

# IS YOUR BUSINESS FUTURE-READY?

It can be, if your hybrid cloud is powered by Intel® Xeon® Scalable processors.

## BUSINESSES CAN'T COMPETE ON OLD INFRASTRUCTURE



1/3

of businesses in the top 20 of every industry will be disrupted by 2018.<sup>1</sup>

A FOUR-YEAR-OLD INFRASTRUCTURE HAS A:



39%

drop in peak server performance<sup>2</sup>



148%

increase in server administration costs<sup>2</sup>

## HYBRID CLOUDS ARE A MUST-HAVE FOR DIGITAL TRANSFORMATION ...



40%

of enterprise IT organizations have hybrid cloud environments in place already.<sup>3</sup>



60%

of enterprise IT organizations are testing or planning to implement hybrid clouds within two years.<sup>3</sup>



Seamless orchestration of compute, storage, and networking resources

Dynamic reallocation of services and platforms for DevOps

Rapid deployment of new production workloads

## ... AND INTEL® XEON® SCALABLE PROCESSORS POWER HYBRID CLOUDS



Up to



65% LOWER TCO

compared to platforms based on previous-generation Intel® Xeon® processors<sup>4</sup>

Replace



4.2

four- or five-year-old systems with one server<sup>7</sup>



1.65X AVERAGE PERFORMANCE

across key mission-critical workloads, compared to platforms based on previous-generation Intel® Xeon® processors<sup>5</sup>



ENHANCED ENCRYPTION

algorithms enable you to more broadly deploy advanced security features without compromising performance

Up to



5X FASTER ANALYTICS

compared to previous-generation Intel® Xeon® processors<sup>5</sup>



58+

new world-record performance benchmark results on server platforms from Cisco, Dell EMC, Fujitsu, HPE, Huawei, and Lenovo<sup>8</sup>



## POWER YOUR HYBRID CLOUD WITH A FUTURE-READY PLATFORM

Built on Intel® Xeon® Scalable processors

Learn More:



Read the "Future-Ready Cloud" solution brief:

[intel.com/content/www/us/en/cloud-computing/future-ready-cloud-brief.html](https://intel.com/content/www/us/en/cloud-computing/future-ready-cloud-brief.html)



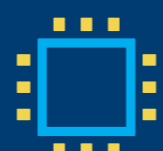
View the "Hybrid or Bust" webcast:

[youtube.com/watch?v=CWFRUykw3aM](https://youtube.com/watch?v=CWFRUykw3aM)



Read what one leading analyst says about unlocking the value of the cloud:

[https://plan.seek.intel.com/us\\_en\\_influencer-ess\\_registration-form-forrester\\_hybridcloud\\_html](https://plan.seek.intel.com/us_en_influencer-ess_registration-form-forrester_hybridcloud_html)



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<sup>1</sup> Clark, Tim. "Think Digital Transformation Doesn't Matter? Your Customers Beg to Differ." SAP Business Trends, May 2016. <https://blogs.sap.com/2016/05/19/think-digital-transformation-doesnt-matter-your-customers-beg-to-differ/>.

<sup>2</sup> IDC. "Why Upgrade Your Server Infrastructure Now?" Sponsored by Dell. July 2016. [emc.com/collateral/analyst-reports/idc-why-upgrade-server-infrastructure.pdf](http://emc.com/collateral/analyst-reports/idc-why-upgrade-server-infrastructure.pdf).

<sup>3</sup> Source: A commissioned study conducted by Forrester Consulting on behalf of Intel in May 2017.

<sup>4</sup> Up to 65% lower four-year total cost of ownership (TCO) estimate example based on equivalent rack performance using a VMware ESXi® virtualized consolidation workload comparing 20 installed 2-socket servers with the Intel® Xeon® processor E5-2690 running VMware ESXi® 6.0 GA and using Guest OS Red Hat® Enterprise Linux® (RHEL®) 6.4 (at a total cost of \$919,362) to five new servers with the Intel® Xeon® Platinum 8180 processor running VMware ESXi® 6.0 U3 GA and using Guest OS RHEL® 6 64-bit (at a total cost of \$320,879, including basic acquisition). Server pricing assumptions are based on current OEM retail published pricing for 2-socket servers with the Intel® Xeon® processor E5-2690 v4 and two CPUs in a 4-socket server using the Intel® Xeon® processor E7-8890 v4—subject to change based on actual pricing of systems offered.

<sup>5</sup> 1.65x Average Performance Gains: Geomean based on normalized generational performance (estimated based on Intel internal testing of online transaction processing [OLTP] brokerage, SAP SD 2-Tier®, HammerDB®, server-side Java®, SPECint\_rate\_base2006, SPECfp\_rate\_base2006, server virtualization, STREAM® triad, LAMMPS®, DPK L3 packet forwarding, Black-Scholes, and the Intel® Distribution for LINPACK® Benchmark. [intel.com/content/www/us/en/benchmarks/server/xeon-scalable/xeon-platinum-world-record.html](https://intel.com/content/www/us/en/benchmarks/server/xeon-scalable/xeon-platinum-world-record.html).

<sup>6</sup> Up to 5x claim based on OLTP warehouse workload: one-node, 4 x Intel® Xeon® processor E7-4870 on Emerald Ridge with 512 GB total memory on Oracle® Linux® 6.4 using Oracle Database 12c® running 800 warehouses. Benchmark: HammerDB®, Score: 2,463,22e+006 (higher is better). Compared to: one-node, 4 x Intel® Xeon® Platinum 8180 processor on Lightning Ridge SKX with 768 GB total memory on Red Hat® Enterprise Linux® (RHEL®) 7.3 using Oracle® 12.2.0.1 (including database and grid) with 800 warehouses. Score: 1,242,3e+007.

<sup>7</sup> 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>8</sup> Intel. "Intel® Xeon® Scalable Processors World Record Benchmarks." [intel.com/content/www/us/en/benchmarks/server/xeon-scalable/xeon-platinum-world-record.html](https://intel.com/content/www/us/en/benchmarks/server/xeon-scalable/xeon-platinum-world-record.html).

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](https://intel.com/benchmarks).

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Intel does not provide 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.

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