

CERN launches second phase of openlab industry partnership

Geneva, 17 May 2006 - The second phase of CERN openlab, a partnership between CERN¹ and leading IT companies, was officially launched at a ceremony at CERN today. The industrial partners in this second phase are HP², Intel³ and Oracle⁴. The second phase of CERN openlab builds on experience from the last three years, where the partnership produced many excellent technical results in the field of cluster and Grid computing. Activities for the start-up of the second phase of CERN openlab are based around a Platform Competence Centre, a Grid Interoperability Centre, and an IT security initiative.

The Platform Competence Centre focuses on platform virtualisation as well as software and hardware optimisation. Platform virtualisation enables Grid applications to benefit from a highly secure and standardized environment presented by a “virtual machine hypervisor”, independent of all the hardware intricacies. Software and hardware optimisation is seen as a vital part of the deployment of a global computing Grid for the Large Hadron Collider (LHC), CERN’s flagship accelerator which is due to start operations next year. Optimisation can help to cope with the expected huge demand for computing resources by the scientists involved in the LHC experiments, and avoid that demand outstrips the available resources of the Grid.

The Grid Interoperability Centre is proposed to complement the second phase of the EU-supported Enabling Grids for E-science (EGEE) project, led by CERN. This will allow the CERN openlab partners to take part in the integration and certification of Grid middleware. The centre will focus on three activities: testing and certification of the EGEE middleware stacks on test-beds provided by the partners; support, analysis, debugging and problem resolution to deal with the problems encountered on the contributed test-bed; interoperability efforts that review current levels of Grid interoperability, also with middleware stacks proposed by the partners.

In addition to these centres, CERN openlab has launched an initiative in the field of computer security. Initially, the bulk of this effort will be in the fields of computer virus protection, anti-spyware, intrusion detection and intrusion prevention with a particular

¹ CERN, the European Organization for Nuclear Research, has its headquarters in Geneva. At present, its Member States are Austria, Belgium, Bulgaria, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland and the United Kingdom. India, Israel, Japan, the Russian Federation, the United States of America, Turkey, the European Commission and UNESCO have observer status.

² HP is a leading global provider of products, technologies, solutions and services to consumers and businesses. The company's offerings span IT infrastructure, personal computing and access devices, global services and imaging and printing.

³ Intel, the world leader in silicon innovation, develops technologies, products and initiatives to continually advance how people work and live. Additional information about Intel is available at www.intel.com/pressroom.

⁴ Oracle is the world's largest enterprise software company. Oracle is a registered trademark of Oracle Corporation and/or its affiliates.

focus on client security and mail server security. The Finnish companies F-Secure⁵ and Stonesoft⁶ have joined CERN openlab as contributors, a status created for smaller IT companies to participate on targeted topics for a shorter period. The Helsinki Institute of Physics was instrumental in setting up these activities.

The flagship project of the first phase of CERN openlab was the CERN opencluster, an advanced computing and storage cluster, which contributed to several landmark results in CERN's Grid and high-speed networking activities. The partners during this first three-year phase were Enterasys, HP, IBM, Intel and Oracle. The opencluster results demonstrated that CERN openlab is a novel and effective framework for collaboration between multiple industrial partners, in a pre-competitive spirit and based on open standards.

Dr. Robert Aymar, Director General of CERN, noted that "as well as the many excellent technical results that the openlab provides, this partnership gives CERN a means to share our vision of the future of scientific computing with leading IT companies, and gain deep insights into how industry sees computer hardware and IT services evolving."

Speaking at the launch event, Michel Benard, Director for Technology Programs, HP University Relations, said "by participating in CERN openlab, HP has the opportunity to connect to a real operational Grid in action, and gain hands-on experience."

Gordon G. Graylish, Vice President and General Manager of Intel's EMEA Sales and Marketing Group remarked that "CERN's Grid activities are an ideal application for cutting-edge technologies such as Intel Virtualization Technology, Software Tools like Intel Compilers and Threading Tools and 10GbE high speed network connectivity - all based on the Xeon ® and Itanium ® 2 processor architecture. The tremendous computing power required by the LHC will find a formidable engine in Intel technology."

"The role played by Oracle's Grid technology in the CERN openlab has proved that business solutions can indeed play a part in highly demanding scientific environments," said Sergio Giacometto, Executive Vice President, Oracle EMEA. "At the same time, CERN openlab has had a significant part in making Grid Computing mainstream, rapidly moving it from an arcane, scientific discipline to a technique in use by many businesses, small and large, today."

Further information at <http://www.cern.ch/openlab>

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⁵ F-Secure Corporation is the global leader of subscription based ICT security solutions offered through Service Providers. Products include antivirus, intrusion prevention, antispymware and antispam solutions for users on both fixed and mobile networks

⁶ Stonesoft Corporation, headquartered in Helsinki, is an innovative provider of network security and business continuity.