

PSIN # PSIN0061290					
Original publication date: 2-N date: 2-Nov-2022.	ov-2022. This is Issue #01, published	Severity/risk level	N/A	Urgency	When Convenient
Name of problem					
IP Office 700516316 – ASP D support PERC H750 RAID Co	DELL R640 CLv2 Base Server P3 IPO ontroller	Replacement Serv	ver update	ed RAID c	onfiguration to
Products affected					
IP Office Dell ACP110:					
700516316 – ASP DE	LL R640 CLv2 Base Server P3				
Problem description					

The Avaya ASP 110 Profile 3 server now comes equipped with a PERC H750 RAID controller that replaces the PERC H730 RAID controller. This instruction is not required for 700514262 ASP 110 Dell R640 Server P3 IPO Server Edition servers that are preconfigured with software and are not required for PERC H730 equipped 700515523 ASP DELL R640 CL BASE SERVER P3 replacement servers.

When ordering a replacement server 700516316 (ASP DELL R640 CLv2 Base Server P3), it will come equipped with the H750 controller. An extra RAID Controller configuration step must be performed that will allow the server to boot successfully after the software installation. Included in this solution is a detailed description of all steps required to commission a replacement server equipped with a PERC H750 Raid Controller.

Resolution

WARNING:

Implementing these changes to the ACP110 RAID configuration will result in the loss of the data on the virtual disk that is hosting the IP Office SE solution. The IP Office SE solution will need to be re-installed and re-configured after the RAID controller configuration is changed. If the server has already been deployed, it is recommended that the backup and restore procedure in Chapter 9 of the following document is used to ensure the downtime is minimized. Deploying IP OfficeTM Platform Server Edition Solution: https://downloads.avaya.com/css/P8/documents/101048892

Replacement Server Configuration Steps:

System BIOS:

Introduction

The following procedure describes how to configure the Avaya Dell R640 BIOS and RAID controller (H750) for Avaya ACP 110 profile 3 replacement server used on the IP Office.

- A monitor, USB keyboard, and mouse are required to configure the RAID Controller.
- 1. Connect Monitor, USB keyboard, and mouse to the server.
- 2. Power up the server.

Entering System Setup F10 = Lifecycle Controller (Config iDRAC, Update FW, Install OS) F11 = Boot Manager F12 = PXE Boot	BIOS Version: 1.2.11 IDRAC IP:
Initializing Firmware Int)

Select <F2> System Setup when the hardware boot screen appears.
 A blue highlight indicates System Setup Menu selected.

System Setup	Help About Exit
System Setup	
System Setup Main Menu	
System BIOS	
iDRAC Settings	
Device Settings	
Select to configure system BIOS settings.	
Service Tag: CQ6K0T2	Finish

4. Select System BIOS

System Setup		Help	About Exit	
System BIOS				-
System BIOS Settings				
Memory Settings Processor Settings SATA Settings NVMe Settings Boot Settings Integrated Devices Serial Communication System Profile Settings System Security				•
Redundant OS Control	_			-
This field controls the system boot settings.		Default	Finish	
Service Tag: CQ6K0T2				

5. Select Boot Setting

ystem BIOS Settings • Boot Settings		
Boot Mode		
Boot Sequence Retry		
Hard-Disk Failover		
Generic USB Boot		
Hard-disk Drive Placeholder	O Enabled	
	o boot the OS via the method defined by the (FI) specification or (Press <f1> for more help)</f1>	

6. Change BOOT MODE to BIOS – then select Back and Finish to return to the System Setup Main Menu

RAID Configuration:

Server Data Storage Capacity

RAID Configuration	Raw Storage	Usable Capacity in Terabytes	Usable Capacity in Tebibytes₁	ACP Base Profile (no optional HDDs)
1	2x600GB + 2x600GB = 2.4TB	VD0 = 600GB VD1 = 600GB	VD0 = 0.545 VD1 = 0.545	3 IPO

1. Operating systems may calculate data storage space in Tebibytes

1. Clear any existing Array first by selecting **Device Settings/Integrated RAID Controller in Slot 1: Dell PERC H750 Adapter > Configuration Utility/Configuration Management/Clear Configuration.**

System Setup	Help About Exit
RAID Controller in Slot 1: Dell PERC H750 Adapter Configuration Utility	
Dashboard View • Main Menu • Configuration Management	
View Disk Group Properties	
Clear Configuration	
	1
Deletes all existing configurations on the RAID controller and discards the pinned cache on missing configuration.	
Service Tag: CQ6K0T2	Back

Select Clear Configuration.

System Setup	About Exit
RAID Controller in Slot 1: Dell PERC H750 Adapter Configuration Utility	
Dashboard View • Main Menu • Warning	
Clear Configuration will delete all of the Virtual Disks, Hot Spares, Pinned Cache and Non-RAID Disks attached to this controller.	
Are you sure you want to clear the configuration?	
IZ Confirm	
Yes	
No	
Service Tag: CQ6K0T2	

Confirm by checking Confirm box, selecting Yes/Confirm, and then selecting OK.

System Setup	Help About Exit
RAID Controller in Slot 1: Dell PERC H750 Adapter Configuration Utility	
Dashboard View • Main Menu • Configuration Management	
Auto Configure RAID 0	
Create Virtual Disk	
Create Profile Based Virtual Disk	
Convert to Non-RAID Disk_ Clear Configuration_	
Creates a virtual disk by selecting the RAID level, physical disks, and virtual disk parameters.	Back

2. Select **Create Virtual Disk.** If there is no option to create a Virtual Disk then all disks in the system must already be assigned to an Array. **Clear Configuration** (see steps above) will need to be run before the creation of a new Virtual Disk can be performed.

•
Write Back

 On the screen shown above select the RAID level to RAID1 and the Virtual Disk Name is entered as VD0 (Note this step will be repeated for VD1). Set the Strip Element Size to 256KB and then scroll down and select Fast Default Initialization. Next press Select Physical Disks.

Avaya ACP 1XX: Profile 3 IPO SPECIFIC = 4x600GB -> 2x600GB RAID 1 – VD0, VD1

System Setup				ł	lelp About Exit
RAID Controller in Slot 1: Dell PERC H750 Ad	apter Co	nfiguratio	n Utility		
Dashboard View • Main Menu • Select Physical I	Disks				
Apply Changes					
Select Media Type	O SSD	O HDD	Ø Both		
Select Interface Type	O SAS	O SATA	 Both 		
Logical Sector Size	O 512 B	O4KB	Both		
CHOOSE UNCONFIGURED PHYSICAL DISKS:					
 ✓ Physical Disk 0t00: HDD, SAS, 558.375GB, Ready, (5 ✓ Physical Disk 0t01: HDD, SAS, 558.375GB, Ready, (5 Physical Disk 0t03: HDD, SAS, 558.375GB, Ready, (5 	12B) (12B)				
Check All Uncheck All					
Apply Changes					
Submits the changes made to the entire form.					
Service Tag : CQ6K0T2					Back

For the Profile 3 IPO configuration

Physical Disks 00 and 01 must be selected for the 600GB VD0 in a RAID 1 configuration. Physical Disks 02 and 03 must be selected for the 600GB VD1 in a RAID 1 configuration. Then select **Apply Changes** and then **OK**.

Select Physical Disks From	Unconfigured Capacity O Free Capacity	
ONFIGURE VIRTUAL DISK PARAMETERS:		
Virtual Disk Size		-
Virtual Disk Size Unit		
Strip Element Size	256 KB	-
Read Policy	O No Read Ahead Read Ahead	medi
Write Policy		
Disk Cache	O Enable O Disable	
Default Initialization	No O Fast O Full	
Create Virtual Disk		

4. Check that the Virtual Disk size is the approximate expected size. Now select **Create Virtual Disk**, then **Confirm/select yes/OK**. A new Virtual Disk has now been created.



- 5. If only 1 Virtual disk has been created (VD0), select back and repeat steps 2-5 for VD1
- 6. Once both VD0 and VD1 have been created, select Back/Back and then select Controller Management

System Setup RAID Controller in Slot 1: Dell PERC H750 Adapter Configuration Utility	Help About E
)ashboard View • Main Menu	
Configuration Management	
Controller Management	
Virtual Disk Management	
Physical Disk Management	
Hardware Components	
Displays the controller status and basic properties of the controller such as product name, serial number, PCI ID, firmware version and NVDATA Version. (Press <f1> for more help)</f1>	
	Back

System Setup		Help About Exit		
RAID Controller in Slot 1: Dell PERC H750 Adapter Configuration Utility				
Dashboard View • Main Menu • Controller Management				
BASIC PROPERTIES:		-		
Product Name	PERC H750 Adapter			
Serial Number	21006NI			
Controller Status	Optimal			
Controller Mode	RAID			
Select Boot Device	Virtual Disk 238: VD1, RAID1, 558.375GB, Ready	•		
PCI ID	0x1000 0x10E2 0x1028 0x2176			
PCI Segment:Bus:Device:Function	0x0000 0x03B 0x00 0x0			
PCI Slot Number	1	_		
Package Version	52.16.1-4405			
Firmware Version	5.160.02-3552			
NVDATA Version	5.1600.06-0459			
		-		
Selects the primary bootable device. This setting is	applicable only for legacy boot mode.			
Service Tag : CQ6K0T2		Back		

7. Modify the **Select Boot Device to point to Virtual Disk 238** – Failure to complete this step will block the server from booting properly

ashboard View • Main Menu • Control	ler Management	
PCI ID	0x1000 0x10E2 0x1028 0x2176	
PCI Segment:Bus:Device:Function	0x0000 0x03B 0x00 0x0	
PCI Slot Number	1	
Package Version	52.16.1-4405	
Firmware Version	5.160.02-3552	
NVDATA Version	5.1600.06-0459	
Supported Device Interfaces	SAS,SATA	
Physical Disk Count		
Non-RAID Disk Count		
Virtual Disk Count	2	
Advanced Controller Management		
Advanced Controller Properties		
Auvanceu Controller Properties		

8. Select the Advanced Controller Properties and ensure the **Auto Import Foreign Configuration is enabled**. Update and apply changes if necessary.

System Setup	Help About Exit
RAID Controller in Slot 1: Dell PERC H750 Adapter Configuration Utility	
Dashboard View • Main Menu • Advanced Controller Properties	
Cache and Memory Patrol Read Physical Disk Power Management Spare Task Rates Enterprise Key Management CONTROLLER PROPERTIES:	
Apply Changes Auto Import Foreign Configuration O Disabled Boot Mode O Stop on errors Pause on errors	
Enables or disables the automatic import of foreign configurations without any user intervention.	Back

9. Return to the Dashboard View – Main Menu and select Configuration Management -> View Disk Group Properties

System Setup		Help About Exit		
RAID Controller in Slot 1: Dell PE	RAID Controller in Slot 1: Dell PERC H750 Adapter Configuration Utility			
Dashboard View • Main Menu • View Disk Group Properties				
Disk Group	Disk Group #0			
Capacity Allocation	Virtual Disk 239: VD0, RAID1, 558.375GB, Re	eady		
Secured	No			
Disk Group	Disk Group #1			
Capacity Allocation	Virtual Disk 238: VD1, RAID1, 558.375GB, Re	ady		
Secured	No			
Displays associated virtual disks for	or the disk group and any available free capacity.			
Service Tag: CQ6K0T2		Back		
Johnee rag. Capitoriz				

Select **Back/Back/Finish/Finish/Finish** to escape configuration menus. Server RAID configuration is complete and Virtual Drive has been created available for software installation.

N/A

Remarks

All new ACP110 servers built with IP Office will come with this correct RAID 1 setup.

Patch Notes

The information in this section concerns the patch, if any, recommended in the Resolution above.

Backup before applying the patch	
Yes	
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

If you require further information or assistance please contact your Authorized Service Provider, or visit <u>support.avaya.com</u>. There you can access more product information, chat with an Agent, or open an online Service Request. Support is provided per your warranty or service contract terms unless otherwise specified in the Avaya Support <u>Terms of Use</u>.

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