MIDDLEWARE RE-ENGINEERING

JRA1

The goal of the Middleware Engineering Activity is to provide and maintain selected middleware services of the gLite distribution satisfying requirements of users and administrators in terms of functionality, performance and manageability. Special attention is devoted to interoperability with other grid middleware solutions through the adoption of established standards set by international organizations, in particular the Open Grid Forum (OGF).

The grid services maintained by JRA1 can be broadly classified in two categories:

Grid Foundation Middleware, covering the security infrastructure, information, monitoring and accounting systems, access to computing and storage resources, providing the basis for a consistent and dependable production infrastructure;

Higher-level Grid Middleware, including services for job and data management, providing applications with end-to-end solutions.

The services are developed following a Service Oriented Architecture, mostly based on web services. In order to favour interoperability with other grid infrastructures, their interfaces aim to be compliant with established standards defined by international organisations, primarily the Open Grid Forum, OASIS and the W3C. With its experience in developing production strength services, JRA1 also contributes to the standardisation process through the OGF-Europe project.

The software components delivered by JRA1 are integrated, together with some external packages, into the gLite distribution, which represents a coherent set of interoperable and certified grid services and provides a 'one stop shop' for packages, updates and documentation.

The gLite distribution has been successfully deployed and used on several challenging environments, starting from the EGEE production infrastructure, which connects nearly 290 computing centres and is daily used by more than 200 user communities. Feedback from users and administrators represents in fact the driving force for the continual improvement and enhancement of the middleware.

The software developed by JRA1 is available under the open source Apache licence, version 2.

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JRA1 webpages

https://twiki.cern.ch/twiki/bin/view/EGEE/Egee3Jra1