

News Release





CERN Awards Intel Corporation

Six years of intensive collaboration on scientific research

GENEVA, Switzerland, October 3, 2008 – Today, CERN (the European Organization for Nuclear Research) is recognizing Intel – the world leader in silicon innovation – for its continued support and contribution to the LHC (Large Hadron Collider) project by awarding the company with the LHC Computing Award. Intel has been a major contributor to the CERN IT Data Centre through provision of leading-edge technology in the form of new hardware and prototypes and in an advisory role on energy-efficient design, thermal specifications and the processing of complex data loads. Intel and CERN have been collaborating on scientific projects since the CERN openlab 1 official opening in January 2003.

CERN is planning to enter full production with its flagship project LHC in spring 2009. Four complex detectors will collect tens of Petabytes per year for more than a decade and thousands of physicists at CERN and around the Globe will depend on a large Grid infrastructure for doing the data analysis. During the last three years Intel has provided substantial support to the LHC project. The Worldwide LHC Computing Grid (LCG) is fully ready for production, consisting of about 140 institutions in 33 countries and tying together about dozens of thousands Intel processors' cores (mainly as dual- or quad-core dual-socket servers). Over the next decade the computing requirements are expected to increase

significantly, requiring extremely challenging issues, such as thermal optimization of large computer centres and effective use of many-core technologies in complex software frameworks, to be addressed.

CERN and Intel have worked closely together for more than six years. Intel provides CERN with the opportunity of early testing of new hardware and have supported CERN in energy efficient Data Centre design, sizing and cooling and with systems thermal efficiency analysis. On the software side the collaboration has consisted mainly of code optimizations for new micro architectures and the evaluation of emerging computing technologies. Naturally, Intel has performed an advisory role on performance optimization and multithreaded programming techniques to benefit CERN's community of programmers. Additionally CERN was able to evaluate Intel's new generation of 10-Gbit Ethernet technologies inside its high speed networking infrastructure.

For all this support, work and in recognition of Intel's outstanding contribution to LHC Computing the Director General of CERN, Robert Aymar, has awarded Intel during the LHC Grid Fest on the 3rd of October with the LHC Computing Award.

"CERN plays a unique role in broadening the boundaries of global scientific research. Intel is proud to support and contribute to CERN's effort through leading-edge processor technology and technical advice", says Dario Bucci, General Manager Switzerland and Italy of Intel. "We will continue to have a very strong collaboration with the team from the CERN Data Centre and are very proud to be rewarded with the LHC Computing Award."

"The breadth of the partnership with Intel is impressive", says Wolfgang von Rüden, CERN IT Department Head and Head of CERN openlab. "Although it centres around Intel's microprocessors, it is important to stress that we also collaborate on software tools, benchmarking, programming methodologies, thermal optimization and networking technologies. Intel's long-term engagement allowed us to sustain jointly a steady stream of important results."

Link to white papers:

http://cache-www.intel.com/cd/00/00/39/61/396181_396181.pdf

 $\underline{http://software community.intel.com/isn/downloads/multicore/pdfs/CERN_Whitepaper_r04.p}$

About Intel

Intel [NASDAQ: INTC], 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 and

blogs.intel.com.

About CERN

CERN, the European Organization for Nuclear Research, is the world's leading

laboratory for particle physics. It has its headquarters in Geneva. At present, its Member

States are Austria, Belgium, Bulgaria, the Czech Republic, Denmark, Finland, France,

Germany, Greece, Hungary, Italy, Netherlands, Norway, Poland, Portugal, Slovakia, 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. Additional information about CERN is available at www.cern.ch.

About CERN openlab

CERN openlab is a framework to test and validate cutting-edge information

technologies and services in partnership with industry. Additional information about CERN

openlab is available at www.cern.ch/openlab.

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