

PPA-SCA Computing Seminars

2014

September 24th, 2014

Intel Roadmap Overview at SLAC

Location, time, and dial-in: Cypress Conference Room, B40, 3:00-4:00pm

Speakers: Marianne Jackson, High Performance Computing Business Development (Intel Corporation) ; Scott Hara, Technical Specialist for HPC Systems (Intel Corporation)

Abstract:

Intel is dedicated to the vision of exascale computing and working with our ecosystem to get there. Our high performance portfolio disclosure will include future products spanning several different lines in compute (Intel® Xeon® Processors, Intel® Xeon Phi™ Products), software (including Intel® Vtune), interconnect/fabric and storage technologies. In addition, we will discuss programs and resources to enable use/proficiency with currently available Intel products.

September 19th, 2014

CernVM: a versatile environment for high-energy physics applications in the cloud

Location, time, and dial-in: Ballam Conference Room B84, Friday September 19th, 2014 - 11:00 am

1. Dial Toll-Free Number: 866-740-1260 (U.S. & Canada)
2. International participants dial: Toll Number: +1 303-248-0285
Or International Toll-Free Number: <http://www.readytalk.com/intl>
3. Enter 7-digit access code, 3073828 followed by #

Speaker: Jakob Blomer, CERN

Slides: [[pdf](#)].

Abstract:

Cloud resources nowadays contribute an essential share of resources for computing in high-energy physics. Such resources can be either provided by "private clouds", academic infrastructures that allow running virtual machines instead of batch jobs, or by public clouds such as Amazon EC2 or Google Compute Engine. In any case, users need to prepare a virtual machine image that provides the execution environment for the physics application at hand. CernVM is a small and versatile virtual machine base image that runs on a variety of different cloud infrastructures and can be easily adapted to support typical physics workflows. It is used, for instance, to run LHC applications in the cloud, to tune event generators using a network of volunteer computers, and as a container for the historic software environment of the decommissioned ALEPH experiment.

The presentation provides an overview of the CernVM and its core technology, the CernVM File System. The file system takes care of the on-demand distribution of experiment software and operating system binaries to computing resources around the world. The latest development efforts are targeted at streamlining the maintenance and administration effort of operating a CernVM/CernVM-FS service. Currently ongoing efforts include tapping of so far unused resources such as supercomputers.