JRA1 – MIDDLEWARE RE-ENGINEERING AND INTEGRATION

The Enabling Grids for E-science (EGEE) project aims to create a reliable and dependable Grid infrastructure across Europe. To date, Grid research projects have developed, and in some cases deployed, middleware following various designs and have identified the relative advantages of several types of Grid architectures.

The Middleware Re-engineering and Integration team aims to provide robust middleware components, deployable on several platforms. These components, providing a set of core Grid Services, were in many cases identified and developed in earlier projects. However, the team also implements a minimum amount of original middleware for the project.

The middleware architecture follows the so-called Service Oriented Architecture (SOA). Architectural and design documents have been produced in the first phase of the project in close collaboration with expert users.

The first release of the middleware, code-named gLite (pronounced gee-Lite) is entering the final development phase. A prototype has been available for selected users since May 2004 and the first production-quality components are being released to the EGEE Operations team for advanced testing and validation.

The Teams

The Middleware Engineering and Integration Team are divided in clusters across Europe:

- The implementation clusters are in Italy (INFN, DATAMAT), the Czech Republic (CESNET), the United Kingdom (CCLRC-RAL) and Switzerland (CERN). The implementation clusters are responsible for selecting, re-engineering and developing the required services while giving support to deployed middleware components;
- The integration team in Switzerland (CERN) is responsible for providing a coherent set of Grid services and components to form a functioning and verified Grid;
- A distributed testing team in Switzerland (CERN), the United Kingdom (CCLRC-RAL) and the Netherlands (NIKHEF) is responsible for assuring the software meets the requirements from the end-user applications;
- All teams collaborate closely with partners in the United States and are re-enforced by the Security activity (JRA3) and the Middleware Security Group to make sure the software developed meets the security requirements from the applications and operation sites.

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Links
JRA1 website: http://egee-jra1.web.cern.ch/egee-jra1/
Home page: http://www.glite.org
gLite Architecture: https://edms.cern.ch/document/476451/1.0
gLite Design: https://edms.cern.ch/document/487871/1.0