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DELL(TM) REMOTE ACCESS CONTROLLER (DRAC) 5

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This document contains updated information about the Dell Remote Access Controller (DRAC) 5.

For more information about DRAC 5, including installation and configuration information, see the "Dell Remote Access Controller 5 User's Guide" and the "Dell OpenManage(TM) Server Administrator User's Guide." These documents are located on the Dell Support website at "www.support.dell.com/manuals."

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CRITICALITY

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3 - Optional

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MINIMUM REQUIREMENTS

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The following subsections list minimum requirements for the efficient

working of the DRAC 5.

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SUPPORTED SYSTEMS AND SUPPORTED MANAGED SERVER OPERATING SYSTEMS

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The following table lists the Dell PowerEdge(TM) systems that supports DRAC 5, and the operating systems they support:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PE 1950	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PE 2900	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PE 2950	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PE 1900	X	X	X	X	X	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X
PE 6950	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X
PE 2970	X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X
R805	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R900	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T605	X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X
R905	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T300	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R300	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Legend:

- 1 - SLES 10 SP3 64-bit
- 2 - SLES 10 SP4 64-bit
- 3 - SLES 11 SP1 64-bit
- 4 - RHEL 5.5 x86 32-bit
- 5 - RHEL 5.5 x86 64-bit
- 6 - RHEL 6.0 x86 64-bit
- 7 - ESX 4.1 U1; 4.0 U3
- 8 - ESXi 4.1 U1; 4.0 U3 HDD
- 9 - ESXi 4.1 U1; 4.0 U3 Flash
- 10 - XenServer 5.6 (HDD)
- 11 - XenServer 5.6 FP 1 (HDD)
- 12 - Hyper-V for Windows 2008 platforms
- 13 - Hyper-V R2
- 14 - Windows Server 2008 R2 SP1 64-bit
- 15 - Windows Server 2008 R2 64-bit
- 16 - Windows Server 2008 EBS SP1 64-bit
- 17 - Windows Server 2008 SP2 (32-bit and 64-bit)
- 18 - SBS 2011 Essentials
- 19 - SBS 2011 STD
- 20 - SBS 2008 Essentials
- 21 - SBS 2008 STD
- 22 - Windows Server 2003 Compute Cluster Edition
- 23 - Windows Server 2008 HPC Edition R1/ R2 SP1
- 24 - Windows Server 2003 R2 SP2

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SUPPORTED WEB BROWSERS

The browser support matrix dictates the browser and operating system combinations supported for client connectivity to the OpenManage Server Administrator, IT Assistant, OpenManage Server Administrator Storage Management, and DRAC product lines. All Web-accessible features will function in each of these combinations unless otherwise specified in the requirements.

Browser Support Matrix	IE7	IE8	IE8 x64	FF3.5	FF3.6	FF3.6 x64
Windows XP 32-bit SP3	x	x	N/A	x	N/A	
Windows Vista 32-bit SP2	x	x	N/A	x	x	N/A
Windows Vista x64 SP2	x	x	x	x	x	
Windows 7 32-bit	x	N/A	x	x	N/A	
Windows 7 x64	x	x		x	x	
Windows Server 2003 SP2	x	x	N/A	x	x	N/A
Windows Server 2003 x64 SP2	x	x	x	x	x	
Windows Server 2008 SP2	x	x	N/A	x	x	N/A
Windows Server 2008 x64 SP2	x	x	x	x	x	
Windows Server 2008 R2 x64		x	x	x	x	
SLES 10 x64 SP3		Native Browser				
SLES 11 x64 SP1		Native Browser				
RHEL 5.5 32-bit		Native Browser				
RHEL 5.5 x64		Native Browser				
RHEL 6.0 x64		Native Browser				

FIRMWARE VERSIONS

* RAC Firmware Version: 1.60

DISABLE LOCAL VIDEO

* Baseboard Management Controller (BMC) firmware version 1.29 or higher

POWER MONITORING STATISTICS, POST, and OPERATING SYSTEM PLAYBACK LOGS

* Baseboard Management Controller (BMC) version should be flashed to the following minimum versions:

- * PowerEdge 1900 - v2.29
- * PowerEdge 1950 - v2.28
- * PowerEdge 2900 - v2.28
- * PowerEdge 2950 - v2.28
- * PowerEdge 2970 - v2.29
- * PowerEdge 6950 - v2.29

- * PowerEdge R300 - v2.34
- * PowerEdge R900 - v2.27
- * PowerEdge T300 - v2.34
- * PowerEdge T605 - v2.30
- * PowerEdge R805 - v2.33
- * PowerEdge R905 - v2.31

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CONSOLE REDIRECTION USING JAVA VIEWER

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* JRE version 1.6.0 or later needs to be installed on the management station.

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RELEASE HIGHLIGHTS (FIRMWARE VERSION 1.60)

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- * vKVM plug-in backward compatibility and multiple user privileges.
- * Porting of OpenSSL 1.0.0a.
- * Known issue fixes.
- * OpenManage 6.5 compliance

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USER NOTES

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This section provides information to help enhance your experience with the Dell Remote Access Controller 5.

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NOTES FOR DRAC 5 Firmware 1.60

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- * Console redirection using Java plug-in does not work on a Linux management station. To resolve this problem, do the following:
 1. Save the JRE installer (jre-6u3-linux-i586-rpm.bin) at a location of your choice.
 2. Extract the RPM and install JRE.
 3. Create a soft link to this JRE in the plug-ins folder of the browser. For example, if you have installed the JRE in the default location, create the soft link by navigating to the plug-ins folder of your Web browser. From this folder, run the following command:

In -s /usr/java/jre1.6.0_03/plugin/i386/ns7/libjavaplugin_oji.so

NOTE: To verify if the JRE plug-in was installed, type "about:plugins" in the browser's address bar, click Go, and check the information that is displayed.

4. Close the Web browser and try Console Redirection again.

* Smart Card login and Single Sign-On functionality is not supported on Windows 2000 Management Station.

* For updating DRAC 5 firmware through the Web GUI, ensure that a valid .d5 image file and path are provided in the text box on the firmware update page.

* The Kerberos based Single Sign-On and Smart Card TFA feature does not work with Windows Server 2008 64-bit domain controllers unless the following steps are performed on the domain controller:

1. While generating the keytab using "ktpass", the +setPass option needs to be supplied as an additional argument.
2. There is also another known issue which hampers Kerberos authentication. See the following KB article to resolve the issue: "<http://support.microsoft.com/kb/951191>."

MAC Address Assignment between LOM and DRAC
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* When a NIC is in "Shared between LAN on the Motherboard" (LOM) and DRAC, the DRAC firmware assigns a separate MAC address for LOM and the DRAC 5.

CHANGE IN DEFAULT CONFIGURATION SETTINGS

For firmware version 1.60:

None

KNOWN ISSUES FOR DRAC 5
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* In Firefox browser on Linux systems, sometimes the plug-ins for virtual media and console redirection are shown as unsigned. This is an issue with the Firefox browser. To resolve this, download the plugins and re-login to DRAC 5.

* When you use Internet Explorer version 6 SP2 or version 7 to log into the DRAC 5 Web GUI and the client is on a private network but without access to the Internet, you may experience a delay of up to 30 seconds. To work around this issue, do the following:

1. Disable the phishing filter.
"<https://phishingfilter.microsoft.com/faq.aspx>"
2. Disable CRL fetching:
 - a. Click "Tools"-> "Options"-> "Advanced" [tab]-> "Security."
 - b. Clear "Check for publisher's certificate revocation."

- * Gemsafe Smart Cards GXPro-R3.x STD PTS works only with Classic Client Version 5.1.3 -003. This software is not freely available and has to be requested from the Gemalto sales representative or distributor while buying the card.
- * When AC power is applied to the system but it is still powered down, the date and time in the DRAC 5 is Jan 1, 1970. When the system is powered on, the DRAC 5 time is updated to the system time. Henceforth, DRAC 5 syncs up with the system time every hour. Once in the operating system, if the system time is changed, then in order to sync the DRAC 5 time with the system time immediately, reboot the system.
- * For Smart Card based authentication, currently, only Gemalto cryptographic smart cards and compatible cryptographic smart card service provider drivers are supported. Ensure that a supported smart card is used for authentication.
- * For Smart Card and single sign-on authentication, DRAC 5 does not support concurrent logins. If there is more than one user trying to login to DRAC 5 at the same time using either single sign on or smart card authentication, only one user will be authenticated. In this situation, try to login again to authenticate and log into DRAC 5.
- * User Configured Serial Console Redirection Key will only work with telnet/ssh. It will not work with any serial connection based terminal emulators like Hyperterminal, Putty, or Minicom.
- * For 64-bit Windows platforms, the DRAC 5 Authentication plug-in will not get installed properly if a 64-bit version of "Microsoft Visual C++ 2005 Redistributable Package" is deployed. Customers need to deploy the 32 bit version of "Microsoft Visual C++ 2005 Redistributable Package" for the plug-in to install and run properly.
- * On a Windows Server 2003, you randomly receive the Stop 0x44 error with blue screen when performing DRAC 5 DUP update. Apply the Microsoft Hot-fix as mentioned in "<http://support.microsoft.com/kb/942528> article".
- * When Enhanced Security is enabled or installed in Windows (2003 or XP) for IE hardening, IE may not be able to parse the XML which may lead to DRAC 5 GUI not working as desired. To fix this, download the security fixes and Microsoft fixes provided at the Microsoft Website. See "Microsoft XML Parser(MSXML) 3.0 SP5".
- * With Microsoft IE Enhanced Security Configuration, a pop-up message is displayed when trying to connect to any website using IE6, which resembles the following:

"Microsoft Internet Explorer's Enhanced Security Configuration is currently enabled on your server. This enhanced level of security

reduces the risk of attack from Web-based content that is not secure, but may also prevent Web Sites from displaying correctly and restrict access to network resources."

This pop-up will have an option "In the future do not show this message". Select this option for the DRAC 5 login GUI to work properly on Microsoft Internet Explorer.

* When viewing the Web user interface on a Dell PowerEdge 1900 system that is configured with one NIC, the NIC Configuration page displays two NICs (NIC1 and NIC2). This behavior is normal. The PowerEdge 1900 system - and other PowerEdge systems that are configured with a single LOM - can be configured with NIC teaming. Shared and Teamed modes work independently on these systems.

* The allowed RACADM Serial Escape Key (cfgSerialConsoleQuitKey) values are as follows:

- (a) ^ followed by any alphabet (a-z, A-z)
- (b) ^ followed by the listed special characters: [] \ ^ _

* The supported Console Redirection video refresh rates are:

- 720x400 [70 Hz]
- 640X480 [60, 72, 75, 85 Hz]
- 800X600 [60, 70, 72, 75, 85 Hz]
- 1024X768 [60, 70, 72, 75, 85 Hz]
- 1280X1024 [60 Hz]

Certain configurations of refresh rates may not work for Linux operating systems on the managed system. This may happen because the Linux operating systems allow a range of refresh rates instead of a fixed refresh rate.

* When you update the DRAC 5 firmware, the update resets the DRAC 5, detaches USB devices from the BUS, and disconnects remote Virtual Media.

* Before you perform a firmware update or a RAC reset, ensure that you perform the following procedures:

- Disconnect and unmount Virtual Media.
- Ensure that Virtual Flash is unmounted or not in use by another user.

* When you access the DRAC 5 GUI through the Web browser, you are required to add the DRAC 5 IP address to the list of trusted domains if the IP address is missing from the list. When completed, click Refresh or relaunch the Web browser to re-establish a connection to the DRAC 5 GUI.

* The DRAC 5 GUI is not supported on 64-bit Web browsers. If you open a 64-bit browser, access the "Console Redirection" page, and attempt to install the plug-in, the installation procedure fails. If this

error was not acknowledged and you repeat this procedure, the "Console Redirection" page loads, even though the plug-in installation fails during your first attempt. This issue occurs because the Web browser stores the plug-in information in the profile directory even though the plug-in installation procedure had failed. To fix this issue, install and run a supported 32-bit Web browser and log into the DRAC 5.

* If you are running Console Redirection on a Red Hat Enterprise Linux (version 4) client with a Simplified Chinese GUI, the viewer menu and title may appear in random characters. This issue is caused by an incorrect encoding in the Red Hat Enterprise Linux (version 4) Simplified Chinese operating system. To fix this issue, access and modify the current encoding settings by performing the following steps:

1. Open a command terminal.
2. Type "locale" and press <Enter>. The following output appears.
LANG=zh_CN.UTF-8
LC_CTYPE="zh_CN.UTF-8"
LC_NUMERIC="zh_CN.UTF-8"
LC_TIME="zh_CN.UTF-8"
LC_COLLATE="zh_CN.UTF-8"
LC_MONETARY="zh_CN.UTF-8"
LC_MESSAGES="zh_CN.UTF-8"
LC_PAPER="zh_CN.UTF-8"
LC_NAME="zh_CN.UTF-8"
LC_ADDRESS="zh_CN.UTF-8"
LC_TELEPHONE="zh_CN.UTF-8"
LC_MEASUREMENT="zh_CN.UTF-8"
LC_IDENTIFICATION="zh_CN.UTF-8"
LC_ALL=
3. If the values include "zh_CN.UTF-8", no changes are required. If the values do not include "zh_CN.UTF-8", go to step 4.
4. Navigate to the "/etc/sysconfig/i18n" file.
5. In the file, apply the following changes:
Current entry:
LANG="zh_CN.GB18030"
SUPPORTED="zh_CN.GB18030:zh_CN.GB2312:zh_CN:zh"

Updated entry:
LANG="zh_CN.UTF-8"
SUPPORTED="zh_CN.UTF-8:zh_CN.GB18030:zh_CN.GB2312:zh_CN:zh"
6. Log out and then login to the operating system.
7. Relaunch the DRAC 5.

When you switch from any other language to the Simplified Chinese language, ensure that this fix is still valid. If not, repeat the procedure. (53205)

* The Linux operating system mouse settings are used to control the mouse arrow in the DRAC 5 Console Redirection screen. If the user or the Linux operating system (Red Hat or SUSE) changes the default

mouse settings, there will be a mouse synchronization problem.

- * In Microsoft Hyper-V(TM), mouse control in the guest operating system over console redirection can be erratic. Install "Integration Service" on the guest operating system. Install Procedure Reference URL: "<http://www.virtualizationadmin.com/articles-tutorials/microsoft-hyper-v-articles/general/windows-server-2008-hyper-v-integration-services.html>".
- * Closing the DRAC 5 GUI from a Microsoft Internet Explorer using the close button ("x") on the top right corner of the browser may generate an application error. To fix this issue, download the latest Cumulative Security Update for Internet Explorer from the Microsoft Support website located at "support.microsoft.com." See the Microsoft Knowledge Base article KB835193 for more information.
- * When using Microsoft Active Directory credentials to log into the DRAC 5 GUI, the GUI supports passwords with a maximum length of 256 characters. However, Active Directory supports passwords with a maximum length of 127 characters. For more information about Active Directory password policies, see the Microsoft Technet website at "technet.microsoft.com".
- * If you access DRAC 5 GUI using Internet Explorer and click "Save As" in one of the GUI pages, the browser may open the file within the Web browser and avoid prompting you to save the file to your system's hard drive. To resolve this issue, download the Cumulative Security Update for Internet Explorer located on the Microsoft Support website at "support.microsoft.com."
- * When you input a single character, the keyboard driver expects make (press) and break (release) key input within 200 milliseconds. If the keyboard driver does not receive the break key input within this time frame, the driver assumes that you are pressing and holding down the key. As a result, the driver simulates multiple keystrokes.

To work around this issue, perform one of the following procedures:

- Disable the keyboard character repeat feature.
- Modify the server settings by extending the repeat delay and minimize the repeat rate.

- * You may encounter virtual drive issues when copying large files to the DRAC 5 virtual flash. To avoid these issues, you should not attempt to copy large files from the local drive to the DRAC 5 virtual flash on systems running Windows or Linux operating systems. If you need to copy large files, you can create an image of the files to be copied and then use the GUI flash update to update the virtual flash.

If you receive an error message from the host operating system that the copy failed when copying large files to the DRAC 5 virtual flash from a local drive, then your DRAC 5 virtual devices (DVD/CD

ROM, floppy, and flash) will be offline. In order to get your DRAC 5 virtual devices back online, you can detach and re-attach the virtual devices from the DRAC 5 GUI or CLI, or you can reboot the server. (67123)

* In Windows clients, if the Internet Explorer Protected Mode is "ON" then you will not be able to use any of the drives available on the Virtual Media page in the GUI to establish a Virtual Media session. This is due to additional security by the browser to prevent unwanted execution of code through the browser using elevated privileges. For more information, see the Microsoft document at:

"<https://secureitalliance.org/blogs/files/73/1290/WindowsVistaSecurityWP.doc>"
(109414)

* When trying to access the GUI after updating the DRAC 5 firmware from a previous version to the latest version, you may encounter the error: "The XML page cannot be displayed". To resolve this issue, clear the browser cache, and re-launch the browser to access the GUI.

* When running the racadm command "racadm getconfig -f <filename>" locally or remotely, the file will not get the values for the groups cfgIpmiPef.

* If there is a delay in loading or installing plug-ins on the DRAC 5 GUI using any browser, install the following Certificate Revocation List within the browser:

"<http://csc3-2004-crl.verisign.com/CSC3-2004.crl>"

* If a non-root user attempts to execute the remote CLI (racadm) commands on a Linux operating system with Racadm utility already installed, the error: "Command not found" is displayed. This issue is because the Racadm utility is available only to users with root privileges.
(113871)

* The browser's <Ctrl><N> functionality to open a new browser instance on the DRAC out-of-band (OOB) GUI is not supported. When using the Internet Explorer, if you open multiple instances of the DRAC OOB GUI on the same client (using <Ctrl><N> or any other method), a log out from one session will result in a log out of all the other GUI sessions. On Linux operating systems using the Firefox browser, if you open multiple instances of the DRAC OOB GUI on the same client (not necessarily by using <Ctrl><N>), a log out from any one session will result in log out of all the other GUI sessions. This is because all browser instances share the same cookies.
(117539)

* The DRAC 5 OOB GUI intermittently may display "undefined" strings in the tool bar when using the Firefox browser. This occurs if the page loads prior to the strings being loaded by the browser's

transformation engine. To avoid this issue, log out of the DRAC 5 and log back in.
(118618)

- * If you are using Hyperterminal version 6.3 on Windows 2003 SP2 as a client to access serial port for serial communication, Hyperterminal may fail. (116875)
- * If the DRAC is configured to register the DRAC Host Name with DNS using DHCP (cfgDNSRegisterRac object value to 0 and cfgNicUseDhcp object value to 1), you must configure the DHCP to have the "Dynamically update DNS A and PTR records for DHCP clients that do not request updates" option enabled and a minimum of Option 15 (DNS Domain Name) added to the specific DHCP scope.

Be aware of the following behaviors when configuring the DRAC:

- If the DRAC is set up with "cfgDNSRegisterRac=0" and "cfgNicUseDhcp=1" with NO scope options added and the "Dynamically update DNS A and PTR records for DHCP clients that do not request updates" disabled, the DHCP database will display the host name of the DRAC correctly but the DDNS functionality will NOT work.
- If the DRAC is set up with "cfgDNSRegisterRac=0" and "cfgNicUseDhcp=1" with NO scope options added and "Dynamically update DNS A and PTR records for DHCP clients that do not request updates" enabled, the DHCP database will display the host name of the DRAC correctly but the DDNS functionality will NOT work.
- If the DRAC is set up with "cfgDNSRegisterRac=1" and "cfgNicUseDhcp=1" with NO scope options added and "Dynamically update DNS A and PTR records for DHCP clients that do not request updates" disabled, the DHCP database will NOT display the host name of the DRAC correctly but the DDNS functionality will work.
- If the DRAC is setup with "cfgDNSRegisterRac=0" and "cfgNicUseDhcp=1" with scope option 15 added and "Dynamically update DNS A and PTR records for DHCP clients that do not request updates" disabled, the DHCP database will display the host name of the DRAC correctly but the DDNS functionality will NOT work.
- If the DRAC is setup with "cfgDNSRegisterRac=0" and "cfgNicUseDhcp=1" with scope option 15 added and "Dynamically update DNS A and PTR records for DHCP clients that do not request updates" enabled, the DHCP database will display the host name of the DRAC correctly and the DDNS functionality will work.

- * Legal values for "cfgDNSRacName" are strings of up to 254 ASCII characters. At least one of the characters must be alphabetic. Characters are restricted to alphanumeric and '-'.

- * The user password can consist of 16 characters if you configure it through the Remote Access Configuration Utility. However, if you configure the user password through the DRAC Web GUI, the password can consist of 20 characters. This is a known limitation of the Remote Access Configuration Utility (that you can access during the system POST).
- * While authenticating to the DRAC 5 using Active Directory, the login may fail due to different time zone offsets on the DRAC card and the operating system. To enable DRAC to have the same time zone offset, use racadm to set "cfgRacTuneTimeZoneOffset" to the time zone offset as the operating system time.
- * DRAC stops DHCP requests if the traffic is >6000 frames/sec with 512 bytes size. DRAC stops responses for local racadm and other IPMI command for > 9000 frames/sec.
- * SELinux on RHEL 4.5 and RHEL 5 might prevent Firefox from launching the native(XPI) console redirection plug-in. In this case, use the following command to create an exception:
`chcon -t textrel_shlib_t '/root/firefox/plugins/librac5vkvm.so'`
 The user can also use the Java based console redirection plug-in. This can be selected by the user by navigating to the System > Console > Configuration page of DRAC 5 GUI and selecting plug-in type as Java.
- * The new certificate with SHA-1 HASH is embedded in the DRAC 5 1.50 release. However, the certificate will not be available if an existing certificate is present in the DRAC. This may be either a default or a user uploaded certificate.

To get the new DELL certificate, do the following:

- Backup your config using racadm getconfig
 - Execute racadm racresetcfg
 - Apply the backed up config using racadm setconfig
- For details on how to use the commands, see the DRAC 5 User's Guide.

Sometimes it might be required to take out the flea power and then reboot to get the new certificate. This might be a case as the DRAC 5 webserver loads the existing certificate in the RAM and does not remove it until the power is completely taken out.

- * The vKVM "Pass all keystrokes to target" fails on a SLES 10 Client, Firefox 2 browser. Set the "Keyboard Model" of SLES 10 to "Microsoft Natural Keyboard Pro or Microsoft Internet Keyboard Pro" in SLES 10 to ensure that the vKVM operates correctly.
- * When an operating system is being installed on the Microsoft Hypervisor, the vKVM fails to redirect the mouse movements to the operating system which is getting installed.

- * In case of Native Virtual Media plugin in Linux, if a Floppy/USB device is mounted onto the host operating system, the device will be greyed out (implies device is busy). In order to connect this device, unmount the Floppy/USB device, refresh the page and try connecting again.
- * It may not be feasible to install a 32-bit Firefox on a 64-bit RHEL 4.8. It is recommended to use a 64 bit Firefox with Java plug-ins only.
- * SSO plug-ins will not work in Firefox on Windows operating system.
- * DRAC 5 does not include 64-bit plug-ins but the original plug-ins runs on 64-bit Windows operating systems. To run 32-bit Java plug-ins on a 64-bit Windows operating system, install the 32-bit JRE on the system.
- * DRAC 5 does not include 64-bit plug-ins but the original plug-ins runs on 64-bit Linux operating systems. To run 32-bit Java plug-ins on a 64-bit SLES 10 SP3, SLES 10 SP4, SLES 11 SP1, RHEL 5.5, or RHEL 6.0 operating systems, install the 32-bit Java Openjdk on the system.
- * The vKVM and Virtual Media plugins are signed with DELL CA certificate. In case the management station does not have Dell Inc. Enterprise Issuing CA2 intermediate certificate installed, see "support.dell.com".
- * The Java Virtual Media plug-in pops up an Applet Window. If you close the browser window, the session closes but the Applet is alive. You must close the Applet manually to initiate another Virtual Media session.
- * DRAC5 SSH supports only 99 character length for user name.

 KNOWN ISSUES FOR DRAC 5 WITH FIRMWARE UPDATE
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- * Network traffic may cause the firmware update to time-out. If the firmware download procedure exceeds 15 minutes, the DRAC 5 will time out, cancel the firmware download procedure, reset, and then return to normal operation. To work around this issue, transfer the firmware flash image to a local drive on the server. Using Console Redirection, connect to the remote system and install the firmware locally using local racadm. Recommended network bandwidth for firmware update is 256 kbps.
- * DRAC 5 Dell Update Package uses the virtual flash on DRAC. If the virtual flash has been formatted by the managed system operating system (for example to NTFS format), the update will not work.
- * The configuration is backed up during a firmware upgrade which may result in some configuration parameters to be retained even if they are required to change. Perform a racadm racresetcfg to get the new configuration parameters. This is particularly

valid for new certificates and the vKVM session changes.
In DRAC 5 v1.49, the number of simultaneous sessions are restricted to two. In DRAC 5 v1.50, it has been increased to four. So to reflect this change, execute the racadm racresetcfg command.

* On systems running Windows 2008 Server Edition, the DUP update method may fail intermittently due to an inherent problem in the usb core driver. For more information, see <http://support.microsoft.com/kb/956183>. The workaround is to flash the DRAC firmware using the Web GUI update page.

* On systems running ESX/ESXi 4.1, DUP update fails Since USB flash devices are disabled by default. To enable the same, turn off a service "usbarbitrator". To do this, use "chkconfig usbarbitrator off" and then reboot the system. Reboot the system as by default usbarbitrator services are running during system startup.

KNOWN ISSUES FOR DRAC 5 WITH DISABLING LOCAL VIDEO
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* If the video is turned OFF locally on the server, the LCD displays a message indicating that the video is OFF. However, if the baseboard management controller (BMC) is reset or there is a BMC firmware update, the LCD message is not displayed.

The LCD "Video OFF" message will only be displayed if the Video is turned ON and turned OFF again.

KNOWN ISSUES FOR DRAC 5 WITH VIRTUAL MEDIA
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* Virtual Media may not function properly on Windows operating system clients that are configured with Internet Explorer Enhanced Security. To resolve this issue, see your Microsoft operating system documentation or contact your administrator.

* If you use Virtual Media and the Windows 2000 operating system CD to install Windows 2000 with Service Pack 4, your system may momentarily lose its connection to the CD drive during the installation procedure, and the operating system may fail to install properly. To fix this issue, download "usbstor.sys" from the Microsoft Support website at support.microsoft.com and run the program only on the systems that experience this issue. See Microsoft Knowledge Base article KB823086 for more information.

* If Virtual Flash is enabled and does not contain a valid image (for example the virtual flash contains a corrupted or random image), you may not be able to install Windows 2000/2003 locally or remotely. To fix this issue, install a valid image on Virtual Flash or disable Virtual Flash if it will not be used during

the installation procedure.

- * Installing network and chipset drivers on the server causes the Virtual Media connection to drop when configured in the Shared-NIC mode. Installing the network or chipset drivers causes the LOM to reset, which in turn causes network packets to time-out and the Virtual Media connection to time-out and drop. To work around this issue, copy the drivers from your virtual drive to the server's local hard drive. To prevent a dropped Virtual Media connection from interfering with your driver installation procedure, start the driver installation directly from the server.
- * If you are installing the Windows operating system using the "Dell Systems Management Tools and Documentation" DVD and a slow network connection, the installation procedure may require an extended amount of time to access the DRAC 5 GUI due to network latency. While the installation window does not indicate the installation progress, the installation procedure is in progress.
- * You may not be able to format the Virtual Flash with the Linux GUI. You can format Virtual Flash with the fdisk and mkfs commands.
- * The new version of the Virtual Media plug-in 2,1,0,14 is not getting updated automatically.
Follow the steps mentioned below.
For IE 6 Browser:
IE Tools->Internet Options->General Tab ->Settings->view objects. Delete rac5vm control object and reload the Virtual media page to get the newer plug-in.

For IE 7 Browser:
IE Tools->Manage Add-ons->Enable or Disable Add-ons->select Downloaded ActiveX Controls. Now delete the plug-in named rac5vm Control. Click OK and reload the virtual media page.
- * In order to proceed with ESXi installation, RAC virtual media settings has to be disabled using CTRL-E options while boot up. ESXi deployment guide (Page #39,40) has captured this limitation. ESXi deployment guide can be downloaded from the link below :
"http://support.dell.com/support/edocs/software/eslvmwre/DG/ESXi_3_5_U2/PDF/48725A04MR.pdf"
- * On systems where virtual media is not supported as boot once device, the Boot Once option list on Virtual Media Configuration page should show "Virtual Media" and not "Virtual Flash" (274897)
- * Virtual media Java plug-in does not support encryption.
- * For connecting to Virtual Media using Java plug-in, ensure that the client has Java version 1.6 Build 22 and above installed.
- * If the Virtual Media plug-in version in the firmware is newer than the version currently installed on the client, the newer plug-in should be

installed when prompted, as the Virtual Media does not support forward compatibility.

* While installing the operating system through Virtual Media Java plug-in using SUU, a prompt is displayed for the operating system CD. After inserting this CD, relaunch the Java CD.

FREQUENTLY ASKED QUESTIONS ON VIRTUAL MEDIA
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Q: I am viewing the contents of a floppy drive or USB memory key. If I try to establish a Virtual Media connection using the same drive, I receive a connection failure message and am asked to retry. Why?

A: Simultaneous access to Virtual Floppy drives is not allowed. Close the application used to view the drive contents before you attempt to virtualize the drive.

Q: How do I configure my virtual device as a bootable device?

A: On the managed system, access the BIOS Setup and navigate to the boot menu. Locate the virtual CD, Virtual Floppy, or Virtual Flash and change the device boot order as needed. For example, to boot from a CD drive, configure the CD drive as the first drive in the boot order.

Q: What types of media can I boot from?

A: The DRAC 5 allows you to boot from the following bootable media:

- CDROM/DVD Data media
- ISO9660 image
- 1.44 Floppy disk or floppy image
- DRAC 5 embedded virtual flash
- A USB key that is recognized by the operating system as a removable disk
- A USB key image

Q: How can I make my USB key bootable?

A: Perform one of the following procedures:

- 1) Format your USB key with Windows 98 DOS using a Windows 98 startup disk.
 - a) Boot your system from a Windows 98 startup disk.
 - b) Copy the system files from the startup disk to your USB key.
For example, from a DOS prompt, type:
sys a: x: /s
where "x" is the USB key that you want to make bootable.
- 2) Use the Dell boot utility. This utility is only compatible with Dell-branded USB keys. To download the utility, launch a supported Web browser, navigate to the Dell Support website at "support.dell.com," and search for "R122672.exe."

Q: Do I need Administrator privileges to install the ActiveX plug-in?

A: You must have Administrator privileges on Windows systems to install the Virtual Media plug-in.

Q: What privileges do I need to install and use the Virtual Media plug-in on a Red Hat Linux management station?

A: You must have write privileges on the browsers directory tree to successfully install the Virtual Media plug-in.

Q: I cannot locate my Virtual Floppy device on a system running Red Hat Enterprise Linux or the SUSE Linux operating System. My Virtual Media is attached and I am connected to my remote floppy.

A: Some Linux versions do not automount the Virtual Floppy and the Virtual CDROM in a similar manner. In order to mount the Virtual Floppy, locate the device node that Linux assigns to the Virtual Floppy. Perform the following steps to correctly find and mount the Virtual Floppy:

1) Open a Linux command prompt and run the following command:

```
grep "Virtual Floppy" /var/log/messages
```

2) Locate the last entry to that message and note the time.

3) At the Linux prompt, run the following command:

```
grep "hh:mm:ss" /var/log/messages
```

where hh:mm:ss is the time stamp of the message found in step 1.

4) Read the result of the grep command in step 3 and locate the device name given to the "Dell Virtual Floppy"

5) Ensure that you are attached and connected to the Virtual Floppy.

6) At the Linux prompt, run the following command:

```
mount /dev/sdx /mnt/floppy
```

where "/dev/sdx" is the device name found in step 4 and "/mnt/floppy" is the mount point.

Q: What file system types are supported on my Virtual Floppy or Virtual Flash?

A: Your Virtual Floppy or Virtual Flash supports FAT16 or FAT32 file systems.

Q: When I performed a firmware update remotely using the DRAC 5 GUI, my virtual drives at the server were removed. Why?

A: Firmware updates cause the DRAC 5 to reset, drop the remote connection, and unmount the virtual drives. The drives will reappear when the DRAC 5 reset is complete.

Q: When enabling or disabling the Virtual Flash, I noticed that all my virtual drives disappeared and then reappeared. Why?

A: Disabling or enabling the Virtual Flash causes a USB reset and causes all virtual drives to detach from and then re-attach to the USB bus.

Q: Sometimes I notice my Virtual Media client connection drop. Why?

A: When a network time-out occurs, the DRAC 5 firmware drops the connection, disconnecting the link between the server and the Virtual Drive. To reconnect to the Virtual Drive, use the Virtual Media feature.

KNOWN ISSUES FOR DOCUMENTATION

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-None-

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GLOBAL SUPPORT

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For information on technical support, see "dell.com/contactus."

For information on documentation support, see "support.dell.com/manuals."

On the "Manuals" page, click "Software-> Systems Management."

Click on the right-side, and select the product to access the documents.

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