Penguin Computing Announces Relion 1700 and 2700 Series HPC Computing Solutions based on the Intel® Xeon® Processor 5500 Series.

New Intel® Xeon® processor 5500 series-based compute platforms take HPC computing to a new level of performance and efficiency

San Francisco CA, (March 30th, 2009) - Penguin Computing, an Intel Premier Partner, announced today three new Relion™ 1700 Series products based on the Intel® Xeon® processor 5500 – the Relion 1700 and 2700 dual processor enterprise servers and the Relion 1702 twin-node, dual processor per node HPC cluster server. Penguin's new servers coupled with advanced fine grained power control deliver significantly greater performance and scalability, offering a foundation to refresh aging IT infrastructure, overcome server sprawl and accelerate return on investment.

Penguin's new Relion servers are based on the Intel Xeon processor 5500 series which has up to eight computation engines, 16 threads per two-socket platform with Intel Hyper-Threading Technology, and as much as 3.5x more memory bandwidth than previous generations[1]. With support for up to 16 simultaneous threads, 32- and 64-bit processing capabilities, up to 144 GB of memory and a new, inclusive shared L3 cache that boosts performance while reducing traffic to the processor cores, these servers deliver the highest system-level performance per watt of any Intel microarchitecture to date and help researchers, engineers, and scientists achieve more in less time.

"At Thomas Jefferson Laboratories we have been running particle physics simulations on a new Penguin Relion 1702 system. Results are very encouraging as we have been able to achieve more than 2x performance increases in our processor and memory bandwidth bound codes. It's clear that with the Intel® Xeon® processor 5500 series, Intel has delivered the leading x86 computing platform", says Chip Watson, Deputy CIO and Head of High Performance Computing at Thomas Jefferson Labs.

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[1] Source: Intel internal measurement, Feb 2009 – Stream-Triad benchmark. Red Hat Enterprise Linux Server 5.3. Intel® Xeon® processor E5472, 3.0 GHz, 2x6MB L2 cache, 1600MHz system bus, 16GB memory (8x2GB FB DDR2-800) vs. Intel® Xeon® processor X5570, 2.93 GHz, 8MB L3 cache, 6.4QPI, 24GB memory (6x4GB DDR3-1333).

Penguin Computing also provides these new servers in integrated, Application Ready™ clusters configured with single or twin-node Relion servers and high performance interconnect fabrics including InfiniBand and 10 Gigabit Ethernet. The redesigned Intel system architecture provides increased memory bandwidth and system wide I/O performance, allowing Intel's leading x86 computing engine to access data faster. The new I/O architecture also benefits large distributed HPC applications where node-to-node latency is an important performance factor.

"At Penguin Computing our goal is to always bring the very latest technology to our HPC and enterprise customers in a well managed system backed by world-class support" says Charles Wuischpard, president and CEO at Penguin Computing. "The increased memory bandwidth of the Intel Xeon 5500 processor plus Hyper-threading capability and advanced power management features make Penguin's new Intel-based Relion servers truly the next step in HPC computing."

"Our new Intel® Xeon® 5500 series processors delivers greater performance than previous generations for HPC workloads," said Dr. Stephen Wheat, Intel's Director of Strategy for High Performance Computing. "The new Intel® QuickPath Interconnect enables applications, such as the distributed jobs Penguin's customers typically run, to benefit from improved memory bandwidth and low latency by reducing execution times to access data and communication times between nodes on large clusters."

Penguin's Relion 1700, 1702 and 2700 servers provide management and serviceability features to support large HPC clusters and mission critical enterprise applications. These new Penguin Relion servers are available immediately.

See www.penguincomputing.com/products/nehalem_solutions for details or more information.

About Penguin Computing

Penguin Computing, headquartered in San Francisco, California, specializes in complete, integrated HPC clustering solutions. Penguin has been a successful innovator for over a decade, providing Linux HPC solutions to a variety of industries. Penguin's staff, including the originator of the Beowulf Cluster architecture, has unsurpassed experience in delivering a powerful combination of fully integrated HPC clusters, comprehensive cluster management software, and

services. For more information about Penguin Computing and Penguin products, or to download Scyld ClusterWare 4.2 for the free 45-day evaluation, please go to<http://www.penguincomputing.com.

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