

# BIOS

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

**Version** 02.02.07

**Release Date:** January 20, 2014

**Previous Version** 02.01.06

## Importance

RECOMMENDED: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers, and software).

## Platform(s) Affected

Dell PowerEdge M620 servers and FC620 servers.

## What's New

- Updated Intel Authenticated Code Module (ACM) to Rev 2.4.
- Updated iDRAC HII configurator UEFI driver to v1.55.55.05.
- Improved the System Setup user interface.
- Updated BIOS Copyright as 2014 Dell Inc
- Added support for PowerEdge FX2 and PowerEdge FX2S.

## Fixes

- Corrected an issue where UEFI vMedia device failed to boot through iDRAC when all USB ports were disabled under the BIOS setup.

## Important Notes

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# History of Previous Release Notes

## BIOS

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

**Version** 02.01.06

**Release Date:** November 20, 2013

**Previous Version** 02.01.04

## Importance

**RECOMMENDED:** Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers, and software).

## Platform(s) Affected

Dell PowerEdge M620 servers.

## What's New

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## Fixes

Corrected a register setting to optimize the PCIe UniPhy Recipe when used with the E5-2600 V2 S1 Stepping processors.

## Important Notes

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# History of Previous Release Notes

**Version** [02.01.04](#)

**Release Date:** [October 01, 2013](#)

**Previous Version** [02.00.19](#)

## Importance

**RECOMMENDED:** Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers, and software).

## Platform(s) Affected

[Dell PowerEdge M620 servers.](#)

## What's New

- [Added support for Windows 2012 R2.](#)
- [Updated Intel chipset configuration compliant with latest BIOS specification Updates Rev 2.0.4.](#)
- [Updated Intel Xeon processor E5-2600 V2 product family microcode to 416.](#)
- [Updated Intel Management Engine \(ME\) binary to Rev 2.1.5. 0x87. Corrected an issue where throttling may be enforced, even after power cap restrictions are removed, if a system was under load during a warm reboot.](#)
- [Updated iDRAC HII configurator UEFI driver to v1.50.50.21:](#)
  - [On the basis of functionality, reordered the links on the iDRAC Settings page.](#)
  - [Updated the System Event Log page with a link to display the system event log messages.](#)
  - [Updated the Reset iDRAC configuration to defaults page to dynamically refresh the percentage completion status of configuration.](#)
  - [Updated the OS to iDRAC Pass Through page with an additional setting for USB NIC.](#)
  - [Updated the online help content related to Thermal.](#)

## Fixes

[Corrected the behavior of Dell Fault Resilient Mode to match with that of Mirror Mode when the DIMM population order does not support RAS features.](#)

## Important Notes

Intentionally left blank

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**Version** 02.00.19

**Release Date:** August 30, 2013

**Previous Version** 01.07.06

## Importance

RECOMMENDED: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers, and software).

## Platform(s) Affected

Dell PowerEdge M620 servers.

## What's New

- Support for Intel Xeon E5-2600 V2 processor.
- Updated Intel Management Engine (ME) binary to Rev 2.1.5. 0x81.
- Updated Intel Processor Power Management (PPM) reference code to Rev 1.25 (PPM is used when performance per Watt (OS) is selected in the system profile settings).
- Updated Authenticated Code Module (ACM) to Rev 2.2.
- Updated Intel processor and memory reference codes to Rev V2.00.00.02.
- Updated Intel chipset configuration compliant with latest BIOS specification Updates Rev 2.0.3.
- Intel Xeon processor E5-2600 V2 product family microcode 415.
- Intel Xeon processor E5-2600 product family microcode 710.
- Updated iDRAC HII configurator UEFI driver to v1.45.45.
- Added 1866MHz memory DIMM support for Intel Xeon E5-2600 V2 processor.
- Booting to the Operating System in Turbo speed with Turbo Boost enabled and CPU Power Management mode set to OS DBPM.
- New processor BIOS setup option "Dell Controlled Turbo" to assist with controlling Turbo engagement. This feature is also referred to as Dell Processor Acceleration Technology "DPAT". This option is available only when a E5-2690

or E5-2600 V2 Xeon series Processor is installed and Turbo is supported and enabled.

- New setup option to select either "IPv4" or "IPv6" PXE boot mode in UEFI Boot Settings.
- New Memory Operating Mode setup option "Dell Fault Resilient Mode ".
- Upgraded the UEFI network stack adding IPv6 support.
- New F3 hotkey in System Setup to load default settings from serial terminals.
- Improvements to the System Setup user interface.
- Added a new user interface for restoring Service Tag after a motherboard replacement.
- Updated to ensure existing asset tag can still be carried over when 30 byte asset tag is supported.

## Fixes

- Corrected an issue where Virtual-APIC Page Accesses With 32-Bit PAE Paging May Cause a System Crash.
- Corrected an issue where maximum turbo capability of Xeon processor E5-2690 CPUs can be limited when booting to certain OSs.
- Corrected an issue where system locks-up in POST after an abnormal shutdown under Solaris OS.
- Corrected an intermittent system lock up problem when console redirection is enabled.
- Fixed the ISC (In-System Characterization) feature unexpectedly getting disabled issue.
- Corrected language translation problems in System Setup.
- Corrected an issue where the system hangs with all Dell supported Brocade adapters that are using 3.2.x code base. (This issue affected Brocade BR1020, BR1741M-K and BR825 cards).
- Fixed an error in BIOS32 INT 1A support.
- Updated SMBios to report correct LRDIMM capacity when not in the "Optimizer" Memory Operating Mode for a fully populated system.

## Important Notes

Back-flashing to BIOS versions earlier than 2.0.19 is not allowed if Intel Xeon E5-2600 V2 processor is installed.

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System: Dell PowerEdge M620

Version: 1.7.6

Release Date: 05/23/2013

- Added support for PowerEdge VRTX.

## Important Notes

You cannot flash back to an older version of the BIOS when the server module is installed in a PowerEdge VRTX enclosure.

You can flash back to an older version of the BIOS when the server module is installed in a PowerEdge M1000e enclosure.

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System: Dell PowerEdge M620

Version: 1.6.1

Release Date: 03/08/2013

- Allows Memory 2X Refresh operation independent of temperature.

This option is accessible through the System Profile Setting menu under the BIOS setup.

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System: Dell PowerEdge M620

Version: 1.4.9

Release Date: 11/08/2012

- Added support for the Regulus 4x10GbE KR Blade-Network Daughter Card
- Updated Intel Management Engine (ME) binary to Rev 2.1.5.6D
- Updated Intel Processor Power Management (PPM) reference code to Rev 1.24 (PPM is used when performance per Watt (OS) is selected in the system profile settings)
- Updated BIOS to support Trusted Computing Group (TCG) Physical Presence Interface Specification version 1.2
- Updated the maximum supported frequency to 1600Mhz for RDIMMs and UDIMMs in both 1 DIMM per channel and 2 DIMMs per channel configurations, when operating at either 1.35V or 1.5V
- Updated the default maximum supported frequency to 1333Mhz for RDIMMs and LRDIMMs in a 3 DIMM per channel configuration
- Updated DIMM rank reporting for LRDIMMs to use physical rather than logical number of ranks
- Updated chipset reference code to improve downstream Integrated IO (IIO) performance and
- Increased the Asset Tag maximum length to 30 characters
- Enhanced the serial baud rate detection algorithm for console redirection support
- Added CPLD update support in Lifecycle Controller

- Made minor improvements to the System Setup user interface
- Added support when loading BIOS defaults using the <ALT><F> keys, through the serial
- Updated iDRAC UEFI driver to v1.30.30.27 with the following changes:
  - Updated the System Summary page to display the iDRAC License, Current iDRAC network settings, and upstream and downstream backplane information
  - Updated the Network Settings page to configure the Auto Dedicated NIC and Static IPv4/IPv6 settings, and view the Active NIC interface
    - Added OS to iDRAC Pass Through configuration settings
    - Updated the Alerts page to configure 8 Alert Destinations and added support to configure
  - IPv6 and FQDN address
    - Added System Event Log configuration settings
    - Updated Power Configuration settings to be enabled on the Rack and Tower servers with PMBus capable power supply

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System: Dell PowerEdge M620  
 Version: 1.3.6  
 Release Date: 09/12/2012

- Updated Authenticated Code Module (ACM)
- Updated memory reference code
- Updated processor reference code
- Updated chipset reference code to improve PCIe x16 slot performance
- Updated Intel Xeon processor E5-2600 product family microcode for C1 stepping to 00000619
- Updated Intel Xeon processor E5-2600 product family microcode for C2 stepping to 0000070D
- Added Windows 2012 support
- Increased the speed of the System Setup launch process
- Enhanced the iDRAC virtual mouse performance in pre-boot GUIs such as System Setup and Lifecycle Controller
- Enabled display of CPLD version information in BIOS setup
- Added UEFI boot support for Ubuntu
- Added support to allow PCI Memory Mapped I/O allocation above 4 GB
- Added logic to make I/O resource allocation more robust
- Improved handling of storage devices without a native UEFI driver
- Updated DIMM types used in power budget calculation to include LRDIMMs

- Changed default option for the Memory Operating Mode for all Memory Configurations to "Optimizer"
- Increased system memory speeds for Memory Configurations with all slots in a channel populated and when the System Profile in BIOS setup is set to "Performance" mode or Memory Frequency in the Custom" mode is set to Memory Maximum Performance
- Increased system memory speeds for 1600 MT/s DDR3L RDIMMS when one or two slots in a channel are populated
- Enabled entering System Setup (F2 hotkey) on a boot where a one-time Service Partition Boot has been requested
- Added new power management option "Collaborative CPU Performance Control" in the System Profile settings
- Added new power limiting option "Logical Processor Idling" in the Processor Settings
- Corrected an issue where HPET resources are not reported to OS

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System: Dell PowerEdge M620

Version: 1.2.6

Release Date: 05/11/2012

- Updated Authenticated Code Module (ACM)
- Updated memory reference code
- Updated processor reference code
- Updated chipset reference code
- Updated management engine firmware
- Enhanced mixed-stepping processors support
- Enhanced GPU power support
- Optimized System Profile Dense Memory mode support
- Updated the iDRAC UEFI driver
- Added ACPI5.0 error type structure support
- Added UEFI HII browser enhancements
- Updated memory POR speed support
- Updated Intel Xeon processor E5-2600 product family microcode for C1 stepping to 00000616
- Updated Intel Xeon processor E5-2600 product family microcode for C2 stepping to 0000070B
- Added IOAT feature
- Improved Direct IO support
- Improved SRIOV support
- Disabled DDR opportunistic self-refresh feature for the Max Performance mode



- Added NUMA IO support
- Added ACPI consistent device naming support for add-in cards
- Added CPLD firmware update capability for Lifecycle Controller
- Added PCIe SSD support

Caution: Back-flashing to BIOS versions earlier than 1.1.2 is not allowed.

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System: Dell PowerEdge M620

Version: 1.1.2

Release Date: 03/20/2012

- Enhanced BIOS update security to support new NIST security guidelines.

Caution: Back-flashing to BIOS versions earlier than 1.1.2 is not allowed.

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System: Dell PowerEdge M620

Version: 1.0.4

Release Date: 02/23/2012

This release is the first customer release.

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