

Press release
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More capacity to the PRACE Research Infrastructure: a Cray manufactured XE6 system called "HERMIT" at HLRS in use in autumn 2011

PRACE, the Partnership for Advanced Computing in Europe, adds more capacity to the PRACE Research Infrastructure as the Gauss Centre for Supercomputing (GCS) partner High Performance Computing Center of University Stuttgart (HLRS) will deploy the first installation step of a system called Hermit, a 1 Petaflop/s Cray system in the autumn of 2011. This first installation step is to be followed by a 4-5 Petaflop/s second step in 2013.

The contract with Cray includes the delivery of a Cray XE6 supercomputer and the future delivery of Cray's next-generation supercomputer code-named "Cascade."

The new Cray system at HLRS will serve as a supercomputing resource for researchers, scientists and engineers throughout Europe. HLRS is one of the leading centers in the European PRACE initiative and is currently the only large European high performance computing (HPC) center to work directly with industrial partners in automotive and aerospace engineering. HLRS is also a key partner of the Gauss Centre for Supercomputing (GCS), which is an alliance of the three major supercomputing centers in Germany that collectively provide one of the largest and most powerful supercomputer infrastructures in the world.

"Cray is just the right partner as we enter the era of petaflops computing. Together with Cray's outstanding supercomputing technology, our center will be able to carry through the new initiative for engineering and industrial simulation. This is especially important as we work at the forefront of electric mobility and sustainable energy supply", said prof. **Michael Resch**, director of HLRS

The Cray XE6 supercomputer combines Cray's current Gemini system interconnect with powerful AMD Opteron(TM) processors and is designed to bring production petascale computing to a new and expanded base of HPC users. Fully upgradeable from the Cray XT5 and Cray XT6 line of supercomputers, the Cray XE6 system delivers improved interconnect performance and features additional enhancements such as improved network resiliency, a mature and scalable software environment and the ability to run a broad array of ISV applications with the latest version of the Cray Linux Environment. This collection of industry-leading features provides Cray XE6 users with a supercomputing system that combines true scalable performance with production reliability.

Cray's next-generation Cascade supercomputer will feature a continuing evolution of the Cray Linux Environment, Cray's HPC-optimized programming environment, a next-generation interconnect chipset follow-on to Gemini and support for future Intel(R) Xeon(R) processors. The Cascade supercomputer is in part made possible by Cray's participation in the Defense Advanced Research Projects Agency's (DARPA) High Productivity Computing Systems program.

www.prace-ri.eu

About HLRS

The High Performance Computing Center Stuttgart (HLRS) of the University of Stuttgart supports researchers and industry with leading edge supercomputing technology. Compute Services are supplied to industrial partners like Porsche and Daimler through the public-private partnership of hww GmbH. Collaborative research with the automotive industry goes through the Automotive Simulation Center Stuttgart (ASCS). In European, national, and industrial projects HLRS conducts basic and applied research in HPC focusing on programming methods and applications.

About PRACE

The Partnership for Advanced Computing in Europe (PRACE) is an international nonprofit association with its seat in Brussels. The PRACE Research Infrastructure (RI) provides a persistent world-class High Performance Computing (HPC) service for scientists and researchers from academia and industry. The PRACE leadership systems form the apex of the performance pyramid and are well integrated into the European HPC ecosystem. The preparation and implementation of the PRACE RI receive EC funding under grants RI-211528 and FP7-261557.

