

Press Release

## Plattner Institute invites scientists to engage in top level research laboratory

May 16, 2011

Potsdam. The Hasso Plattner Institute (HPI) has called computer scientists from around the world to compete with proposals for the use of its top level research laboratory. The "HPI Future SOC Lab" which was established in 2010 is operated in cooperation with leading industry partners such as SAP, EMC, Fujitsu, Hewlett-Packard, and VMware. It offers to HPI researchers and the entire academic community latest, massively parallel processing multi-core computers with huge storage capacity, and specially therefore designed software. The total value of these resources is around two million Euros. The submission deadline for proposals is May 31, 2011.

"We offer at the Hasso Plattner Institute an experimental basis which is otherwise hardly affordable in the environment of a University. It allows the research around innovative concepts for future IT systems outside of closed industrial laboratories", said HPI Director Prof. Christoph Meinel. Interested researchers from universities and other research institutions around the world could examine at the HPI Future SOC Lab future highly complex IT systems, new ideas, data structures and algorithms as well as develop and pursue them to the practical testing, states Meinel. The selected researchers are allowed to use allocated resources of the laboratory for a period of time for free.

The facilities of the HPI research laboratories include, for example, newest server systems from Fujitsu and Hewlett-Packard, equipped with four and eight Intel 64 bit CPUs and a total of 32 or 64 processing units and one to two terabytes of main memory. Furthermore, various research interests are supported by high-performance storage systems, server systems and a smaller GPU computing system with NVIDIA Tesla units. Unique in the academic environment is the ability to use already today „SAP Business ByDesign“, a software-as-a-service enterprise solution, the in-memory computing engine of SAP as well as virtualization and cloud products from VMware to investigate in future IT landscapes.

The first research projects at the HPI top level research laboratory for example, have achieved significant advances in the acceleration of business data analysis (in-memory data management). Special procedures for service-

oriented computing and reliable cloud computing are studied and developed, in collaboration with industrial partners, to be used in future systems.

Researchers at the Max Planck Institute in Saarbrücken examine, for example, how increased efficiency can be achieved through highly parallel simulations of wind turbine parks and the optimal arrangement of wind turbines. With a powerful, on graphics cards based system, researchers of the Hasso Plattner Institute investigate how 3D scenes in videos can be calculated in real time, for example to dynamically adjust the content. Other projects deal with the management of virtual machines, the basis of cloud computing, in order to run the systems highly energy efficient by switching off unused parts.

The results achieved after six months of project time, were published by the HPI earlier this year as Technical Report No. 42.: [http://www.hpi.uni-potsdam.de/technische\\_berichte/](http://www.hpi.uni-potsdam.de/technische_berichte/)

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