

Atos' BullSequana supercomputer powered by AMD processor sets world-record performance

Unprecedented performance with increased efficiency

Paris, France, September 18 2019 – Atos, a global leader in digital transformation, today announces that its [BullSequana XH2000 supercomputer](#) powered by an AMD EPYC™ 7H12 Series Processor has set four new world-records in server performance.

Thanks to the [BullSequana's Enhanced Direct Liquid Cooling system](#) and the powerful AMD EPYC 7H12 processor, the Atos measurements currently top the best published results for two-socket nodes on four SPECrate® benchmarks.* Additionally it has set a new record for the HPL Linpack Benchmark on an AMD EPYC CPU, with an 11% increase in performance.** These measure how hardware systems perform under compute-intensive workloads based on real-world applications. The BullSequana surpasses previous records*** (records using both AMD and non-AMD processors) for all 5 benchmarks.

The BullSequana XH2000's enhanced DLC (Direct Liquid Cooling) was essential in enabling the AMD's 280W EPYC™ 7H12 processor to reach its maximum level of performance. The results showed an unprecedented performance for BullSequana's lowest power consumption. Power efficiency is a key priority for large data centers when it comes to selecting a supercomputer, as it translates into an optimal TCO (Total Cost of Ownership) enabling millions to be saved over the project lifespan.

*"We're extremely proud that our BullSequana has achieved these world-record results. Our unique Enhanced Direct Liquid Cooling system provided the most efficient environment for achieving such performance of the AMD EPYC processor," said **Agnès Boudot, Senior Vice President, Head of HPC & Quantum at Atos.** "Our BullSequana equipped with the latest AMD chip, provides our customers with the highest available performance for HPC and AI workloads, with an optimized TCO, to support them in going beyond the limits of traditional simulation."*

Several clients worldwide have already selected the BullSequana supercomputer powered with an AMD EPYC processors for an enhanced computing capacity to supercharge their workloads. This includes French national high-performance computing organization [GENCI](#),

the [IT Center for Science \(CSC\)](#) in Finland, national Norwegian e-infrastructure provider [Uninett Sigma2](#), a major European weather forecast center and an American multi-national consumer goods giant.

*"Taking on the processing challenges of the world's highest performing systems meant creating a solution up to the task, which AMD achieved with the 2nd Generation AMD EPYC processor," said **Scott Aylor, corporate vice president and general manager, AMD datacenter solutions**. "When paired with Atos' BullSequana and their own impressive capabilities and customer relationships, we can deliver a whole new range of possibilities to address the processing needs of the modern datacenter."*

* Standard Performance Evaluation Corporation (SPEC) CPU 2017 benchmark is designed to provide performance measurements that can be used to compare compute-intensive workloads on different computer systems, including SPECspeed 2017 Integer, SPECspeed 2017 Floating Point, SPECrate 2017 Integer and SPECrate 2017 Floating Point.

Atos results – currently under review by the SPEC Committee:

SPECrate@2017_Int_base 692

SPECrate2017@_fp_base 528

SPECrate@2017_fr_peak 586

SPECrate@_int_peak 754

** HPL Linpack Benchmark - 4,296 gigaflops on the AMD EPYC 7H12 as compared to the EPYC 7742 HPL numbers based on AMD reference system testing.

*** Previous records

Results for non-AMD-based processor (previous world-record, achieved July 2019):

SPECrate2017_Int_base 643

SPECrate2017_fp 522

Results from AMD-based processor (previous world-record, achieved August 2019):

SPECrate2017_Int_base 682

SPECrate2017_fp 524

SPECrate fr peak 577

SPECrateint peak 749

About Atos

Atos is a global leader in digital transformation with over 110,000 employees in 73 countries and annual revenue of over € 11 billion. European number one in Cloud, Cybersecurity and High-Performance Computing, the Group provides end-to-end Orchestrated Hybrid Cloud, Big Data, Business Applications and Digital Workplace solutions. The group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos Syntel, and Unify. Atos is a SE (Societas Europaea), listed on the CAC40 Paris stock index.

The purpose of Atos is to help design the future of the information technology space. Its expertise and services support the development of knowledge, education as well as multicultural and pluralistic approaches to research that contribute to scientific and technological excellence. Across the world, the group enables its customers, employees and collaborators, and members of societies at large to live, work and develop sustainably and confidently in the information technology space.

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