TOP500: GENCI and Atos announce first supercomputer installed worldwide with next-generation AMD EPYC processors

Supercomputer installed at CEA TGCC (Very Large Computing Centre)

SC'19, Denver; Paris, France, November 18, 2019 – GENCI (the French national high-performance computing organization) and Atos, a global leader in digital transformation, today announce that the latest extension of its Joliot-Curie supercomputer, installed by Atos and administered by the CEA teams at its TGCC (Very Large Computing Centre), and based on Atos' record-breaking BullSequana XH2000 solution, is now live. It is the first operational supercomputer worldwide to include the AMD next-generation EPYC™ 7H12 Series Processors.

Today this extension of the Joliot-Curie supercomputer enters into the TOP100 global ranking in 59th position, with a sustained revised performance, thus far, of more than 5 PFlops, making it the first AMD EPYC™ 64-core 280W equipped supercomputer in the global ranking. The BullSequana XH2000's DLC (Direct Liquid Cooling) system and its energy-efficient architecture were essential in ensuring that the supercomputer could reach a [maximum level of performance](#) to guarantee a committed Total Cost of Ownership (TCO) on relevant applications. This result was achieved with the technical expertise of the CEA's Directorate of Military Applications HPC teams and Atos HPC teams.

This extension is part of the European project PPI4HPC, which aims to acquire innovative computing and storage solutions, through a joint procurement coordinated by GENCI, for leading HPC centres CEA/GENCI, CINECA (Italy), JUELICH (Germany) and BSC (Spain).

> *"The first simulation results which were run on this new supercomputer demonstrate the relevance and performance of the solution delivered by Atos,"* **said Stéphane Requena, CTO of GENCI.** *"This solution will ensure a fast and efficient porting of scientific applications on upcoming denser architectures, while guaranteeing an optimal sustained Watt per GFlops ratio."*

"We're really delighted to work with GENCI on this extension of the Joliot-Curie supercomputer, the first supercomputer installed and soon-to-be operational in the TOP500 with the AMD next-generation EPYC™ 7H12 Series Processors." said **Agnès Boudot, Senior Vice President, Head of HPC & Quantum at Atos**.

"AMD 2nd Gen EPYC processors are changing the rules of high-performance computing, delivering record-breaking performance and enabling more powerful supercomputing systems than ever before," said **Forrest Norrod, senior vice president and general manager of the Datacenter and Embedded Systems Group, AMD**. "*We are thrilled to see our latest EPYC 7H12 processor land on the Top500 list. Congratulations to Atos and GENCI on this major milestone, and we look forward to continued collaboration and innovation as we enter the exascale era."*

The supercomputer extension will soon be fully operational at the CEA's TGCC (Very Large Computing Centre) in Bruyères-le-Châtel and open to science and industry researchers via call-for-proposals led by GENCI and PRACE (the European HPC research infrastructure). The Joliot-Curie will exceed a total cumulated theoretical peak performance of 22 PFlops.

Atos will be at SC'19 from 18-21 November 2019 in Denver and will exhibit the full range of its High Performance Computing offer on booth #1125.

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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About GENCI
GENCI, National Equipment Intensive Computing, is a civil society owned 49% by the State, represented by the Ministry of Higher Education of Research and Innovation (MESRI), 20% by the CEA, 20 % by the CNRS, 10% by the Universities and 1% by Inria. Born from the political desire to place France at the best European and international level in the field of intensive computing, with the weight of the association of main actors of the academic research and the support of the public

authorities, GENCI pursues three great missions since its creation in 2007: to finance and coordinate the implementation of a strategic plan of equipment of national centers of computation intensive for the civil research; to be a major player in the organization and the realization of a European space for intensive computing for research (as such, GENCI represents France within PRACE); to promote simulation and intensive computing in basic and industrial research. For more information: http://www.genci.fr/en

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About the CEA/TGCC
The CEA is fully involved in the national and European strategy for high-performance computing (HPC) and massive data (Big Data). The CEA's Very Large Computing Centre (TGCC) is part of this framework. The supercomputers operated by the CEA's Military Application Division (CEA/DAM), such as the Joliot-Curie machine, are made available for research purposes, but also for industry with the Cobalt supercomputer. They are the result of R&D conducted by CEA/DAM with Atos to meet the needs of Defense, Industry and Research. The very high level of requirements required makes it possible to offer supercomputers at the highest level in the world.