Atos Launches First Supercomputer Equipped with NVIDIA A100 GPU

New Atos accelerator blade enables JUWELS BullSequana system to become the most powerful supercomputer in Europe

Paris, France, May 14 2020 — Atos, a global leader in digital transformation, today announces its new BullSequana X2415, the first supercomputer in Europe to integrate NVIDIA's Ampere next-generation graphics processing unit architecture, the NVIDIA® A100 Tensor Core GPU. This new supercomputer blade will deliver unprecedented computing power to boost application performance for HPC and AI workloads, tackling the challenges of the exascale era. The BullSequana X2415 blade will increase computing power by more than 2* and optimize energy consumption thanks to Atos' 100% highly efficient water-cooled patented DLC (Direct Liquid Cooling) solution, which uses warm water to cool the machine.

Forschungszentrum Jülich will integrate this new blade into its booster module, extending its existing JUWELS BullSequana supercomputer, making it the first system worldwide the use this new technology. The JUWELS Booster will provide researchers across Europe with significantly increased computational resources. Some of the projects it will fuel are the European Commission's Human Brain Project and the Jülich Laboratories of "Climate Science" and "Molecular Systems". Once fully deployed this summer the upgraded supercomputing system, operated under ParTec's software ParaStation Modulo, is expected to provide a computational peak performance of more than 70 Petaflops/s making it the most **powerful supercomputer in Europe** and a showcase for European exascale architecture.

> *"By integrating the best technologies available, including this latest blade from Atos which includes NVIDIA's powerful A100 GPU into our supercomputer, we are able to boost our supercomputing power. This is an important milestone on our path to reach our ultimate objective of providing exascale capabilities to science and industry"* said **Prof. Thomas Lippert, Director of the Jülich Supercomputing Centre (JSC).**

"We're proud to be one of the first supercomputer manufacturers worldwide to include NVIDIA's A100 GPU and to be able to offer researchers worldwide the highest application performance for their HPC and AI workloads" **said Agnès Boudot, Senior Vice President, Head of HPC & Quantum at Atos.** *"We're really excited to be working with Jülich to boost its computing power and to enable its JUWELS system to become the most powerful supercomputer in Europe."*

"Atos is one of the top players world-wide in the high end of the server market. It is the leading European-based vendor of HPC systems, largely due to the performance and power of its BullSequana systems, its strong technological expertise and innovation and its ability to effectively manage large-scale projects globally. It has doubled its presence in the TOP500 ranking over the last 5 years and its server market share worldwide continues to grow. We see Atos as one of the key supercomputing manufacturers that will likely benefit over the next few years as demand for exascale systems becomes more significant." said **Steve Conway, Senior Advisor at Hyperion Research.**

The new blade features an NVIDIA HGX-A100 base-board equipped with four NVIDIA A100 GPUs connected via third-generation NVIDIA NVLink™ technology, alongside two AMD EPYC CPUs and up to four NVIDIA Mellanox InfiniBand ports connected via a Dragonfly+ configuration. The NVIDIA Ampere architecture is a groundbreaking engineering achievement that delivers a massive performance improvement over the previous generation for AI training and inference. The [NVIDIA A100 Tensor Core GPU](#) features the world's largest 7-nanometer processor, with more than 54 billion transistors. This team of technologies, along with the NVIDIA market-leading ecosystem of over 700 GPU-accelerated HPC applications and support from NGC, will allow researchers to hit the ground running with containerized software optimized for the development and deployment of GPU-accelerated HPC and AI projects.

The BullSequana X2415 will be available in Q2 of 2020.

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* compared to Atos' existing GPU blade

X2415 specifications

1U form factor blade with 1 acceleration node.
Direct Liquid Cooling.
Per node:
1 x CPU Board with
- 2 x AMD EPYC/Milan CPUs
- 16 x DDR4 32GB @3200MTs minimum

1 x GPU board "HGX-A100" with 4 x NVIDIA A100 GPUs
2 x Interconnect Mezzanine boards (BXI or HDR200)
Optional 1 x M.2 SATA SSD up to 1.92TB or 1 x M.2 NVMe SSD 960GB

About Atos

Atos is a global leader in digital transformation with 110,000 employees in 73 countries and annual revenue of € 12 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 space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

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