



Using HighPoint NVMe RAID AICs with the HPE ProLiant DL380 Gen10 server

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1. HPE ProLiant DL380 Gen10 server introduction

This document provides guidelines and procedures for installing HighPoint NVMe AICs into the HPE ProLiant DL380 Gen10 server platform. The guide examines the performance capabilities of each PCIe slot and provides recommended hardware configurations that can be used to optimize NVMe storage configurations for maximum throughput and capacity.

1.1 Chassis

HPE ProLiant DL380 Gen10 server chassis: 2U

1.2 Chipset

HPE ProLiant DL380 Gen10 server Chipset: Intel C621

1.3 Processor Types

HPE ProLiant DL380 Gen10 server processor types:

Intel® Xeon® Scalable 8100/8200 series

Intel® Xeon® Scalable 6100/6200 series

Intel® Xeon® Scalable 5100/5200 series

Intel® Xeon® Scalable 4100/4200 series

Intel® Xeon® Scalable 3100/3200 series

1.4 Memory

Memory type: HPE DDR4 Smart Memory

DIMM Slots Available: 24

12 DIMM slots per processor. 6 channels per processor,
2 DIMMs per channel

Maximum capacity (LRDIMM): 3.0 TB

24 x 128 GB LRDIMM 2933 MT/s

Maximum capacity (RDIMM): 1.54 TB

24 x 64 GB RDIMM 2933 MT/s

Maximum capacity (Intel Optane Persistent Memory for HPE): 6.0 TB

12 x 512 GB Memory Modules 2666 MT/s

Maximum capacity (HPE NVDIMMs): 192 GB

12 x 16 GB NVDIMM 2666 MT/s

1.5 Riser slots



This picture is from the HPE ProLiant DL380 Gen10 server back panel; the numbers on the picture represent the slot locations.

HPE ProLiant DL380 Gen10 server Riser slots list:

Slot	CPU	Riser	Height	Length	Width	Technology	Slot width
1	1	Primary Riser	Full Height	Full Length	Single Width	PCIe3.0	X8
2	1	Primary Riser	Full Height	Full Length	Single Width	PCIe3.0	X16
3	1	Primary Riser	Full Height	Half Length	Single Width	PCIe3.0	X8
4	2	Secondary Riser	Full Height	Full Length	Single Width	PCIe3.0	X8
5	2	Secondary Riser	Full Height	Full Length	Single Width	PCIe3.0	X16
6	2	Secondary Riser	Full Height	Half Length	Single Width	PCIe3.0	X8
7	2	Tertiary Riser	Full Height	Full Length	Single Width	PCIe3.0	X8
8	2	Tertiary Riser	Full Height	Full Length	Single Width	PCIe3.0	X8

1.6 GPU

HPE ProLiant DL380 Gen10 server support GPU list:

GPU Type	Slot priority
UMA	N/A
Discrete	Primary Riser Slot

Notes:

Depending on the type of GPU installed into the HPE ProLiant DL380 Gen10 server platform, one or more PCIe slots may be unavailable for use with HighPoint NVMe AICs.

Primary Riser Slot is designated as the default slot for graphics card.

1.7 Other PCIe devices

The HPE ProLiant DL380 Gen10 server is available with optional PCIe devices.

The following table provides a list of PCIe device accessories available for the HPE ProLiant DL380 Gen10 server platform and which expansion slot (or slots) they are typically associated with.

PCIe devices type	Slot priority
HPE Smart Array E208i-a SR Gen10 Controller	Tertiary Riser Slot
HPE Smart Array E208i-p SR Gen10 Controller	Tertiary Riser Slot
HPE Smart Array E208e-p SR Gen10 Controller	Tertiary Riser Slot
Broadcom MegaRAID MR416i-a Controller for HPE	Primary Riser Slot, Secondary Riser Slot
Broadcom MegaRAID MR416i-p Controller for HPE	Primary Riser Slot, Secondary Riser Slot
Broadcom MegaRAID MR216i-a Controller for HPE	Primary Riser Slot, Secondary Riser Slot
Broadcom MegaRAID MR216i-p Controller for HPE	Primary Riser Slot, Secondary Riser Slot
HPE Smart Array P408i-a SR Gen10 Controller	Tertiary Riser Slot
HPE Smart Array P408i-p SR Gen10 Controller	Tertiary Riser Slot
HPE Smart Array P408e-p SR Gen10 Controller	Tertiary Riser Slot
HPE Smart Array P816i-a SR Gen10 Controller	Primary Riser Slot, Secondary Riser Slot

Note: HPE platforms are typically shipped with an array of pre-installed PCIe devices. Please note, one or more PCIe slots may be unavailable for use with HighPoint NVMe AICs.

2. HighPoint NVMe RAID AIC compatibility in HPE ProLiant

DL380 Gen10 server

HighPoint NVMe RAID AICs	Slot1 PCIe x8 Gen3	Slot2 PCIe x16 Gen3	Slot3 PCIe x8 Gen3	Slot4 PCIe x8 Gen3	Slot5 PCIe x16 Gen3	Slot6 PCIe x8 Gen3	Slot7 PCIe x8 Gen3	Slot8 PCIe x8 Gen3
Gen3 AICs								
SSD6202	√ ¹	√ ^{1,2}	√ ^{1,2}	√ ¹	√ ^{1,2}	√ ^{1,2}	√ ¹	√ ¹
SSD6202A	√ ¹	√ ^{1,2}	√ ^{1,2}	√ ¹	√ ^{1,2}	√ ^{1,2}	√ ¹	√ ¹
SSD6204A	√ ¹	√ ^{1,2}	√ ^{1,2}	√ ¹	√ ^{1,2}	√ ^{1,2}	√ ¹	√ ¹
SSD7101A-1	X	√ ¹	X	X	√ ¹	X	X	X
SSD7104	X	√ ¹	X	X	√ ¹	X	X	X
SSD7105	X	√ ¹	X	X	√ ¹	X	X	X
SSD7202	√ ¹	√ ^{1,2}	√ ^{1,2}	√ ¹	√ ^{1,2}	√ ^{1,2}	√ ¹	√ ¹
SSD7204	√ ¹	√ ^{1,2}	√ ^{1,2}	√ ¹	√ ^{1,2}	√ ^{1,2}	√ ¹	√ ¹
RocketAIC 7105HW	X	√ ¹	X	X	√ ¹	X	X	X
Gen4 AICs								
SSD7502	X	√ ^{1,3}	X	X	√ ^{1,3}	X	X	X
SSD7505	X	√ ^{1,3}	X	X	√ ^{1,3}	X	X	X
RocketAIC 7502HW	X	√ ^{1,3}	X	X	√ ^{1,3}	X	X	X
RocketAIC 7505HW	X	√ ^{1,3}	X	X	√ ^{1,3}	X	X	X

Notes:

√¹ means that the HighPoint NVMe RAID AIC can be used normally in this slot if you do not have the GPU or other PCIe devices installed in this slot.

√² means that the HighPoint NVMe RAID AIC can be used normally in this slot if you do not have the double-wide GPU installed in another slot on the riser card.

√³ means that the HighPoint NVMe RAID Gen4 AIC using this slot will be limited to Gen3 speed.

X means that the HighPoint NVMe RAID AIC is not compatible with this slot.

3. Installing HighPoint NVMe RAID AIC into HPE ProLiant DL380 Gen10 server

3.1 Install hardware

3.1.1 Recommended tools

- a. Screwdriver (system cover requires a screwdriver to open)
- b. Wired ESD wrist strap (to prevent electrostatic accidents)

3.1.2 Installing hardware

- a. Use a wired ESD wrist strap that is properly grounded.
- b. Shut down the system.
- c. Disconnect each power cord from the system.
- d. Unlock the locking latch, slide the panel to the rear of the chassis, and remove the panel.



- e. Lift the riser module lock upward.

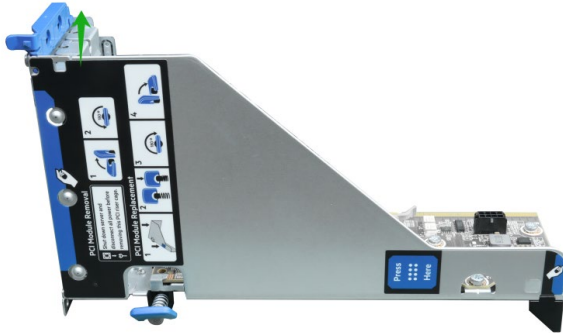


- f. Rotate the riser module lock 180 degrees counterclockwise.



Using HighPoint NVMe RAID AICs with the HPE ProLiant DL380 Gen10 server

- g. Remove the riser module from the system.
- h. On the side of the riser module, lift up on the riser module lock.



- i. Remove the PCI blank.



- j. Holding the edge of the HighPoint NVMe RAID AIC, align the HighPoint NVMe RAID AIC connector with the riser module slot and insert it downward.

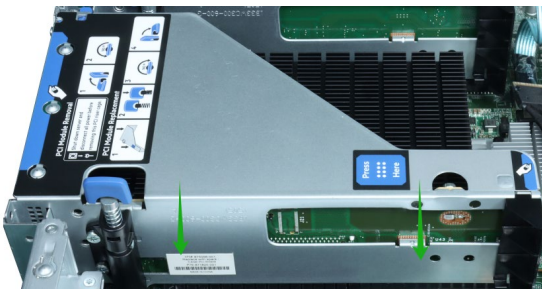


Using HighPoint NVMe RAID AICs with the HPE ProLiant DL380 Gen10 server

- k. Press the riser module latch to secure the HighPoint NVMe RAID AIC bracket.



- l. Install the riser module into the system connector.



- m. Rotate the riser module lock 180 degrees clockwise.



- n. Press down on the riser module lock.



- o. Align the panel with the system board and then push down on the system panel latch.



3.2 System BIOS Setting

The following is a list of HPE ProLiant DL380 Gen10 server system BIOS settings required for each NVMe RAID AIC.

Please refer to the following sections for system BIOS settings setup procedures.

[3.2.1 Disable Secure Boot](#)

[3.2.2 Boot mode to UEFI](#)

HighPoint NVMe RAID AICs	System BIOS Settings (Boot RAID configurations)	
	Secure Boot	Boot mode
SSD6202	✓	✓
SSD6202A	✓	✓
SSD6204A	✓	✓
SSD7105	✓	✓
SSD7202	✓	✓
SSD7502	✓	✓
SSD7505	✓	✓
RocketAIC 7105HW	✓	✓
RocketAIC 7502HW	✓	✓
RocketAIC 7505HW	✓	✓

HighPoint NVMe RAID AICs	System BIOS Settings (Data RAID configurations)
	Secure Boot
SSD6202	✓
SSD6202A	✓
SSD6204A	✓
SSD7101A-1	✓ ¹
SSD7104	✓ ¹
SSD7105	✓ ¹
SSD7202	✓ ¹
SSD7204	✓ ¹
SSD7502	✓ ¹
SSD7505	✓ ¹
RocketAIC 7105HW	✓ ¹
RocketAIC 7502HW	✓ ¹
RocketAIC 7505HW	✓ ¹

Notes:

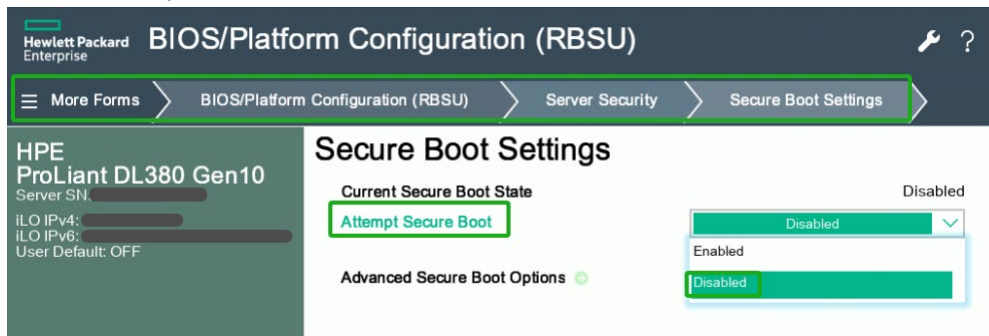
✓ means that the HighPoint NVMe RAID AIC supports this BIOS setting.

✓¹ means that the HighPoint NVMe RAID AIC supports this BIOS setting if you are not using the Linux.

3.2.1 Disable Secure Boot

Note: If you are using the SSD7000/7500 series NVMe RAID AICs or RocketAIC series NVMe Drives in Linux, Secure Boot must be disabled. If you are using the SSD6200 series NVMe RAID AICs, Secure Boot can be enabled.

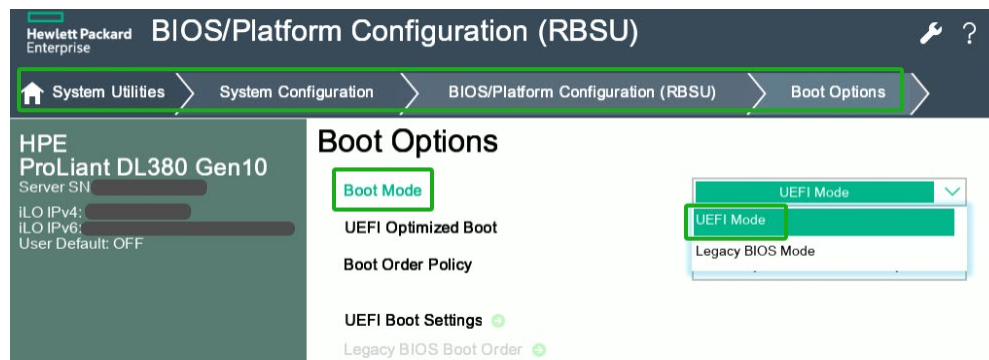
- a. Power up the system.
- b. Press **F9** to enter BIOS.
- c. Find **System Utilities**→ **System Configurations**→ **BIOS/Platform Configuration (RBSU)**→ **Server Security**→ **Secure Boot Settings**→ **Attempt Secure Boot**, select **Disabled**.



- d. Save the configuration and reboot the system.

3.2.2 Boot mode to UEFI

- a. Power up the system.
- b. Press **F9** to enter BIOS.
- c. Find **System Utilities**→ **System Configurations**→ **BIOS/Platform Configuration (RBSU)**→ **Boot Options**→ **Boot Mode**, select **UEFI Mode**.



- d. Save the configuration and reboot the system.

3.3 Install software

3.3.1 Installing HighPoint NVMe RAID AICs into the HPE ProLiant DL380 Gen10 server (Data RAID configurations)

The following section discusses HighPoint NVMe RAID AIC driver installation for a non-bootable NVMe configuration.

3.3.1.1 Installing the Windows Driver & Management Software

Please refer to the [Data RAID Installation Guide \(Windows\)](#) to install the Windows Device Driver and Management Software.

3.3.1.2 Installing the Linux Driver & Management Software

Please refer to the [Data RAID Installation Guide \(Linux\)](#) to install the Linux Device Driver and Management Software.

3.3.2 Installing HighPoint NVMe RAID AICs into the HPE ProLiant DL380 Gen10 server (Boot RAID configurations)

The following section discusses HighPoint NVMe RAID AIC driver installation for a bootable NVMe configuration.

3.3.2.1 Installing a Windows OS to a bootable RAID configuration

Windows BootRAID:

Please refer to [HighPoint Windows Boot RAID Windows Installation Guide](#)

3.3.2.2 Installing Linux to a bootable RAID configuration

Debian BootRAID:

Please refer to [Linux Debian On HighPoint NVMe RAID Controller Installation Guide](#).

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RHEL BootRAID:

Please refer to [Linux RHEL On HighPoint NVMe RAID Controller Installation Guide](#).

Ubuntu BootRAID:

Please refer to [Linux Ubuntu On HighPoint NVMe RAID Controller Installation Guide](#).

Rocky Linux BootRAID:

Please refer to [Linux Rocky Linux On HighPoint NVMe RAID Controller Installation Guide](#)

4. Benchmarking HighPoint NVMe RAID AICs

4.1 Performance Testing

4.1.1 Recommended Hardware Configuration

- **HPE ProLiant DL380 Gen10 server:**
CPU: Intel(R) Xeon(R) Silver 4110 CPU @ 2.10GHz
Memory: 32 GB
PCIe Slot: SLOT1/4J107; SLOT3/6J08; J135 SLOT2/5

- **HighPoint NVMe RAID AICs:**

Gen3 HighPoint NVMe RAID AICs	SSD6202
	SSD6202A
	SSD6204A
	SSD7101A-1
	SSD7104
	SSD7105
	SSD7202
Gen4 HighPoint NVMe RAID AICs	SSD7204
	SSD7502
	SSD7505

- **Disk:**

Samsung 980 Pro 2TB

Note: Samsung 980 Pro 2TB Disk spec.

Performance	Sequential Read	Sequential Write
	Up to 7,000 MB/s * Performance may vary based on system hardware & configuration	Up to 5,100 MB/s * Performance may vary based on system hardware & configuration
	Random Read (4KB, QD32) Up to 1,000,000 IOPS * Performance may vary based on system hardware & configuration	Random Write (4KB, QD32) Up to 1,000,000 IOPS * Performance may vary based on system hardware & configuration
	Random Read (4KB, QD1) Up to 22,000 IOPS * Performance may vary based on system hardware & configuration	Random Write (4KB, QD1) Up to 60,000 IOPS * Performance may vary based on system hardware & configuration

4.1.2 Test tool

Benchmark Tool: Iometer/ CrystalDiskMark

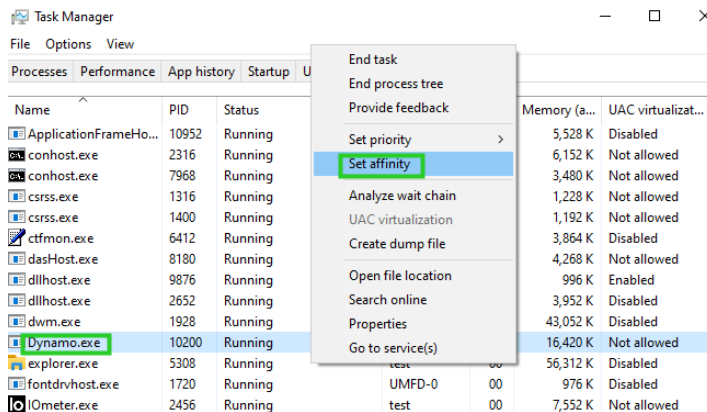
- **Iometer script setting:**

The Iometer script can be downloaded [here](#).

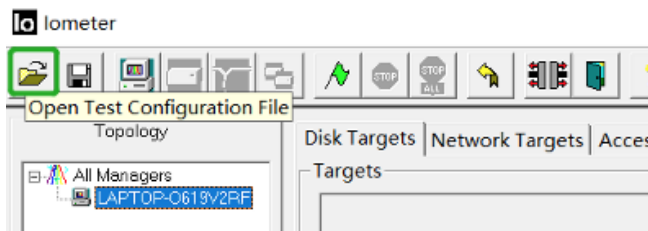
Note: If you use the SSD6200 series NVMe RAID AICs, you will need to download another [Iometer script](#).

- The “**2m-seq-read.icf**” script tests the Sequential read performance of 2M large data blocks.
- The “**2m-seq-write.icf**” script tests the Sequential write performance of 2M large data blocks.
- The “**4k-rand-read.icf**” script tests the Random read performance of 4k small data blocks.
- The “**4k-rand-write.icf**” script tests the Random write performance of 4k small data blocks.

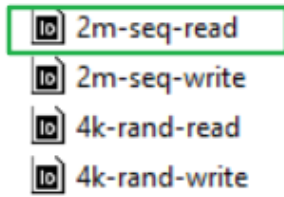
- Open Iometer with administrator rights.
- The system has two CPUs, so you need to specify the CPU node for performance testing.
 - open **Task Manager** and find **Dynamo.exe** in Details.
 - Right-click and select **Set affinity** to specify the CPU node (the CPU corresponding to the SLOT inserted in the HighPoint NVMe RAID AICs).



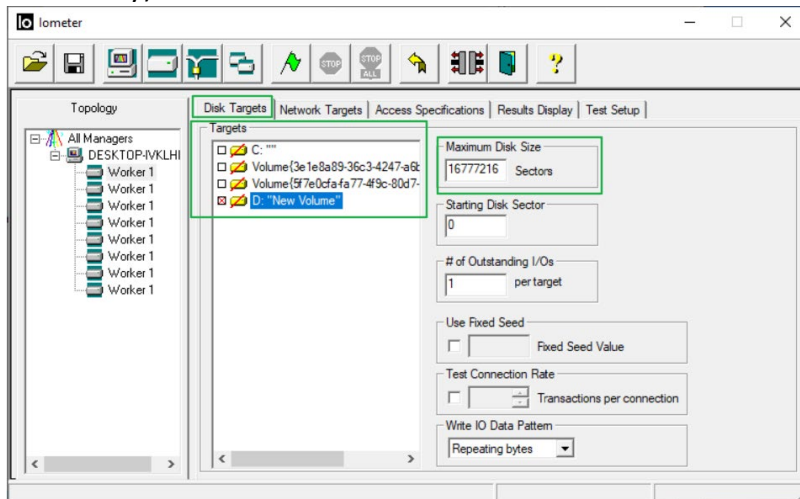
- Click the folder icon to open the script, then select the script to be configured.



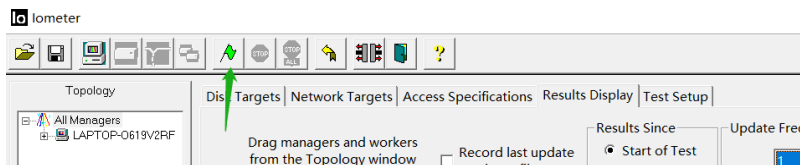
- d. Select **2M-seq-read**.



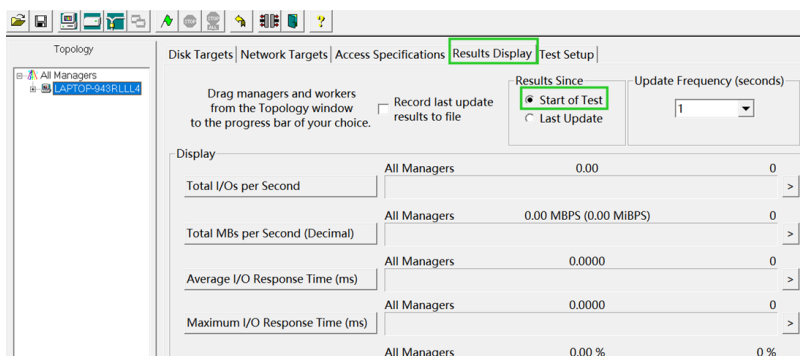
- e. The **Disk Targets** page will change, the **Target** should be the test disk (the RAID array). The **Maximum Disk Size** should be set to **16777216** Sectors.



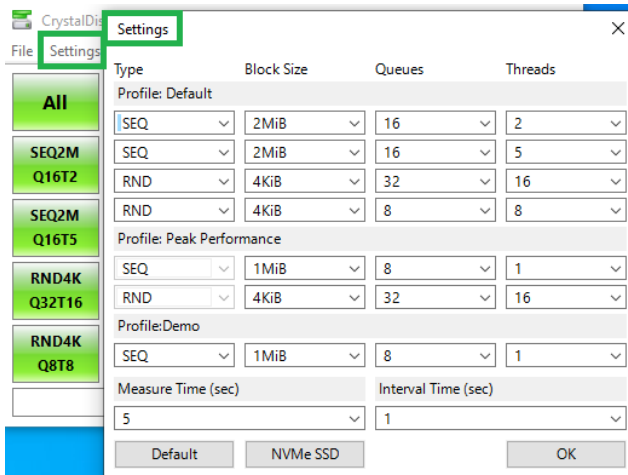
- f. After confirming the settings, click the green mark to start the performance test.



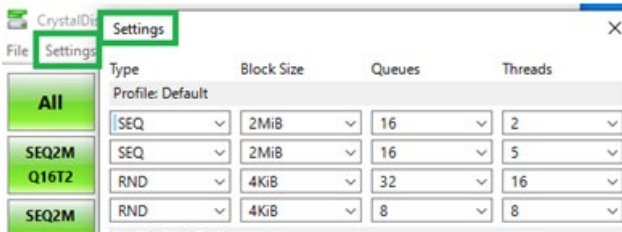
- g. **Result Display** will be automatically configured as **Start of Test**.



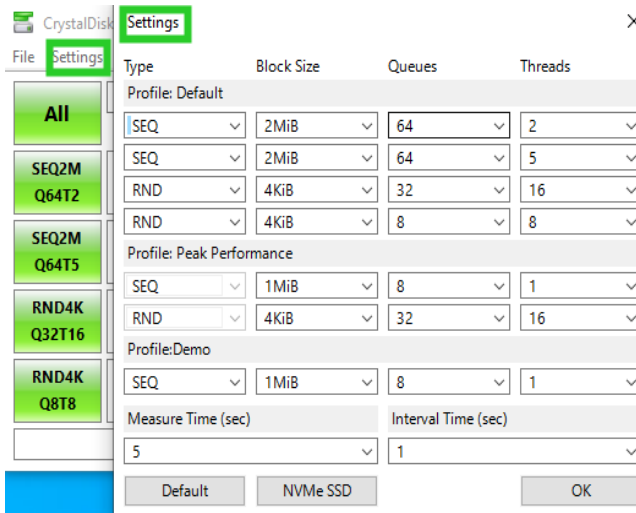
● **CrystalDiskMark script setting:**



- Open CrystalDiskMark with administrator rights.
- Click **Settings**.



Note1: Please refer to the following Screenshot for recommended settings.



Note2: The above recommended setting will meet the needs of most NVMe RAID AICs and achieve optimal performance in testing. In testing, you can also choose to adjust the settings in the script yourself for optimal performance.

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- c. **Test Size:** set to 8GiB; Test **Drive:** set to the RAID Volume.

File Settings Profile Theme Help Language				
All	5	8GiB	D: 0% (0/1863GiB)	MB/s
		Read [MB/s]	Write [MB/s]	
SEQ2M		0.00	0.00	
Q16T1				

- d. After confirming the settings, click **ALL** to start the performance test.

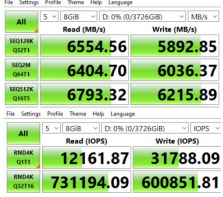
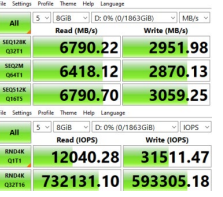
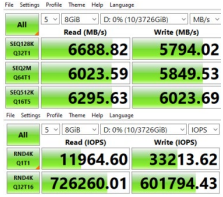
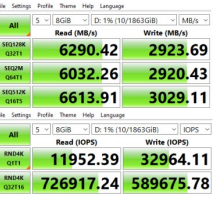
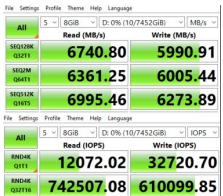
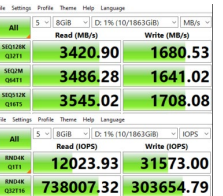
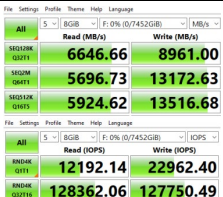
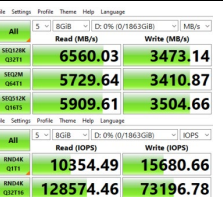
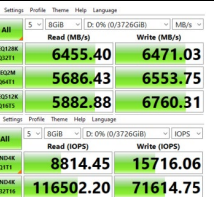
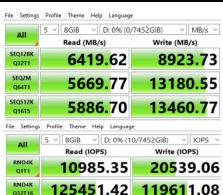
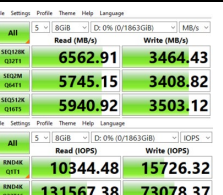
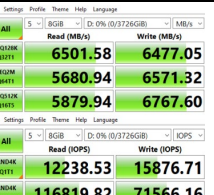
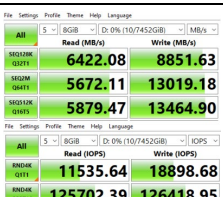
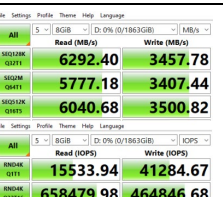
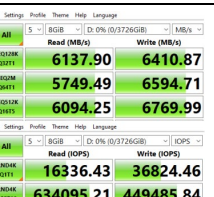
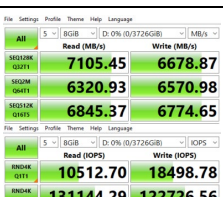
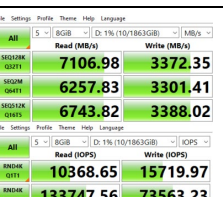
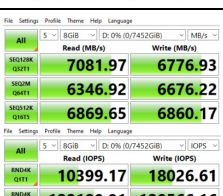
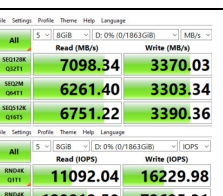
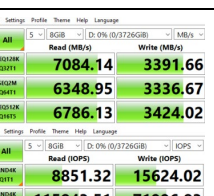
File Settings Profile Theme Help Language				
All	5	8GiB	D: 0% (0/1863GiB)	MB/s
		Read [MB/s]	Write [MB/s]	
SEQ2M		0.00	0.00	
Q16T1				

4.1.3 Gen3 HighPoint NVMe RAID AIC test results

- **Iometer**

(script setting)	Gen3 RAID AIC	Legacy	RAID0	RAID1	RAID10
2m-Seq-Read (MiB/s)	SSD6202	3,479	6,886	6,896	/
	SSD6202A	3,449	6,806	6,855	/
	SSD6204A	1,637	6,926	3,499	/
	SSD7101A-1	3,571	12,984	6,965	12,924
	SSD7104	3,565	12,919	6,955	12,937
	SSD7105	3,569	13,037	6,942	12,896
	SSD7202	3,571	6,993	6,904	/
	SSD7204	3,509	7,074	6,919	7,096
2m-Seq-Write (MiB/s)	SSD6202	3,448	6,062	3,056	/
	SSD6202A	3,446	5,993	3,047	/
	SSD6204A	1,711	6,157	1,652	/
	SSD7101A-1	3,509	13,328	3,502	6,769
	SSD7104	3,414	13,530	3,511	6,781
	SSD7105	3,502	12,992	3,543	6,750
	SSD7202	3,509	6,764	3,371	/
	SSD7204	3,507	6,842	3,370	3,416
4k-Rand-Read (IOPS)	SSD6202	679,059	722,841	687,640	/
	SSD6202A	693,281	705,020	710,164	/
	SSD6204A	383,534	720,413	704,378	/
	SSD7101A-1	640,104	119,174	127,646	114,522
	SSD7104	646,670	119,765	129,155	109,848
	SSD7105	559,895	119,742	124,703	590,200
	SSD7202	658,058	128,803	130,940	/
	SSD7204	666,398	121,860	124,688	109,612
4k-Rand-Write (IOPS)	SSD6202	540,060	522,260	562,764	/
	SSD6202A	538,516	519,956	525,486	/
	SSD6204A	402,928	528,086	302,896	/
	SSD7101A-1	522,292	114,059	74,160	72,660
	SSD7104	518,743	115,271	72,689	72,884
	SSD7105	455,906	115,190	75,061	73,510
	SSD7202	526,532	114,153	73,544	/
	SSD7204	521,313	115,612	72,687	72,777

● **CrystalDiskMark**

(script setting)	Gen3 RAID AIC	RAID0	RAID1	RAID10
2m-Seq (MB/s)	SSD6202			/
	SSD6202A			/
	SSD6204A			
	SSD7101A-1			
	SSD7104			
	SSD7105			
	SSD7202			/
	SSD7204			

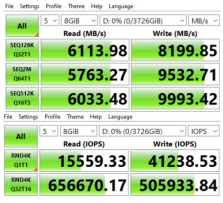
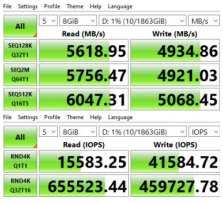
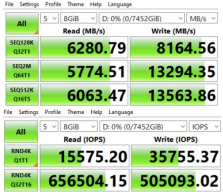
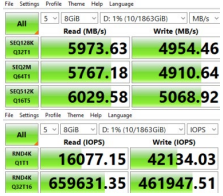
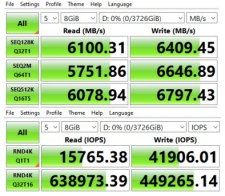
Note: / means that this AIC does not support the creation of RAID10.

4.1.4 Gen4 HighPoint NVMe RAID AIC test results

- **Iometer**

(script setting)	Gen4 RAID AIC	Legacy	RAID0	RAID1	RAID10
2m-Seq-Read (MiB/s)	SSD7502	6,951	12,838	11,929	/
	SSD7505	6,360	13,022	12,271	13,063
2m-Seq-Write (MiB/s)	SSD7502	5,133	9,887	5,012	/
	SSD7505	4,958	11,402	5,050	6,783
4k-Rand-Read (IOPS)	SSD7502	604,059	566,528	569,384	/
	SSD7505	588,426	609,610	591,774	560,066
4k-Rand-Write (IOPS)	SSD7502	474,697	461,856	407,626	/
	SSD7505	459,203	465,262	416,295	405,158

- **CrystalDiskMark**

(script setting)	Gen4 RAID AIC	RAID0	RAID1	RAID10
2m-Seq (MB/s)	SSD7502			/
	SSD7505			

Note: / means that this AIC does not support the creation of RAID10.

5. Uninstalling a HighPoint NVMe RAID AIC from the HPE ProLiant DL380 Gen10 server

5.1 Uninstall hardware

5.1.1 Recommended tools

- a. Screwdriver (system cover requires a screwdriver to open)
- b. Wired ESD wrist strap (to prevent electrostatic accidents)

5.1.2 Uninstalling hardware

- a. Use a wired ESD wrist strap that is properly grounded.
- b. Shut down the system.
- c. Disconnect each power cord from the system.
- d. Unlock the locking latch, slide the panel to the rear of the chassis, and remove the panel.



- e. Lift the riser module lock upward.



- f. Rotate the riser module lock 180 degrees counterclockwise.



Using HighPoint NVMe RAID AICs with the HPE ProLiant DL380 Gen10 server

- g. Remove the riser module from the system.
- h. On the side of the riser module, lift up on the riser module lock.



- i. Holding the edge of the HighPoint NVMe RAID AIC, lift up to remove the HighPoint NVMe RAID AIC connector from the riser module slot.



- j. Install the riser module PCI blank.



- k. Press the riser module latch to secure the PCI blank.



Using HighPoint NVMe RAID AICs with the HPE ProLiant DL380 Gen10 server

- l. Install the riser module into the system connector.
- m. Rotate the riser module lock 180 degrees clockwise.



- n. Press down on the riser module lock.



- o. Align the panel with the system board and then push down on the system panel latch.



5.2 Uninstalling the HighPoint Software

5.2.1 Uninstall the HighPoint NVMe RAID AIC for Windows

5.2.1.1 Uninstall the driver

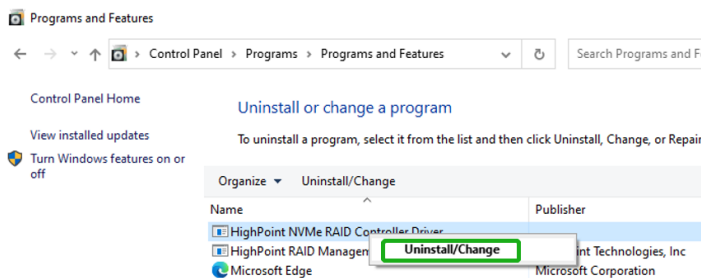
- a. Power down the system and remove the HighPoint NVMe RAID AIC from the system.

Notes:

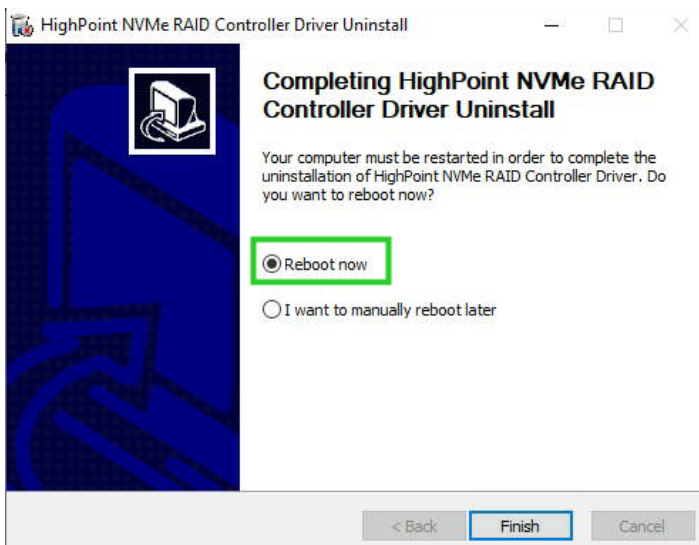
Failing to remove the HighPoint NVMe RAID AIC from the system during the uninstall process may result in data loss.

Whenever the driver is uninstalled, Windows will attempt to install the default NVMe support, which may corrupt the RAID configurations and any data stored on SSDs hosted by the HighPoint NVMe RAID AIC.

- b. Power on the system and boot Windows.
- c. Access **Control Panel** and select **Programs**→ **Programs and Features**, and click on the **HighPoint NVMe RAID Controller Driver** entry.
- d. Click **Uninstall/Change**.



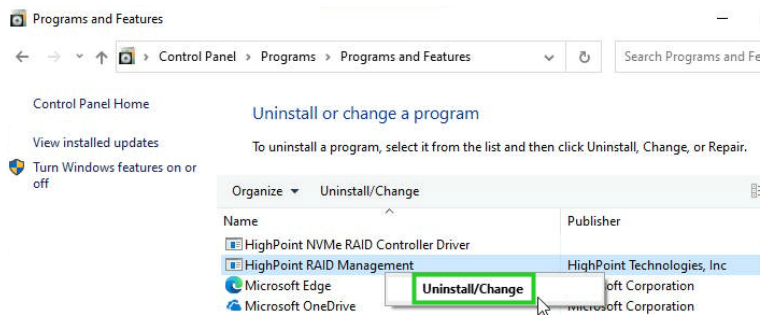
- e. After uninstalling the driver, click Finish.



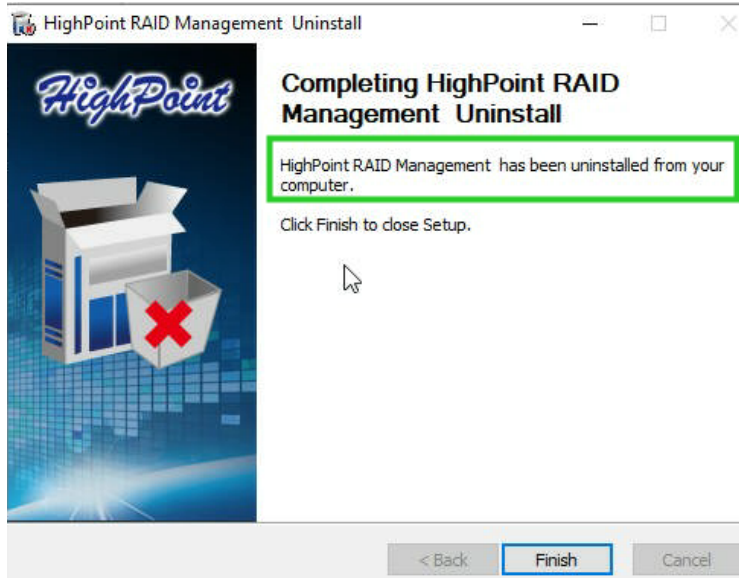
- f. Reboot Windows to complete the uninstall procedure.

5.2.1.2 Uninstall the RAID Management Software

- a. Access **Control Panel** and select **Programs**→ **Programs and Features**.
- b. Click on the **HighPoint RAID Management** entry.
- c. Click **Uninstall/Change**.



- d. After uninstalling the HighPoint RAID Management, click **Finish**.



5.2.2 Uninstall the HighPoint NVMe RAID AIC for Linux

5.2.2.1 Uninstall Driver

- Open the system terminal with root privileges.
- Enter the following commands to uninstall the driver: **hptuninhptnvme**.
- Press **'Y'** to confirm.

```
[root@localhost Downloads]# hptuninhptnvme
Are you sure to uninstall the driver hptnvme from system? (Y/n): y
Removed symlink /etc/systemd/system/default.target.wants/hptdrv-monitor.service.
Removed symlink /etc/systemd/system/sysinit.target.wants/systemd-hptdrv.service.
All files installed have been deleted from the system.
[root@localhost Downloads]#
```

- After uninstalling the driver, manually reboot the system.
- After the system has rebooted, open the system terminal with root privileges. And enter the following command to check the driver status:
lsmod |grep hptnvme

Before uninstalling:

```
[root@localhost test]# lsmod | grep hptnvme
hptnvme                235401  0
```

After uninstalling:

```
[root@localhost test]# lsmod | grep hptnvme
[root@localhost test]#
```

- If the system does not display information about “hptnvme”, the driver has been successfully uninstalled.

5.2.2.2 Uninstall the RAID Management Software

- Open the system terminal with root privileges.
- Enter the following commands to uninstall the RAID Management.

dpkg -r hptsvr (or rpm -e hptsvr-https)

```
root@testlu-Super-Server:/home/testlu/Desktop# dpkg -r hptsvr
(Reading database ... 183888 files and directories currently installed.)
Removing hptsvr (3.1.12) ...
```

- Enter the following command to check if the RAID Management has been removed successfully.

#hptraidconf

After uninstall:

```
root@testlu-Super-Server:/home/testlu/Desktop# hptraidconf
bash: /usr/bin/hptraidconf: No such file or directory
```