



Product Support Notice

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PSN # PSN027096u

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Original publication date: 08-Jul-21. This is Issue #2, published date: 08-Sept-21
Severity/risk level Medium Urgency When convenient

Name of problem PSN027096u - Avaya Solutions Platform 100 Series Dell® R640 Avaya Certified BIOS/Firmware Update, Version 8.0

Products affected

Avaya Solutions Platform 100 Series Dell® R640

NOTE: Avaya Converged Platform (ACP) was rebranded to Avaya Solutions Platform(ASP) in December of 2019

Problem description

UPDATE -- Sept 8, 2021 – Reference [PSN027098u](#) - Avaya Solutions Platform 100 Series Dell® R640 Avaya Certified BIOS/Firmware Update, Version 9.1 for the latest update.

Avaya is providing an approved/certified update bundle for BIOS and Firmware on the ASP 100 Series Dell® R640 servers. This is inclusive of ASP 110, ASP 120, ASP 130. This bundle is designated Version 8.0 and is customer installable.

Avaya Solutions Platform 100 Series Dell® R640 servers are supplied under OEM relationship and managed differently than commercially available servers from the vendor.

Support, warranty and repair are through Avaya’s processes, not through the OEM vendor’s support process.

ASP 100 Series Server configurations are engineered for specific application needs. No hardware substitutions or additions are allowed.

Lifecycle Hardware and BIOS and firmware updates are managed by the Avaya Common Server team in conjunction with application R&D teams.

These servers must NOT be updated with BIOS or firmware updates from the vendor’s web site.

Only Avaya provided updates can be used. Updating directly from the vendor’s web site will result in an unsupported configuration.

You should always utilize the Avaya certified, bundled release. Do NOT upgrade individual components. This ensures that the components have been tested together for dependencies.

Resolution

Acquiring Update Tool

The ASP 100 Series Dell® R640 BIOS/Firmware update DVD is to be burned from the ISO file (**R640fw-v8.0.iso**) available from plds.avaya.com via PLDS Download ID: **ACP0000014**.

Download the **R640fw-v8.0.iso** to your PC and burn the image to a DVD. Ensure that the checksum of the downloaded image matches what is posted on PLDS. Burning the ISO as an image will create a bootable DVD disc.

Read through all steps below before inserting and running the BIOS/Firmware update disc that you have created.

It is always best practice to perform a complete backup of the system before any firmware or hardware maintenance.

After executing the procedures, the following components will be updated to the versions contained on the v8.0 disc.

ASP 100 Series Dell® R640 BIOS/Firmware update tool (v8.0) disc contains:

Device Information	Firmware package release name	Firmware Version
iDRAC9 with Lifecycle Controller	iDRAC-with-Lifecycle-Controller_Firmware_62GW1_LN_4.40.00.00_A00.BIN	4.40.00.00
R640 BIOS	BIOS_NVGR9_LN_2.10.0.BIN	2.10.0

PERC H730/H730P/H830 Mini/Adapter	SAS-RAID_Firmware_WRF3Y_LN_25.5.8.0001_A16.BIN	25.5.8.0001
Intel Gigabit 4P I350-t rNDC	Network_Firmware_40NTK_LN_19.5.12_A00.BIN	19.5.12
Broadcom Gigabit Ethernet BCM 5720	Network_Firmware_7CM1N_LN_21.60.16.BIN	21.60.16
Intel X710, XXV710, and XL710 adapters	Network_Firmware_YP4R0_LN_19.5.12_A00.BIN	19.5.12
BOSS-S1 Adapter ROM	SAS-RAID_Firmware_3P39V_LN64_2.5.13.3024_A07_01.BIN	2.5.13.3024
CPLD firmware for PowerEdge R640	CPLD_Firmware_9N4DH_LN_1.0.6_A00.BIN	1.0.6
Dell SEP Firmware for 14G Servers	Firmware_VV85D_LN_4.35_A00_06.BIN	4.35
Dell 12Gb Expander Firmware for 14G Servers	Firmware_60K1J_LN_2.52_A00.BIN	2.52
HGST Cobra F 600GB HDD 12Gbps SAS 3.5 10K 512n HUC101860CSS200	SAS-Drive_Firmware_6TM63_LN_FU40_A00.BIN	FU40
Firmware version FJ39 for HGST drives. Vendor model numbers HUC101830CSS204, HUC101812CSS204, and HUC101860CSS204	SAS-Drive_Firmware_8MDXT_LN_FJ40_A00.BIN	FJ40
Toshiba Phoenix M4 MU3 SSD ISE 1920GB 2.5 SAS 12Gbps 512nModel	SAS-Drive_Firmware_0RTJ1_LN_AS0B_A00.BIN	AS0B
Firmware version ST33 for Seagate drives. Vendor model numbers ST600MM0069 and ST1200MM0099	SAS-Drive_Firmware_22YC9_LN_ST34_A00.BIN	ST34
Firmware version EA04 for Toshiba drives. Vendor model numbers AL14SEB030NY, AL14SEB060NY and AL14SEB120NY	SAS-Drive_Firmware_TGCJ8_LN_EA05_A00.BIN	EA05
Toshiba AL14SE Lite SAS12 3.5 10K 512n (NS PD) Model Number: AL14SEB060N	SAS-Drive_Firmware_66RK9_LN_DH02_A00.BIN	DH02
Firmware version BS05 for Seagate HDD Thunderbug 2.5 SAS12 10K 512n drive. Vendor model numbers: ST600MM0238 and ST300MM0078	SAS-Drive_Firmware_2R4CX_LN_BS05_A00.BIN	BS05
TOSHIBA AL15SE ISE 2.5 600GB SAS12 10K 512NModel Number: AL15SEB060NYVendor Number: HDEBL84DAB51	SAS-Drive_Firmware_0T1RG_LN_EF06_A00.BIN	EF06
Toshiba Phoenix M4 WI SSD ISE 400GB 2.5 SAS 12Gbps 512n Model	SAS-Drive_Firmware_1DJXX_LN_AS10_A00.BIN	AS10
OS COLLECTOR 6.0	Diagnostics_Application_0G1JH_LN64_6.0_A00_01.BIN	6.0
Dell Diagnostics to verify proper operation of the hardware.	Diagnostics_Application_Y9DR5_LN_4301A50_4301.51.BIN	4301A50

Enterprise UEFI Diagnostics		
Broadcom BCM57416/BCM5720 10G BT/1G BT Quad Port rNDC Broadcom 57414 Dual Port 25GbE SFP28 OCP Mezzanine Adapter	Network_Firmware_DXXX6_LN64_21.65.33.33.BIN	21.65.33.33
Broadcom BCM57416 10G BT Dual Port PCIE adapter Broadcom BCM57402 10G SFP Dual Port PCIE adapter Broadcom BCM57414 25G SFP Dual Port rNDC Broadcom BCM57412/BCM5720 10G SFP/1G BT Quad Port rNDC Broadcom NetXtreme E-Series LOMs	Network_Firmware_3VXHM_LN64_20.08.04.04.BIN	20.08.04.04
QLogic 4x10GE QL41164HMCU CNA QLogic 10GE 2P QL41112HxCU-DE Adapter QLogic 2x25GE QL41262HMCU CNA Marvell FastLinQ 41132 Dual Port 10GbE SFP+, OCP NIC 3.0	Network_Firmware_F1KV5_LN64_15.15.11_A00-00.BIN	15.15.11_A00

Gracefully shut down the server according to Application Procedures

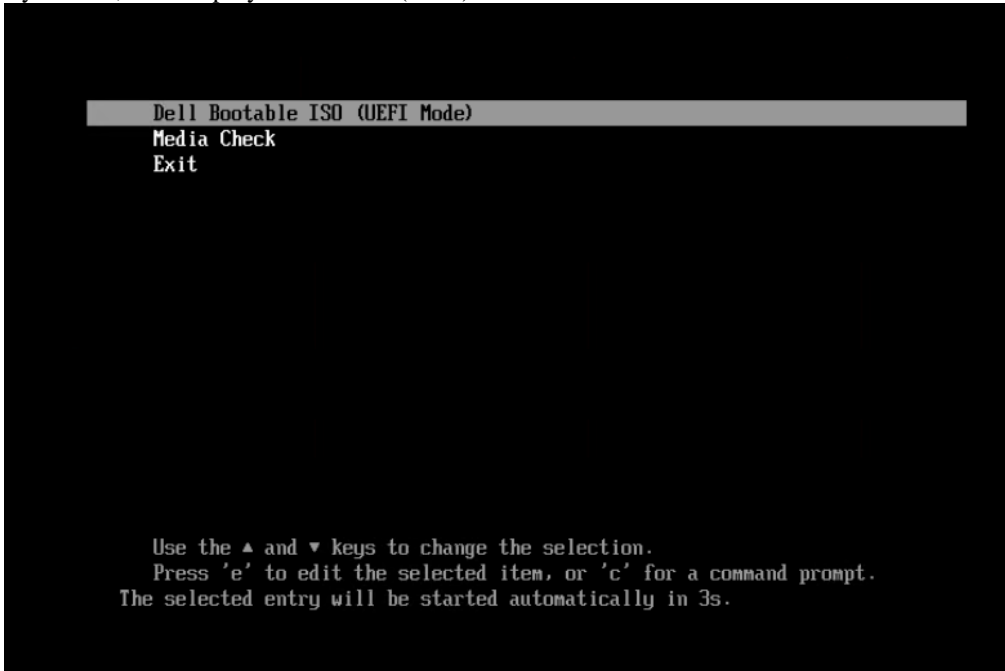
It is always best practice to perform a complete backup of the system before any firmware or hardware maintenance.

Firmware Update Procedures

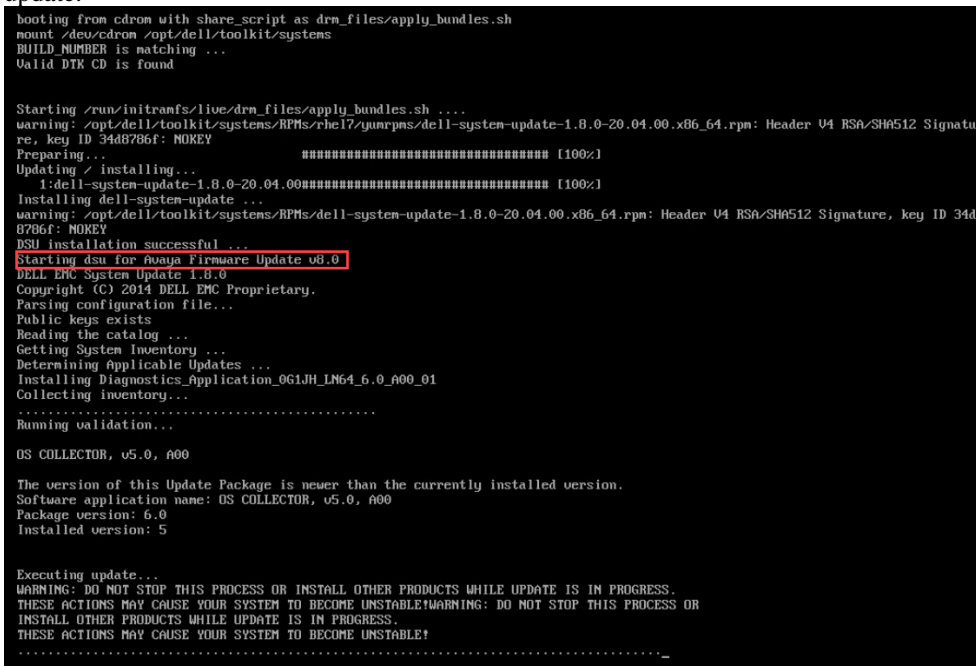
1. A Monitor, USB keyboard and mouse will be required to run the update tool.
2. Insert the firmware update disc at server power up. Server will boot from disc.
3. A hardware boot screen will first appear – note that the BIOS version displayed may vary depending on when the server was originally shipped.



4. By default, Dell Deployment Toolkit(DTK) will boot from DVD:



5. Booting the DTK can take up to 10 minutes. Once DTK has booted, an inventory of the server will be run to determine what packages should be installed. After inventory collection, DTK will begin updating eligible components requiring an update.



- When all updates have run, the user will be prompted to press <Enter> to reboot the server:

```

Executing update...
WARNING: DO NOT STOP THIS PROCESS OR INSTALL OTHER PRODUCTS WHILE UPDATE IS IN PROGRESS.
THESE ACTIONS MAY CAUSE YOUR SYSTEM TO BECOME UNSTABLE!WARNING: DO NOT STOP THIS PROCESS OR
INSTALL OTHER PRODUCTS WHILE UPDATE IS IN PROGRESS.
THESE ACTIONS MAY CAUSE YOUR SYSTEM TO BECOME UNSTABLE!
.....
The system should be restarted for the update to take effect.
Installed successfully
Installing BIOS_MGRES_LM_2.10.0
Collecting inventory...
Running validation...

PowerEdge BIOS

The version of this Update Package is newer than the currently installed version.
Software application name: BIOS
Package version: 2.10.0
Installed version: 2.6.4

Executing update...
WARNING: DO NOT STOP THIS PROCESS OR INSTALL OTHER PRODUCTS WHILE UPDATE IS IN PROGRESS.
THESE ACTIONS MAY CAUSE YOUR SYSTEM TO BECOME UNSTABLE!WARNING: DO NOT STOP THIS PROCESS OR
INSTALL OTHER PRODUCTS WHILE UPDATE IS IN PROGRESS.
THESE ACTIONS MAY CAUSE YOUR SYSTEM TO BECOME UNSTABLE!
.....
The system should be restarted for the update to take effect.
Installed successfully
Installing iDRAC-with-Lifecycle-Controller_Firmware_G2GM1_LM_4.40.00.00_000
Collecting inventory...
Running validation...

iDRAC

The version of this Update Package is newer than the currently installed version.
Software application name: iDRAC
Package version: 4.40.00.00
Installed version: 4.22.00.00

Executing update...
WARNING: DO NOT STOP THIS PROCESS OR INSTALL OTHER PRODUCTS WHILE UPDATE IS IN PROGRESS.
THESE ACTIONS MAY CAUSE YOUR SYSTEM TO BECOME UNSTABLE!WARNING: DO NOT STOP THIS PROCESS OR
INSTALL OTHER PRODUCTS WHILE UPDATE IS IN PROGRESS.
THESE ACTIONS MAY CAUSE YOUR SYSTEM TO BECOME UNSTABLE!
.....
The update completed successfully.
Installed successfully
Please restart the system for successful update(s) to take effect
Done! Please run 'dsu --inventory' to check the inventory
Progress report is available at:/usr/libexec/dell_dup/DSU_STATUS.json
Exiting DSU!

drn_files/apply_bundles.sh execution is completed ....
Press Enter to reboot ...

```

- If the DTK tool runs, but no packages require updating the screen below will be displayed: **No Applicable Updates Available.** Press <Enter> to reboot server and check firmware versions as noted in step 12 below.

```

booting from cdrom with share_script as drn_files/apply_bundles.sh
mount /dev/cdrom /opt/dell/toolkit/systems
BUILD NUMBER is matching ...
Valid DTK CD is found

Starting /run/initrans/live/drn_files/apply_bundles.sh ....
warning: /opt/dell/toolkit/systems/RPMS/rhel7/gnurpms/dell-system-update-1.8.0-20.04.00.x86_64.rpm: Header U4 RSA/SHA512 Signature, key ID 34d8786f: NOKEY
Preparing ...
Updating / installing ...
  1:dell-system-update-1.8.0-20.04.00##### [100%]
Installing dell-system-update ...
warning: /opt/dell/toolkit/systems/RPMS/dell-system-update-1.8.0-20.04.00.x86_64.rpm: Header U4 RSA/SHA512 Signature, key ID 34d8786f: NOKEY
DSU installation successful ...
Starting dsu for Avaya Firmware Update v8.0
DELL EMC System Update 1.8.0
Copyright (C) 2014 DELL EMC Proprietary.
Parsing configuration file...
Public keys exists
Reading the catalog ...
Getting System Inventory ...
Determining Applicable Updates ...
No applicable Updates Available
Progress report is available at:/usr/libexec/dell_dup/DSU_STATUS.json
Exiting DSU!

drn_files/apply_bundles.sh execution is completed ....
Press Enter to reboot ...

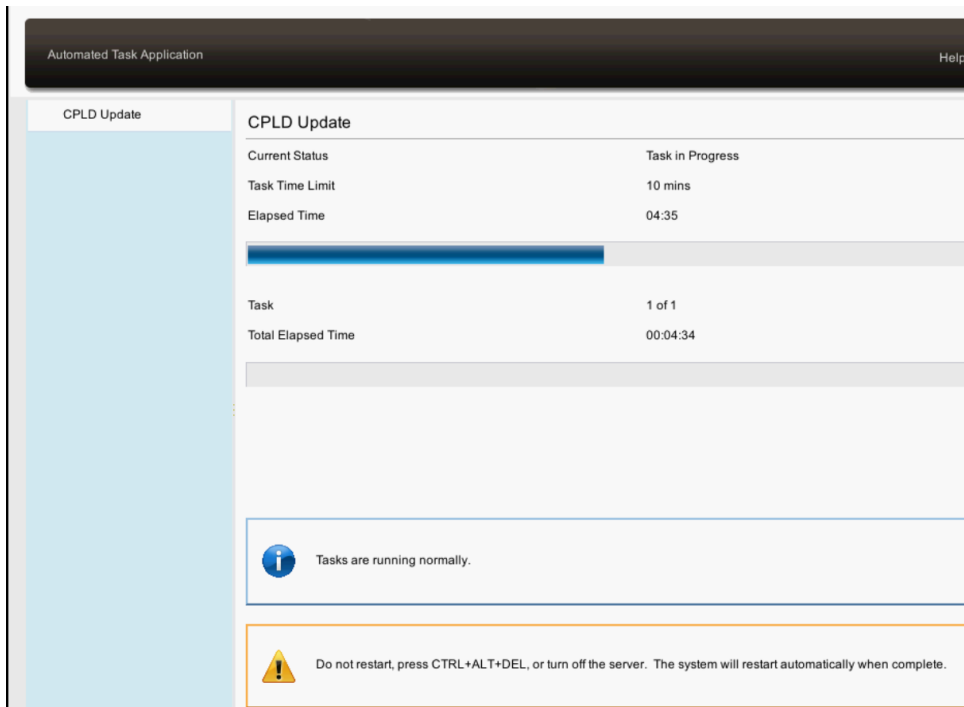
```

- If the DTK tool will not run, power-off server and remove power cord(s) for 1 minute. Re-insert power cords, power-up server and repeat firmware update process. Verify DVD media is in good condition and has been correctly burned. Verify SATA DVD drive is first in server boot order.
- If the BIOS was updated, after the reboot, the server will display the screen shown below.
 - DO NOT POWER DOWN THE SERVER.
 - WAIT for the BIOS update and any additional updates (CPLD) to complete.
 - Server may reboot multiple times.

```

BIOS Version: 2.6.4
Updating BIOS From 2.6.4 To 2.10.0
BIOS update will take several minutes, Please wait!
DO NOT POWER DOWN THE SYSTEM

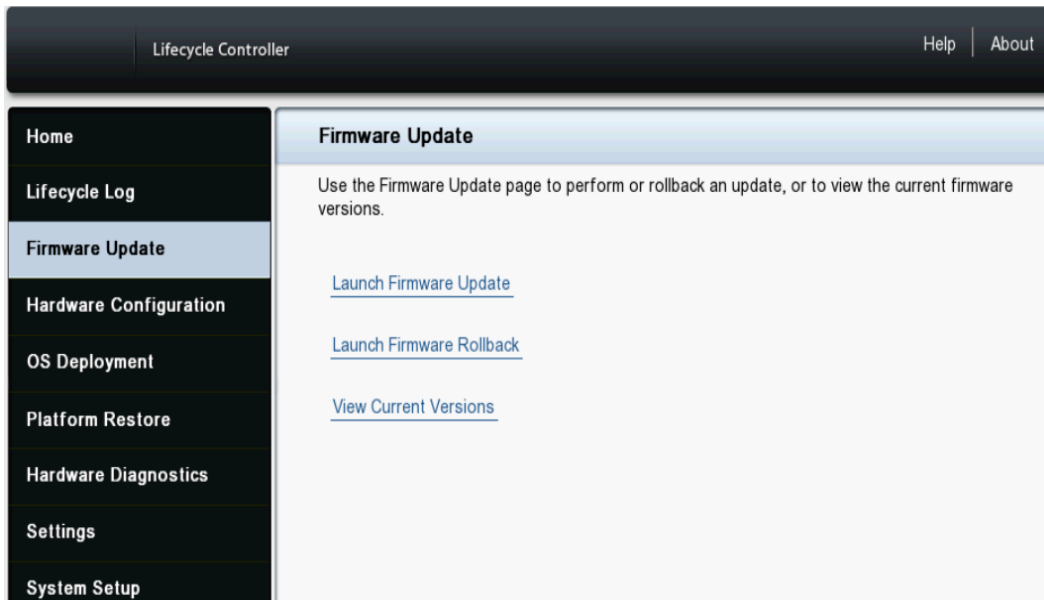
```



10. Once firmware updates are completed and finalized select <F10> to enter the Lifecycle Controller to verify firmware updates.
→ **DVD should be removed from the server at this point. Remove the disc from the DVD drive by pressing the eject button on the DVD drive tray.**←



11. If prompted, cancel out of the *Settings/Language and Keyboard* screen by pressing <esc>. Then select **Firmware Update/View Current Versions**:



12. Verify the versions for BIOS, Broadcom Gigabit Ethernet, Integrated Remote Access Controller (iDRAC), Lifecycle Controller, Intel Gigabit 4P I350-t rNDC, PERC H730P Mini. Additional packages (e.g., OS collector 14G, System CPLD, etc.) may update depending on the vintage of server being update.

Firmware Update		
View Current Versions		
Component Name	Version	Date and Time
BIOS	2.10.0	2021-03-09 20:31:46
Backplane 1	4.35	2020-11-30 16:26:40
Broadcom Gigabit Ethernet BCM5720 - B0:26:28:14:57:E8	21.60.16	2021-03-09 20:31:46
Broadcom Gigabit Ethernet BCM5720 - B0:26:28:14:57:E9	21.60.16	2021-03-09 20:31:47
Dell 64 Bit uEFI Diagnostics, version 4301, 4301A50, 4301.51	4301A50	2021-03-08 20:56:22
Dell EMC iDRAC Service Module Embedded Package v3.5.0, A00	3.5.0	2020-03-06 16:55:52
Dell OS Driver Pack, 19.12.05, A00	19.12.05	2020-03-06 16:08:38
Disk 0 in Backplane 1 of Integrated RAID Controller 1	FU40	2020-08-12 21:15:04
Disk 1 in Backplane 1 of Integrated RAID Controller 1	FU40	2020-08-12 21:15:05
Disk 2 in Backplane 1 of Integrated RAID Controller 1	FU40	2020-08-12 21:15:06
Disk 3 in Backplane 1 of Integrated RAID Controller 1	FU40	2020-08-12 21:15:06
Identity Module(FX4KG)	3.00	2020-01-08 18:34:52
Integrated Remote Access Controller	4.40.00.00	2021-03-09 20:22:09
Intel(R) Gigabit 4P I350-t rNDC - E4:43:4B:1D:80:D8	19.5.12	2021-02-04 23:23:18
Intel(R) Gigabit 4P I350-t rNDC - E4:43:4B:1D:80:D9	19.5.12	2021-02-04 23:23:19
Intel(R) Gigabit 4P I350-t rNDC - E4:43:4B:1D:80:DA	19.5.12	2021-02-04 23:23:20
Intel(R) Gigabit 4P I350-t rNDC - E4:43:4B:1D:80:DB	19.5.12	2021-02-04 23:23:20
Lifecycle Controller	4.40.00.00	2021-03-09 20:22:19
OS COLLECTOR, v6.0, A00	6.0	2021-03-08 20:52:46
PERC H730P Mini	25.5.8.0001	2021-03-09 20:31:46
Power Supply.Slot.1	00.1B.53	2018-10-02 07:28:59
Power Supply.Slot.2	00.1B.53	2018-10-02 07:28:59
System CPLD	1.0.6	2019-10-17 17:09:49

13. After verifying the version information, select **Exit** in the upper right corner of the screen to reboot the server.
14. If a firmware package did not install, power-off the server and remove power cord(s) for 1 minute. Re-insert power cords, power-up server and repeat firmware update process.

Workaround or alternative remediation

N/A.

Remarks

July 08, 2021: Issue 1.

September 08, 2021: Issue 2—Updated to reflect newest BIOS/FW package available in [PSN027098u](#) - *Avaya Solutions Platform 100 Series Dell® R640 Avaya Certified BIOS/Firmware Update, Version 9.1*

Patch Notes

Backup before applying the patch

N/A.

Download

N/A.

Patch install instructions

Service-interrupting?

N/A.

Yes

Verification

N/A.

Failure

N/A.

Patch uninstall instructions

N/A.

Security Notes

The information in this section concerns the security risk, if any, represented by the topic of this PSN.

Security risks

N/A.

Avaya Security Vulnerability Classification

N/A.

Mitigation

N/A.

For additional support, contact your Authorized Service Provider. Depending on your coverage entitlements, additional support may incur charges. Support is provided per your warranty or service contract terms unless otherwise specified.

Avaya Support Contact	Telephone
U.S. Remote Technical Services – Enterprise	800-242-2121
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U.S. Remote Technical Services – BusinessPartners for Enterprise Product	877-295-0099
BusinessPartners for Small Medium Product	Please contact your distributor.
Canada	800-387-4268
Caribbean and Latin America	786-331-0860
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