included in this package

<table>
<thead>
<tr>
<th>Tape Drive</th>
<th>Firmware Revision</th>
</tr>
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<tbody>
<tr>
<td>HP DAT 72 USB</td>
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<td>ZPBC</td>
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<td>HP DAT160 SCSI</td>
<td>WP8A</td>
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<td>WSB8</td>
</tr>
<tr>
<td>HP DAT320 USB</td>
<td>VUA8</td>
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<td>VSA6</td>
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<td>W62D</td>
</tr>
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<td>A63D</td>
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<td>Z64D</td>
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<tr>
<td>HP Ultrium 3280 SAS</td>
<td>X64D</td>
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<td>HP Ultrium 6250 SAS</td>
<td>353D</td>
</tr>
<tr>
<td>HP Ultrium 6650 SAS</td>
<td>053D</td>
</tr>
</tbody>
</table>

### Software - Lights-Out Management

**Headless Server Registry Update for Windows**

Version: 1.0.0.0 (G) *(Optional)*  
Filename: cp024840.exe

**Fixes**

**HP Lights-Out Online Configuration Utility for Linux (AMD64/EM64T)**
Version: 4.6.0-0 *(Optional)*
Filename: hpncfg-4.6.0-0.x86_64.rpm

**Prerequisites**
This utility requires the following minimum firmware revisions:

- Integrated Lights-Out 2 firmware v1.00 or later
- Integrated Lights-Out 3 firmware v1.00 or later
- Integrated Lights-Out 4 firmware v1.00 or later

The management interface driver and management agents must be installed on the server.

**Fixes**
HPONCFG displays an appropriate error message with `-w` option when LOCK_CONFIGURATION is enabled.

---

**HP Lights-Out Online Configuration Utility for Linux (x86/AMD32)**
Version: 4.6.0 *(Optional)*
Filename: hpncfg-4.6.0-0.i386.rpm

**Prerequisites**
This utility requires the following minimum firmware revisions:

- Integrated Lights-Out 2 firmware v1.00 or later
- Integrated Lights-Out 3 firmware v1.00 or later
- Integrated Lights-Out 4 firmware v1.00 or later

The management interface driver and management agents must be installed on the server.

**Fixes**
HPONCFG displays an appropriate error message with `-w` option when LOCK_CONFIGURATION is enabled.

---

**HP Lights-Out Online Configuration Utility for Windows 2008/2012 x64 Editions**
Version: 4.7.0.0 *(Optional)*
Filename: cp026989.exe

**Prerequisites**
This utility requires the following minimum firmware revisions:

- Integrated Lights-Out 2 firmware v1.00 or later
- Integrated Lights-Out 3 firmware v1.00 or later
- Integrated Lights-Out 4 firmware v1.00 or later

The management interface driver must be installed on the server.
Microsoft .Net Framework 2.0 or later is required to launch HPONCFG GUI.

**Fixes**

- HPONCFG command line displays appropriate error message for '/w' option when LOCK_CONFIGURATION is enabled.
- HPONCFG GUI can be used to modify Standard Network settings on iLO 2 and iLO 3.
- Enabling DHCP via HPONCFG GUI will retain iLO Gateway IP.
- Caution message displayed when adding a user with login name exceeding 16 characters in HPONCFG GUI.

**Enhancements**

Kerberos settings are available on HPONCFG GUI

---

**HP Lights-Out Online Configuration Utility for Windows Server 2008**

Version: 4.7.0.0 *(Optional)*

Filename: cp026988.exe

**Prerequisites**

This utility requires the following minimum firmware revisions:

- Integrated Lights-Out 2 firmware v1.00 or later
- Integrated Lights-Out 3 firmware v1.00 or later
- Integrated Lights-Out 4 firmware v1.00 or later

The management interface driver must be installed on the server.

Microsoft .Net Framework 2.0 or later is required to launch HPONCFG GUI.

**Fixes**

- HPONCFG command line displays appropriate error message for '/w' option when LOCK_CONFIGURATION is enabled.
- HPONCFG GUI can be used to modify Standard Network settings on iLO 2 and iLO 3.
- Enabling DHCP via HPONCFG GUI will retain iLO Gateway IP.
- Caution message displayed when adding a user with login name exceeding 16 characters in HPONCFG GUI.

**Enhancements**

Kerberos settings are available on HPONCFG GUI

---

**PFA Server Registry Update for Windows**

Version: 1.0.0.0 *(E) (Optional)*
Filename: cp022305.exe

**Enhancements**

Add support for Windows Server 2012 R2.

---

**Software - Network**

**Broadcom Active Health System Agent for HP ProLiant Network Adapters for Linux i586**

Version: 1.0.18-1 *(Optional)*  
Filename: hp-tg3sd-1.0.18-1.i586.rpm; hp-tg3sd-1.0.18-1.i586.txt

**Fixes**

This product addresses an issue where OCSD / OCBB messages are not displayed in var/logs during shared memory "Enable/Disable".

This product now correctly displays device ID information for supported devices.

**Supported Devices and Features**

This software supports the following Broadcom network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (18D2)
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter (3372)
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter (2133)
- HP Ethernet 1Gb 2-port 332T Adapter

---

**Broadcom Active Health System Agent for HP ProLiant Network Adapters for Linux x86_64**

Version: 1.0.18-1 *(Optional)*  
Filename: hp-tg3sd-1.0.18-1.x86_64.rpm; hp-tg3sd-1.0.18-1.x86_64.txt

**Fixes**

This product addresses an issue where OCSD / OCBB messages are not displayed in var/logs during shared memory "Enable/Disable".

This product now correctly displays device ID information for supported devices.

**Enhancements**

This agent now supports the HP Ethernet 1Gb 2-port 332i Adapter (22E8).

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Supported Devices and Features

This software supports the following Broadcom network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (182D)
- HP Ethernet 1Gb 2-port 330i Adapter (22BD)
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter (3372)
- HP Ethernet 1Gb 4-port 331i Adapter (22BE)
- 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

HP Intel esx-provider for VMware

Version: 2015.10.01 (Optional)
Filename: cp026011.zip

Enhancements

Initial release.

Supported Devices and Features

These drivers support the following 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 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i 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

HP ProLiant Converged Network Utility for Linux x86

Version: 4.0.15-1 (Optional)
Filename: hp-cnu-4.0.15-1.i386.rpm
Enhancements

This product now provides Ethernet Function Support for the following network adapters:

- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

Supported Devices and Features

This software supports the following network adapters:

- HP FlexFabric 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP ProLiant Converged Network Utility for Linux x86_64
Version: 4.0.15-1 (Optional)
Filename: hp-cnu-4.0.15-1.x86_64.rpm

Fixes

This product corrects several issues with the display and configuration of the HP FlexFabric 10Gb 2-port 536FLB Adapter.

Enhancements

This product now supports the following network adapters, without Ethernet Function Support:

- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter

This product now provides Ethernet Function Support for the following network adapters:

- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 536FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
Supported Devices and Features

This software supports the following network adapters:

- HP FlexFabric 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB 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 10Gb 2-port 556FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

Enhancements

This product now provides Ethernet Function Support for the following network adapters:

- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

Supported Devices and Features

This software supports the following network adapters:

- HP FlexFabric 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
Fixes

This product corrects an issue where CNU installation fails on systems running Windows Server 2012 with NPAR enabled on an HP FlexFabric 20Gb 2-port 630FLB Adapter or an HP FlexFabric 20Gb 2-port 630M Adapter.

Enhancements

This product now supports the following network adapters, without Ethernet Function Support:

- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter

This product now provides Ethernet Function Support for the following network adapters:

- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 536FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

Supported Devices and Features

This software supports the following network adapters:

- HP FlexFabric 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB 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 10Gb 2-port 556FLR-SFP+ Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

Intel Active Health System Agent for HP ProLiant Network Adapters for Linux i586

Version: 1.1.64.0-1 (Optional)
Enhancements
This product now supports Red Hat Enterprise Linux 6 Update 6.

Supported Devices and Features
This software supports the following Intel 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 2-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i 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 562i Adapter

Intel Active Health System Agent for HP ProLiant Network Adapters for Linux x86_64
Version: 1.1.64.0-1 (Optional)
Filename: hp-ocsbbd-1.1.64.0-1.x86_64.rpm; hp-ocsbbd-1.1.64.0-1.x86_64.txt

Enhancements
This product now supports Red Hat Enterprise Linux 6 Update 6.

This product now supports SUSE LINUX Enterprise Server 12.

Supported Devices and Features
This software supports the following Intel 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 2-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i 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

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Software - Storage Controller

HP ProLiant Smart Array SAS/SATA Event Notification Service for Windows Server 2008 (x86) 32-bit
Version: 6.36.0.32 (Optional)
Filename: cp021155.exe

Fixes
Fixed issue in which “last lockup code” was not being reported in proper hex format.

Enhancements
- Added support for new PHY disabled event.
- Added support for new PHY threshold exceeded events.

HP ProLiant Smart Array SAS/SATA Event Notification Service for Windows Server 2008 x64 Editions and Windows Server 2012
Version: 6.44.0.64 (Optional)
Filename: cp027261.exe

Fixes
- Version mismatch issue: Product displaying older version after installation, instead of the latest installed version.

Software - Storage Fibre Channel

Emulex Fibre Channel driver component for VMware vSphere 5.1
Version: 2015.06.01 (Recommended)
Filename: cp025395.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

**Fixes**

This driver version resolves the case where the hbacmd utility's portattributes do not update for FCoE on ESX after shutting down VFC port on Cisco switch.

**Enhancements**

Updated to driver version 10.5.55.0

### Supported Devices and Features

- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter

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**Emulex Fibre Channel driver component for VMware vSphere 5.5**

Version: 2015.06.01 *(Recommended)*

Filename: cp025404.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.
 Fixes

This driver version resolves an issue where latency greater than 30 seconds occurs when there is a reset/reboot of a VM with a RDM disk exported from a 3par storage array.

 Enhancements

Updated version to 10.5.39.0

 Supported Devices and Features

- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter

 Emulex Fibre Channel driver component for VMware vSphere 6.0
Version: 2015.10.01 (Recommended)
Filename: cp026458.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

 Enhancements
driver version 10.5.70.0
## Supported Devices and Features

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter

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**QLogic BR-series Fibre Channel driver component for VMware vSphere 5.0/5.1**

Version: 2015.02.01 *(Recommended)*
Filename: cp024857.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

To keep drivers and boot code synchronized, be sure to update your adapter with the latest boot image from [www.hp.com](http://www.hp.com) before you install or update adapter driver packages.

**Enhancements**

Updated driver version to 3.2.5.0. This driver will identify 8Gb HBA/mezzanine cards as "QLogic" or "QLogic BR-series" in product description displays.

**Supported Devices and Features**

- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

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QLogic BR-series Fibre Channel driver component for VMware vSphere 5.5/6.0
Version: 2015.02.01 (Recommended)
Filename: cp024858.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

To keep drivers and boot code synchronized, be sure to update your adapter with the latest boot image from www.hp.com before you install or update adapter driver packages.

Enhancements
Updated driver version to 3.2.5.0. This driver will identify 8Gb HBA/mezzanine cards as "QLogic" or "QLogic BR-series" in product description displays.

Supported Devices and Features
This driver component supports the following HP adapters:

- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

QLogic Fibre Channel driver component for VMware vSphere 5.0/5.1
Version: 2015.02.01 (Recommended)
Filename: cp024634.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

Fixes
- Fixed data size mismatch between collected data and total minidump data size.
- Fixed problem with discovery of any target id generated above 256.
- Fixed multiple PSOD issues

Enhancements
Driver component for VMware vSphere 5.0/5.1 with version 934.5.45.0

Supported Devices and Features
- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem
- HP CN1000Q Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

**QLogic Fibre Channel driver component for VMware vSphere 5.5**

Version: 2015.10.01 *(Recommended)*
Filename: cp026561.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXX.xml file.

**Fixes**

Fixed hung state condition in an NPIV environment by properly exiting the vmk World, when a related vmk status is returned.

**Enhancements**

- Updated driver component for VMware vSphere 5.5 with version 1.1.55.0
- Introduced T10 DIF

**Supported Devices and Features**

- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem
- HP CN1000Q Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

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QLogic Fibre Channel driver component for VMware vSphere 6.0
Version: 2015.10.01 (Recommended)
Filename: cp026574.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 vmware.com and the HP vibsdepot.hp.com webpages, plus an HP specific CPXXXX.xml file.

Fixes
- Fixed CPU lockup resulting in PSOD by removing busy wait while holding a spinlock
- Fixed PSOD while HBA initialization fails by properly checking for invalid pointers during clean up
- Fixed failure of memory allocation in RDP Response handling
- Fixed PSOD by checking scatter-gather element length before copying to local buffer as it could be greater than the size of the buffer

Enhancements
- Updated the driver component for VMware vSphere 6.0 with driver version 2.1.27.0
- Introduced T10 DIF

Supported Devices and Features
- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem
- HP CN1000Q Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

Software - Storage Fibre Channel HBA
Fibreutils for HP Storage Fibre Channel Host Bus Adapters for Linux (x86)
Version: 3.2-6 (E) (Optional)
Filename: fibreutils-3.2-6.i386.rpm

Prerequisites
- Requires the following packages to be installed: glibc libgcc libstdc++ bash perl

**Enhancements**

General update.

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**Fibreutils for HP Storage Fibre Channel Host Bus Adapters for Linux (x86_64)**

Version: 3.2-6 (E) **(Optional)**
Filename: fibreutils-3.2-6.x86_64.rpm

**Prerequisites**

- Requires the following packages to be installed: glibc libgcc libstdc++ bash perl

**Enhancements**

Added support for SUSE Linux Enterprise Server 12.

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**HP Fibre Channel Enablement Kit for Linux - QLogic**

Version: 5.0.0.0-3 **(Recommended)**
Filename: HP-CNA-FC-hpqlgc-Enablement-Kit-5.0.0.0-3.noarch.rpm

**Important Note!**

Release Notes:
[HP StorageWorks QLogic Adapters Release Notes](#)

**Enhancements**

Updated the kit to version 5.0.0.0-3

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**HP Fibre Channel Enablement Kit for Linux - QLogic BR-Series**

Version: 5.0.0.0 (D) **(Recommended)**
Filename: HP-FC-Brocade-Enablement-Kit-5.0.0.0-3.x86_64.rpm

**Important Note!**

Release Notes:
[HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes](#)

**Enhancements**

Added support for Red Hat Enterprise Linux 7 operating system

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**Supported Devices and Features**

- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem
**HP Fibre Channel Enablement Kit for Red Hat Enterprise Linux 6 Server - Emulex**

Version: 10.5.152.1 *(Recommended)*

Filename: HP-CNA-FC-Emulex-Enablement-Kit-10.5.152.1-1.rhel6.x86_64.rpm

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**Important Note!**

Release Notes:

- [HP StorageWorks Emulex Adapters Release Notes](#)

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**Prerequisites**

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

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**Enhancements**

Updated to version 10.5.152.1-1

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**Supported Devices and Features**

- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP LPe1605 16Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter

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**HP Fibre Channel Enablement Kit for Red Hat Enterprise Linux 7 Server - Emulex**

Version: 10.5.152.1 *(Recommended)*

Filename: HP-CNA-FC-Emulex-Enablement-Kit-10.5.152.1-1.rhel7.x86_64.rpm

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**Important Note!**

Release Notes:  
[HP StorageWorks Emulex Adapters Release Notes](#)

**Prerequisites**

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

**Enhancements**

Updated to version 10.5.152.1

**Supported Devices and Features**

- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP LPe1605 16Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP NC553i Dual Port FlexFabric 10Gb Network Adapter

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**HP Fibre Channel Enablement Kit for SUSE Linux Enterprise Server 11 (AMD64/EM64T) - Emulex**

**Version:** 10.5.152.1 *(Recommended)*  
**Filename:** HP-CNA-FC-Emulex-Enablement-Kit-10.5.152.1-1.sles11.x86_64.rpm

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**Important Note!**
Prerequisites

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Enhancements

Updated to version 10.5.152.1-1

Supported Devices and Features

- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe110S 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP LPe1605 16Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter (FCoE)
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter

HP Fibre Channel Enablement Kit for SUSE Linux Enterprise Server 11 (x86) - Emulex
Version: 10.5.152.1 (Recommended)
Filename: HP-CNA-FC-Emulex-Enablement-Kit-10.5.152.1-1.sles11.i386.rpm

Important Note!

Release Notes:
HP StorageWorks Emulex Adapters Release Notes

Prerequisites
The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Enhancements
Updated to version 10.5.152.1

Supported Devices and Features

- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP LPe1605 16Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter

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**HP Fibre Channel Enablement Kit for SUSE Linux Enterprise Server 12 - Emulex**

Version: 10.5.152.1 *(Recommended)*
Filename: HP-CNA-FC-Emulex-Enablement-Kit-10.5.152.1-1.sles12.x86_64.rpm

**Important Note!**
Release Notes:
[HP StorageWorks Emulex Adapters Release Notes](#)

**Prerequisites**

The target environment must have the libHBAAPI Package installed prior to the installation of the enablement kit. (If not already present, the libHBAAPI Package can be obtained from the operating system installation media.)

Enhancements
Updated to version 10.5.152.1

Supported Devices and Features
Software - System Management

**HP Insight Diagnostics Online Edition for Linux (x86 32-bit)**

Version: 10.40.1953 *(Optional)*

**Important Note!**

The online version of HP Insight Diagnostics provides the same functionality as the Survey Utility for Windows and Linux and does not perform any hardware tests on the system. Although not required, it is recommended that you uninstall the current Survey Utility for Windows or Linux before beginning the installation of HP Insight Diagnostics Online Edition.

**Prerequisites**

The following component(s) are required for HP Insight Diagnostics Online Edition for Linux:

- HP System Management Homepage, version 7.0.0-12 or higher

The following component(s) are recommended for HP Insight Diagnostics Online Edition for Linux to make full use of its capabilities:

- HP System Health Application, version 9.0.0 or higher
Fixes

- Contains fixes to support HP ProLiant Gen9 servers.
- Incorrect Japanese translation in Exit Diagnostics button.
- Untranslated SMBIOS strings in Survey and Test tabs.
- Added error message when unable to retrieve power supply serial number, spare part number and firmware version.
- Missing information in Compare Configurations -> View Comparison Results.
- Untranslated strings in Help -> Test Component tab storage section.
- Software -> HP Software section in iLO web interface was missing hpdiags in the list.

Enhancements

- Sustaining and new support for HP ProLiant Gen 9 servers.
- Discover HP Express Bay Switch Card.
- Discover backplane connected to HP Express Switch Card.

See the [HP Service Pack for ProLiant Release Notes](#) for more information.

See the [HP Service Pack for ProLiant Server Support Guide](#) for information on supported servers.

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**HP Insight Diagnostics Online Edition for Linux (x86-64)**

Version: 10.40.1953 *(Optional)*

Filename: hpdiags-10.40.1953-1978.linux.x86_64.rpm; hpdiags-10.40.1953-1978.linux.x86_64.rpm.sig

**Important Note!**

The online version of HP Insight Diagnostics provides the same functionality as the Survey Utility for Windows and Linux and does not perform any hardware tests on the system. Although not required, it is recommended that you uninstall the current Survey Utility for Windows or Linux before beginning the installation of HP Insight Diagnostics Online Edition.

**Prerequisites**

The following component(s) are required for HP Insight Diagnostics Online Edition for Linux:

- HP System Management Homepage, version 7.0.0-12 or higher

The following component(s) are recommended for HP Insight Diagnostics Online Edition for Linux to make full use of its capabilities:

- HP System Health Application, version 9.0.0 or higher

You can install them by using the SPP or downloading them individually from HP Support Center.

**Fixes**

- Contains fixes to support HP ProLiant Gen9 servers.
- Incorrect Japanese translation in Exit Diagnostics button.
- Untranslated SMBIOS strings in Survey and Test tabs.
- Added error message when unable to retrieve power supply serial number, spare part number and firmware version.
- Missing information in Compare Configurations -> View Comparison Results.
- Untranslated strings in Help -> Test Component tab storage section.
- Software -> HP Software section in iLO web interface was missing hpdiags in the list.

**Enhancements**

- Sustaining and new support for HP ProLiant Gen 9 servers.
- Discover HP Express Bay Switch Card.
- Discover backplane connected to HP Express Switch Card.

See the [HP Service Pack for ProLiant Release Notes](#) for more information.

See the [HP Service Pack for ProLiant Server Support Guide](#) for information on supported servers.

**HP Insight Diagnostics Online Edition for Windows**

**Version:** 10.40.1953.0 *(Optional)*
**Filename:** cp027683.exe

**Important Note!**

**Known Limitations**

1. Under HP Insight Diagnostics Online Edition for Windows, the Survey feature no longer supports displaying properties of Logical Drives that are attached to certain Smart Array controllers, either directly or through an enclosure (such as an HP Modular Smart Array). The controllers affected are:
   - Smart Array 6i Controller
   - Smart Array 641 Controller
   - Smart Array 642 Controller
   - Smart Array 6402 Controller
   - Smart Array 6404 Controller

   These controllers do not support the commands used to obtain logical drive properties. There are currently no plans to add such support to the controllers, nor to add legacy support to future versions of HP Insight Diagnostics.

   As a work-around, HP Insight Diagnostics Online Edition for Windows, version 8.5 or earlier, may be used to display logical drive properties in Survey. The HP Array Configuration Utility, available from hp.com, can also display information about logical drives attached to these controllers.

2. Windows Server 2008 R2 SP1 is the minimum requirement for Gen9 platforms.

3. Adaptec devices are no longer supported on this version, please use version 10.16.1650 for this.
Other:

1. The online version of HP Insight Diagnostics provides the same functionality as the Survey Utility for Windows and Linux and does not perform any hardware tests on the system. Although not required, it is recommended that you uninstall the current Survey Utility for Windows or Linux before beginning the installation of HP Insight Diagnostics Online Edition.

Prerequisites

The following component(s) are required for HP Insight Diagnostics Online Edition for Windows:

- HP System Management Homepage, version 7.0.0-12 or higher

The following component(s) are recommended for HP Insight Diagnostics Online Edition for Windows to make full use of its capabilities:

- HP ProLiant Agentless Management Service, version 9.0.0.0 or higher
- HP ProLiant Integrated Lights-Out Management Interface Driver, version 1.15.0.0 or higher

Fixes

- Contains fixes to support HP ProLiant Gen9 servers.
- Incorrect Japanese translation in Exit Diagnostics button.
- Untranslated SMBIOS strings in Survey and Test tabs.
- Added error message when unable to retrieve power supply serial number, spare part number and firmware version.
- Missing information in Compare Configurations -> View Comparison Results.
- Untranslated strings in Help -> Test Component tab storage section.

Enhancements

- Sustaining and new support for HP ProLiant Gen 9 servers.
- Discover HP Express Bay Switch Card.
- Discover backplane connected to HP Express Switch Card.

See the HP Service Pack for ProLiant Release Notes for more information.

See the HP Service Pack for ProLiant Server Support Guide for information on supported servers.

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HP Insight Diagnostics Online Edition for Windows x64 Editions
Version: 10.40.1953.0 (Optional)
Filename: cp027682.exe

Important Note!
Known Limitations

1. Under HP Insight Diagnostics Online Edition for Windows, the Survey feature no longer supports displaying properties of Logical Drives that are attached to certain Smart Array controllers, either directly or through an enclosure (such as an HP Modular Smart Array). The controllers affected are:
   - Smart Array 6i Controller
   - Smart Array 641 Controller
   - Smart Array 642 Controller
   - Smart Array 6402 Controller
   - Smart Array 6404 Controller

   These controllers do not support the commands used to obtain logical drive properties. There are currently no plans to add such support to the controllers, nor to add legacy support to future versions of HP Insight Diagnostics.

   As a work-around, HP Insight Diagnostics Online Edition for Windows, version 8.5 or earlier, may be used to display logical drive properties in Survey. The HP Array Configuration Utility, available from hp.com, can also display information about logical drives attached to these controllers.

2. Windows Server 2008 R2 SP1 is the minimum requirement for Gen9 platforms.

3. Adaptec devices are no longer supported on this version, please use version 10.16.1650 for this.

Other:

1. The online version of HP Insight Diagnostics provides the same functionality as the Survey Utility for Windows and Linux and does not perform any hardware tests on the system. Although not required, it is recommended that you uninstall the current Survey Utility for Windows or Linux before beginning the installation of HP Insight Diagnostics Online Edition.

Prerequisites

The following component(s) are required for HP Insight Diagnostics Online Edition for Windows:
   - HP System Management Homepage, version 7.0.0-12 or higher

The following component(s) are recommended for HP Insight Diagnostics Online Edition for Windows to make full use of its capabilities:
   - HP ProLiant Agentless Management Service, version 9.0.0.0 or higher
   - HP ProLiant Integrated Lights-Out Management Interface Driver, version 1.15.0.0 or higher

Fixes

- Contains fixes to support HP ProLiant Gen9 servers.
- Incorrect Japanese translation in Exit Diagnostics button.

© 2015 Hewlett-Packard Development Company, L.P.
o Untranslated SMBIOS strings in Survey and Test tabs.
o Added error message when unable to retrieve power supply serial number, spare part number and firmware version.

Enhancements

o Sustaining and new support for HP ProLiant Gen 9 servers.
o Discover HP Express Bay Switch Card.
o Discover backplane connected to HP Express Switch Card.

See the HP Service Pack for ProLiant Release Notes for more information.

See the HP Service Pack for ProLiant Server Support Guide for information on supported servers.

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HP Insight Management Agents for Windows Server

Version: 10.30.0.0 (Recommended)
Filename: cp026784.exe

Prerequisites
SNMP Service.

Fixes

Server / Foundation Agents:

The following items have been fixed:

- Incomplete iLO version under Firmware Version Tab in Windows SMH
- Updated "Reboot Server" help page.
- SNMP traps not working after EventLog Service is restarted
- Integrated Lights-Out 4 page information in SMH does not match iLO 4 diagnostic page.
- Incorrect Power Supply Status in SMH when the power cord is reconnected
- Foundation Agents enumerate only half of the Logical Processors on Gen9 Servers
- Incorrect Lower Threshold description for File System Space Used in Windows SMH
- Excessive logging with Windows Agents when Windows Firewall is enabled.

Enhancements

Server/Foundation Agents:

- Update NIC device database.
- Update storage device database

Network Agents:
Added support for HP Ethernet 1Gb 2-port 332i Adapter (22E8).

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**HP Insight Management Agents for Windows Server x64 Editions**

Version: 10.30.0.0 *(Recommended)*

Filename: cp026785.exe

**Prerequisites**

SNMP service.

**Fixes**

**Server / Foundation Agents:**

The following items have been fixed:

- Incomplete iLO version under Firmware Version Tab in Windows SMH
- Updated "Reboot Server" help page.
- SNMP traps not working after EventLog Service is restarted
- Integrated Lights-Out 4 page information in SMH does not match iLO 4 diagnostic page
- Incorrect Power Supply Status in SMH when the power cord is reconnected
- Foundation Agents enumerate only half of the Logical Processors on Gen9 Servers
- Incorrect Lower Threshold description for File System Space Used in Windows SMH
- Excessive logging with Windows Agents when Windows Firewall is enabled.

**Enhancements**

**Server/Foundation Agents:**

- Update NIC device database.
- Update storage device database

**Network Agents:**

- Added support for HP Ethernet 1Gb 2-port 332i Adapter (22E8).

---

**HP Insight Management WBEM Providers for Windows Server**

Version: 10.30.0.0 *(Optional)*

Filename: cp026879.exe

**Prerequisites**

The HP Insight Management WBEM Providers version 10.30.0.0 require storage, network, system management controller, and Lights-Out interface drivers from Service Pack for ProLiant 2015.10.0.
In addition, the System Management Homepage (SMH) component is required for a single server web-based user interface.

**Enhancements**

- Added support for new ProLiant servers and options that are supported by HP Service Pack for ProLiant version 2015.10.0.

**HP Insight Management WBEM Providers for Windows Server x64 Editions**

*Version: 10.30.0.0 (Optional)*  
*Filename: cp026878.exe*

**Prerequisites**

The HP Insight Management WBEM Providers version 10.30.0.0 require storage, network, system management controller, and Lights-Out interface drivers from Service Pack for ProLiant 2015.10.0.

In addition, the System Management Homepage (SMH) component is required for a single server web-based user interface.

**Enhancements**

- Added support for new ProLiant servers and options that are supported by HP Service Pack for ProLiant version 2015.10.0.

**HP ProLiant Agentless Management Service for Red Hat Enterprise Linux 6 (AMD64/EM64T)**

*Version: 2.3.0 (Optional)*  
*Filename: hp-ams-2.3.0-1778.39.rhel6.x86_64.rpm*

**Prerequisites**

- hp-ams only supported on HP ProLiant Gen8 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, SuSE Linux Enterprise Server 10 SP4, SuSE Linux Enterprise Server 11 SP1
Fixes

Fixed following issues:

- Send correct CDB for SSD drives.
- Correct speed shown for unconfigured NIC port.
- Return values for logical NIC interfaces which does not support speed entries in sysfs.

Enhancements

Added support for new HP ProLiant Gen9 Servers.

---

**HP ProLiant Agentless Management Service for Red Hat Enterprise Linux 6 (x86)**
Version: 2.3.0 (Optional)
Filename: hp-ams-2.3.0-1778.39.rhel6.i686.rpm

Prerequisites

- hp-ams only supported on HP ProLiant Gen8 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, SuSE Linux Enterprise Server 10 SP4, SuSE Linux Enterprise Server 11 SP1

Fixes

Fixed following issues:

- Send correct CDB for SSD drives.
- Correct speed shown for unconfigured NIC port.
- Return values for logical NIC interfaces which does not support speed entries in sysfs.

---

**HP ProLiant Agentless Management Service for Red Hat Enterprise Linux 7 Server**
Version: 2.3.0 (Optional)
Filename: hp-ams-2.3.0-1778.39.rhel7.x86_64.rpm

Prerequisites

- hp-ams only supported on HP ProLiant Gen8 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, SuSE Linux Enterprise Server 10 SP4, SuSE Linux Enterprise Server 11 SP1

Fixes

Fixed following issues:
- Send correct CDB for SSD drives.
- Correct speed shown for unconfigured NIC port.
- Return values for logical NIC interfaces which does not support speed entries in sysfs.

Enhancements

- Added support for new HP ProLiant Gen9 Servers.

---

**HP ProLiant Agentless Management Service for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)**

Version: 2.3.0 (Optional)
Filename: hp-ams-2.3.0-1778.38.sles11.x86_64.rpm

Prerequisites

- hp-ams only supported on HP ProLiant Gen8 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, SuSE Linux Enterprise Server 10 SP4, SuSE Linux Enterprise Server 11 SP1

Fixes

Fixed following issues:
- Send correct CDB for SSD drives.
- Correct speed shown for unconfigured NIC port.
- Return values for logical NIC interfaces which does not support speed entries in sysfs.

Enhancements

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Added support for new HP ProLiant Gen9 Servers.

HP ProLiant Agentless Management Service for SUSE LINUX Enterprise Server 11 (x86)
Version: 2.3.0 (Optional)
Filename: hp-ams-2.3.0-1778.39.sles11.i586.rpm

**Prerequisites**

- hp-ams only supported on HP ProLiant Gen8 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, SuSE Linux Enterprise Server 10 SP4, SuSE Linux Enterprise Server 11 SP1

**Fixes**

Fixed following issues:

- Send correct CDB for SSD drives.
- Correct speed shown for unconfigured NIC port.
- Return values for logical NIC interfaces which does not support speed entries in sysfs.

HP ProLiant Agentless Management Service for SUSE LINUX Enterprise Server 12
Version: 2.3.0 (Optional)
Filename: hp-ams-2.3.0-1778.39.sles12.x86_64.rpm

**Prerequisites**

- hp-ams only supported on HP ProLiant Gen8 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, SuSE Linux Enterprise Server 10 SP4, SuSE Linux Enterprise Server 11 SP1

**Fixes**
Fixed following issues:

- Send correct CDB for SSD drives.
- Correct speed shown for unconfigured NIC port.
- Return values for logical NIC interfaces which does not support speed entries in sysfs.

Enhancements

- Added support for new HP ProLiant Gen9 Servers.

---

**HP ProLiant Agentless Management Service for Windows X64**

Version: 10.30.0.0 *(Optional)*
Filename: cp026538.exe

**Prerequisites**

The *HP 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**

- The list of installed applications is now logged to Active Health System (AHS) upon system start-up

**Enhancements**

- Added support for NVM Express (NVMe) drives

---

**HP ProLiant Agentless Management Service for Windows X86**

Version: 10.30.0.0 *(Optional)*
Filename: cp026537.exe

**Prerequisites**

The *HP ProLiant iLO 3/4 Channel Interface Driver for Windows X86* (version 3.4.0.0 or later) must be installed prior to this component.

**Fixes**

- The list of installed applications is now logged to Active Health System (AHS) upon system start-up
Enhancements

- Added support for NVM Express (NVMe) drives

---

**HP ProLiant DL980 System Providers for Windows Server x64 Editions**

Version: 9.3.0.2 (B) *(Recommended)*

Filename: cp024577.exe

Enhancements

Component packaging has been updated; no impact to product’s functionality

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**HP ProLiant Integrated Management Log Viewer for Windows Server x64 Editions**

Version: 7.5.0.0 *(Optional)*

Filename: cp026576.exe

**Important Note!**

Starting with version 7.0.0.0, this application will only install on HP ProLiant systems supporting the iLO 2, iLO 3, or iLO 4 management controllers. Installation in a virtual machine is no longer supported.

Starting with version 6.5.0.0, this application requires Administrator privileges through Windows User Account Control.

Version 6.2.0.0 of this application is the final version that will support installation under Windows Server 2003 x64 Edition.

Starting with version 6.0.0.0, the dependencies on the HP ProLiant Remote Monitor Service and the HP ProLiant Remote IML Service have been removed. This application no longer provides access to the Integrated Management Log on a remote system.

Starting with version 5.22.0.0, separate 32-bit and 64-bit releases of this application are available. If you wish to downgrade to version 5.21.0.0 or earlier, use Windows Add or Remove Programs to uninstall the 64-bit release before installing the earlier 32-bit version.

Enhancements

- Provide additional detail for Unrecoverable System Error events.
- Add new events to the Machine Environment class.

---

**HP ProLiant Integrated Management Log Viewer for Windows Server x86 Editions**

Version: 7.5.0.0 *(Optional)*

Filename: cp026575.exe

**Important Note!**

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Starting with version 7.0.0.0, this application will only install on HP ProLiant systems supporting the iLO 2, iLO 3, or iLO 4 management controllers. Installation in a virtual machine is no longer supported.

Starting with version 6.5.0.0, this application requires Administrator privileges through Windows User Account Control.

Version 6.2.0.0 of this application is the final version that will support installation under Windows Server 2003.

Starting with version 6.0.0.0, the dependencies on the HP ProLiant Remote Monitor Service and the HP ProLiant Remote IML Service have been removed. This application no longer provides access to the Integrated Management Log on a remote system.

Starting with version 5.22.0.0, a 64-bit release of this application is available. Version 5.22.0.0 and later of the 32-bit release will not install under 64-bit Windows.

Starting with version 5.3.0.0, installation is based on the Microsoft Installer (MSI). If you wish to downgrade to version 5.2.0.0 or earlier, use Windows Add or Remove Programs to uninstall this application before installing the earlier version.

**Enhancements**

- Provide additional detail for Unrecoverable System Error events.
- Add new events to the Machine Environment class.

---

**HP Smart Storage Administrator (HP SSA) CLI for Linux**

Version: 2.30-6.0 *(Optional)*

Filename: hpssacli-2.30-6.0.i386.rpm; hpssacli-2.30-6.0.i386.txt

**Important Note!**

HP 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**

Updated HP EULA for encryption licensing

---

**HP Smart Storage Administrator (HP SSA) CLI for Linux 64-bit**

Version: 2.30-6.0 *(Optional)*

Filename: hpssacli-2.30-6.0.x86_64.rpm; hpssacli-2.30-6.0.x86_64.txt

**Important Note!**

HP 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

Updated HP EULA for encryption licensing

---

**HP Smart Storage Administrator (HP SSA) CLI for Windows**

*Version: 2.30.6.0 (Optional)*

Filename: cp027015.exe

**Important Note!**

HP 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.

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Enhancements

Updated HP EULA for encryption licensing

---

**HP Smart Storage Administrator (HP SSA) CLI for Windows 64-bit**

*Version: 2.30.6.0 (Optional)*

Filename: cp027016.exe

**Important Note!**

HP 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

Updated HP EULA for encryption licensing

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**HP Smart Storage Administrator (HP SSA) for Linux**

*Version: 2.30-6.0 (Optional)*

Filename: hpssa-2.30-6.0.i386.rpm; hpssa-2.30-6.0.i386.txt

**Prerequisites**

The HP Smart Storage Administrator for Linux requires the HP System Management Homepage software to be installed on the server. If the HP System Management Homepage software is not already installed on your server, please download it from HP.com and install it before installing the HP Smart Storage Administrator for Linux.
IMPORTANT UPDATE: HP SSA (GUI) for Linux can now be run without requiring the HP System Management Homepage. HP SSA now supports a Local Application Mode for Linux. The HP System Management Homepage is still supported, but no longer required to run the HP SSA GUI.

To invoke, enter the following at the command prompt:

```
hpssa -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**

Updated HP EULA for encryption licensing

---

**HP Smart Storage Administrator (HP SSA) for Linux 64-bit**

Version: 2.30.6.0 *(Optional)*
Filename: hpssa-2.30-6.0.x86_64.rpm; hpssa-2.30-6.0.x86_64.txt

**Prerequisites**

The HP Smart Storage Administrator for Linux requires the HP System Management Homepage software to be installed on the server. If the HP System Management Homepage software is not already installed on your server, please download it from HP.com and install it before installing the HP Smart Storage Administrator for Linux.

**IMPORTANT UPDATE:** HP SSA (GUI) for Linux can now be run without requiring the HP System Management Homepage. HP SSA now supports a Local Application Mode for Linux. The HP System Management Homepage is still supported, but no longer required to run the HP SSA GUI.

To invoke, enter the following at the command prompt:

```
hpssa -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**

Updated HP EULA for encryption licensing

---

**HP Smart Storage Administrator (HP SSA) for Windows**

Version: 2.30.6.0 *(Optional)*
Filename: cp027013.exe

**Important Note!**
HP 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. HP Smart Array Advanced Pack 1.0 and 2.0 features are now part of the baseline features of HP SSA, with the appropriate firmware.

HP 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**

Updated HP EULA for encryption licensing

---

**HP Smart Storage Administrator (HP SSA) for Windows 64-bit**

Version: 2.30.6.0 *(Optional)*

Filename: cp027014.exe

**Important Note!**

HP 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. HP Smart Array Advanced Pack 1.0 and 2.0 features are now part of the baseline features of HP SSA, with the appropriate firmware.

HP 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**

Updated HP EULA for encryption licensing

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**HP SNMP Agents for Red Hat Enterprise Linux 6 (AMD64/EM64T)**

Version: 10.3.0 *(Optional)*

Filename: hp-snmp-agents-10.30-2819.16.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 following issues:

- After plugging or unplugging a NIC cable, the cmadic daemon status was inactive.
- When running in non-interactive mode, the snmpd.conf file could not be updated with SNMP settings.
- After running agents, the NFS directory could not be unmounted.

Enhancements

- Added support for new HP ProLiant Gen9 Servers.
- Support for Systemd.
- Init scripts are LSB compliant.

---

**HP SNMP Agents for Red Hat Enterprise Linux 6 (x86)**

Version: 10.3.0 *(Optional)*

Filename: hp-snmp-agents-10.30-2819.17.rhel6.i686.rpm

**Prerequisites**

To get the list of all dependency files for hp-snmp-agents type:

```
rpm -q --requires hp-snmp-agents=<version>.rpm
```

**Fixes**

Fixed following issues:

- After plugging or unplugging a NIC cable, the cmadic daemon status was inactive.
- When running in non-interactive mode, the snmpd.conf file could not be updated with SNMP settings.
- After running agents, the NFS directory could not be unmounted.

---

**HP SNMP Agents for Red Hat Enterprise Linux 7 Server**

Version: 10.3.0 *(Optional)*

Filename: hp-snmp-agents-10.30-2819.17.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 -q --requires hp-snmp-agents=<version>.rpm
```

**Fixes**

Fixed following issues:

- After plugging or unplugging a NIC cable, the cmadic daemon status was inactive.
When running in non-interactive mode, the snmpd.conf file could not be updated with SNMP settings.
After running agents, the NFS directory could not be unmounted.

Enhancements
- Added support for new HP ProLiant Gen9 Servers.
- Support for Systemd.
- Init scripts are LSB compliant.

---

**HP SNMP Agents for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)**

**Version:** 10.3.0 *(Optional)*

**Filename:** hp-snmp-agents-10.30-2819.15.sles11.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 following issues:
- After plugging or unplugging a NIC cable, the cmanicd daemon status was inactive.
- When running in non-interactive mode, the snmpd.conf file could not be updated with SNMP settings.
- After running agents, the NFS directory could not be unmounted.

Enhancements
- Added support for new HP ProLiant Gen9 Servers.
- Support for Systemd.
- Init scripts are LSB compliant.

---

**HP SNPMP Agents for SUSE LINUX Enterprise Server 11 (x86)**

**Version:** 10.3.0 *(Optional)*

**Filename:** hp-snmp-agents-10.30-2819.15.sles11.i586.rpm

**Prerequisites**

To get the list of all dependency files for hp-snmp-agents type:

```
rpm --qp --requires hp-snmp-agents-<version>.rpm
```

**Fixes**

Fixed following issues:
After plugging or unplugging a NIC cable, the cmanicd daemon status was inactive.
When running in non-interactive mode, the snmpd.conf file could not be updated with SNMP settings.
After running agents, the NFS directory could not be unmounted.

**HP SNMP Agents for SUSE LINUX Enterprise Server 12**
Version: 10.3.0 (Optional)
Filename: hp-snmp-agents-10.30-2819.19.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 following issues:

- After plugging or unplugging a NIC cable, the cmanicd daemon status was inactive.
- When running in non-interactive mode, the snmpd.conf file could not be updated with SNMP settings.
- After running agents, the NFS directory could not be unmounted.

**Enhancements**
- Added support for new HP ProLiant Gen9 Servers.
- Support for Systemd.
- Init scripts are LSB compliant.

**HP System Health Application and Command Line Utilities for Red Hat Enterprise Linux 6 (AMD64/EM64T)**
Version: 10.3.0 (Optional)
Filename: hp-health-10.30-1752.18.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 following issue:
Enhancements

- Added support for new HP ProLiant Gen9 Servers.

HP System Health Application and Command Line Utilities for Red Hat Enterprise Linux 6 (x86)
Version: 10.3.0 (Optional)
Filename: hp-health-10.30-1752.24.rhel6.i686.rpm

Prerequisites

To get the list of all dependency files for hp-health, type:

```
rpm --qp --requires hp-health< version >.rpm
```

Fixes

Fixed following issue:

- Initial Program Load(IPL) devices are displayed correctly after disabling NICs.

Enhancements

- Added support for new HP ProLiant Gen9 Servers.

HP System Health Application and Command Line Utilities for Red Hat Enterprise Linux 7 Server
Version: 10.3.0 (Optional)
Filename: hp-health-10.30-1752.15.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 following issue:

- Initial Program Load(IPL) devices are displayed correctly after disabling NICs.

Enhancements

- Added support for new HP ProLiant Gen9 Servers.
  - Added support for Systemd.
HP System Health Application and Command Line Utilities for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)
Version: 10.3.0 (Optional)
Filename: hp-health-10.30-1752.14.sles11.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 following issue:

- Initial Program Load(IPL) devices are displayed correctly after disabling NICs.

Enhancements

- Added support for new HP ProLiant Gen9 Servers.

HP System Health Application and Command Line Utilities for SUSE LINUX Enterprise Server 11 (x86)
Version: 10.3.0 (Optional)
Filename: hp-health-10.30-1752.14.sles11.i586.rpm

Prerequisites

To get the list of all dependency files for hp-health, type:

```
rpm --qp --requires hp-health< version >.rpm
```

Fixes

Fixed following issue:

- Initial Program Load(IPL) devices are displayed correctly after disabling NICs.

HP System Health Application and Command Line Utilities for SUSE LINUX Enterprise Server 12
Version: 10.3.0 (Optional)
Filename: hp-health-10.30-1752.16.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 following issues:

- Initial Program Load(IPL) devices are displayed correctly after disabling NICs.
- Restarting hp-health does not cause the hp-snmp-agents to halt in SUSE Linux Enterprise Server 12.

**Enhancements**

- Added support for new HP ProLiant Gen9 Servers.
- Added support for Systemd.

---

**HP System Management Homepage for Linux (AMD64/EM64T)**

Version: 7.5.2-4 *(Recommended)*

Filename: hpsmh-7.5.2-4.x86_64.rpm

**Prerequisites**

The rpm will check for prerequisites.

**Fixes**

Improved security features

**Enhancements**

Updated the following components

- OpenSSL to version OpenSSL-1.0.2d
- PHP to version php-5.6.11
- Curl to version curl-7.42.1

---

**HP System Management Homepage for Linux (x86)**

Version: 7.5.2-4 *(Recommended)*

Filename: hpsmh-7.5.2-4.i386.rpm

**Prerequisites**

The rpm will search for prerequisites and notify the user of any not present on the machine.

**Fixes**

Improved security features
Enhancements

Updated the following components

- OpenSSL to version OpenSSL-1.0.2d
- PHP to version php-5.6.11
- Curl to version curl-7.42.1

HP System Management Homepage for Windows x64
Version: 7.5.2.4 (Recommended)
Filename: cp027295.exe

Fixes

Improved Security features

Enhancements

Updated the following components

- OpenSSL to version OpenSSL-1.0.2d
- PHP to version php-5.6.11
- Curl to version curl-7.42.1

HP System Management Homepage for Windows x86
Version: 7.5.2.4 (Recommended)
Filename: cp027294.exe

Fixes

Improved security features

Enhancements

Updated the following components

- OpenSSL to version OpenSSL-1.0.2d
- PHP to version php-5.6.11
- Curl to version curl-7.42.1

HP System Management Homepage Templates for Linux
Version: 10.3.0 (Optional)
Filename: hp-smh-templates-10.3.0-1447.15.noarch.rpm

Important Note!
The HP System Health Application and Insight Management Agents (hpasm) version 8.0.0 was split into three individual rpm packages:

- HP System Health Application and Command Line Utilities (hp-health) version 8.1.0
- HP SNMP Agents (hp-snmp-agents) version 8.1.0
- HP System Management Homepage Templates (hp-smh-templates) version 8.1.0

These three packages provide equivalent functionality as hpasm v8.0.0 and allow for more modular installation choices.

**Prerequisites**

To get the list of all dependency files for hp-smh-templates type:

```
rpm --qp --requires hp-smh-templates,<version>.rpm
```

**Fixes**

Fixed following issue:

- SMH shows statistics with IB adapter.

**Enhancements**

- Added support for new HP ProLiant Gen9 Servers.

---

**Intel C220 and C610 Series Platform Controller Hub NMI Fix for Windows Server 2008 R2**

Version: 1.1.0.0 *(Optional)*

Filename: cp027854.exe

**Enhancements**

Add support for HP ProLiant Gen9 servers.

---

**System file generation using manifest file**

Version: 7.2.1.0 *(Optional)*

Filename: mapping.xml

**Fixes**

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

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**System file generation using manifest file**

Version: 7.4.0.0 *(Optional)*

Filename: mapping.xml

**Fixes**

See the [HP SUM Release Notes](#) for information about the issues resolved in this release.
System file generation using manifest file
Version: 7.3.9.9 (Optional)
Filename: mapping.xml

Fixes
See the HP SUM Release Notes for information about the issues resolved in this release.