PENGUIN™ SOLUTIONS

Department of Energy's National Nuclear Security Administration Selects Penguin Computing's Tundra Extreme Scale Solution for National Labs

2015-10-22

One of the World's Largest Open Compute-based Installations to Serve Lawrence Livermore, Los Alamos and Sandia National Laboratories

FREMONT, CA; October 21, 2015...Penguin Computing, a provider of high-performance computing, enterprise data center and cloud solutions, today announced that it has been awarded a contract with the U.S. Department of Energy's National Nuclear Security Administration (NNSA) to install the company's Tundra™ Extreme Scale (ES) series. The systems are being procured under NNSA's tri-laboratory Commodity Technology Systems program, or CTS-1, to bolster computing for national security at Los Alamos, Sandia and Lawrence Livermore national laboratories. The resulting deployment of these supercomputing clusters will be one of the world's largest Open Compute-based installations, a major validation of Penguin Computing's leadership in Open Compute high-performance computing architecture. "These computing clusters will provide needed computing capacity for NNSA's day-to-day work at the three labs managing the nation's nuclear deterrent," said Doug Wade, head of NNSA's ASC program. "This tri-lab effort will help reduce costs, increase operational efficiencies, and facilitate collaborations that benefit our nation's security, support academia, and advance the technology that promotes American economic competitiveness." The three-year contract provides NNSA's Advanced Simulation and Computing (ASC) program with high-performance computing clusters for its mission to ensure the safety, security and reliability of the nation's nuclear deterrent without underground testing – a program called stockpile stewardship. The ASC program brings together the computing capabilities and expertise at NNSA's three national laboratories. When complete, the Tundra Extreme Scale installations will realize a peak performance range of 7-9 petaflops. Penguin Computing selected a future generation Intel® Xeon® processor and motherboard for cost-effective and reliable system performance. "We are delighted to have been chosen by the NNSA for this hallmark award and this selection further validates how the Tundra ES system, combining the benefits of Open Compute

with a high-density compute architecture, can meet the demanding supercomputing needs of an advanced program like CTS-1," said Tom Coull, CEO, Penguin Computing. "We are applying these capabilities to meet today's advanced computing needs across the federal, academic and commercial markets, with cost-effective solutions developed in the spirit of the Open Compute Project Foundation's goals. We are also very proud that this Tundra ES series will be one of the first next-generation processor systems delivered at scale." Penguin Computing's Tundra Extreme Scale Series provides the market with density, serviceability, reliability and optimized total cost of ownership for highly-demanding computing requirements. Working with Intel, Penguin Computing designed Tundra ES according to guidelines for the Intel® Scalable System Framework. In addition to the federal segment, the Tundra cluster platform is highly-effective in a range of industries, such as financial, higher-education, scientific research and manufacturing. "CTS-1 shows how the Open Compute and Open Rack design elements can be applied to high-performance computing and deliver similar benefits as its original development for Internet companies," said Philip Pokorny, Chief Technology Officer, Penguin Computing. "We continue to improve Tundra for both the public and private sectors with exciting new compute and storage models coming in the near future." "The selection of Intel® Xeon® processors for the CTS-1 supercomputing clusters underscores our performance leadership and is validation of the Intel® Scalable System Framework for developing high-performance, balanced, scalable and efficient HPC systems," said Hugo Saleh, Director of Marketing and Industry Development, Intel's Enterprise and HPC Platforms Group. "The HPC industry is in the midst of unprecedented change, and everything about how HPC systems are used and built is evolving to support more complex models with ever expanding data sets, as well as the expanded usage of HPC systems in new industries. Intel is excited to be partnering with Penguin Computing on the CTS-1 program and its important mission of safely, securely and reliably managing the nation's nuclear stockpile." Penguin Computing, which will be compensated $39 million with options for additional clusters, will begin delivery of this extraordinary Tundra Extreme Scale solution in Q1 of 2016, with completion of the installation over a three-year period. Visit **http://www.penguinsolutions.com/products/ocp-hpc-ai-systems/ocp-servers-storage/** to learn more about Tundra Extreme Scale solutions. About Penguin Computing Penguin Computing is one of the largest private suppliers of enterprise and high performance computing solutions in North America and has built and operates the leading specialized public HPC cloud service Penguin Computing on Demand (POD). Penguin Computing pioneers the design, engineering, integration and delivering of solutions that are based on open architectures and comprise non-proprietary components from a variety of vendors. Penguin Computing is also one of only five authorized Open Compute Project (OCP) solution providers leveraging this Facebook-led initiative to bring the most efficient open data center solutions to a broader market, and has announced the Tundra product line which applies the benefits of OCP to high performance computing. Penguin Computing has systems installed with more than 2,500 customers in 40 countries across eight major vertical markets. Visit www.penguincomputing.com to learn more about the company, and follow @PenguinHPC on Twitter. Penguin Computing, Scyld ClusterWare, Scyld Insight, Scyld HCATM, Relion, Altus, Penguin Computing on Demand, POD, Tundra and Arctica are trademarks or registered trademarks of Penguin Computing, Inc.