Hewlett Packard Enterprise

HPE Moonshot Component Pack 2020.08.0 Release Notes

Part Number: P39812-001
Published: October 2020
Edition: 1

Notices

The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Confidential computer software. Valid license from Hewlett Packard Enterprise required for possession, use, or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Links to third-party websites take you outside the Hewlett Packard Enterprise website. Hewlett Packard Enterprise has no control over and is not responsible for information outside the Hewlett Packard Enterprise website.

Acknowledgments

Release Notes

Overview

The Moonshot Component Pack is a comprehensive firmware solution tested on the Moonshot System and delivered as a compressed file. The compressed file includes the firmware files to update a Moonshot Chassis and its server blades/ cartridges, deploy firmware updates from a command line with the iLO Chassis Manager CLI (iLO Chassis Manager) or the Moonshot 45Gc, 45XGc, and 180XGc Switch Module CLI (switch firmware only). Download the latest **Moonshot Component Pack** from the Hewlett Packard Enterprise Support Center website.

These release notes apply to Moonshot Component Pack version 2020.08.0.

NOTE: Users will see server blade and cartridge used throughout this document, they are one and the same.

Table 1: Moonshot Component Pack 2020.08.0 included files and descriptions

Filename	Description
moonshot_component_pack_2020.08.0.zip[1]	HPE Moonshot Firmware Pack
Moonshot 1500 Chassis Firmware	
iLO_Chassis_Management_Firmware_161_p03.bin	HPE Integrated Lights-Out Chassis Manager Firmware 1.61
HP_Moonshot_1500_Chassis_Firmware_4.9.2S.hex	HPE Moonshot 1500 Chassis Firmware
Moonshot 1500 Chassis 2.0 Firmware	
Moonshot_CM2-1.3-b20.deb.HPb	HPE Moonshot 1500 Chassis 2.0 Firmware
Moonshot_CM2_CC_03.13H.bin.HPb	HPE Moonshot 1500 Chassis 2.0 Controller Firmware
Switch Firmware	
MOONSHOT_SWITCH_FW-CMW710-R2432P05.signed.bin	HPE Moonshot Switch Firmware **NOTE:** This file is only applicable for CM 1.0 and can only be updated via Chassis Manager.
MOONSHOT_SWITCH_FW-CMW710-R2432P05.ipe	HPE Moonshot Switch Firmware
180G_Switch_Data_2013-12-06S.bin	HPE Moonshot-180G Switch Module Cartridge Data File 12-06-2013
180XGc_Switch_Data_2015-11-30S.bin	HPE Moonshot-180XGc Switch Module Cartridge Data File 11-30-2015
45Gc_Switch_Data_2015-02-04S.bin	HPE Moonshot-45Gc Switch Module Cartridge Data File 02-04-2015
45G_Switch_Data_2013-12-06S.bin	HPE Moonshot-45G Switch Module Cartridge Data File 1206.13

Table Continued

Filename	Description
45XGc_Switch_Data_2016-11-30S.bin	HPE Moonshot-45XGc Switch Module Cartridge Data File 11-30-2016
Switch_FW_45G_180G_2.0.3.6.bin	HPE Moonshot 45-Port/180-Port Switch Firmware Image 2.0.3.6
Remote Control Administrator	
mRCA_Cartridge_Data_6_2_2017.bin.HPb	HPE Moonshot Remote Console Administrator Cartridge Data 6-2-2017
iLO4_232_mRCA.bin	iLO HPE Moonshot Remote Console Administrator 2.32
m510 Server Blade Firmware	
ProLiant_m510_Server_ROM_H05_1.82_07_15_2019.signed.flash	System ROM for HPE ProLiant m510 (H05) 1.82_07_15_2019
ilo4_258_moonshot_p02.bin[1]	iLO for Moonshot Firmware 2.58
ProLiant_m510_Server_Cartridge_Data_8Core_08Nov2017.HPb	HPE ProLiant m510 Server Cartridge Data 8 Core 11-08-2017
ProLiant_m510_Server_Cartridge_Data_12Core_08Nov2017.HPb	HPE ProLiant m510 Server Cartridge Data 12 Core 11-08-2017
ProLiant_m510_Server_Cartridge_Data_16Core_11_08_2017.HPb	HPE ProLiant m510 Server Cartridge Data 16 Core 11-08-2017
RunIFXTPMUpdate4Moonshot.efi	HPE ProLiant m510 Server Blade Trusted Platform Module (TPM 2.0) firmware update for UEFI
ProLiant_m510_Server_ME_5Oct2017.HPb	HPE ProLiant m510 Blade ME
ProLiant_m510_Mellanox_NIC_FW_2_42_5028.HPb	HPE ProLiant m510 NIC 2.42.5028
firmware-nic-mellanox-nic-2.1-1.1.x86_64.rpm[2]	Online Firmware Upgrade Utility for HPE M510 And M710x Ethernet 10Gb 2 Port 544+i Adapter
m700 Server Cartridge Firmware	
ProLiant_m700_Server_ROM_A34_2018_04_20.HPb	System ROM for HPE ProLiant m700 Server Cartridge (A34) 04-20-2018
m700_Server_M2_Mezz_Data_2016_01_08.HPb	HPE ProLiant m700 Server Cartridge M2 Mezz Data 01-08-2016
HP_ProLiant_m700_Server_Cartridge_Data_3_5_2015.HPb	HPE ProLiant m700 Server Cartridge Abstraction data, FAN data, SDR data, ASSET data
HP_ProLiant_m700_Server_iSSD_Mezz_Data_5_19_2015.bin.HPb	HPE ProLiant m700 Server Cartridge iSDD Mezz Data 5-19-2015
Cartridge_Satellite_Firmware_0706.17S.bin	Cartridge Satellite Firmware
m700p Server Cartridge Firmware	

Table Continued

Filename	Description
ProLiant_m700p_Server_ROM_A35_2019_10_10.HPb	System ROM for HPE ProLiant m700p Server Cartridge (A35) 10-10-2019
ProLiant_m700p_Server_Cartridge_Data_29May2017.HPb	HPE ProLiant m700p Server Cartridge Data 05-29-2017
Cartridge_Satellite_Gen2_Firmware_0711.17.bin	Cartridge Satellite Gen2 Firmware
m710 Server Cartridge Firmware	
ProLiant_m710_Server_ROM_H03_2019_04_26.HPb	System ROM for HPE ProLiant m710 Server Blade 04-26-2019
m710_Cartridge_Data_06_21_2016.bin.HPb	HPE ProLiant m710 Server Cartridge Data 06-21-2016
Cartridge_Satellite_Firmware_0706.17S.bin	Cartridge Satellite Firmware
ProLiant_m710_Mellanox_NIC_FW_2_42_5028.HPb	HPE ProLiant m710 Server Blade Mellanox 2.42 5028
m710p Server Cartridge Firmware	
ProLiant_m710p_Server_ROM_H06_2019_07_15.HPb	System ROM for HPE ProLiant m710p Server Cartridge 07-15-2019
ProLiant_m710p_Server_Cartridge_Data_15May2017.HPb	HPE_ProLiant_m710p_Server_Cartridge_Data
Cartridge_Satellite_Firmware_0706.17S.bin	Cartridge Satellite Firmware
ProLiant_m710p_Mellanox_NIC_FW_2_42_5028.HPb	HPE ProLiant m710p Server Cartridge Mellanox 2.42 5028
m710x Server Blade Firmware	
ProLiant_m710x_Server_ROM_H07_1.84_03_10_2020.signed.flash[1]	System ROM for HPE ProLiant m710x Server Blade (H07) 1.84_03_10_2020
ilo4_258_moonshot_p02.bin[1]	iLO for Moonshot Firmware 2.58
ProLiant_m710x_Server_Cartridge_Data_13Nov2017.hpb	HPE ProLiant m710x Server Blade Data 11-13-2017
RunIFXTPMUpdate4Moonshot.efi	HPE ProLiant m710x Server Blades Trusted Platform Module (TPM 2.0) firmware update for UEFI
ProLiant_m710x_Server_ME_17Oct2017.bin.HPb	HPE ProLiant m710x Server Blade ME
ProLiant_m710x_Mellanox_NIC_FW_2_42_5600.HPb	HPE ProLiant m710x Mellanox NIC firmware 2.42 5600
firmware-nic-mellanox-nic-2.1-1.1.x86_64.rpm[2]	Online Firmware Upgrade Utility for HPE M510 And M710x Ethernet 10Gb 2 Port 544+i Adapter
m750 Server Bade Firmware	
H09_1.32_05_13_2020.signed.flash[1]	System ROM for HPE ProLiant m750 Server Blade (H09) 1.32_05_13_2020

Table Continued

Filename	Description
ilo5_218.bin[1]	iLO 5 Firmware 2.18
License	
eula-en.html - English HPE EULA	Hewlett Packard Enterprise End-User License Agreement v2019.01
eula-ja.html - Japanese HPE EULA	Hewlett Packard Enterprise End-User License Agreement (Japanese) v2019.01
eula-zh.html - Simplified Chinese HPE EULA	Hewlett Packard Enterprise End-User License Agreement (Simplified Chinese) v2019.01
Contents	
FirmwareToDeploy.txt[1]	HPE Moonshot Component Pack Configuration File
MS_firmware_update_3.3.02.zip	HPE Moonshot Firmware Deployment Tool
README_MCP_Firmware_2020.08.0.txt[1]	HPE Moonshot Component Pack 2020.08.0 README

1 This is a new file included in this release.

2 Includes ProLiant_m510_Mellanox_NIC_FW_2_42_5028.HPb and ProLiant_m710x_Mellanox_NIC_FW_2_42_5600.HPb.

NOTE: The CPLD for Moonshot 1500 Chassis and Server Cartridges will no longer be part of the Moonshot release process to the web. Customers must reach out to HPE support if a CPLD upgrade is required.

Supersede information

Supersedes: Moonshot Component Pack 2020.05.0

Product models

This release applies to the following models.

- HPE Moonshot 1500 Chassis
- HPE Moonshot 1500 Chassis 2.0
- HPE ProLiant m510 Server Blade
- HPE ProLiant m700 Server Cartridge
- HPE ProLiant m700p Server Cartridge
- HPE ProLiant m710 Server Cartridge
- HPE ProLiant m710p Server Cartridge
- HPE ProLiant m710x Server Blade
- HPE ProLiant m750 Server Blade
- HPE Moonshot Remote Console Administrator Data

Devices supported

Installation of this release applies to the following devices:

- Moonshot-45Gc Switch Module
- Moonshot-180XGc Switch Module
- Moonshot-45XGc Switch Module

Languages

The Moonshot Component Pack firmware files support the following language:

English

Important notes

Read this section before you start updating your system.

- Components for the following server cartridges have been removed from this Moonshot Component Pack. Moonshot Component Pack 2017.06.0 was the last Moonshot Component Pack to contain components for the following server cartridges:
  - HPE ProLiant Moonshot Server
  - HPE ProLiant m800 Server Cartridge
  - HPE ProLiant m400 Server Cartridge
  - HPE ProLiant m350 Server Cartridge
  - HPE ProLiant m300 Server Cartridge
- Support for HPE Moonshot-45G Switch Module and HPE Moonshot 180G Switch Module will not be provided anymore.

Firmware Deployment Change

The MCP Firmware will now be deployed using the Moonshot 1500 Firmware Update Utility, which is included in the MCP deliverable. The Moonshot 1500 Firmware Update Utility is a tool for applying firmware to one or more Moonshot 1500 chassis in one session. It currently supports client or server versions of Windows as the Management Workstation from which to deploy firmware. There is no Linux support at this time. To learn more, see **Moonshot 1500 Firmware Update Utility**.

NOTE: SUM is no longer supported for the deployment of Moonshot Component Packs.

What's new

Added support for the following product models:

- HPE Moonshot 1500 Chassis 2.0
- HPE ProLiant m750 Server Blade

Component fixes and enhancements

Chassis-related firmware

Integrated Lights-Out Chassis Manager Firmware version 1.61

(Filename`iLO_Chassis_Manager_Firmware_161_p03.bin`*)*

Enhancements

Version 1.61

- Added GUI selection to spawn HTML5 Remote Console on iLO-based cartridges running iLO Moonshot 2.57 or later.
- Added REST call enhancement to set BOOTONCE on multiple cartridges with 1 call.
- Added CLI command to set alternate SSH port: "SET NETWORK SSHPORT n".

Version 1.60

- Added a new security setting to iLO Chassis Manager, visible only in the SSH command line interface, to raise the security by disabling TLS 1.0 and requiring stronger cyphers. "SET AES [ON | OFF]" and "SHOW AES".
- Per new California law taking effect in 2020, iLO CM will prompt for a password change upon initial login with the administrator account. iLO CM will also prompt for a password change if the configuration is set to defaults.

Moonshot 1500 Chassis Firmware

(Filename `HP_Moonshot_1500_Chassis_Firmware_4.9.2S.hex`*)*

Fixes

Version 4.9.2S

Switch Enable lines are always asserted unless overridden by iLO.

Switch Firmware

Moonshot 45-Port/180-Port Switch Firmware Image 2.0.3.6

(Filename `Switch_FW_45G_180G_2.0.3.6.bin`*)*

Fixes

Version 2.0.3.6

Resolved an issue affecting some environments where the watchdog timeout caused the switch to reboot on occasion.

Moonshot Switch Firmware

(Filename `MOONSHOT_SWITCH_FW-CMW710-R2432P05.signed.bin`*)*

Fixes

Version CMW710-R2432P05

The `show switch temperature` command is added to temperature reading of 255 for 180XGc switch shown for Sensor 5 (05-Net Ctrlr 2) in Chassis Manager.

Blade-related Firmware (applies to m510 and m710x Server Blades)

iLO Moonshot version 2.58

(Filename `ilo4_258_moonshot_p02.bin`*)*

iLO for Moonshot version 2.57

(Filename `ilO4_257_moonshot_p03.bin`)

Enhancements

Version 2.57

- Added the ability to show the Edgeline 4000 chassis Switch Firmware version.
- Added HTML 5 Remote Console.
- Added a "Format Embedded Flash and reset iLO" button to the Diagnostics page like in iLO 4 v2.60 if a NAND self-test error was detected. When directed by Hewlett Packard Enterprise support, you can use this feature to recover Active Health System functionality in an Edgeline chassis.

Firmware for HPE M510 Ethernet 10Gb 2 Port 544+i Adapter (HPE ProLiant m510 only)

(Filename `ProLiant_m510_Mellanox_NIC_FW_2_42_5300.hpb`)

Enhancement

Version 2_42_5300

Added support for VLAN based Steering via mlxconfig (MFT 4.8.1 and above).

m510 Server Blade Firmware

System ROM for ProLiant m510 (H05) 1.82_07_015_2019

(Filename `ProLiant_m510_Server_ROM_H05_1.82_07_015_2019.signed.flash`)

Fixes

Version 1.82

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities:

- CVE-2018-12126 - Microarchitectural Store Buffer Data Sampling
- CVE-2018-12130 - Microarchitectural Fill Buffer Data Sampling
- CVE-2018-12127 - Microarchitectural Load Port Data Sampling
- CVE-2019-11091 - Microarchitectural Data Sampling Uncacheable Memory

These issues are not unique to HPE servers.

See Customer Advisory for additional information: **HPE ProLiant m510 Server Blade - Uncorrectable Machine Check Errors May Occur After Updating To System ROM Version 1.76 Dated February 5, 2019 (02/05/2019) With the Default Settings**.

Firmware Dependencies:

HPE iLO on Moonshot v2.50 or later to support Edgeline Chassis.

Problems Fixed:

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

the v1.76 System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities:

- CVE-2018-12126 - Microarchitectural Store Buffer Data Sampling
- CVE-2018-12130 - Microarchitectural Fill Buffer Data Sampling
- CVE-2018-12127 - Microarchitectural Load Port Data Sampling
- CVE-2019-11091 - Microarchitectural Data Sampling Uncacheable Memory

These issues are not unique to HPE servers.

See Customer Advisory for additional information: **HPE ProLiant m510 Server Blade - Uncorrectable Machine Check Errors May Occur After Updating To System ROM Version 1.76 Dated February 5, 2019 (02/05/2019) With the Default Settings**.

Version 1.78

Important Notes:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities:

- CVE-2018-12126 - Microarchitectural Store Buffer Data Sampling
- CVE-2018-12130 - Microarchitectural Fill Buffer Data Sampling
- CVE-2018-12127 - Microarchitectural Load Port Data Sampling
- CVE-2019-11091 - Microarchitectural Data Sampling Uncacheable Memory

These issues are not unique to HPE servers.

Firmware Dependencies:

HPE iLO on Moonshot v2.50 or later to support Edgeline Chassis.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities:

- CVE-2018-12126 - Microarchitectural Store Buffer Data Sampling
- CVE-2018-12130 - Microarchitectural Fill Buffer Data Sampling
- CVE-2018-12127 - Microarchitectural Load Port Data Sampling
- CVE-2019-11091 - Microarchitectural Data Sampling Uncacheable Memory

These issues are not unique to HPE servers.

ProLiant m510 Server Blade Data 8Core 11-08-2017

(Filename `ProLiant_m510_Server_Cartridge_Data_8Core_08Nov2017.HPb`)

Enhancements

Version 08Nov2017

The fan table to help with cooling for the Intel P3100 M.2 drive is updated.

ProLiant m510 Server Blade Data 16Core 11-08-2017

(Filename `ProLiant_m510_Server_Cartridge_Data_16Core_11_08_2017.HPb`)

Enhancements

Version 11_08_2017

The fan table to help with cooling for the Intel P3100 M.2 drive is updated.

HPE ProLiant m510 Server Blade ME

(Filename `ProLiant_m510_Server_ME_5Oct2017.HPb`)

Enhancements

Version 5Oct2017

- Changes compared to Broadwell-DE ME 03/27/2017(b) ME
- Maintenance release with the latest Intel SPS Firmware

ProLiant m510 NIC 2.42.5028

(Filename `ProLiant_m510_Mellanox_NIC_FW_2_42_5028.HPb`)

Fixes

Version 2.42.5028

- The broken Blink LEDs feature in Flexboot configuration menu.
- Corruption of ConnectFirstTgt and FirstTgtTcpPort attributes when reading them from the flash memory.
- SR-IOV Settings were not propagated properly when changing them from legacy mode.

Enhancements

Version 2.42.5028

- Added support for the following features:
  - New TLV: CX3_GLOBAL_CONF to enable/disable time stamp on incoming packets through mlxconfig configuration.
  - User MAC configuration.
  - Automatically collecting mstdump before driver reset.
  - Mechanism to detect DEAD_IRISC (plastic) from TPT (iron) and raise an assert.
  - A new field to "set port" command which notifies the firmware what is the user mtu size.
- Enhanced the debug ability for command timeout cases.

m700p Server Cartridge Firmware

System ROM for HPE ProLiant m700p Server Cartridge A35

(Filename `ProLiant_m700p_Server_ROM_A35_2019_10_10.HPb`)

Fixes

Version A35_2019_10_10

Addressed an issue where an erroneous "Thermal error detected by hardware" message will be logged in iLO Chassis Manager. This issue could occur during a system reboot and was being logged when no thermal event has happened.

m710 Server Blade Firmware

ProLiant m710 Server Cartridge Mellanox 2.42 5028

(Filename `ProLiant_m710_Mellanox_NIC_FW_2_42_5028.HPb`)

Fixes

Version 2.42 5028

Fixed the issue that causes a PCI timeout (up to 6 seconds PCI hang), when the device is receiving an "unsupported request" prior to a software reset. The issue manifested as an occasional NMI during a driver load after OS restart.

NOTE: This revision of the System ROM includes the latest revision of the Intel microcode, which in combination with operating system updates, provides mitigation for the Speculative Store Bypass (also known as Variant 4) security vulnerability. A Medium level CVE is assigned to this issue with ID CVE-2018-3639. Systems with microprocessors utilizing speculative execution and speculative execution of memory reads before the addresses of all prior memory writes are known may allow unauthorized disclosure of information to an attacker with local user access via a side-channel analysis. This security vulnerability is not unique to HPE servers and impacts any systems utilizing impacted processors.

---

m710p Server Cartridge Firmware

System ROM for ProLiant m710p Server Cartridge

(Filename `ProLiant_m710p_Server_ROM_H06_2019_07_15.HPb`)

Fixes

Version 2019_07-15

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where the system may experience a machine check after updating to the latest System ROM which contained a fix for an Intel TSX (Transactional Synchronizations Extensions) sightings. The previous microcode was first introduced in the 4/26/2019 version of System ROM. This issue only impacts systems configured with Intel Xeon v4 Series processors. This issue is not unique to HPE servers.

Version 2019_04-26

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

m710x Server Blade Firmware

System ROM for HPE ProLiant m710x Server Blade (H07) 1.84_03-10-2020

(Filename `ProLiant_m710x_Server_ROM_H07_1.84_03_10_2020.signed.flash`)

Fixes

Version 1.84

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigations for security vulnerabilities documented as CVE-2020-0548 and CVE-2020-0549, also known as CacheOut. These security vulnerabilities are documented in Intel Security Advisory INTEL-SA-00329. These issues are not unique to HPE servers.

System ROM for HPE ProLiant m710x Server Blade (H07) 1.82_12-06-2019

(Filename `ProLiant_m710x_Server_ROM_H07_1.82_12_06_2019.signed.flash`)

Fixes

Version 1.82

This revision of the System ROM includes the latest revision of the Intel microcode and reference code which provides mitigation for CVE-2019-11157. This security vulnerability is not unique to HPE servers. This vulnerability only impacts systems with Intel SGX (Software Guard eXtentions) enabled (SGX is disabled by default). HPE strongly recommends that customers using SGX functionality upgrade to this revision of the System ROM to obtain mitigation for this vulnerability.

Version 1.80

Firmware Dependencies:

HPE iLO on Moonshot v2.50 or later to support Edgeline Chassis.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for CVE-2017-5715, CVE-2019-11135, CVE-2018-12126, CVE-2018-12127, CVE-2018-12130, CVE-2018-11091, CVE-2019-0123, and CVE-2019-0117. These issues are not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel microcode which provides mitigation for an Intel sighting where under complex micro-architectural conditions, executing X87 or AVX or integer divide instructions may results in unpredictable system behavior. This issue is not unique to HPE servers.

This revision of the System ROM includes the latest revision of the Intel Reference Code support that provides mitigations for security vulnerabilities. The following vulnerabilities have been addressed in this System ROM release: CVE-2019-0185. These issues are not unique to HPE servers.

Version 1.78

Firmware Dependencies:

HPE iLO on Moonshot v2.50 or later to support Edgeline Chassis.

Problems Fixed:

This revision of the System ROM includes the latest revision of the Intel microcode which, in combination with operating system and/or hypervisor updates, provides mitigation for a new group of side channel vulnerabilities known as Microarchitectural Data Sampling (MDS). This includes support for mitigating the following vulnerabilities:

- CVE-2018-12126 - Microarchitectural Store Buffer Data Sampling
- CVE-2018-12130 - Microarchitectural Fill Buffer Data Sampling
- CVE-2018-12127 - Microarchitectural Load Port Data Sampling
- CVE-2019-11091 - Microarchitectural Data Sampling Uncacheable Memory

These issues are not unique to HPE servers.

ProLiant m710x Mellanox NIC firmware 2.42 5600

(Filename `ProLiant_m710x_Mellanox_NIC_FW_2_42_5600.HPb`)

Firmware Update

Firmware for the following device is updated to 2.42.5600:

- HPE M710x Ethernet 10Gb 2 Port 544+i Adapter
- HPE M510 Ethernet 10Gb 2 Port 544+i Adapter

Changes and New Features

Support for the following features is added:

- VLAN based Steering using mlxconfig
- Renamed the OPN from HP_Sirius_DP1_CX3Pro_A1 to HPE_m510_A1.

Supported Features

Firmware revision 2.42.5600 supports the following features:

- Ethernet - 10GbE
- PCIe 3.0 and PCIe 2.0
- HP OCSD thermal sensors reporting
- UEFI

NIC Firmware Known Issues

- When steering configuration is set to VLAN steering, hardware does not match L3/L4 headers (Only L2: DMAC and VLAN). Rules with L3/L4 fields are accepted but only their L2 sections are used.
- Enabling/disabling cq_timestamp using mlxconfig is not supported.
- In a card with 2 separate LEDs scheme (a Phy LED and a logic LED), only the Phy LED will show lit. That is, the orange LED will not be active while the ETH link is in the idle mode.
- In SR-IOV setup, using `mlxconfig` when the PF (Physical Function) is passed through to a VM (Virtual Machine). This requires a reboot of the hypervisor.
- Boot over VLAN with IB port is currently not supported.
- Boot menu is not shown if the HCA (Host Channel Adapter) card does not have flash.
- PXE boot after iSCSI boot with static configuration is currently not supported.
- HTTP boot over IPoIB may not function due to a known issue in iPXE community in HTTP stack.
- If boot priority is set to PXE and then iSCSI, and the PXE boot fails because the TFTP session for downloading the NBP times out, FlexBoot does not attempt to boot using iSCSI.
- Changing port protocol from ETH to IB on a port with NCSI/IPMI is enabled while the port connected to the ETH switch is not supported.
- RDP over IPv6 is currently not functional.
- Sniffer QP cannot be removed from the regular rule after adding the QP with insertion scheme equals to "push to that rule".
- Only a single Boot Entry Vector (BEV) per PCI Physical Function is supported; disabling the first port causes the second port to disappear as well.
- The NIC does not notify the driver of a link down incident when a cable is unplugged from a NIC port with 56GbE port link.
- 56GbE link is not raised when using the 100GbE optic cables.
- When working with MLNX_OFED v3.3-1.0.0.0, a server reboot could hang due to a kernel panic in mlx4_en_get_drvinfo() that is called from asynchronous event handler.

- When running ibdump, loopback traffic is mirroring into the kernel driver.
- MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer.

Known limitations

m510 and m710x Server Blades

Setting the UefiPxeBoot to IPv4 using the REST interface to remove IPv6 entries from the BIOS boot order list as documented in the iLO RESTful API Data Model Reference (for iLO 4).

This scenario occurs when the server blades are in the Moonshot chassis and iLO Chassis Manager boot setting is set. iLO Chassis Manager boot setting will override the RBSU settings and can cause this issue. To make sure iLO Chassis Manager boot setting is not set, use the `show node boot cXnY` command in iLO Chassis Manager CLI.

For more information, see **HPE iLO 4 APIs** located on GitHub.

m700p Server Cartridge

When a remote Windows host is connected with RDP, the AMD Radeon Setting Tool will fail to deploy.

The AMD Radeon Setting Tool requires the AMD GPU driver to be installed. This tool fails to start when the AMD GPU driver is installed and the remote host is connected using RDP. It will start successfully when the AMD GPU driver is installed and VNC is used to connect the remote Windows host. When the AMD GPU driver is not installed, a user can connect to the remote host using RDP and use Windows native display settings to make changes. Since the AMD GPU driver is not installed, the Windows Inbox Display driver will be used and AMD Radeon Setting Tool will not be available.

Supported operating systems

For more information on the Hewlett Packard Enterprise Certified and Supported ProLiant Servers for OS and Virtualization, go to the OS Support Site at **http://www.hpe.com/info/ossupport**. This site has specific OS support per server blade/cartridge. Not all server cartridges/blades support all operating systems.

For information about supported operating systems, view the **Supported Operating Systems for Edgeline, Moonshot, and IoT Gateway Systems** document.

Drivers

Device drivers must be updated when you install/re-install the operating system using either a CD, DVD, USB key, or when you are facing networking, graphics, sound or other hardware-related problems. This ensures that you have the latest device drivers installed on your Server and that the devices function optimally.

Installing or updating device drivers may lead to the following improvements:

- Increases in system performance
- Patched security risks
- Expanded compatibility
- Fixed device issues
- Support for new features

Table 2: Drivers for the HPE ProLiant m750 Server Blade

Windows Driver	Download Link
Intel Chipset - INF Utility	**10.1.18228.8176**
Intel UHD Graphics 630 for Windows 2016 and 2019	**26.20.100.7925**
Intel UHD Graphics 630 for Windows 10	**26.20.100.7870**
HPE m750 ConnectX-4 Lx 2 Port 10Gb LOM (On All supported Windows Server OS)	**2.30 (Windows 10)** **2.30 (Microsoft Windows 2019)** **2.30 (Microsoft Windows 2016)**
Agentless Management Service for Windows X64	**2.12.0.0**
iLO 5 Channel Interface Driver for Windows	**4.6.0.0**
iLO 5 BMC Null INF for Windows	**1.0.0.0**

Table 3: Drivers for the HPE ProLiant m710x/m710x-L Server Blade

Windows Driver	Download Link
Intel Chipset driver for Supported Microsoft Windows Server and Client OS	**10.1.18**
HPE iLO 3 NULL file	**1.0.0.0**
NVMe drivers for Toshiba XG3 drives	**1.2.126.843** Client (RD400/400A)
Intel Graphics driver for Supported Microsoft Windows Server editions • Microsoft Windows Server 2019 • Microsoft Windows Server 2016	**26.20.100.7925**
Intel Graphics Driver for Supported Microsoft Windows 8.1	**15.45.31.5127**
Intel Graphics Driver for supported Microsoft Windows 10	**26.20.100.8141**
Intel® Rapid Storage Technology (Intel® RST) User Interface and Driver • Microsoft Windows Server 2019 • Microsoft Windows Server 2016 • Windows 10	**16.8.3.1003**
Intel® Rapid Storage Technology (Intel® RST) User Interface and Driver Microsoft Windows Server 2012 R2	**14.8.16.1063**

Table Continued

Windows Driver	Download Link
Intel Wireless Software and Bluetooth Drivers for supported Microsoft Windows 10	**21.110**
Intel Wireless Software and Bluetooth Drivers for supported Microsoft Windows 8.1	**21.40.5**
HPE m710x/m710x-L Mellanox Connect-X3 Pro (On All supported Windows Server OS/ Client OS)	**5.50.53000** **5.50.53000 (Win2019 x64)** **5.50.53000 (Win2016 x64)** **5.50.53000 (Win2012R2 x64)** **5.50.53000 (Win2012 x64)**

Table 4: Drivers for the HPE ProLiant m510 Server Blade

Windows Driver	Download Link
Intel Chipset • Microsoft Windows 10(64-bit) • Microsoft Windows Server 2019 • Microsoft Windows Server 2016	**10.1.17903.8106**
HPE iLO 3 NULL file	**1.0.0.0**
NVMe drivers for Toshiba XG3 drives	**1.2.126.843** Client (RD400/400A)
HPE m510 Mellanox Connect-X3 (On all supported Windows Server OS/ Client OS)	**5.50.53000** **5.50.53000 (Win2019 x64)** **5.50.53000 (Win2016 x64)** **5.50.53000 (Win2012R2 x64)** **5.50.53000 (Win2012 x64)**

Table 5: Drivers for the HPE ProLiant m700/m700p Server Blade

Windows Driver	Download Link
All drivers	**2016.01.26 (HPE ProLiant m700 Server Blade)** **2017.03.14 (HPE ProLiant m700p Server Blade)**
AMD Driver for Win 10 v1903	**18.50.33 (18 Sep 2019)**

Table 6: Drivers for the HPE ProLiant m710/m710p Server Blade

Windows Driver	Download Link
HPE m710/m710p Mellanox Connect-X3 (On all supported Windows Server OS/ Client OS)	**5.50.53000** **5.50.53000 (Win2019 x64)** **5.50.53000 (Win2016 x64)** **5.50.53000 (Win2012R2 x64)** **5.50.53000 (Win2012 x64)**

NOTE: The list only includes drivers that have been tested by HPE. These drivers may not be the latest available from the vendor at the time of download. HPE will update the above table with newer versions of drivers after they have been tested by HPE.

Users should use the Linux inbox drivers when using a supported Linux operating system.

Prerequisites

HPE Trusted Platform Module 2.0: For HPE ProLiant m510 and m710x Server Blades, ROM version 1.50 or later must be installed before updating the TPM 2.0 firmware. The TPM must be enabled before updating the TPM 2.0 firmware. TPM for m510 and m710x server blades is set to hidden by default.

NOTE: Steps to update the TPM firmware and System ROM on multiple server blades will be available soon. The Customer Bulletin **a00029873** will be updated when the updated steps are available.

If secure boot is enabled, iLO firmware version 2.54 (or later) must be installed prior to updating the TPM firmware.

Refer to Customer Bulletin **a00029873** for instructions on how to enable the TPM to be visible and to update the TPM firmware.

Deployment instructions

Deployment methods

The MCP Firmware will now be deployed using the Moonshot 1500 Firmware Update Utility, which is included in the MCP deliverable. The Moonshot 1500 Firmware Update Utility is a tool for applying firmware to one or more Moonshot 1500 chassis in one session. It currently supports client or server versions of Windows as the Management Workstation from which to deploy firmware. There is no Linux support at this time. To learn more, see **Moonshot 1500 Firmware Update Utility**.

Related information

The latest documentation for Moonshot is available at **http://www.hpe.com/info/moonshot/docs**. Available documents include:

- *Setup Overview for the HPE Moonshot System*
- *HPE Moonshot Component Pack Update Guide*
- *Moonshot iLO Chassis Management CLI User Guide*

- *Moonshot iLO Chassis Manager Web Interface User Guide*
- *Operating System Deployment on HPE ProLiant Moonshot Server Blades User Guide*
- *Supported Operating systems for Edgeline, Moonshot, and IoT Gateway systems*

Websites

General websites

Hewlett Packard Enterprise Information Library

https://www.hpe.com/info/EIL

Single Point of Connectivity Knowledge (SPOCK) Storage compatibility matrix

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

Storage white papers and analyst reports

https://www.hpe.com/storage/whitepapers

For additional websites, see **Support and other resources**.

Support and other resources

Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website:

  https://www.hpe.com/info/assistance

- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website:

  https://www.hpe.com/support/hpesc

Information to collect

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components

Accessing updates

- Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.
- To download product updates:

  Hewlett Packard Enterprise Support Center

  https://www.hpe.com/support/hpesc

  Hewlett Packard Enterprise Support Center: Software downloads

  https://www.hpe.com/support/downloads

  My HPE Software Center

  https://www.hpe.com/software/hpesoftwarecenter

- To subscribe to eNewsletters and alerts:

  https://www.hpe.com/support/e-updates

- To view and update your entitlements, and to link your contracts and warranties with your profile, go to the Hewlett Packard Enterprise Support Center **More Information on Access to Support Materials** page:

  https://www.hpe.com/support/AccessToSupportMaterials

IMPORTANT: Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HPE Passport set up with relevant entitlements.

Remote support

Remote support is available with supported devices as part of your warranty or contractual support agreement. It provides intelligent event diagnosis, and automatic, secure submission of hardware event notifications to Hewlett Packard Enterprise, which will initiate a fast and accurate resolution based on your product's service level. Hewlett Packard Enterprise strongly recommends that you register your device for remote support.

If your product includes additional remote support details, use search to locate that information.

Remote support and Proactive Care information

HPE Get Connected

https://www.hpe.com/services/getconnected

HPE Proactive Care services

https://www.hpe.com/services/proactivecare

HPE Datacenter Care services

https://www.hpe.com/services/datacentercare

HPE Proactive Care service: Supported products list

https://www.hpe.com/services/proactivecaresupportedproducts

HPE Proactive Care advanced service: Supported products list

https://www.hpe.com/services/proactivecareadvancedsupportedproducts

Proactive Care customer information

Proactive Care central

https://www.hpe.com/services/proactivecarecentral

Proactive Care service activation

https://www.hpe.com/services/proactivecarecentralgetstarted

Warranty information

To view the warranty information for your product, see the links provided below:

HPE ProLiant and IA-32 Servers and Options

https://www.hpe.com/support/ProLiantServers-Warranties

HPE Enterprise and Cloudline Servers

https://www.hpe.com/support/EnterpriseServers-Warranties

HPE Storage Products

https://www.hpe.com/support/Storage-Warranties

HPE Networking Products

https://www.hpe.com/support/Networking-Warranties

Regulatory information

To view the regulatory information for your product, view the *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at the Hewlett Packard Enterprise Support Center:

https://www.hpe.com/support/Safety-Compliance-EnterpriseProducts

Additional regulatory information

Hewlett Packard Enterprise is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH (Regulation EC No 1907/2006 of the European Parliament and the Council). A chemical information report for this product can be found at:

https://www.hpe.com/info/reach

For Hewlett Packard Enterprise product environmental and safety information and compliance data, including RoHS and REACH, see:

https://www.hpe.com/info/ecodata

For Hewlett Packard Enterprise environmental information, including company programs, product recycling, and energy efficiency, see:

https://www.hpe.com/info/environment

Documentation feedback

Hewlett Packard Enterprise is committed to providing documentation that meets your needs. To help us improve the documentation, send any errors, suggestions, or comments to Documentation Feedback (**docsfeedback@hpe.com**). When submitting your feedback, include the document title, part number, edition, and publication date located on the front cover of the document. For online help content, include the product name, product version, help edition, and publication date located on the legal notices page.