Product Support Notice

PSN #	PSN027091u	Avaya Proprietary – Use pursuant to the terms of your signed agreement or company policy.

Original publication date: 12-Oct-20. This is Issue #3, published date: 08-Jul-21.

Severity/risk level: Medium | Urgency: When convenient

Name of problem

PSN027091u - Avaya Solutions Platform 100 Series Dell® R640 Avaya Certified BIOS/Firmware Update, Version 6.2

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 -- July 8, 2021 – Reference *PSN027096u- Avaya Solutions Platform 100 Series Dell® R640 Avaya Certified BIOS/FW Update, Version 8.0* 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 6.2 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-v6.2.iso**) available from plds.avaya.com via PLDS Download ID: **ACP0000011**.

Download the **R640fw-v6.2.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 v6.2 disc.

ASP 100 Series Dell® R640 BIOS/Firmware update tool (v6.2) disc contains:

Device Information	Firmware package release name	Firmware Version
iDRAC9 with Lifecycle Controller	iDRAC-with-Lifecycle-Controller_Firmware_9F2TG_LN_4.22.00.00_A00.BIN	4.22.00.00

R640 BIOS	BIOS_004Y7_LN_2.6.4.BIN	2.6.4
Intel Gigabit 4P I350-t rNDC	Network_Firmware_40NTK_LN_19.5.12_A00.BIN	19.5.12
Intel X710, XXV710, and XL710 adapters	Network_Firmware_YP4R0_LN_19.5.12_A00.BIN	19.5.12
Broadcom Gigabit Ethernet BCM 5720	Network_Firmware_RG25N_LN_21.60.2_01.BIN	21.60.2
Broadcom NetXtreme-E Family of Adapters	Network_Firmware_GX98F_LN64_21.40.25.31_02.BIN	21.40.25.31
PERC H730/H730P/H830 Mini/Adapter	SAS-RAID_Firmware_G7N2C_LN_25.5.6.0009_A14.BIN	25.5.6.0009
Dell PERC H330 Mini/Adapter	SAS-RAID_Firmware_T23TV_LN_25.5.6.0009_A12.BIN	25.5.6.0009
BOSS-S1 Adapter ROM	SAS-RAID_Firmware_MTPW6_LN64_2.5.13.3022_A06.BIN	2.5.13.3022
PERC H740P Adapter PERC H740P Mini Monolithic PERC H840 Adapter	SAS-RAID_Firmware_WVCR0_LN_50.9.4-3025_A11_01.BIN	50.9.4-3025
Dell 12Gbps HBA firmware	SAS-Non-RAID_Firmware_20VY1_LN_16.17.00.05_A09_02.BIN	16.17.00.05
Dell HBA330 Mini firmware	SAS-Non-RAID_Firmware_YXWY1_LN_16.17.00.05_A07_01.BIN	16.17.00.05
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_03.BIN	4.35
Dell 12Gb Expander Firmware for 14G Servers	Firmware_2F90T_LN_2.46_A00_03.BIN	2.46
Internal Dual SD Module Firmware Update	Firmware_3N5TF_LN_1.9_A03.BIN	1.9
Firmware version FJ40 for HGST drives. Vendor model numbers HUC101830CSS204, HUC101812CSS204, and HUC101860CSS204	SAS-Drive_Firmware_8MDXT_LN_FJ40_A00.BIN	FJ40
Firmware version FU40 for HGST drives. Vendor model numbers HUC101830CSS200, HUC101812CSS200 and HUC101860CSS200.	SAS-Drive_Firmware_6TM63_LN_FU40_A00.BIN	FU40
Firmware version ST33 for Seagate drives. Vendor model numbers ST600MM0069 and ST1200MM0099	SAS-Drive_Firmware_89M5N_LN_ST33_A00.BIN	ST33
Firmware version EA04 for Toshiba drives. Vendor model numbers AL14SEB030NY, AL14SEB060NY and AL14SEB120NY	SAS-Drive_Firmware_MG2X8_LN_EA04.BIN	EA04
TOSHIBA AL15SE ISE 2.5 600GB SAS12 10K 512N Model Number: AL15SEB060NY	SAS-Drive_Firmware_YMJY5_LN_EF05_A00.BIN	EF05
Firmware version BS05 for	SAS-Drive_Firmware_2R4CX_LN_BS05_A00.BIN	BS05

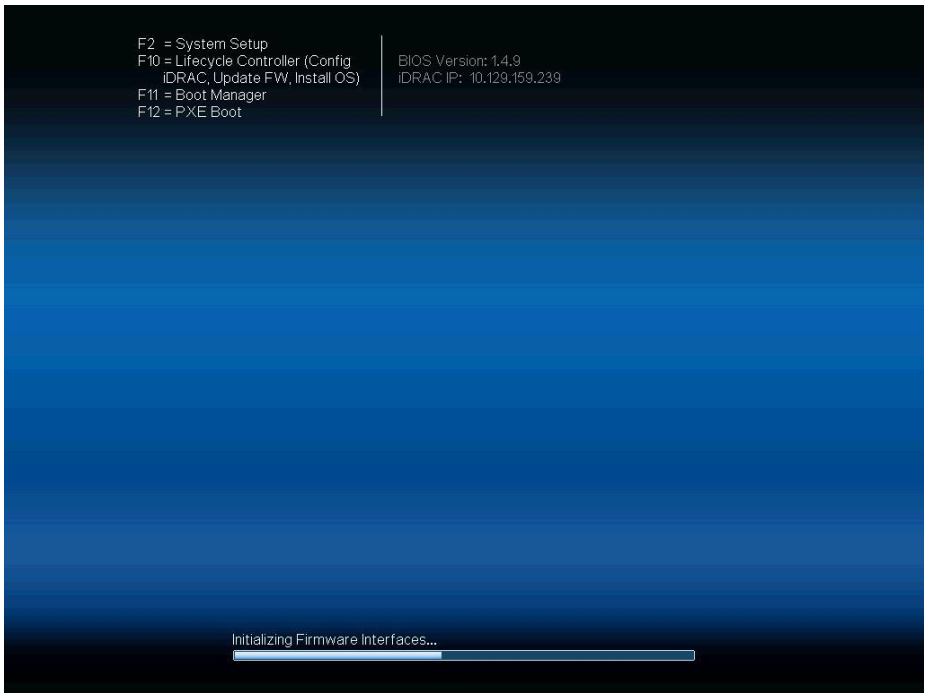
Seagate HDD Thunderbug 2.5 SAS12 10K 512n drive. Vendor model numbers: ST600MM0238 and ST300MM0078		
OS COLLECTOR 4.0	Diagnostics_Application_95M5V_LN64_4.0_A00.BIN	4.0
Dell Diagnostics to verify proper operation of the hardware	Diagnostics_Application_CH7FG_LN_4301A42_4301.43.BIN	4301A42
OS COLLECTOR	Diagnostics_Application_JCJR3_LN64_5_A00.BIN	5.0
The iDRAC Service Module	Systems-Management_Application_R6H2H_LN64_3.5.0_A00.BIN	3.5.0
DELL EMC System Update (DSU)	Systems-Management_Application_DVHNP_LN64_1.7.0_A00.BIN	1.7.0
OS Driver Pack for PowerEdge 14G servers. This Driver Pack contains applicable storage, NIC, and video drivers to support OS installation using the Dell Lifecycle Controller	Drivers-for-OS-Deployment_Application_6GCV7_LN_19.12.05_A00.BIN	19.12.05

Gracefully shut down the server according to Application Procedures

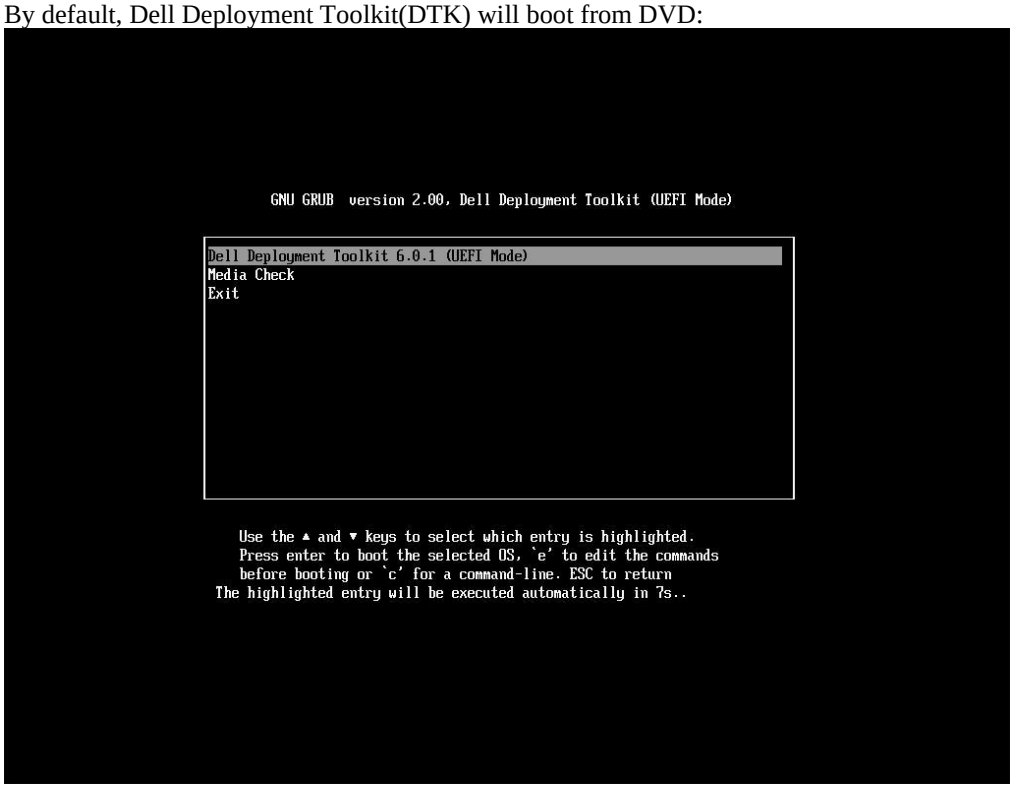
It is always best practice to perform a complete backup of the system before any firmware or hardware maintenance.

Firmware Update Procedures

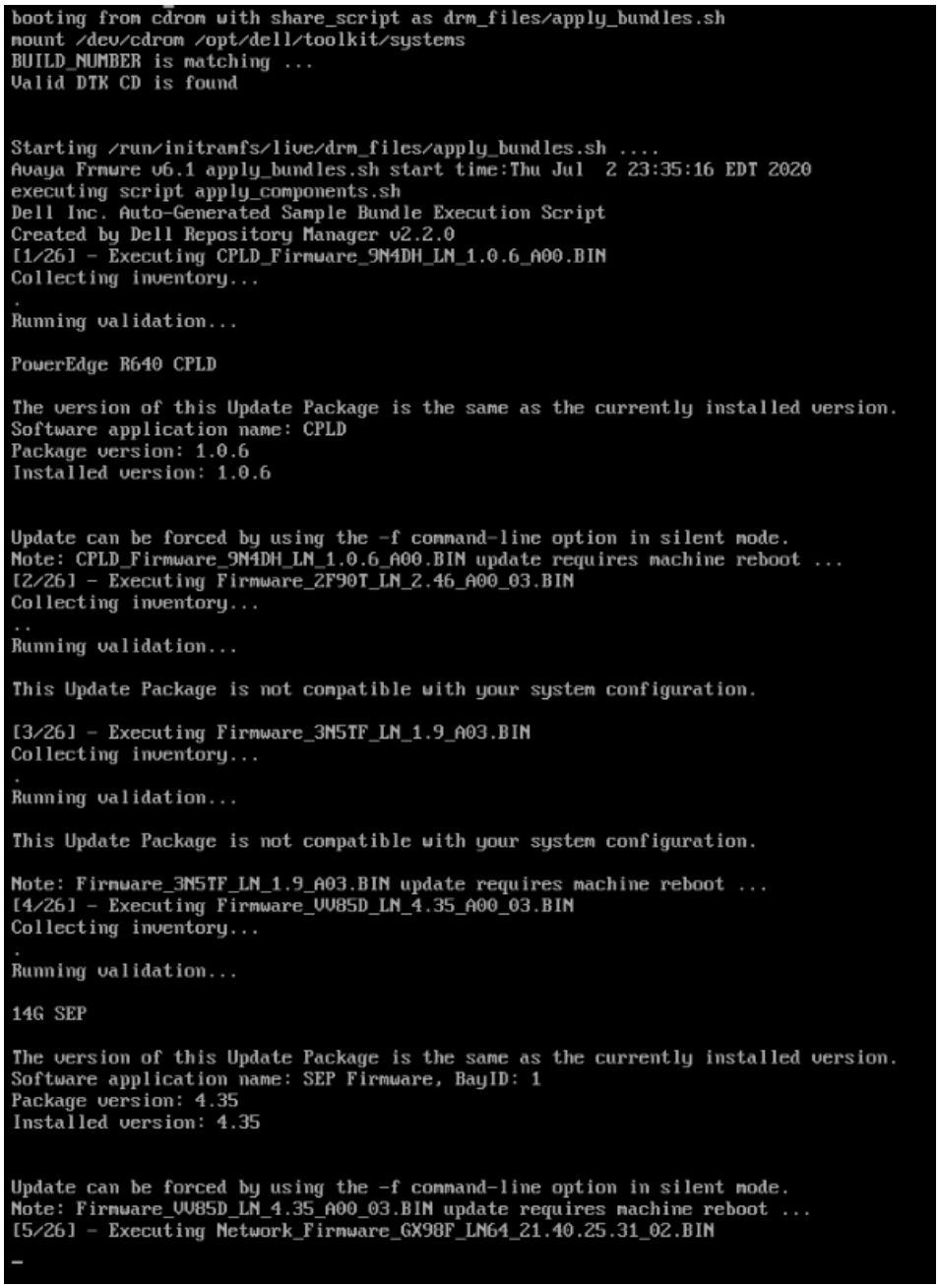
1. A Monitor, USB keyboard and mouse will be required to run the update tool.
2. Insert the firmware update disc at server power up. Server will boot from disc.
3. A hardware boot screen will first appear – note that the BIOS version displayed may vary depending on when the server was originally shipped.



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, the individual updates will begin to run. Each update determines if it is applicable to a server component and if an update of the firmware version is required. If required, an update will execute.

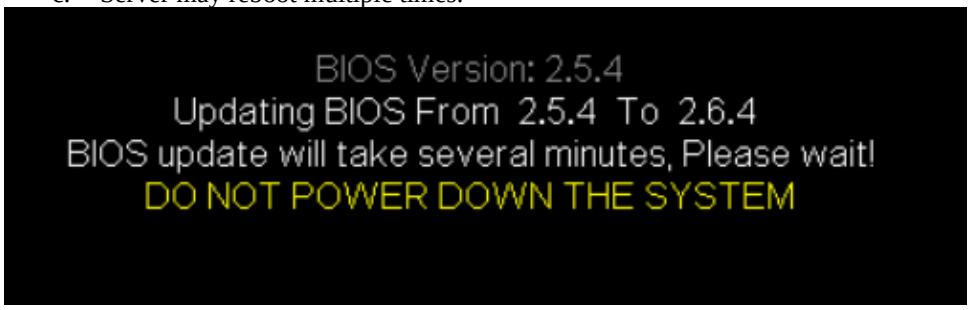


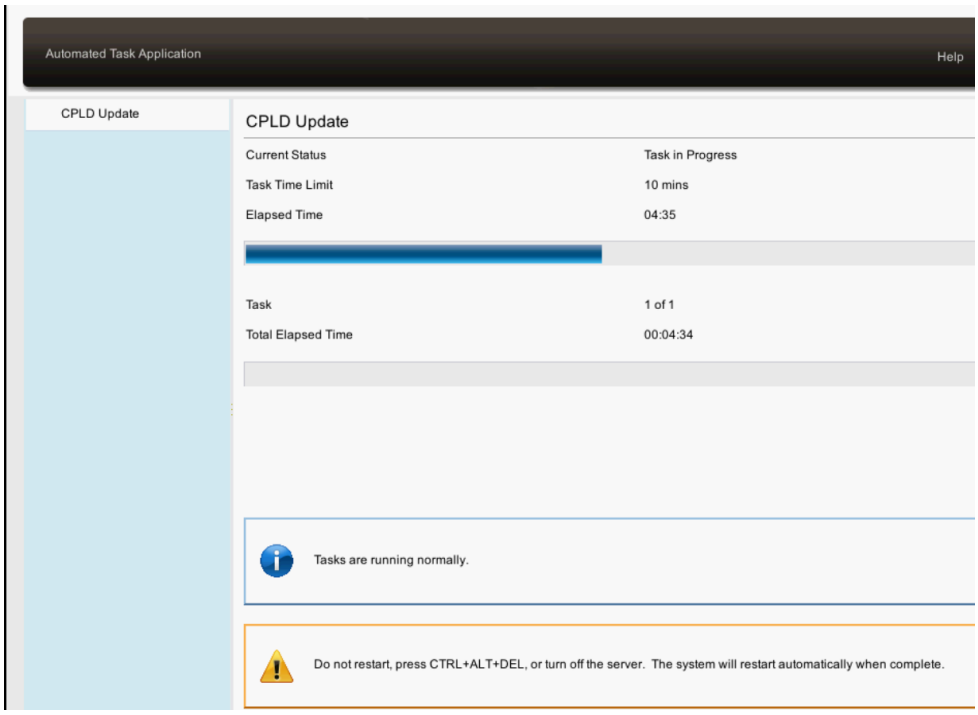
6. When all updates have run, the user will be prompted to press <Enter> to reboot the server:

```
HUC101860CSS200

The version of this Update Package is the same as the currently installed version.
Software application name: Firmware for - Disk 2 in Backplane 1 of PERC H730P Mini Controller 0
FQDD: Disk.Bay.2:Enclosure.Internal.1:RAID.Integrated.1-1
Package version: FU40
Installed version: FU40

HUC101860CSS200

The version of this Update Package is the same as the currently installed version.
Software application name: Firmware for - Disk 3 in Backplane 1 of PERC H730P Mini Controller 0
FQDD: Disk.Bay.3:Enclosure.Internal.1:RAID.Integrated.1-1
Package version: FU40
Installed version: FU40


Update can be forced by using the -f command-line option in silent mode.
[25/26] - Executing Drivers-for-OS-Deployment_Application_6GCV7_LN_19.12.05_A00.BIN
Collecting inventory...
.........................................
Running validation...

 OS Driver Pack, 19.12.05, A00

The version of this Update Package is the same as the currently installed version.
Software application name: OS Driver Pack, 19.12.05, A00
Package version: 19.12.05
Installed version: 19.12.05


Update can be forced by using the -f command-line option in silent mode.
[26/26] - Executing iDRAC-with-Lifecycle-Controller_Firmware_KTC95_LN_4.10.10.10_A00.BIN
Collecting inventory...
.
Running validation...

iDRAC

The version of this Update Package is the same as the currently installed version.
Software application name: iDRAC
Package version: 4.10.10.10
Installed version: 4.10.10.10


Update can be forced by using the -f command-line option in silent mode.
End time: Thu Jul 2 23:49:33 EDT 2020
Please see log, located at /bundleapplicationlogs/apply_components.log for details of the script execution
script exited with status 0
Note: Some update requires machine reboot. Please reboot to CD/DVD to continue for the failed update because of dependency...
Avaya Frmware v6.1 apply_bundles.sh end time:Thu Jul  2 23:49:33 EDT 2020

drm_files/apply_bundles.sh execution is completed ....
Press Enter to reboot ...
```

7. 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.

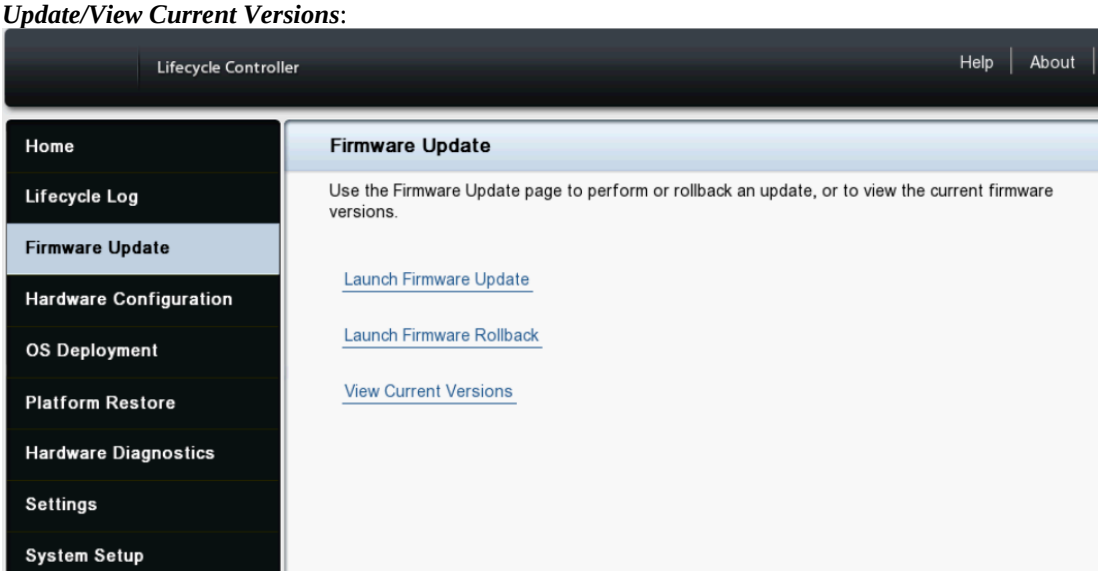
8. If the BIOS was updated, after the reboot, the server will display the screen shown below.
    a. DO NOT POWER DOWN THE SERVER.
    b. WAIT for the BIOS update and any additional updates (CPLD) to complete.
    c. Server may reboot multiple times.



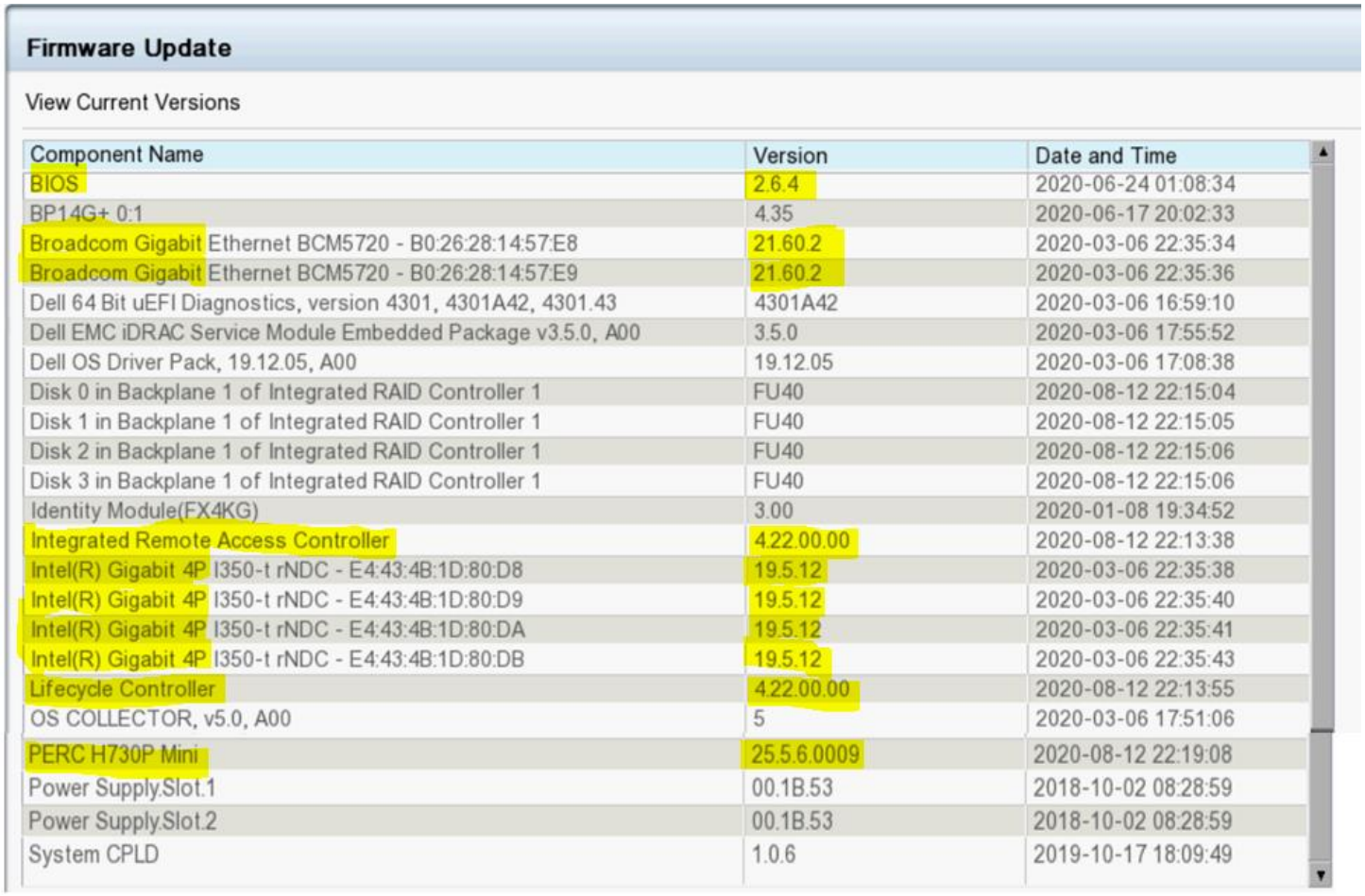


9. Once firmware updates are completed and finalized select <F10> to enter the Lifecycle Controller to verify firmware updates.
   → DVD should be removed from the server at this point. ←

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



11. Verify the versions for BIOS, Broadcom Gigabit Ethernet, Integrated Remote Access Controller (iDRAC), Lifecyle 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	2.6.4	2020-06-24 01:08:34
BP14G+ 0:1	4.35	2020-06-17 20:02:33
Broadcom Gigabit Ethernet BCM5720 - B0:26:28:14:57:E8	21.60.2	2020-03-06 22:35:34
Broadcom Gigabit Ethernet BCM5720 - B0:26:28:14:57:E9	21.60.2	2020-03-06 22:35:36
Dell 64 Bit uEFI Diagnostics, version 4301, 4301A42, 4301.43	4301A42	2020-03-06 16:59:10
Dell EMC iDRAC Service Module Embedded Package v3.5.0, A00	3.5.0	2020-03-06 17:55:52
Dell OS Driver Pack, 19.12.05, A00	19.12.05	2020-03-06 17:08:38
Disk 0 in Backplane 1 of Integrated RAID Controller 1	FU40	2020-08-12 22:15:04
Disk 1 in Backplane 1 of Integrated RAID Controller 1	FU40	2020-08-12 22:15:05
Disk 2 in Backplane 1 of Integrated RAID Controller 1	FU40	2020-08-12 22:15:06
Disk 3 in Backplane 1 of Integrated RAID Controller 1	FU40	2020-08-12 22:15:06
Identity Module(FX4KG)	3.00	2020-01-08 19:34:52
Integrated Remote Access Controller	4.22.00.00	2020-08-12 22:13:38
Intel(R) Gigabit 4P I350-t rNDC - E4:43:4B:1D:80:D8	19.5.12	2020-03-06 22:35:38
Intel(R) Gigabit 4P I350-t rNDC - E4:43:4B:1D:80:D9	19.5.12	2020-03-06 22:35:40
Intel(R) Gigabit 4P I350-t rNDC - E4:43:4B:1D:80:DA	19.5.12	2020-03-06 22:35:41
Intel(R) Gigabit 4P I350-t rNDC - E4:43:4B:1D:80:DB	19.5.12	2020-03-06 22:35:43
Lifecycle Controller	4.22.00.00	2020-08-12 22:13:55
OS COLLECTOR, v5.0, A00	5	2020-03-06 17:51:06
PERC H730P Mini	25.5.6.0009	2020-08-12 22:19:08
Power Supply.Slot.1	00.1B.53	2018-10-02 08:28:59
Power Supply.Slot.2	00.1B.53	2018-10-02 08:28:59
System CPLD	1.0.6	2019-10-17 18:09:49

12. After verifying the version information, select **Exit** in the upper right corner of the screen to reboot the server.

13. 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

October 12, 2020: Issue 1.
October 28, 2020: Issue 2 – Updated screen shot showing components to reflect latest versions.
July 08, 2021: Issue 3 – Updated to reference PSN027096u as the latest BIOS/FW update.

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
U.S. Remote Technical Services – Small Medium Enterprise	800-628-2888
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
Europe, Middle East, and Africa	36-1238-8334
Asia Pacific	65-6872-8686