



SAS 9.4*

SAS* applications provide an integrated environment for predictive and descriptive modeling, data mining, text analytics, forecasting, optimization, simulation, experimental design, and more.



POTENTIAL CUSTOMER BENEFITS

- Run more complex analyses, putting sophisticated models to work
- Embrace larger data sets, including both structured and unstructured data
- Gain greater insights, to better understand how to drive the business forward



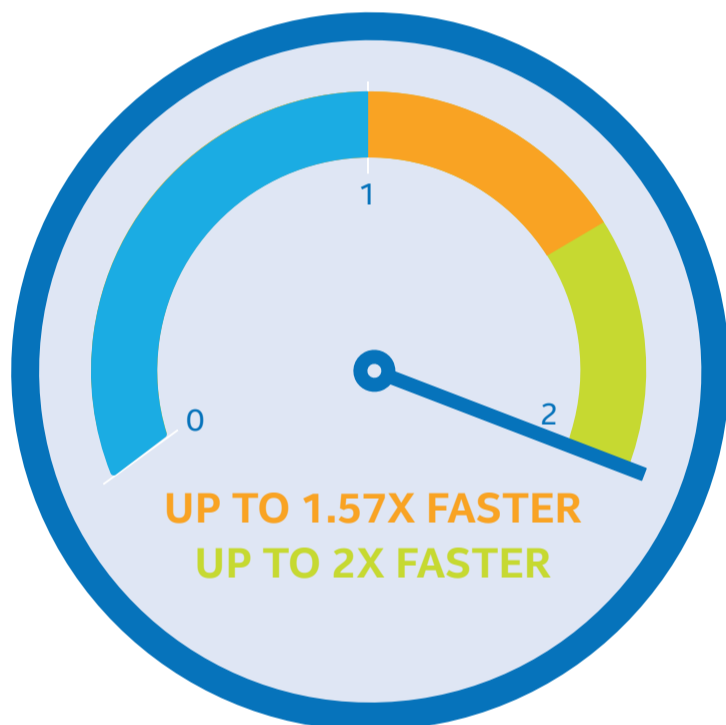
PERFORMANCE CONTRIBUTORS

- Redesigned memory subsystem improves throughput for data-intensive tasks
- Increased core count offers greater parallelism for analytics workloads
- Intel® Optane™ Solid State Drives enhance responsiveness with high throughput and low latency

PERFORMANCE BENEFITS FROM INTEL® XEON® SCALABLE PROCESSORS AND INTEL® OPTANE™ TECHNOLOGY¹

Two-Socket Performance Increase
(Higher is Better)

- Intel® Xeon® Processor E5-2699 v4
- Intel® Xeon® Platinum 8180 Processor
- Intel Xeon Platinum 8180 Processor and Intel® Optane™ Technology



Normalized Performance

“Harnessing the power of Intel innovation, SAS customers are using a modernized analytics platform to quickly turn their data into insights and make confident decisions. The new Intel® Xeon® Scalable processor and Intel® Optane™ technology help make analytics faster, easier, and more powerful in cutting-edge areas such as artificial intelligence, IoT, and machine learning.”

- CRAIG RUBENDALL, VICE PRESIDENT OF
PLATFORM R&D AT SAS



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¹ SAS Business Analytics*: SAS 9.4 m4 application running the 30 session SAS Mixed Analytics workload. OS: CentOS* 7.2 kernel 3.10.0. Testing by Intel and SAS, May 2017.

BASELINE: 2x Intel® Xeon® processor E5-2699 v4 @ 2.2 GHz (22 cores), Intel® Turbo Boost Technology enabled, Intel® Hyper-Threading Technology disabled, BIOS: 275.R01.1603300531, 256 GB total memory (16 slots, 16 GB, 2133 MT/s, DDR4 LRDIMM), 7x Intel® SSD Data Center S3700 Series (800 GB), 1x Intel® SSD Data Center P3700 Series (2 TB), CentOS 7.2 kernel 3.10.0.

NEW: 2x Intel® Xeon® Platinum 8180 processor @ 2.5 GHz (28 cores), Intel Turbo Boost Technology enabled, Intel Hyper-Threading Technology disabled, BIOS: 01.00.0412.020920172159, 384 GB total memory (24 slots, 16 GB, 2666 MT/s, DDR4), 4x Intel SSD Data Center S3700 Series (800 GB), 1x Intel® SSD Data Center P3700 Series (2 TB), CentOS 7.2 kernel 3.10.0.

NEW WITH INTEL® OPTANE™ TECHNOLOGY: 2x Intel® Xeon® Platinum 8180 processor @ 2.5 GHz (28 cores), Intel Turbo Boost Technology enabled, Intel Hyper-Threading Technology disabled, BIOS: 01.00.0412.020920172159, 384 GB total memory (24 slots, 16 GB, 2666 MT/s, DDR4), 4x Intel SSD Data Center S3700 Series (800 GB), 4x Intel® Optane™ SSD Data Center P4800X Series (375 GB), CentOS 7.2 kernel 3.10.0.

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more complete information visit www.intel.com/performance/datacenter. Normalized performance is calculated by assigning a baseline value of 1.0 to one benchmark result, and then dividing the actual benchmark result for the baseline platform into each of the specific benchmark results of each of the other platforms, and assigning them a relative performance number that correlates with the performance improvements reported.

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