Get more I/O performance on fewer servers with Intel Optane DC SSDs

Adding Intel Optane DC SSDs to an HPE ProLiant DL380 Gen10 server cluster improved response times by 26% and produced 52% more input/output operations per second while using one fewer server
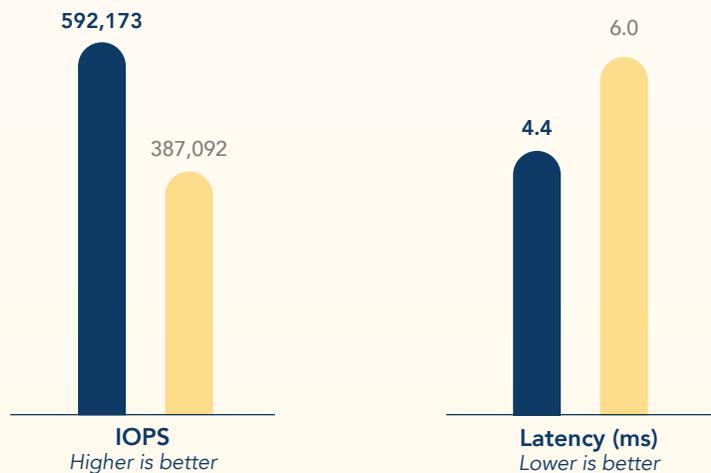
On a workload simulating a multi-VM environment on Microsoft Storage Spaces Direct

Upgrading your business's storage usually achieves one of two outcomes: increased density, or increased storage performance. But what if a storage solution could achieve both? In our testing, adding Intel® Optane™ DC SSDs to HPE ProLiant DL380 Gen10 servers produced more IOPS and lowered response times versus a configuration with only SATA SSDs—all while reducing the number of servers needed to do that work.

Get more storage performance…

52% more IOPS   26% lower latency

IOPS
Higher is better

592,173
387,092

Latency (ms)
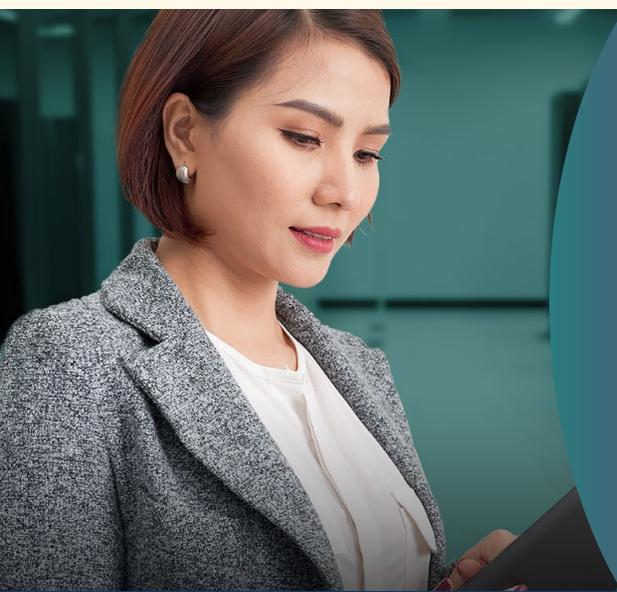*Lower is better*

6.0
4.4

■ Configuration with SATA SSDs + Intel Optane DC SSDs
■ Configuration with SATA SSDs

…with less

while using one fewer HPE ProLiant DL380 Gen10 server

The business benefits of using Intel Optane DC SSDs

The Intel Optane DC SSD is designed to deliver high throughput, low latency, predictably fast service, and high endurance.[1] Faster performance and higher durability could enable your business to:

- Support demanding, storage-intensive environments for longer, potentially resulting in fewer storage hardware replacements
- Serve more customers, enabling your business to expand its customer base
- Satisfy your users with faster performance even during periods of high use, minimizing customer drop-off

Learn more at https://www.intel.com/content/www/us/en/architecture-and-technology/optane-technology/optane-for-data-centers.html.

Learn more at http://facts.pt/kjnrftk

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