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DELL(TM) REMOTE ACCESS CONTROLLER/MODULAR CHASSIS VERSION 1.3

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This document contains updated information about the Dell Remote
Access Controller/Modular Chassis (DRAC/MC) version 1.3.

For more information about the DRAC/MC version 1.3, including
installation and configuration information, see the "Dell Remote Access
Controller/Modular Chassis User's Guide Version 1.3" located on the
Dell Support website at "support.dell.com."

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CRITICALITY
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1 – Required

NOTE: You must be running the DRAC/MC firmware version 1.2 or later to
      use the Digital Access KVM module.

NOTE: You must be running DRAC/MC firmware version 1.3 or later to
      power on Dell(TM) PowerEdge(TM) 1955 servers.

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MINIMUM REQUIREMENTS
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SUPPORTED SYSTEMS
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DRAC/MC version 1.3 is supported on the Dell Modular Server Enclosure, which was previously known as Dell PowerEdge 1855 server chassis.

==
SUPPORTED MANAGED SERVER OPERATING SYSTEMS
==

DRAC/MC operates independently from any operating system installed on the server modules. The DRAC/MC includes a Web-based user interface (UI) and does not require an operating system to be installed.

==
SUPPORTED WEB BROWSERS
==

* Microsoft(R) Internet Explorer 6.0 with Service Pack 1 or 2 on
  Microsoft Windows(R)

* Mozilla 1.7.8, 1.7.10, and 1.7.11 on Red Hat(R) Enterprise Linux
  (version 3 and version 4)

* Mozilla 1.7.8, 1.7.10, and 1.7.11 on SUSE(R) LINUX Enterprise
  Server (version 9)

* Mozilla Firefox 1.0.7 on Red Hat Enterprise Linux (version 3 and
  version 4)

* Mozilla Firefox 1.0.7 on SUSE LINUX Enterprise Server (version 9)

NOTE: To use the Avocent Digital Access KVM, your management station
      must be running Java Runtime Engine (JRE) version 1.4.2_05 or
      later.

##
FIRMWARE UPDATE PROCEDURE
##

NOTE: If your DRAC/MC firmware is running version 1.0, upgrade your
      firmware to version 1.1 or 1.1.1 before you upgrade to version
      1.3. The DRAC/MC version 1.3 firmware update requires 4 MB of
      flash memory (the same as the flash memory on the DRAC/MC
      card). The DRAC/MC version 1.0 boot code can only recognize 3 MB
      of flash memory, therefore, the firmware update from version
      1.0 to version 1.3 will fail.

NOTE: The firmware update procedure requires that a TFTP server
      application be installed on your network. Dell recommends using
      the SolarWinds.Net TFTP Server application.

NOTE: After you upgrade the DRAC/MC firmware, delete the temporary
      Internet files from the client Web browser. If the Web browser
      contains cached HTML files from a previous firmware version, the

browser may generate HTML or JavaScript errors.

==
UPGRADING THE FIRMWARE USING THE DRAC/MC USER INTERFACE
==

1. Extract the "mgmt.bin" binary file from the firmware update package
   to a TFTP server root directory.

2. Open a supported Web browser and log on to the DRAC/MC user
   interface.

3. From the DRAC/MC user interface main window, click the "Update"
   tab.

4. Select the DRAC/MC firmware update option.

5. Type the binary file name and TFTP server IP address in the
   appropriate fields.

6. Click "Update Firmware."

   NOTE: The TFTP download and firmware update procedures may take
      several minutes to complete.

   When the firmware update is complete, the DRAC/MC resets.

   NOTE: It is suggested that STP (Spanning Tree Protocol) is fully
   disabled or set to Port Fast/Rapid on the uplink port to the
   DRAC/MC during the TFTP upgrade.

   NOTE: If the chassis has two DRAC/MC's it is important that the
   TFTP server must be made available for the second DRAC/MC also
   to complete the firmware upgrade.

==
UPGRADING THE FIRMWARE USING THE COMMAND LINE INTERFACE (CLI)
==

1. Extract the "mgmt.bin" binary file from the firmware update package
   to a network TFTP server root directory.

2. Log on to the DRAC/MC telnet or serial user interface.

3. From the telnet/serial interface, issue the racadm fwupdate command.

   For example:

   racadm fwupdate –a <TFTP_IP_ADDRESS> –d mgmt.bin

   NOTE: The TFTP download and firmware update procedures may take
      several minutes to complete.

   When the firmware update is completed, the DRAC/MC resets.

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NEW FEATURES IN THIS RELEASE (FIRMWARE VERSION 1.3)
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* Support for Dell PowerEdge 1955 server module

* Support for remote RACADM utility version 5.0.0

* Support for backing up and restoring configuration objects

* Support for user-configurable system names

* Support for SUSE Linux Enterprise Server (version 9)

* Enhanced power budget implementation using redundancy policy
  selections


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CORRECTED ISSUES IN THIS RELEASE (FIRMWARE VERSION 1.3)
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* DRAC/MC web interface may time out when a firewall is enabled on the
  client. This has been reported with the integrated Windows firewall
  introduced with Windows XP SP1 and SP2.(38783/64357)

* TFTP update timer value does not allow firmware update with Spanning
  Tree Protocol enabled. (42780)

* Due to the default "CRLF" settings in Windows-based telnet clients,
  the text mode console redirection feature may not function properly
  on server modules running the Linux operating system.
  This issue can also occur when connecting to I/O modules using
  console redirection.
  Use the "connect -L" option from DRAC/MC CLI to filter the linefeed
  character. (46543)
  Alternatively, to fix this issue, configure the "CRLF" option
  on the telnet client to only send CR characters with the Windows
  telnet command "unset crlf." (146185)

* All server modules may power off if one defective power supply is
  present in the chassis. (67592)


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KNOWN ISSUES FOR DRAC/MC VERSION 1.3
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The following subsections list the known issues regarding the DRAC/MC
version 1.3 implementation and operation:

* If a DRAC/MC with version 1.0 firmware is configured in a redundant
  DRAC/MC configuration during a firmware update, the update may

fail, forcing the DRAC/MC to boot to the Firmware Recovery Console. For information about using the Firmware Recovery Console, see the "Dell Remote Access Controller/Modular Chassis Version 1.3 User's Guide" located on the Dell Support website at "support.dell.com." (134538)

* If the Dell Modular Server Enclosure is not configured properly, the Chassis Configuration Verification feature may not allow an I/O or server module to start up. For more information about this new feature, see the "Dell Remote Access Controller/Modular Chassis Version 1.3 User's Guide." (137137)

* If a 2100W power supply module in a Dell Modular Server Enclosure fails with a 1200W power supply module as the backup power module, the 1200W power supply module may switch to an "over current protection" state before the DRAC/MC module can regulate the power budget. This behavior is a power supply module feature that occurs in a Dell Modular Server Enclosure that is configured with three or more server modules. To clear the "over protection" state, replace the faulty 2100W power supply module or repair its power source. When the 2100W power supply module becomes the primary power module, remove and then reinsert the 1200W power supply module into the Dell Modular Server Enclosure. (139013)

* DRAC/MC version 1.1 and later uses a common MAC address that is stored in the Dell Modular Server Enclosure. The common MAC address is different from the DRAC/MC version 1.0 MAC address, therefore, a Dynamic Host Configuration Protocol (DHCP)-assigned IP address can be changed after you upgrade the DRAC/MC firmware to version 1.1 from version 1.0.

* DRAC/MC version 1.0 does not support a redundant configuration. Dell does not support chassis configurations with two DRAC/MC modules with firmware version 1.0 modules or two DRAC/MC modules with version 1.0 and version 1.1 or later firmware. (134538)

* The DRAC/MC may not be accessible for up to 5 minutes after a firmware update. Since the DRAC/MC uses a different MAC address during a firmware update, it sends gratuitous ARPs after completing the update. A switch with Spanning Tree Protocol-enabled may block the ARP packet transmission. To avoid this issue, disable the Spanning Tree Protocol on the switch ports that are connected to all DRAC/MC modules during a firmware update. (141510)

* If DRAC/MC resets for any reason, the selected server module through the KVM will change to server module 1 after DRAC/MC restarts. (154000)

* After you click the "Launch Viewer Application" button in the "Console Redirection" page, the Digital Access KVM keeps the DRAC/MC user session key for up to 3 minutes so the KVM Viewer application can launch. The Console Redirection "Launch" button in the DRAC/MC Web page is disabled for 3 minutes, even if you cancel the Console Redirection certificate acceptance message boxes. If you

click "Launch Viewer Application" and then click any other link
before the DRAC/MC Web page is refreshed, the "Launch Viewer
Application" may be disabled for the next 3 minutes. (154956)

* In the user interface "Firmware Update" page and the command line
  interface, the Digital Access KVM image file name cannot be more
  than 20 characters. (155856)

* If DRAC/MC firmware 1.3 is downgraded to version 1.1 or
  version 1.1.1 in a chassis with PowerEdge 1955 server module present
  in the lowest numbered slot, I/O modules in slots 3 and 4 may power
  down. Also, DRAC/MC firmware versions 1.2 or lower will display
  incorrect power and server status for PowerEdge 1955 server modules.
  (61191)

###
USER NOTES
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* To prevent I/O module misconfiguration in the Dell Modular Server
  Enclosure, use the following guidelines when you install daughter
  Cards and I/O modules:

  - I/O bays 1 and 2 must have the same type of I/O modules.

  - I/O bays 3 and 4 must have the same type of I/O modules from
    the same vendor.

  - I/O bay 1 must be populated before you install an I/O module in
    I/O bay 2.

  - I/O bay 3 must be populated before installing an I/O module in
    I/O bay 4.

* If the server modules are configured with daughter cards, the cards
  must be identical and use the same fabric.

* The daughter cards installed in the server modules must match the
  type (fabric) of the I/O modules in bays 3 and 4.

* I/O bays 1 and 2 can only be configured with Ethernet switches or
  Ethernet pass-through modules.

* Use the command-line interface (CLI) command "racadm getdcinfo"
  to verify the Dell Modular Server Enclosure configuration details.

* The "upload.exe" program that is supplied with DRAC/MC firmware
  update package is used only with the Firmware Recovery
  Console in case of firmware corruption. See the "Dell Remote
  Access Controller/Modular Chassis Version 1.3 User's Guide" for
  information about using the Firmware Recovery Console.

* The DRAC/MC version 1.1 or later Web-based user interface or the
  serial racadm CLI can be used for a standard TFTP-based firmware

update by using the "mgmt.bin" binary file.

* MAC address and user settings security. These DRAC/MC settings are
  stored in the Dell Modular Server Enclosure control panel printed
  circuit board, which includes the power button. If the Dell Modular
  Server Enclosure panel assembly is replaced, the MAC address is
  changed and user settings are lost.

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