



Press Release

ParTec Cluster Competence Center GmbH

ParTec was selected by Forschungszentrum Jülich (JSC) to deliver the Cluster Operating and Management Software for a 300 + Teraflops Supercomputer

ParTec is team member to design and build the fastest European Petaflop Cluster-Supercomputer

Austin, Texas, Nov. 18, 2008. In parallel to the release of the next TOP500 list during the Supercomputing Conference (SC08) in Austin, ParTec is proud to announce that it was selected by JSC to deliver the Cluster Management and Operation software **ParaStationV5** to orchestrate in the final stage more than 3000 nodes of **JuRoPa II Supercomputer project**.

The JUROPA project (which stands for "**J**ülich **R**esearch on **P**etaflops **A**rchitectures") was set up by the Forschungszentrum Jülich to investigate emerging cluster technologies and achieve a new class of cost-efficient supercomputers for peta-scale computing. Explored technologies include hardware based on Intel® Xeon® processors and innovative extreme bandwidth low-latency network technologies. Besides ParTec, Bull, Intel, Mellanox and Sun are contributors to the project.

JSC has chosen ParTec because our mission is to provide professional key products for JSC's JUROPA-II Project such as the **ParaStationV5** , to develop jointly the most performant Petaflop class system for compute intensive world-leading research tasks.

ParaStationV5 is a cluster operating system and provides unique features with common techniques fine tuned and optimized for high performance computing solutions to deliver an integrated, easy to use and reliable compute cluster environment. The optimized cluster software stack supports a wide range of server hardware platforms, various communication technologies and interconnects from Gigabit Ethernet to Infiniband components as well as many flavours of MPI implementations.

One of the goals is to overcome the high scalability limitation of today's general purpose clusters. This will lead to the next milestone to build clusters with Petaflop performance. This project establishes the prototype of the next generation of general purpose cluster computer provided to the **Jülich Supercomputer Centre (JSC)** as well as to a worldwide community of users and scientists.

The new system will increase the currently available computing power by a factor of 20. It opens the door to advanced research projects, offering researchers the possibility to work on today's major challenges in scientific research including, for example, energy management, novel materials and climatology.

"Science and industry increasingly rely and profit from simulations on computers of the highest performance class," explained Prof. Thomas Lippert, Director of the Jülich Supercomputing Centre."

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"Our partnership with Jülich, Bull, Mellanox, SUN and Intel, marks a significant step in the development of commodity supercomputer systems," says Hugo Falter, COO of ParTec GmbH
"We expect this alliance to deliver key components for general-purpose petascale cluster systems in Europe."

About ParTec

ParTec Cluster Competence Center GmbH is specialized in development of comprehensive cluster software and support of productive supercomputers. ParaStation, an own developed cluster software stack that creates a parallel environment for Linux clusters in a reliable, stable and highly efficient way is one of the most world class operating and management platforms. ParTec provides vendor-independent consultancy for a sophisticated choice of products and support for professional operation of Linux compute clusters. Our approach ensures rapid deployment cycles and seamless interoperability of software components.

ParTec is member of major European and worldwide research consortia (e.g. PROSPECT, PRACE, D-GRID, Unicore etc.) to contribute to the development of Juropa-II, the next Petaflop architecture of supercomputers. The headquarter of **ParTec** is located in Munich, Germany.

Logos:



ParaStationV5

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