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ClearSpeed Accelerates New Breed of IBM System Cluster 1350 Hybrid Supercomputers

Acceleration technology delivers exceptional performance while addressing both the economic and ecological issues of energy consumption

Bristol, UK – November 7, 2006 – ClearSpeed Technology (LSE:CSD), the leader in floating point coprocessor acceleration technology for high performance and technical computing (HPTC), today announced that IBM has included ClearSpeed Advance™ accelerator boards in the System Cluster 1350.

Hybrid clusters combine complementary technologies in the optimum configuration to balance performance, quality of results and resource utilization. With the ability to deliver over 30 gigaflops LINPACK per board and scaling to multi-teraflop systems, ClearSpeed Advance acceleration focuses on the most compute- and energy-intensive functions, delivering up to four times the performance per watt of today's best industry standard processors.

“ClearSpeed is collaborating with IBM to take the lead in delivering fully-productized hybrid clusters to market,” said Tom Beese, CEO for ClearSpeed. “At the same time that high performance computing helps us to better understand the true economic and ecological effects of energy consumption on the planet, it can also be contributing to the problem. ClearSpeed accelerated System Cluster 1350 solutions are changing the rules by setting new standards for performance, reduced operational costs and ecological responsibility.”

Delivering IEEE standard compliant accuracy for double precision calculations and increasing LINPACK performance by over a gigaflop-per watt, ClearSpeed Advance accelerators are unmatched in their precision and power efficiency by any alternative technology. Two ClearSpeed Advance™ boards in a single dual socket Dual-Core Intel® Xeon® processor-based server equipped with two 3GHz Dual-Core Intel® Xeon® 5160 processors delivered 102.6 GFLOPS on the LINPACK benchmark. This compares with an already impressive 38 GFLOPS delivered by the base system, while consuming only 50 watts of additional power.

Performance results for the world's most powerful commercially available computer systems published on October 3, 2006 by Jack Dongarra of the University of Tennessee demonstrated that ClearSpeed acceleration technology scales efficiently from single servers to hundreds of nodes. Using ClearSpeed Advance accelerators, the Tokyo Institute of Technology's TSUBAME supercomputer achieved a performance of 47.38 Teraflops (TFLOPS, trillion floating point operations per second) on the LINPACK benchmark. This is an increase of over 9 TFLOPS from the non-accelerated result of 38.18 TFLOPS published in June 2006, delivering an unprecedented performance boost of 24 percent. From an efficiency perspective, the ClearSpeed Advance boards delivered 1 TFLOP per kilowatt adding only one percent to the cluster's overall power consumption.

"IBM is uniquely positioned to deliver leading edge technologies to our customers while providing the assurance of a factory built, tested and fully supported product that meets the standards required by our clients," said Wendy McGee, director, IBM Cluster Solutions. "Working with companies like ClearSpeed Technology we can deliver hybrid architectures that are individually tailored to our clients' needs with the convenience and dependability expected from off-the-shelf solutions."

About ClearSpeed

ClearSpeed Technology is a specialist semiconductor company focused on delivering double precision high performance coprocessors and boards to be used alongside general purpose processors in the world's most compute-intensive applications. ClearSpeed's advanced multithreaded array processing technology provides the ability to significantly accelerate data-intensive applications at extremely low power. Products include chips, boards, software tools, applications and support. ClearSpeed has offices in San Jose, California and Bristol, UK and has 84 patents granted and pending. For more information on ClearSpeed, visit www.clearspeed.com.

About IBM

For more information about IBM, visit www.ibm.com.

About the LINPACK Benchmark and the Top500

A detailed description of the LINPACK benchmark, as well as a list of performance results on a wide variety of machines is available at: <http://www.netlib.org/benchmark/performance.pdf>.