

SA1 – EUROPEAN GRID SUPPORT, OPERATION AND MANAGEMENT

Introduction

The European Grid Support, Operation and Management activity will create, operate, support and manage a production quality European grid infrastructure which will provide computing, storage, instrumentation and informational resources at many resource centres (RCs) across Europe.

The resources will be accessible to user communities and virtual organisations according to agreed access management policies and service level agreements. The terms of engagement of the resource centres and users will be driven by policies determined by the European eInfrastructure Reflection Group (eIRG).

This activity will build on current national and international grid initiatives such as LCG, the UK e-Science Grid, the Italian Grid and NorduGrid. The key aim in assembling this infrastructure is to incorporate and exploit existing expertise and experience in deploying, supporting and operating prototype grids. The LCG project will play a central role in providing an operational infrastructure from the earliest stage of the EGEE grid.

The key objectives of the European Grid Support, Operation and Management team include:

- Core infrastructure services: to operate a set of essential services, such as the information services, resource brokers, data management services and administration of the virtual organisations that bind distributed resources into a coherent infrastructure;
- Grid monitoring and control: to actively monitor the operational state of the grid and its performance, initiating corrective action to correct problems arising with either core Infrastructure or grid resources;
- Middleware deployment and resource induction: to validate middleware releases and then to deploy them to resource centres throughout the grid. Strict criteria will be placed on validating new middleware before production deployment. This will involve close interaction and feedback with the Middleware Re-engineering and Integration activity (JRA1) and the Application Identification and Support activity (NA4). Where new resource centres are to join the grid, assistance must be provided both with middleware installation and with the introduction of operational procedures at resource centres. Extra effort will be offered to resource centres offering resources such as parallel and vector supercomputers that play strategic roles for a number of scientific applications;
- Resource and user support: to receive, respond to and coordinate the resolution of problems with grid operations from both resource centres and users; this role will filter and aggregate problems, providing solutions where known, and engaging core infrastructure or middleware engineering or other appropriate experts to resolve new problems;
- Grid management: to co-ordinate the fulfilment of the above objectives by Regional Operations Centres (ROC) and Core Infrastructure Centres (CIC), together with managing the relationships with resource providers, through negotiation of service-level agreements, and the

wider grid community, through participation in liaison and standards bodies;

- International collaboration: to drive collaboration with peer organisations in the Americas and in Asia- Pacific; and to ensure the interoperability of grid infrastructures and services in order that the project can seamlessly access resources both within and outside those provided through EGEE. The first of these two objectives is the responsibility of Core Infrastructure Centres; the second objective is the responsibility of the Regional Operations Centres, which bring new resources into the Grid. Both the ROCs and the CICs will be overseen by an Operations Management Centre (OMC) which will be responsible for their coordination.

The Team and Contacts

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