BIOS Version 1.4.8 for Dell EMC PowerEdge Servers: R740, R740XD, R640, and R940.

And for Dell Precision 7920 Rack workstation

DELLEMC

Release Notes

BIOS

Basic Input / Output System (BIOS) facilitate the hardware initialization process and transition control to the operating system.

Current Version

1.4.8

Release Date

May 2018

Previous Version

1.4.5

Release Summary

Addressed security vulnerability related to CVE-2018-3639 and CVE-2018-3640. Updated the Intel Xeon Processor Scalable Family Processor Microcode to version 0x4D. For more information about specific items newly added and resolved in this version, see the New and enhanced features section and Fixed issues in this Release Notes.

Priority and recommendations

URGENT: Dell highly recommends applying this update as soon as possible. The update contains changes to improve the reliability and availability of your Dell system.

Compatibility

Supported devices and platforms

The PowerEdge R740, R740XD, R640, and R940 servers. Also, for the Precision 7920 Rack workstation.

New and enhanced features

- Enhancement to address security vulnerability CVE-2018-3639 (https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2018-3639).
- Enhancement to address security vulnerability CVE-2018-3640 (https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2018-3640).
- Updated the Intel Xeon Processor Scalable Family Processor Microcode to version 0x4D.

Fixed issues (this release)

None for this release.

Known issues

None for this release.

Important notes

This release provides continued code optimization to improve stability and performance.

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Features and fixes in previous releases

Version: 1.4.5

Release Date: April 2018

What's New

- Added a check to prevent BIOS downgrade when 18nm DIMMs are installed in 2 DPC (DIMMs per Channel) configuration and memory frequency is 2666 Mhz or higher. For more information, visit http://www.dell.com/support/article/QNA44339.
- Added support for HDD and USB placeholders in UEFI Boot Sequence.
- Added UEFI Capsule Firmware (BIOS only) Update Support by using O/S update service such as Windows update. This feature is available only for Precision 7920 Rack workstations.
- Log NVDIMM-N erase failure to SEL (System Event Log).
  Note: This error is already logged to Lifecycle Controller log.
- Added capability to re-enable a disabled PCIe clock after a warm reboot.
- Added enhancements to UEFI BIOS update tool. Users cannot use UEFI BIOS update utilities to downgrade BIOS to earlier version once the 1.4.5 or later BIOS version is installed on the system.
  Note: Update Package can still be used to downgrade BIOS to versions earlier than 1.4.5.
- Updated the Intel Trusted Execution Technology (Intel TXT) BIOS Authenticated Code Module (ACM) to version 1.3.5.
- Updated the Intel Processor and Memory Reference Code to PLR5.

Fixes

- An unsuccessful NVDIMM-N firmware update may be reported as successful.
- TPM region is not reserved in the E820 table.
- When specific 4-core CPUs are installed, the system stops responding during the NVDIMM-N firmware update operation.
- Updated the IP4 stack to support point-to-point link with the 31-bit mask.
- Able to set 'System Password' in HII when the 'System Lockdown Mode' is enabled.

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Version: 1.3.7

Release Date: February 2018

What's New

- Added NVDIMM-N Namespace support for the VMWare ESXi 6.7 version.
- Updated the Intel Trusted Execution Technology (Intel TXT) BIOS Authenticated Code Module (ACM) to version 1.3.4.

- Updated the Intel Processor and Memory Reference Code to PLR3.1.
- To address CVE-2017-5715 (https://cve.mitre.org/cgi-bin/cvename.cgi?name=2017-5715):
  - Updated the Intel Xeon Processor Scalable Family Processor Microcode to version 0x43.
  - CVE-2017-5753 and CVE-2017-5754 are addressed by the Operating System & Hypervisor updates.
  - For more information, visit http://www.dell.com/support/article/SLN308588.

  Note: For the PowerEdge R940 servers only: Added instantaneous OCP adjustment for system configuration register values of Voltage System Agent (VSA).

Fixes

- BIOS takes a long time to handle correctable memory errors.
- For certain PCIe slots, manual slot bifurcation may not work.
- PCIe fatal error may be reported when a particular Network Daughter Card (NDC) is installed.
- Rarely, the system may stop at POST (Power-On-Self-Test) when running reboot test in the BIOS boot mode.
- Several NVMe-related defects.
- Resolved an Intel Management Engine related issue that caused the BIOS version update to fail (fails only when the server is kept turned on continuously for 24 days since the previous AC power cycle). See the **Important notes** section in this Release Notes.

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Version: 1.2.71 (demoted)

Release Date: December 2017

What's New

- Enhancement to address CVE-2017-5715 (https://cve.mitre.org/cgi-bin/cvename.cgi?name=2017-5715) and details to be published in January 2018.
- Updated the Intel Xeon Processor Scalable Family Processor Microcode to version 0x3A.

Fixes

None for this release.

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Instructions for installing

1. Click www.dell.com/support.
2. Navigate to the **Drivers & downloads** page of the PowerEdge R740, R740XD, R640, and R940 servers or Dell Precision 7920 Rack workstation.
3. From the **Category** drop-down menu, select **BIOS**.
4. In the **Name** column, expand the hyperlinked BIOS title to view complete information.
   a. To view information about earlier versions, click **Older versions**.
5. To view information about compatible systems and installation instructions, click **View full driver details**.
6. On the **Driver Details** page, scroll down and expand **Installation instructions**.

   Instructions about downloading and installing Update Packages by using methods such as DRMK, EFI, Linux, and Windows is displayed.

Additional resources and support

Contacting Dell EMC

Note: If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell EMC product catalog.

Dell EMC provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell EMC for sales, technical support, or customer service issues, go to https://www.dell.com/contactdell.

Accessing documents from Dell EMC support site

Using direct links

You can directly access the documents by using the following links:

www.dell.com/support	The Dell EMC support site
www.dell.com/poweredgemanuals	The Dell EMC PowerEdge server documentation
www.dell.com/idracmanuals	The iDRAC and Lifecycle Controller documentation

Using the product selector

You can also access documents by selecting your product:

1. Go to https://www.dell.com/manuals.
2. In the **Choose from all products** section, click **View products**.
3. Click **Software and Security** and then click the required link.
4. To view the document, click the required product version.