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ClearSpeed Technology to Accelerate South Africa's First National Supercomputer

ClearSpeed Technology's Advance™ Boards to provide performance acceleration for $1.4 million high performance computing system at the Meraka Institute in Cape Town

Bristol, UK. – February 5, 2007 – ClearSpeed Technology (LSE:CSD), the world leader in acceleration technology for high performance computing (HPC), today announced that the company is part of a $1.4 million contract to provide the first national supercomputer to South Africa's Centre for High Performance Computing (CHPC). The supercomputer, funded by the South African Department of Science and Technology and supplied by IBM, was deployed in late January at the CHPC primary node located in Cape Town. The CHPC is a division of the Meraka Institute, a national research centre of the Council for Scientific and Industrial Research (CSIR).

The CHPC's mission is to provide high-end computing infrastructure and expertise for all research activities in South Africa, which include natural sciences, medicine, engineering and social sciences. The new supercomputer will be used to support the key priorities of South Africa's research and development strategy, enhancing both quality of life and economic competitiveness. A key focus will be on addressing such issues as poverty reduction, HIV/AIDS vaccine development and biotechnology. The planned application disciplines include bioinformatics, aerospace, material sciences, geosciences and other large-scale modeling and simulation activities which will be accessible to academics and organizations throughout the scientific community in South Africa.

The IBM system will contain multiple ClearSpeed Advance™ Accelerator boards that are expected to provide a five to 10 times performance boost over the system's standard performance levels. Each of the Advance boards is capable of over 50 GFLOPS of sustained double precision matrix multiplication operations while averaging only 25 watts power dissipation, approximately four times the performance per watt of today's best industry standard processors. The Advance board's performance and low power consumption combined with its HPC specific design characteristics focused on accelerating general purpose processors for compute-intensive math applications were critical factors in the selection of ClearSpeed Technology by the CHPC.

“The Meraka Institute is taking a leadership position in South Africa for advanced technology research,” said Llew Jones, Director of the CHPC, Meraka Institute. “The deployment of the country’s first-ever supercomputer enhanced with ClearSpeed’s acceleration technology enables us to bring unprecedented computing power to the academic and scientific minds of this community so that we may expand our collaboration with peer institutions in South Africa and throughout the world.”

“Academic systems running compute-intensive applications have strict requirements for precision, reliability and accuracy,” said Stephen McKinnon, ClearSpeed chief operating officer. “This is the environment where ClearSpeed’s technology provides unparalleled performance advantages. The deployment at the Meraka Institute further validates ClearSpeed’s position as a world leader for accelerator technology for high performance computing.”

The Meraka Institute Phase 1 system will feature:

- 160 compute nodes in a clustered architecture + five standby nodes
- Eight of the cluster nodes are equipped with ClearSpeed Advance Accelerator boards
- Each cluster node is equipped with two dual-core AMD Opteron 2.6GHz Rev. F processors
- Each cluster node is equipped with 16GB of DDR2 667MHz random access memory
- The cluster's high speed interconnect is Infiniband 4X SDR via HTX
- Shared storage capacity of 50TB

About ClearSpeed

ClearSpeed Technology is a semiconductor company that develops massively parallel coprocessors and accelerator boards delivering unmatched performance per watt for high performance computing applications on industry standard systems. ClearSpeed has offices in San Jose, California and Bristol, UK and has 84 patents granted and pending. For more information, visit www.clearspeed.com.