Grid Computing Moves from Research to Industry

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EVENT COVERAGE

From 27th November to 1st December, ETSI, INRIA and the European Network of Excellence CoreGRID, led by ERCIM, co-organised at ETSI the 3rd “GRIDS@WORK” event and Grid Plugtests.

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The centre piece of the GRIDS@WORK week has been the two-day conference addressed by European Grid researchers and many industrial representatives. One of the themes was how Grids will drive the creation of jobs and commercial products, targeting the Enterprise market, promoting Grid sharing principles towards the creation of a service-oriented, utility-like infrastructure for business, industry and society.

Talking about the rate of progress, Franco Accordino, of the European Commission, spoke of Europe’s achievement in creating a Grid ‘lighthouse’ for the world:

“Projects like CoreGRID have made significant contributions to develop European excellence in Grids and achieve a European Research Area for the Grid. Projects like EGEE provide world-class infrastructures and support European researchers in their work. Now we are in an evolutionary phase where industrial partnerships have been established to exploit the economic potential of the Grid beyond research labs. This consistent portfolio of FP6 Grid research and deployment projects funded by the European Commission will significantly contribute to further advance European Excellence in Grid and boost Grid technology adoption and exploitation by industry and business.”

A Roadmap to Grid Standardization to Solve Interoperability Issues

As Grid computing steps up as a key driver of tomorrow’s ‘Network-of-networks’, ETSI GRID Technical Committee has started to work on defining formal European standards and test specifications for Grid interoperability. Standardization is essential to enable so many different pieces of hardware, software, operating systems, data bases etc, potentially spread all over the world, to interoperate and deliver a service as a unique resource.

Mike Fisher, BT, ETSI GRID Chairman, said during his industrial keynote address:

““There are many Grid stakeholders in the ETSI Membership, our challenge is to provide a bridge between the Grid standards and NGN (Next Generation Network) standards within the framework of the convergence of communications and IT networks. ETSI is the place to build that bridge.”

Grid Plugtests – A Contest to Demonstrate the Power of the Grid

Prizes have been awarded to the 'Eight Samurai' team from the University of Tokyo as the winner of the 3rd N-Queens Plugtests and to 'Kanban System', also from the University of Tokyo, as the winner of the FlowShop...
Contest. Both events ran on specially configured Grid infrastructure composed of more than 4,000 CPUs grouped into various places, from a handful of CPUs to hundreds in a site, many of them provided by the Grid’5000 testbed of the French ACI GRID. This Grid was organized and hosted by experts from ETSI Plugtests Service and INRIA OASIS joint team (INRIA-University of Nice Sophia Antipolis-CNRS I3S).

As explained by Denis Caromel, head of the OASIS team:

“Using the Open Source middleware ProActive, member of the ObjectWeb consortium, the competitors have been able to deploy over a very heterogeneous Grid, demonstrating strong progress of Grid technologies, both in efficiency and interoperability.”

INRIA Plays a Major Role in Grid Development;

INRIA, the French national institute for research in computer science and control, runs several projects on Grids: design of software enabling the use on a large scale of desktop equipment infrequently used; build software to access applications at Internet scale while optimizing data transfer with regards to the capacity of available networks; design models to program these infrastructures and be able to efficiently use very high-speed networks.

As stated by Thierry Priol, Senior Scientist at INRIA:

“At a national level, INRIA is deeply involved in the ACI GRID initiative and especially in the Grid’5000 project aiming at building a Grid testbed. At a European level, INRIA is the Scientific Coordinator of 3 projects: CoreGRID, the only Network of Excellence in Europe on Grids and peer-to-peer technologies; XtreemOS, an integrated project aiming at adding new mechanisms to Linux to facilitate deployment of Grids; and GridCOMP, whose objective is to design a programming model based on software components for Grids.”

CoreGRID, the Grid European Research Laboratory

CoreGRID, as the Network of Excellence on Grids and peer-to-peer technologies, has been funded by the European Commission through a grant of €8.2 million assigned for a duration of four years. As part of its objective to align both research and industry towards the construction of a sustainable Grid environment, the Network held its first CoreGRID Industrial Conference in Sophia Antipolis. To reinforce CoreGRID’s commitment to take Grids out of the research labs and into industry, a new CoreGRID Industrial Fellowship Programme was launched, stimulating knowledge transfer.

“Through the organization of such an event, our Network of Excellence is advancing further towards sustainable integration by involving industrial stakeholders in defining strategies to achieve economic impact, becoming the European-wide research laboratory in distributed Grid, peer-to-peer and service-oriented technologies”, said Bruno Le Dantec from ERCIM, in charge of CoreGRID’s Administrative and Financial coordination.

Countries

Austria, Belgium, Czechia, Germany, Denmark, Estonia, Greece, Spain, Finland, France, Hungary, Ireland, Italy, Lithuania, Luxembourg, Latvia, Malta, Netherlands, Poland, Portugal, Sweden, Slovenia, Slovakia, United Kingdom

Contributor