WHY CHOOSE INTEL® SSDs FOR PCIe*/NVMe* ?

PCIe* – A high speed hardware interface for connecting peripheral devices. PCIe operates in consumer, server, and industrial applications, as a motherboard-level interconnect, a passive backplace interconnect and as an expansion card interface for add-in boards.

NVMe* – The NVM Express* specification defines an optimized register interface, command set, and feature set for PCI Express (PCIe)-based solid state drives (SSDs). NVM Express was architected to unlock the potential of PCIe SSDs now and in the future, and standardize the PCIe SSD interface.

2X LESS LATENCY VS. SATA[1]

NVMe efficiency brings the benefits of significant latency reduction across applications.

6X PERFORMANCE VS. SATA[1]

NVMe brings faster data transfer speed compared to SAS and SATA SSDs.

2X CPU EFFICIENCY VS. SATA[1]

NVMe optimized software stack helps Intel® Xeon® processors transfer data in fewer clock cycles.

TYPICAL APPLICATION FIELDS

SCALE-OUT STORAGE
Software-defined infrastructure (SDI) and hyperconverged architectures are made affordable with high-performance SSDs.

DATABASE
NVMe shines in traditional relational databases with consistently low latencies and high-bandwidth performance.

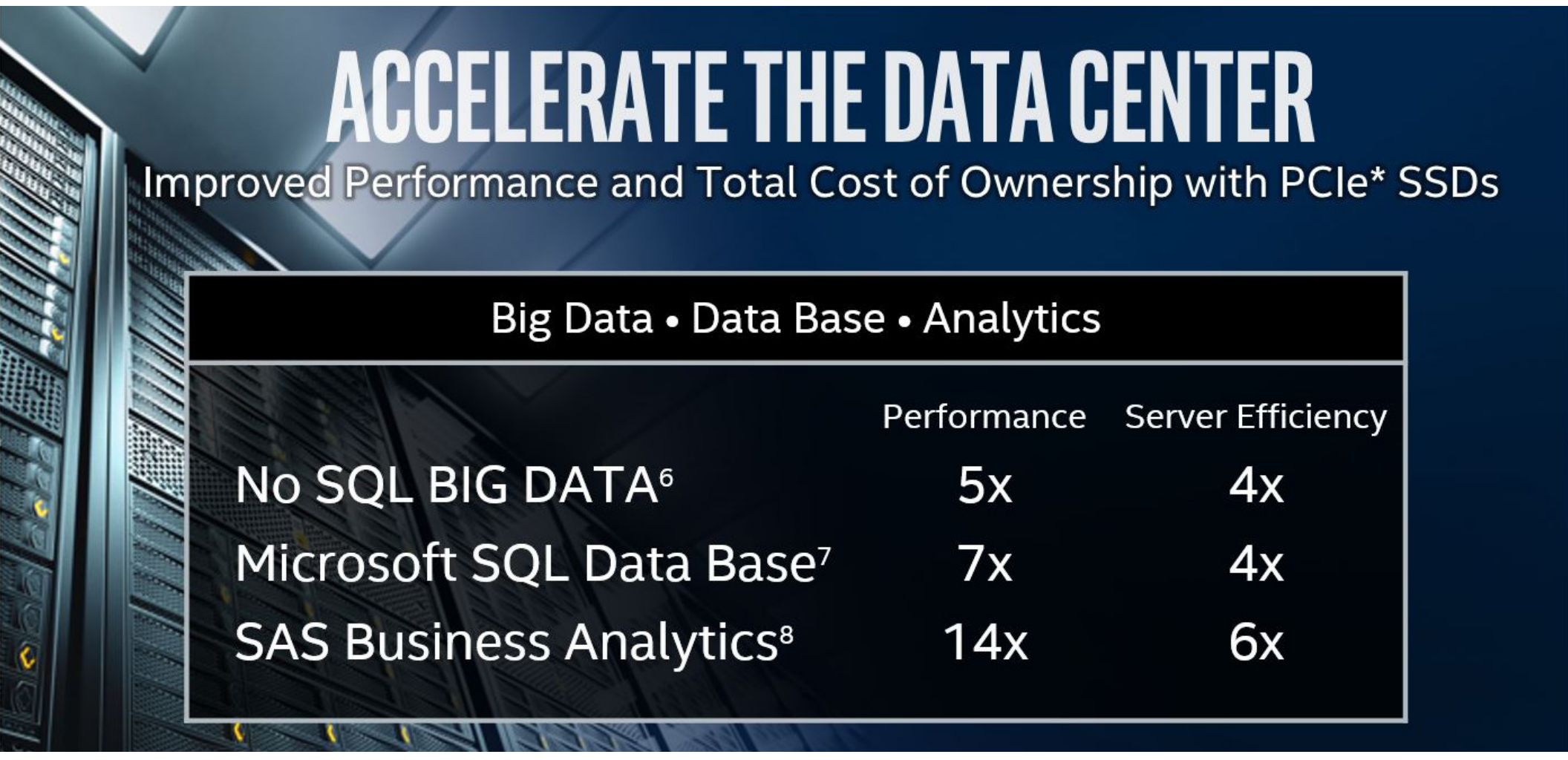
BIG DATA/ANALYTICS
Analytics and NoSQL databases fully utilize NVMe performance to provide near real-time results.

HPC
NVMe keeps up with the high-bandwidth demands of HPC to massively speed up overall workflow times.

Intel® SSD DC P4500 Series

Intel® SSD DC P4600 Series

- MOVE DATA BETWEEN TIERS 4X FASTER [2]
- 2X BETTER SERVER UTILIZATION [3]
- UP TO 3X FASTER DATA ANALYSIS [4]
- MORE THAN 90% FASTER ANSWERS [5]



1. Results measured by Intel based on the following configurations. Tests document performance of components on a particular test, in specific systems. Differences in hardware, software, or configuration will affect actual performance. Configurations: Performance claims obtained from data sheet, sequential read/write at 128k block size for NVMe and SATA, 64k for SAS. Intel SSD DC P3700 Series 2TB, SAS Ultrastar® SSD1600MM, Intel SSD DC S3700 Series
2. Intel. Dell R720 server with 2 each Intel Xeon CPU E5-2690 v2 @ 3.00GHz (10 cores and 20 threads per CPU) and leveraging a Dell PERC H710P on board controller with Fast Path (dual core technology) enabled.
3. http://www.principledtechnologies.com/Lenovo/RD650_storage_performance_0415.pdf
4. Intel. Splunk Enterprise testing at Intel Labs, September 2014. Baseline Configuration and Benchmark Score: : Intel production server with 2 x Intel® Xeon® processor E5-2697 v3 (2.6 GHz), 64GB DDR4 @ 2134 MHz memory, Intel® DC S3700 SSD, Splunk 6.0 (build 182037), Cent OS 6.3. Score: 5.044 queries per second with CPU utilization as low as 10 percent. Test Configuration and Benchmark Score: Intel production server with 2 x Intel® Xeon® processor E5-2697 v3 (2.6 GHz), 64GB DDR4 @ 2134 MHz memory, Intel® DC P3700 SSD, Splunk 6.0 (build 182037), Cent OS 6.3. Score: 15.745 queries per second with CPU utilization as low as 10 percent. https://www-ssl.intel.com/content/dam/www/public/us/en/documents/white-papers/big-data-xeon-processors-splunk-white-paper.pdf
5. Intel. https://communities.intel.com/community/itpeernetwork/healthcare/blog/2014/11/12/sc14-accelerating-life-sciences-at-80-gbits?sr=stream&ru=99237
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Circumstances will vary. Intel does not guarantee any costs or cost reduction. Intel does not control or audit third-party benchmark data or the web sites referenced in this document. You should visit the referenced web site and confirm whether referenced data are accurate.