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Convey Computer Announces Graph 500 Performance

Convey's Reconfigurable Architecture Is Ideal Match for Data-Intensive Computing

Richardson, Texas—June 16, 2011—Convey Computer announced today that the company has joined the ranks of the world's most powerful computer systems for data-intensive computing with its performance on the Graph 500 benchmark. The performance of a single Convey HC-1^{ex} node is 773 million traversed edges per second (MTEPS) on a problem of scale 27.

The performance on the Graph 500 validates Convey's hybrid-core architecture and the use of heterogeneous computing technology to tackle data-intensive computing problems. "We've shown that data-intensive problems can be solved with an efficient, innovative architecture that sells for considerably less than multi-million dollar, multi-node computer systems," said Bruce Toal, Convey co-founder and CEO.

Convey's architecture is the ideal complement to data-intensive computing because Convey hybrid-core systems combine powerful, reconfigurable processing elements with a supercomputer-inspired memory subsystem. Data-intensive applications, which depend upon random access patterns to large memory spaces, experience severe memory performance limitations on cache-based servers. Convey's highly parallel memory subsystem allows application-specific logic to have over 8,000 simultaneous memory transactions in flight, significantly increasing effective memory bandwidth over cache-based memory systems.

The Graph 500 (www.graph500.org) rankings will be announced at the International Supercomputing Conference held in Hamburg, Germany, June 19–23, 2011. Backed by a steering committee of over 30 international HPC experts from academia, industry, and national laboratories, the Graph 500 is establishing a set of large-scale benchmarks for data-intensive applications. The Graph 500 gets its name from graph-type problems, algorithms that are a core part of many analytics workloads in applications such as cybersecurity, medical informatics, data enrichment, social networks, and symbolic networks.

Dr. Richard Murphy, researcher in the Scalable Computer Architectures Department at Sandia National Laboratories, believes that the Graph 500 is essential for measuring an emerging application area. “We believe that the applications using graph algorithms are potentially larger than all of HPC and significant growth is possible in the data-intensive computing market over the next decade.”

About Convey Computer Corporation

Based in Richardson, Texas, Convey Computer breaks power, performance and programmability barriers with the world’s first hybrid-core computer—a system that marries the low cost and simple programming model of a commodity system with the performance of a customized hardware architecture. Convey brings decades of experience and intellectual assets to performance problem solving. Its executive and design teams all come from successful backgrounds of building computer companies, most notably Convex Computer Corporation and Hewlett-Packard. Convey Computer investors include Braemar Energy Ventures, CenterPoint Ventures, Intel Capital, InterWest Partners, Rho Ventures, and Xilinx. More information may be found at: www.conveycomputer.com.

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