

# Get more VMware vSAN database performance with Intel Optane SSDs and HPE ProLiant DL380 servers

HPE ProLiant DL380 Gen10 servers with Intel Optane NVMe SSDs processed 35% more IOPS and provided 34% faster throughput on a write-heavy workload versus a solution with only NAND flash NVMe SSDs

If your business operations depend on write-intensive workloads, a solution with high throughput and IOPS could make a difference to your bottom line.

PT set up a VMware vSAN™ cluster on HPE ProLiant DL380 Gen10 servers with NAND flash NVMe™ drives and ran a write-intensive workload. When we replaced the NAND flash NVMe SSDs in the caching layer with Intel® Optane™ NVMe SSDs, the Intel-HPE solution delivered more throughput and IOPS than the NAND flash NVMe-only configuration.



Process more storage I/O

**35% more IOPS**

256,543 IOPS

189,765 IOPS

**IOPS**  
higher is better



Improve storage throughput

**34% more throughput**

2,728 MB/s

2,025 MB/s

**Throughput**  
higher is better

■ Configuration with Intel Optane NVMe SSDs

■ Configuration with only NAND flash NVMe SSDs

## About the Intel Optane DC P4800X

According to Intel, "The Intel Optane SSD DC P4800X is the first product to combine the attributes of memory and storage," using 3D XPoint technology.<sup>1</sup> Learn more at <https://www.intel.com/content/www/us/en/architecture-and-technology/optanetechnology/optane-for-data-centers.html>.

Learn more at <http://facts.pt/qtaj3ob>

<sup>1</sup> Intel, "Breakthrough Performance Expands Datasets, Eliminates Bottlenecks," accessed February 26, 2019, <https://www.intel.com/content/dam/www/public/us/en/documents/product-briefs/optane-ssd-dc-p4800x-p4801x-brief.pdf>.