



# HYBRID CLOUD DRIVES BUSINESS TRANSFORMATION

Investing in the hybrid cloud allows enterprises to drive digital transformation.

HYBRID CLOUD GIVES YOU BENEFITS OF:

PUBLIC CLOUD



PRIVATE CLOUD



- Faster Time to Market
- Better TCO
- Control, Compliance
- Optimized Performance
- Developer Services
- Scalability

## ENTERPRISE USE CASES



"Right workload, right cloud". This is critical to achieving top business results. Hybrid allows you to match the use case to the demand, which in the end betters your TCO.

## PERFORMANCE ACROSS ALL CLOUDS



HIGHER PERFORMANCE  
AND VERSATILITY

UP TO  
**1.65X**

Average generational gains on 25 servers cross 12 industry standard workloads<sup>1</sup>



BETTER  
VIRTUALIZATION

UP TO  
**4.28X**

More VMs per server vs. 4 year old Intel® Xeon® processor E5-2690<sup>2</sup>



CLOUD  
SECURITY

UP TO  
**2.42X**

Faster SSL web proxy performance vs. previous gen. Intel® Xeon® processor E5 v4 family<sup>3</sup>



MODERN PLATFORMS RUN MODERN CLOUDS:

Intel Xeon's Scalable platform provides consistent performance across all clouds - public, private, and hybrid.

## INDUSTRY LEADING HYBRID SOLUTIONS



You can now choose from a full ecosystem of ready-to-deploy hybrid cloud solutions. Intel has partnered with the industry's top software companies such as VMware®, Microsoft®, and Red Hat® to advance the mission of hybrid. With ready-to-adopt offerings for hybrid cloud now available, there is no excuse to wait.



To learn more about hybrid cloud workload placement, check out this [infographic](#) and [white paper](#). To continue to learn more about hybrid cloud, go to [www.intel.com/cloud](http://www.intel.com/cloud).

Also please read our survey in partnership with Forrester "Unlock the Value of Cloud".

<sup>1</sup>"UP TO 1.65X AVERAGE GENERATIONAL GAINS on two-socket servers across 12 industry-standard workloads". Up to 1.65x claim based on STREAM TRIAD<sup>®</sup>; one node, 2 x Intel® Xeon® processor E5-2699 v4 with 256 GB total memory on Red Hat® Enterprise Linux® (RHEL®) 6.5 kernel 2.6.32-431 using Stream NTW<sup>®</sup> and Intel® Advanced Vector Extensions 2 (Intel® AVX2) measurements. Data source: request number: 1,709. Benchmark: STREAM TRIAD<sup>®</sup>. Score: 127.7. Compared to: one node, 2 x Intel® Xeon® Platinum 8180 processor 384 GB total memory on RHEL® 7.2 kernel 3.10.0-327 using STREAM and Intel® AVX-512 binaries. Data source: request number: 2,500. Benchmark: STREAM TRIAD<sup>®</sup>. Score: 199. Higher is better.

<sup>2</sup>"UP TO 4.28X MORE VMS PER SERVER vs a four-year-old Intel Xeon processors E5-2690". Up to 4.28x more VMs based on a server-virtualization consolidation workload. Based on Intel® internal estimates with a one-node setup using 2 x Intel® Xeon® processor E5-2690 with 256 GB total memory on VMware ESXi® 6.0 GA and using Guest OS Red Hat® Enterprise Linux® (RHEL®) 6.4, glassfish 3.1.2.2\*, and postgresql 9.2\*. Data source: request number 1,718. Benchmark: server virtualization consolidation, score: 377.6 @ 21 VMs. Compared to a one-node setup using 2 x Intel® Xeon® Platinum 8180 processor on Wolf Pass SKX with 768 GB total memory on VMware ESXi® 6.0 U3 GA and using Guest OS RHEL® 6 64-bit. Data source: request number 2,563. Benchmark: server virtualization consolidation, score: 1,580 at 90 VMs. Higher is better.

<sup>3</sup>"UP TO 2.42X FASTER SSL WEB-PROXY PERFORMANCE vs. the previous-generation Intel® Xeon® processor E5 v4 family". OpenSSL Speed PKI\*. Configuration details: one node, 2 x Intel® Xeon® Platinum 8180 processor (39M cache, 28 cores, 2.5 GHz) with 5 memory DIMMs (16 GB, 2,400 MT/s, DDR4), 192 GB total memory, Ubuntu 16.04.1\*, OpenSSL-11.1.1u, QATL11.0e-15\*. BIOS: PLYDCRB1.86B.0114.R09.161215229; IMC interleaving: 2 way; CPU power and performance: perf P and C states disabled, NUMA enabled. Compared to: one node, 2 x Intel® Xeon® processor E5-2699 v4 (59M cache, 22 cores, 2.2 GHz) with 4 memory DIMMs (16 GB, 2,400 MT/s, DDR4), 128 GB total memory, Ubuntu 16.04.2\*, OpenSSL11.1u\*, QATL1.0.0-15\*. Version 2.0a, P, C, and turbo states disabled, NUMA enabled, and COO disabled.

Tests document performance of components on a particular test, in specific systems. Differences in hardware, software, or configuration will affect actual performance. Consult other sources of information to evaluate performance as you consider your purchase. For more complete information about performance and benchmark results, visit [intel.com/benchmarks](http://intel.com/benchmarks).

Benchmark results were obtained prior to implementation of recent software patches and firmware updates intended to address exploits referred to as "Spectre" and "Meltdown." Implementation of these updates may make these results inapplicable to your device or system.

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at [intel.com](http://intel.com).

For more complete information about performance and benchmark results, visit [intel.com/benchmarks](http://intel.com/benchmarks).

Intel, the Intel logo, and Xeon are trademarks of Intel Corporation in the U.S. and/or other countries.

\*Other names and brands may be claimed as the property of others.

© 2018 Intel Corporation.