

## Atos to deliver most powerful supercomputer in Norway to national e-infrastructure provider Uninett Sigma2

**Paris, France, June 6, 2019 –Atos, a global leader in digital transformation, has signed a 4-year contract to deliver its latest supercomputer, the BullSequana XH2000, to Uninett Sigma2, the national e-infrastructure provider in Norway. The supercomputer will be Norway’s most powerful supercomputer and provide Norwegian researchers with an enhanced computing capacity to enable new innovation breakthroughs.**

Modern research requires significant computing power and generates large amounts of data. Therefore, businesses need to optimize the efficiency of their application workflows as well as energy consumption, whilst minimizing TCO (Total Cost of Ownership). With the BullSequana XH2000 system, which is equipped with next-generation AMD EPYC™ processors, Atos is providing a supercomputer which will give Norwegian researchers more than 5 times more capacity than previously, with a theoretical peak performance of 5.9 PetaFlops. Together this will enable scientists a powerful new tool for research initiatives ranging from modeling climate change and discovering new cancer drugs to gaining a better understanding of the origins of the universe.

*"This new solution provides Uninett Sigma2 with a powerful environment for data-intensive computing. It is of the utmost importance for Norwegian researchers to have access to e-infrastructure at a high international level in order to be competitive, and a continuing growing number of research groups will benefit greatly from the computational power of the new system. This system will help us catch up some of the current lack of resources, but significant increase in funding is necessary to remedy the lack of resources. said **Gunnar Bøe, Managing Director of Uninett Sigma2.***

*"Our new BullSequana XH2000 includes the latest processor and accelerator architectures to provide more computing power to support users go beyond the limits of traditional simulation. As the leading European supercomputer manufacturer, we are proud to be contributing to the competitiveness of Norway and the Norwegian*

*research and academic community.”* said **Pierre Barnabé, Senior Executive Vice-President, Head of Big Data & CyberSecurity Division at Atos.**

## **Environmentally friendly**

One significant and important aspect of this supercomputer installation is energy recovery. Firstly, it is 100% water-cooled using Atos’ patented DLC (Direct Liquid Cooling) solution, which minimizes global energy consumption by using warm water. Secondly, all the electricity used for this new system will come from hydro-electric power plants. Additionally, the new machine will be able to recover most of the energy used for calculation and cooling, using hot water to heat the buildings at the university campus at NTNU (Norwegian University of Science & Technology).

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### **Technical specifications:**

- The system comprises of 1344 compute nodes each equipped with 2 x 64core, next-generation AMD EPYC™ processors, code name ‘Rome’, for a total of 172032 cores installed on a total footprint of only 14.78m<sup>2</sup>. The total compute power will be close to 6Pflops.
- The system will consume 952kW of power and 95% of the heat will be captured to water.
- The computes nodes will be interconnected with the new generation of Mellanox HDR technology.
- The data management solution will rely on a DDN storage with a Lustre parallel file system of more than 2.5PB.

### **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.

### **About Uninett Sigma2**

Uninett Sigma2 is responsible for acquiring, operating and developing the national e-infrastructure for computational science in Norway, and offers services in supercomputing and data storage. In close collaboration with the University of Oslo, University of Bergen, UiT The Arctic University of Norway and NTNU, Uninett Sigma2 offers an attractive and sustainable e-infrastructure and e-infrastructure services to research and higher education in Norway. Annual costs of investment and operation of national e-infrastructure are on average 150 million NOK yearly and are financed by the Norwegian Research Council and the four universities. Uninett Sigma2 leads and coordinates the Norwegian participation in international cooperation within the e-infrastructure.

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