

Weekly News Notes – Division 8000

Tri-Lab Linux Capacity Cluster Availability:

Whitney, Sandia's Tri-Lab Linux Capacity Clusters (TLCC) located at the Sandia California site, achieved general availability on the SCN Wednesday, March 18. TLCC is a joint effort involving Sandia, Los Alamos and Lawrence Livermore national labs. The systems will principally be used to provide needed computational support to NNSA's nuclear weapons programs. Whitney provides Sandia/California with a Linux high-performance cluster totaling 38 teraflops peak. In partnership under the TLCC program, Sandia/New Mexico has two clusters (Glory and Unity) totaling 76 teraflops. The clusters use AMD quad-socket quad-core processors with Infiniband DDR interconnects.

Submitted by Jerry Friesen, 8963, 925-294-3144

OVIS team to receive Best Paper award at IEEE IPDPS/SMPTS Conference:

Jim Brandt, Ann Gentile, Jackson Mayo, Philippe Pebay, Diana Roe, David Thompson, and Matthew Wong (8963) will be receiving the Best Paper Award for their article "Resource Monitoring and Management with OVIS to Enable HPC in Cloud Computing Environments" at the Workshop on System Management Techniques, Processes, and Services at the IEEE International Parallel and Distributed Processing Symposium. The work presents research in applying advanced resource monitoring, analysis, and configuration capabilities, such as those provided by, or enabled by, Sandia's OVIS (<http://ovis.ca.sandia.gov>) tool to cloud computing environments.

Submitted by Philippe Pebay, 8963, 925-294-2024

Paul Miles (8362) has been appointed an adjunct professorship at Lund University in Sweden:

Lund is one of the top universities in the world conducting research to support the development of advanced, high-efficiency engines for transportation. Paul will be mentoring students and working with students and staff to conduct engine combustion related research several weeks a year. The collaboration will also involve Lund students visiting Sandia to participate in our research programs. Our DOE Office of Vehicle Technologies sponsor is extremely supportive of this mutually beneficial collaboration. Costs associated with the collaboration will be shared by DOE and by Lund through funds provided for this effort by Scania AB, manufacturer of heavy vehicles in Sweden.

Submitted by Dennis Siebers, 8362, 925-294-2078

EBADS Project Successfully Completed:

The Department of Homeland Security (DHS) funded Enhanced Bioaerosol Detection System (EBADS) project has been completed. The project focused on (1) assessing the performance of certain commercial early-warning bioaerosol sensors at operating facilities (e.g., airports, rail stations); (2) determining what causes them to falsely alarm; (3) defining and implementing a secondary channel to lower the false-alarm rate; and (4) testing the improvement against blind samples provided by DHS and in the field. The project consisted of a 4-lab team (SNL, ORNL, PNNL, and LLNL). SNL and ORNL teamed to develop a secondary channel based on the use of protein-selective stains. After three month-long deployments in different locations, the method was the only one demonstrated to successfully meet the DHS-target false alarm rate of one false alarm per 100,000 measurements. In contrast, the commercial sensors exhibited false alarms of about one per 2000 measurements. The EBADS project at SNL involved Scott Bisson, Bob Crocker, Tom Kulp, and Tom Reichardt.

Submitted by Wen L. Hsu, 8128, 925-294-2379