

The logo for FOSS4G 2006, featuring a stylized red and white graphic that resembles a ribbon or a stylized letter 'G'.

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BEinGRID Project

The BEinGRID Project
Earth Observation Business Experiment in Grid

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Abstract

A large number of International and European open source Grid architectures solutions have been developed in the past years to enable the management of distributed resources across multiple enterprises boundaries and creating collaborative environments (Virtual Organisations) transparently. Nevertheless, the dream of global grid computing has not caught on with most business, and the promise of delivering boundless supercomputer power to any user and anywhere seems still far away. There is a clear threat that industry and companies do not accept the existing middleware by lack of knowledge or confidence in its maturity and reliability.

Grid is now at a critical phase in its transition from research and academic use to a widely enterprise adoption. An unawareness of the benefits brought by the use of Grid technologies and the lack of reference business cases that persuade potential users is leading to a weak commercial exploitation of results and to the slow deployment of this technology into the market. It is time to establish effective routes to push this technology adoption and to stimulate the research into innovative business models.

The main objective of the "Business Experiments in Grid" (BEinGRID) project, which has recently been selected for funding by the European Commission's Grid Technologies F2 Unit, is to foster the adoption of the so-called Next Generation Grid technologies by the realization of several business experiments and the creation of a toolset repository of Grid middleware upper layers. BEinGRID will undertake a series of targeted business experiment pilots designed to implement and deploy Grid solutions in a broad spectrum of European business sectors (entertainment, financial, industrial, chemistry, gaming, retail, textile, etc). To minimize redevelopment of components, BEinGRID will deploy innovative Grid solutions using existing open Grid components from across the European Union and beyond.

In the Earth Observation domain, one of the successful applications of open source

grid technology in Europe were developed under the backing of the European Space Agency applications, mainly with the GRID on-Demand project and with the opening of the Earth Observation G-POD call for proposals. While the first intends to respond to the Agency's internal operational processing needs by using open Grid technology, the later invites research parties to integrate their applications and processors to share its own data and processing power in a controlled and secure GRID environment.

Departing from that institutional experience, the BEinGRID's Business Experiment dedicated to Earth Observation will analyse the particular service implementation requirements that will enable and benefit from the GRID technology adoption. Subsequently a baseline for incoming Earth Observation and geo-spatial services shall be established where Grid technology might reduce time-to-market and encourage their use. Nonetheless, issues like the interoperability within different data structures and user communities will also be addressed by this business experiment.

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