

Turbo-charge performance with HPE Persistent Memory

HPE 8GB NVDIMM Module



Ideal workloads:

- Big Data applications
- Data warehousing
- Analytics
- Emerging workloads
- Customer relationship management applications

Ideal environments and industries

HPE Persistent Memory is designed for the New Style of Business, helping you explore opportunities created by Big Data. For example, Persistent Memory technology can help speed the performance of:

- **Big Data software frameworks** like Hadoop and the applications running on it, including **analytics workloads** such as SPARK, so you can analyze data and put the results to work for your business more quickly
- **Search applications**, so result times satisfy users who expect instant answers
- **Cloud**, so cloud providers can provide a fast performance tier for the most demanding service-level agreements

At the same time, verticals such as the oil and gas industry can use this technology to provide faster results when parsing geophysical data. Medical science can use persistent memory in their human genome mapping workloads. And financial companies can produce faster results when analyzing large amounts of financial data.

Increase the performance of database and analytics applications

To gain a real competitive advantage, you need to enable faster business decisions. The HPE Persistent Memory portfolio delivers outstanding performance to put data to work more quickly in your business. HPE Persistent Memory offerings are not just new hardware technology, but a complete software ecosystem designed to work with today's applications and workloads, including databases and analytics workloads.

The HPE 8GB NVDIMM Module is the first offering in the HPE Persistent Memory product category. It delivers the performance of memory with the resiliency you have come to expect from HPE storage technology. Customers can have confidence that business-critical data is safe because HPE utilizes higher endurance DRAM and components that help verify data is moved to non-volatile technology in the event of a power loss.

Technical specifications: HPE 8GB NVDIMM Memory Module

Server support

Supported only on HPE ProLiant DL360 Gen9 and HPE ProLiant DL380 Gen9 Servers featuring Intel® Xeon® E5-2600 v4 processors

NVDIMM type	NVDIMM-N
NVDIMM rank	Single rank
NVDIMM capacity	8 GB
Native speed (MT/s)	2133
Non-volatile media	NAND flash
Backup power source	HPE Smart Storage Battery ¹
Max number of NVDIMMs	16 ²
Max NVDIMM capacity (single server)	128 GB
Compatible DIMM types	RDIMMs only ³
Dimensions (W x D x H)	5.25 in x .25 in x 1.23 in (2.54 cm x 64 cm x 3.12 cm)
Weight	.5 lbs (.24 kg)

Population rules for server memory and the HPE 8GB NVDIMM are outlined in the [HPE Server Memory Configurator](#) and in the tech specs section of the QuickSpecs available at hpe.com/servers/persistentmemory

¹ The HPE Smart Storage Battery provides the battery backup source for NVDIMMs. NVDIMMs can only be installed in servers supporting the HPE Smart Storage Battery.

² One processor may have more than eight NVDIMMs, but the total number of NVDIMMs between the two processors may not exceed 16. Balanced memory configuration between the two processors and between memory channels is still recommended to maximize performance.

³ When installing NVDIMMs in the system, there must be a minimum of one (1) RDIMM installed in any DIMM slot in the first CPU socket. When installing NVDIMMs on the same memory channel as RDIMMs, populate the RDIMMs first/farthest from the processor, then populate the NVDIMMs last/closer to the processor.

Supported platforms

HPE 8GB NVDIMM Module provides turbo-charged performance and resilient technology for HPE ProLiant DL360 and DL380 Gen9 Servers, delivering up to a 4X increase in transaction performance to enable faster business decisions.

- 2X+ faster database logging performance for Microsoft® SQL Server⁴
- Up to 4X+ faster SQL Cluster replications when moving the log from NAND flash to HPE NVDIMMs⁴
- 2X+ faster transaction rates in Linux® applications when using HPE NVDIMMs⁴

HPE Services

HPE delivers confidence, reduces risk, and helps you realize greater agility and stability.

- HPE consulting services provide advice and guidance on moving to newer technologies
- HPE implementation and installation services enable faster, more reliable startup of your servers, and our support portfolio allows you to get connected and back to business fast
- HPE Proactive Care prevents issues and resolves problems quickly and efficiently
- HPE Foundation Care provides a choice of coverage levels and response times for hardware and software support
- Our support technology lets you tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time

Learn more at
hpe.com/servers/persistentmemory

⁴ Internal HPE lab testing on a DL380 Gen9 Server with E5 2600 v4 processor and 8 GB HPE NVDIMM, Dec 2015



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