

**Dell Chassis
Management
Controller (CMC) for
Dell PowerEdge VRTX
Version 2.1
Release Notes**



Release Type and Definition

Dell Chassis Management Controller (CMC) version 2.10 for Dell PowerEdge VRTX

The Dell Chassis Management Controller (CMC) Version 2.10 for Dell PowerEdge VRTX is a System Management hardware and software solution for managing the Dell PowerEdge VRTX chassis.

Version

2.10

Release Date

September 2015

Previous Version

2.04

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.

Platform(s) Affected

Chassis Infrastructure Firmware is supported on the following system:

- PowerEdge VRTX

What is Supported?

License Requirements

CMC supports software licensing to use advanced systems management features. For more information, see the *Dell Chassis Management Controller for Dell PowerEdge VRTX User's Guide*, available at the support site.

Supported Web Browsers for CMC for Dell PowerEdge VRTX

CMC version 2.10 is supported on the following web browsers:

- Microsoft Internet Explorer 9
- Microsoft Internet Explorer 10
- Microsoft Internet Explorer 11
- Safari version 7.1
- Safari version 8.0
- Mozilla Firefox version 32
- Mozilla Firefox version 33
- Google Chrome version 41
- Google Chrome version 42

Supported Server Modules

- Supported platforms: PowerEdge M630, M520, M620, M820, and M830 servers.
- Mainboard firmware: 2.00 or later (2.20 or later for JBOD support when available)
- iDRAC7 version: 1.66.56 or later
- iDRAC8 version: 2.05.05 or later (M630 Servers)
- PowerEdge M520 BIOS version: 2.1.3 or later
- PowerEdge M620 BIOS version: 2.2.7 or later
- PowerEdge M820 BIOS version: 2.0.24 or later
- PowerEdge M820 BIOS version: 0.3.35 or later
- PowerEdge M830 BIOS version: 1.1.5 or later

What's New?

Release 2.10

- Support for PowerEdge M830 Blade server for PowerEdge VRTX Chassis.
- Support for 1100W PSU.
- Pre-enablement support for Shared External Storage expansion (JBOD support).
- Firmware and driver refresh of COMMs cards on Dell's 13th generation PowerEdge servers.
- Support for Emulex Fibre Channel (FC) 8 HBA adapters.
- Capture and replicate chassis configurations through XML based on Chassis configuration profile.
- Support for blinking server identification LED using Quick Link.
- Backup or restore through XML based on chassis configuration profile.
- Create and deploy a library of Boot Identity Profiles (boot from iSCSI/SAN configurations) to enable a quick restore of workload to a spare server.

Fixes

- Fixed an issue with the "getmacaddress -c all" command displaying partial IO Identity values for the Intel Dual Port Network Card 10 GBE.
- Fixed an issue with the "getmacaddress -m server-x -t iscsi" command displaying non-iSCSI MAC addresses after using the iSCSI filter.
- Fixed an issue with flash media features displaying invalid media for active controllers after restoring the chassis.
- Fixed an issue with the external storage expansion where chassis logs and alerts are not generated.

Release 2.04

- Fixed an issue where CMC sometimes does not notify or display the storage changes until a chassis powercycle, CMC reset, or failover is performed.
- Fixed an issue where CMC user interface may become unresponsive while CMC is still accessible through other interfaces such as CLI (SSH, Serial, telnet) and WS-MAN.

Release 2.01

Updated OpenSSL open source package to version 1.0.1j . For more information, refer to OpenSSL Security Advisory [15 Oct 2014] <https://www.openssl.org/news/secadv_20141015.txt>.

Release 2.00

- Dell's 13th generation PowerEdge M630 Blade Server enablement for PowerEdge VRTX Chassis.
- Support for 1600W PSU.
- Broadcom 1GE quad-port NDC supported on M630 for VRTX Chassis.
- Emulex ARI NDC and Mezzanine cards support on M630 for VRTX Chassis.
- Intel 1G and NDC support on M630 for VRTX Chassis.
- Option to use an external library (CIFS/NFS directory created by the sysadmin) for update repositories and profiles.
- Option to see and use captured profiles stored on an external library.
- Assign a profile in a library to a slot for Quick Deploy of Profiles.
- Firmware and driver refresh of COMMs cards on Dell's 13th generation PowerEdge servers.
- ARI support for COMMs Cards.
- Support for IO identity Feature.
- CMC signed image firmware update verification.

Release 1.36

Fixed an issue in the CMC graphical user interface to allow editing a virtual disks policy while in Fault Tolerant (dual PERC) mode.

Release 1.35

- Fixed an issue in RACADM with the alert event filter configuration.
- Fixed an issue in CMC web interface related to **Chassis OverView-> Alerts-> Chassis Events** page. The **Chassis Events** page was unable to load on the web interface due to certain alert configuration settings that were not working with the following filters: System-SEC-Warning, Audit-LIC-Critical, Audit-LIC-Warning and Audit-LIC-Informational. This issue is fixed in this Release.

Note: After updating CMC 1.35 firmware version, verify the CMC alert configuration settings on the chassis Event's page.

Release 1.31

Occasional occurrences of older chassis log messages related to storage.

Release 1.30

- Telnet and SSH access issues with VLAN enabled.
- SNMP walk when traversing certain OIDs.
- PK authentication public key upload issue.
- Time zone setting in CMC graphical user interface.

Important Notes

It is recommended not to downgrade CMC or Mainboard firmware below the supported versions mentioned in this release notes, since previous versions of CMC and Mainboard do not support SPERC disable option.

When the second SPERC is in disabled mode, if a CMC with firmware version 1.30 or 1.31 is inserted into the chassis, then update the CMC firmware to 1.36 and run the options to disable the PERC again.

The shared hard disk drives (HDDs) and PCIe cards are managed by the CMC and are not visible to the operating system in the server modules, until the HDDs and PCIe cards are mapped by using the CMC web interface. For instructions about mapping PCIe cards and managing the storage subsystem, see the *Chassis Management Controller for PowerEdge VRTX User's Guide* available at the support site.

All the server modules must be turned off before updating the firmware for chassis infrastructure and SPERC. CMC firmware can be updated while the servers are on.

Some advanced features require CMC enterprise license. For more information about the CMC licenses, see the *Chassis Management Controller for PowerEdge VRTX User's Guide* available at the support site.

Before updating the storage component using the web interface, make sure that the browser's cookies are enabled.

PERC storage rebuild may take more time when more number of I/O requests are processed. This may also cause the CMC and the TTY log to be out of sync for a short period of time.

In fault-tolerant (Redundant) mode, the controller associated with virtual disks or physical disk drives is the active controller.

When saving Server Profile under "**Server Overview > Setup > Profiles**", the list of characters that are not supported for the Profile Name include the characters hash(#), comma(,), and question mark(?).

You may see an impact in the performance of the Graphical User Interface with this release of CMC. The performance impact varies by configuration, GUI page, and system load.

Known Issues

Issue 1:

Description

The **Asset Name** field in the internal enclosure reverts to the original name after a chassis power cycle.

Resolution

None. The **Asset Name** field is display only and cannot be set.

Versions/Systems Affected

All CMC versions including CMC 2.10 for Dell PowerEdge VRTX.

Issue 2:

Description

XWKGY_Intel10G card shows Flex disabled address after racresetcfg of CMC in Network Device Page and OS.

Resolution

Virtual reset or Physical reset of the server

Versions/Systems Affected

All CMC versions including CMC 2.01 for Dell PowerEdge VRTX and PowerEdge servers with iDRAC7 or earlier.

Issue 3:

Description

VLAN settings from the leader chassis are not propagating to member chassis.

Resolution

None

Versions/Systems Affected

All CMC versions including CMC 2.01 for Dell PowerEdge VRTX.

Issue 4:**Description**

After Shared PERC8 controller update, RAID related operations may take longer to report status.

Resolution

Wait for the operation status to report.

Versions/Systems Affected

CMC version 2.01 for Dell PowerEdge VRTX.

Issue 5 (234547):**Description**

An error occurs while importing CMC configuration file using local racadm or remote racadm.

Resolution

This issue occurs when IPv6 is enabled or disabled from the configuration file. Enable or disable IPv6 using the command

```
"racadm config -g cfgIPv6LanNetworking -o cfgIPv6Enable 0".
```

Versions/Systems Affected

CMC Version 2.0 for Dell PowerEdge VRTX

Issue 6:**Description**

Flash Media Status showing as "Version mismatch", when changeover the CMC or upgrade the CMC

Resolution

If chassis profile backup restore is performed on CMC-1 (active CMC) and changeover to CMC-2 (standby) is done, there will be a version mismatch in the chassis configuration profile for extended storage in CMC-2 after the changeover. The mismatch can be prevented by saving any server profile on CMC-1 before changing over to CMC-2. In case of version mismatch on CMC-2 after the changeover, the changeover to CMC-1 can be performed to resolve the issue.

Versions/Systems Affected

All CMC versions including CMC 2.1 for Dell PowerEdge VRTX

Limitations**Issue 1 (191858):****Description**

The Server Profile page hangs after applying a profile to multiple servers.

Resolution

Do not perform any operations in GUI until the pop-up message is displayed in the GUI.

Versions/Systems Affected

CMC Version 2.1 for Dell PowerEdge VRTX

Installation

Prerequisites

Before setting up your CMC environment, download the latest version of CMC firmware for PowerEdge VRTX from the Dell Support Website at [dell.com/support/](https://support.dell.com). Also, make sure that you have the Dell Systems Management Tools and Documentation DVD that is included with your system.

Updating the Firmware

Installation Procedure

1. In the CMC web interface, click **Chassis Overview**, and then click **Update**.
2. On the **Firmware Update** page, in the **CMC Firmware** section, select the required components under the **Update Targets** column for the CMC or CMCs (if standby CMC is present) you want to update, and then click **Apply CMC Update**.
3. In the **Firmware Image** box, enter the path to the firmware image file on the management station or shared network, or click **Browse** to browse through to the file location. The default name of the CMC firmware image file is `vrtsx_cmc.bin`.
4. Click **Begin Firmware Update**, and then click **Yes**. The **Firmware Update Progress** section displays information about the firmware update status.

For more information, see the *Chassis Management Controller for PowerEdge VRTX User's Guide* available at the support site.

VRTX Update Procedure

Prerequisites

iDRAC web interface for each server node must be accessible from management station.

Local or remote access to OS management for each server node.

VRTX chassis CMC web interface must be accessible from management station.

All server and chassis components must be in a Healthy state with no outstanding issues or alerts. Any issues must be resolved prior to performing updates.

Server Node Updates

Visit support.dell.com and download the latest available Windows DUP versions of the following programmable components for the server node model (M520, M620, M630 or M820) used in the VRTX chassis to be updated:

- o BIOS
- o iDRAC7/8
- o CPLD

Also, download the latest available Shared PERC8 driver for the operating system installed on the server node.

Note: If the OS is VMWare ESXi, the driver is part of the Dell ESXi image.

Updating the Server Nodes

1. Update the operating system-specific Shared PERC8 driver on all the server nodes. For Windows operating system, see the *Shared PERC8 User's Guide available at support.dell.com*. For VMware, the driver is part of the Dell-customized ESXi image. For more information, see installing async drivers at kb.vmware.com.
2. Update the iDRAC firmware using Windows DUP and the iDRAC web interface for each server node, or on all server nodes at once through VRTX CMC web interface if Enterprise license is in place and the Extended Storage feature is enabled. This update takes several minutes to complete after which, the iDRAC web interface becomes inaccessible for approximately three minutes.
3. Update the CPLD on each server node using the Windows DUP and iDRAC web interface. Make sure to select "Install and Reboot" after uploading the DUP, which forces the server nodes to reboot and perform the CPLD update. After the CPLD update completes a complete server node power cycle occurs. This results in the iDRAC web interface being inaccessible for approximately three minutes.
4. Update the BIOS on each server node using Windows DUP and the iDRAC web interface, or on all server nodes at once through the VRTX CMC web interface (**Server Overview** -> **Update** tab) if Enterprise license is in place. Make sure to select "Install and Reboot" after uploading the DUP which forces the server nodes to reboot and perform the BIOS update.

VRTX Chassis Component Updates

Visit support.dell.com and download the latest available versions of the following programmable components for the VRTX chassis to be updated:

- CMC Firmware
- HDD Firmware (Windows DUP)
- Shared PERC8 Firmware (Windows DUP)
- VRTX Chassis Infrastructure Firmware
- VRTX Storage Backplane Expander Firmware (Windows DUP)

Updating VRTX Chassis Components

1. Before updating any chassis components, chassis must be powered on, all server nodes must be powered down, and remain powered down until all chassis component updates are complete.
2. Update the HDD firmware for each installed shared storage HDD using the **Storage** -> **Update** tab in the CMC web interface.
3. Update the CMC firmware using the **Chassis Overview** -> **Update** tab in the CMC web interface. Make certain to update both CMC controllers in the same operation by selecting both the Active and Standby controller checkboxes. After the firmware upload completes, the CMC is rebooted to perform the update resulting in access to the CMC web interface being lost for several minutes.
4. Update the VRTX chassis infrastructure firmware using the **Chassis Overview** -> **Update** tab in the CMC web interface. This update results in the chassis power cycling automatically and may result in a CMC controller reset as well. This results in the CMC web interface being inaccessible for several minutes.

5. Update the VRTX storage backplane expander firmware using the **Storage -> Update** tab in the CMC web interface.
6. Verify that all installed Shared PERC8 controllers are enabled by checking the **Storage -> Controllers** tab in the CMC web interface. If the second Shared PERC8 controller is displayed as "Disabled PERC (Integrated 2)", use the CMC command '**racadm raid enableperc:RAID.ChassisIntegrated.2-1**' to enable the previously disabled controller prior to executing Step 7 below. The VRTX chassis performs a chassis power cycle after the Shared PERC8 enablement command is run.
7. Update the Shared PERC8 controller firmware on all installed controllers using the **Storage -> Update** tab in the CMC web interface. Make sure to update both controllers in the **High Availability Dual Shared PERC8** configuration in the same operation.
8. If a Shared PERC8 controller was required to be enabled for update in Step 6 above, the controller can again be disabled again if required. Use the CMC command '**racadm raid disableperc:Raid.ChassisIntegrated.2-1**', which again results in a chassis power cycle.

Contacting Dell

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

Dell 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 for sales, technical support, or customer service issues:

1. Visit **www.dell.com/support**.
2. Select your support category.
3. Verify your country or region in the **Choose a Country/Region** drop-down menu at the top of page.
4. Select the appropriate service or support link based on your need.

For information about documentation support:

1. Go to **dell.com/support/manuals**
2. In the **Tell us about your Dell system** section, under **No**, select **Choose from a list of all Dell products** and click **Continue**.
3. In the **Select your product type** section, click **Software & Security**.
4. In the **Choose your Dell Software** section, click the required link from the following:
 - Client System Management
 - Enterprise System Management
 - Remote Enterprise System Management
 - Serviceability Tools
5. To view the document, click the required product version.

Note: You can also directly access the documents using the following links:

- o For Client System Management documents – **dell.com/OMConnectionsClient**
- o For Enterprise System Management documents – **dell.com/openmanagemanuals**
- o For Remote Enterprise System Management documents – **dell.com/esmanuals**
- o For Serviceability Tools documents – **dell.com/serviceabilitytools**

Accessing Documents From Dell Support Site

To access the documents from Dell Support site:

1. Go to dell.com/support/manuals.
2. In the **Tell us about your Dell system** section, under **No**, select **Choose from a list of all Dell products** and click **Continue**.
3. In the **Select your product type** section, click **Software, Monitors, Electronics & Peripherals**.
4. In the **Choose your Dell Software, Monitors, Electronics & Peripherals** section, click **Software**.
5. In the **Choose your Dell Software** section, click the required link from the following:
 - Client System Management
 - Enterprise System Management
 - Remote Enterprise System Management
 - Serviceability Tools
6. To view the document, click the required product version.

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

- For Client System Management documents — dell.com/OMConnectionsClient
- For Enterprise System Management documents — dell.com/openmanagemanuals
- For Remote Enterprise System Management documents — dell.com/esmmanuals
- For Serviceability Tools documents — dell.com/serviceabilitytools

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