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Intel and SAP Embark on Strategic Collaboration to Expand Cloud Capabilities

Intel and SAP set out to improve the performance, TCO, security and efficiency needed to run agile businesses today and in the future.

ORLANDO, Fla.--(BUSINESS WIRE)-- Intel and SAP SE today announced a strategic collaboration to deliver more powerful and sustainable SAP® software landscapes in the cloud. Designed to help customers derive greater scalability, agility and consolidation of existing SAP software landscapes, the collaboration deepens Intel's focus on delivering extremely powerful and secure instances for SAP, powered by 4th Gen Intel® Xeon® Scalable processors.

Using SAP Application Performance Standard benchmarks, Intel's 4th Gen Xeon processors enable significantly higher performance numbers when compared to previous generations of Xeon processors, and these impressive results will be passed along to SAP customers around the globe. Additionally, Intel enables current virtual machine (VM) sizes up to 24TB with a goal to ramp up to VM sizes of 32TB with the RISE with SAP solution.

SAP customers with 4th Gen Xeon processors can enjoy faster processing speeds and improved performance with up to 38% CPU power savings[1], while also benefiting from the scalability and flexibility of the cloud. The combination of these technologies aims to enable customers to deploy the RISE with SAP solution quickly and easily, while also helping to ensure the security and reliability that they need to run their businesses.

"Many of the world's largest SAP S/4 HANA® systems run on Intel architecture," said Christoph Schell, chief commercial officer at Intel. "The new cloud computing experience powered by 4th Gen Xeon will not only help SAP customers meet growing compliance and security requirements, it will also enable them to apply advanced technologies for faster, more secure, integrated business processes."

Intel's 4th Gen Xeon processors have the most built-in accelerators of any CPU on the market. They improve performance and lower customer total cost of ownership (TCO)[2] allows customers to optimize their enterprise resource planning for RISE with SAP. Significant improvements to system performance can result in fewer systems needed to meet customer requirements.

"By working with Intel and our joint infrastructure-as-a-service partners, we are able to bring the best of our respective technologies together to create a truly innovative and powerful cloud computing solution for our customers," said Scott Russell, executive board member, Customer Success, SAP. "This effort is a testament to our commitment to delivering value to

our customers through RISE with SAP, and we look forward to working closely with Intel to continue innovating in the cloud."

Beyond the collaboration for larger instance types in the cloud, Intel and SAP will explore use cases to leverage confidential computing for SAP HANA® Cloud, SAP's database-as-a-service offering, to serve future requirements around enhanced data security and encryption starting with Microsoft Azure confidential computing.

To learn more about the SAP and Intel collaboration, register for the SAP Sapphire® virtual event on May 16-17, 2023, and tune in to the keynote.

About Intel

Intel (Nasdaq: INTC) is an industry leader, creating world-changing technology that enables global progress and enriches lives. Inspired by Moore's Law, we continuously work to advance the design and manufacturing of semiconductors to help address our customers' greatest challenges. By embedding intelligence in the cloud, network, edge and every kind of computing device, we unleash the potential of data to transform business and society for the better. To learn more about Intel's innovations, go to newsroom.intel.com and intel.com.

[1] Intel Performance Test based on SAP BW4HANA scenario and SAP SD scenario. Results may vary.
At constant Query Rate, 4th Gen Xeon enables up to 38% power savings in the Business Warehouse Scenario
In the SD Scenario, 4th Generation Xeon enables up to 28% power savings, at constant user rate.
4th Gen Xeon - SPR System Config
Platform: Archer City; Processor: 8490H 60C, 1.9GHz, 350W; BIOS: SE5C6200.86B.0022.D64.2105220049; Microcode: 0xD000375; Memory: 2TB (32x64GB DDR5 4800 MT/s – running at 4400MT/s); OS SLE 15 SP4; Linux Kernel: 5.14.21-150400.22-default
Score 7893 Queries/Hour
2nd Gen Xeon - CLX System Config
Platform: Wolf Pass; Processor: 8280L 28C, 2.7GHz, 205W; BIOS: SE5C620.86B.02.01.0013.121520200651; Microcode: 0x5003006; Memory: 1.5TB (24x64GB DDR4 2667 MT/s); OS SLE 15 SP2; Linux Kernel: 5.3.18-22-default
Score 3376 Queries/Hour

[2] ResNet50 Image Classification
New Configuration: 1-node, 2x pre-production 4th Gen Intel® Xeon® Scalable 8490H processor (60 core) with Intel® Advanced Matrix Extensions (Intel AMX), on pre-production SuperMicro SYS-221H-TNR with 1024GB DDR5 memory (16x64 GB), microcode 0x2b0000c0, HT On, Turbo On, SNC Off, CentOS Stream 8, 5.19.16-301.fc37.x86_64, 1x3.84TB P5510 NVMe, 10GbE x540-AT2, Intel TF 2.10, AI Model=Resnet 50 v1_5, best scores achieved: BS1 AMX 1 core/instance (max. 15ms SLA), using physical cores, tested by Intel November 2022. Baseline: 1-node, 2x production 3rd Gen Intel Xeon Scalable 8380 Processor (40 cores) on SuperMicro SYS-220U-TNR , DDR4 memory total 1024GB (16x64 GB), microcode 0xd000375, HT On, Turbo On, SNC Off, CentOS Stream 8, 5.19.16-301.fc37.x86_64, 1x3.84TB P5510 NVMe, 10GbE x540-AT2, Intel TF 2.10, AI

Model=Resnet 50 v1_5, best scores achieved: BS1 INT8 2 cores/instance (max. 15ms SLA), using physical cores, tested by Intel November 2022.
For a 50 server fleet of 3rd Gen Xeon 8380 (RN50 w/DLBoost), estimated as of November 2022:
CapEx costs: $1.64M
OpEx costs (4 year, includes power and cooling utility costs, infrastructure and hardware maintenance costs): $739.9K
Energy use in kWh (4 year, per server): 44627, PUE 1.6
Other assumptions: utility cost $0.1/kWh, kWh to kg CO2 factor 0.42394
For a 17 server fleet of 4th Gen Xeon 8490H (RN50 w/AMX), estimated as of November 2022:
CapEx costs: $799.4K
OpEx costs (4 year, includes power and cooling utility costs, infrastructure and hardware maintenance costs): $275.3K
Energy use in kWh (4 year, per server): 58581, PUE 1.6
AI -- 55% lower TCO by deploying fewer 4th Gen Intel® Xeon® processor-based servers to meet the same performance requirement. See [E7] at intel.com/processorclaims: 4th Gen Intel Xeon Scalable processors. Results may vary.
Database -- 52% lower TCO by deploying fewer 4th Gen Intel® Xeon® processor-based servers to meet the same performance requirement. See [E8] at intel.com/processorclaims: 4th Gen Intel Xeon Scalable processors. Results may vary.
HPC -- 66% lower TCO by deploying fewer Intel® Xeon® CPU Max processor-based servers to meet the same performance requirement. See [E9] at intel.com/processorclaims: 4th Gen Intel Xeon Scalable processors. Results may vary.

Notices & Disclaimers

Performance varies by use, configuration and other factors. Learn more on the Performance Index site.
Performance results are based on testing as of dates shown in configurations and may not reflect all publicly available updates. See backup for configuration details. No product or component can be absolutely secure.

Your costs and results may vary.

Intel technologies may require enabled hardware, software or service activation.

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