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Intel Accelerates High Performance Computing Clusters

SANTA CLARA, Calif. & DRESDEN, Germany--(BUSINESS WIRE)--

Intel Corporation today announced new technologies that will advance and accelerate growth of high-performance computing (HPC) - from deskside supercomputers to high-end petaflop-sized clusters. Intel(R) Cluster Ready and Intel Connects Cables help simplify cluster use and deployment as high-performance computing use expands from academic and scientific realms to more mainstream use in data centers. Increasingly clustered systems are powering a wide variety of activities including medical research, weather forecasting, computer-aided design and financial modeling.

Intel Cluster Ready is a program and technology that helps simplify the deployment, usage and management of clustered computer systems by providing a standardized and replicable way to build clusters and run "off-the-shelf" high-performance applications. The program includes a specification that sets minimum standards for software and hardware components. This enables software developers to validate just one time across many hardware platforms, speeding development and time-to-market readiness.

Intel Cluster Ready also includes a software registration process for compatible HPC applications and a hardware certification process that utilizes the Intel(R) Cluster Checker. This tool checks the cluster hardware and software components to ensure they correctly interoperate. Intel Cluster Checker also includes fault isolation, helping to improve early detection of cluster problems that can decrease productivity and increase support costs.

"In the past, HPC buyers faced increasing fragmentation and uncertainty among the disparate mix of available cluster solutions," said Richard Dracott, general manager, Intel High Performance Systems. "With Intel Cluster Ready, organizations can purchase their clusters with the peace of mind of knowing that the equipment and applications are certified to work together. Instead of spending months defining and deploying a cluster, the buyer experience is more similar to buying an enterprise server."

Intel also unveiled an innovative new technology that will allow organizations to build bigger clusters with improved performance. Intel Connects Cables enable Infiniband and 10 GbE customers to achieve data rates up to 20 Gbps and extend the reach between servers up to 100M. Enterprises can now design clusters based on their own unique business requirements, without being inhibited by cable length.

Intel Connects Cables solve several problems that have frustrated organizations deploying clusters. Copper cables, which have traditionally been used to connect clusters, tend to be heavy and difficult to install, creating overloaded floors and racks, and situations where airflow is blocked, negatively impacting cooling. According to Intel's own testing, Intel Connects Cables are 84 percent lighter than copper cables, 83 percent smaller and have a

40 percent smaller bend radius. These factors ease installation and expansion, and create better airflow. The compact nature of the cables and lack of optical transceivers also reduces the overall cost, including that of maintenance and installation.

"Intel Connects Cables are a valuable addition to Intel's HPC portfolio," Dracott said. "Cluster size is directly related to cable length, and companies are eager to use technology that will alleviate the challenges of deploying large-scale clusters. With their lighter weight and unmatched flexibility and length, Intel Connects Cable will help drive the expansion of enterprise clusters and enable companies to fully harness their supercomputing capabilities to increase their ability to innovate and compete."

Several companies will demonstrate Intel Connects Cables at the International Supercomputing Conference (ISC) in Dresden, including Bull, Ciara, Cisco, Dell, HP, IBM, Mellanox, Microsoft, QLogic, SGI, Sun, Supermicro, Tektronix, Tyan and Voltaire.

Additional information is available at www.intel.com/pressroom/kits/hpc/, www.intel.com/go/cluster and www.intelconnects.com.

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