

# EGEE

## ROC IMPLEMENTATION

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<b>Document identifier:</b>	Implementation Plan (Section 4.8)
<b>Date:</b>	07/06/2004
<b>Activity:</b>	SA1: Grid Operations, Support and Management
<b>Authors:</b>	Dave Kant, John Gordon
<b>Document status:</b>	DRAFT
<b>Document link:</b>	

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**Abstract:** This document describes the draft implementation for the EGEE ROC.

### Document Log

Issue	Date	Comment	Authors (alphabetical)
<b>0.1</b>	<b>14/05/04</b>	<b>Initial draft</b>	<b>D.Kant J.C.Gordon</b>
<b>0.2</b>	<b>07/05/04</b>	<b>Minor changes</b>	<b>Alistair Mills</b>

### Document Change Record

Issue	Item	Reason for Change
<b>0.1</b>		

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## 1 IMPLEMENTATION

The responsibilities of the UK Federation of extend to the implementation of a ROC and a CIC. This will be collectively referred to in this document as the UK ROC or simply the ROC. The purpose of this document is to provide information on the implementation of the ROC in the UK Federation. The Federation consists of partners in both UK and Ireland.

The activities of the ROC will be managed by a management team which will oversee the work of the four implementation teams:

- The Core Grid Operations' Team including the Grid Support Centre
- The Specialist Support Team.
- The Deployment Team;
- The Operations Centre
- User Support Team;

The key components to the management model for the ROC and CIC in the UK and Ireland partner region. Funding for these posts comes from four areas: Core UK e-Science program, JISC, GRIDPP (PPARC) and EGEE

### 1.1 ORGANISATION MODEL

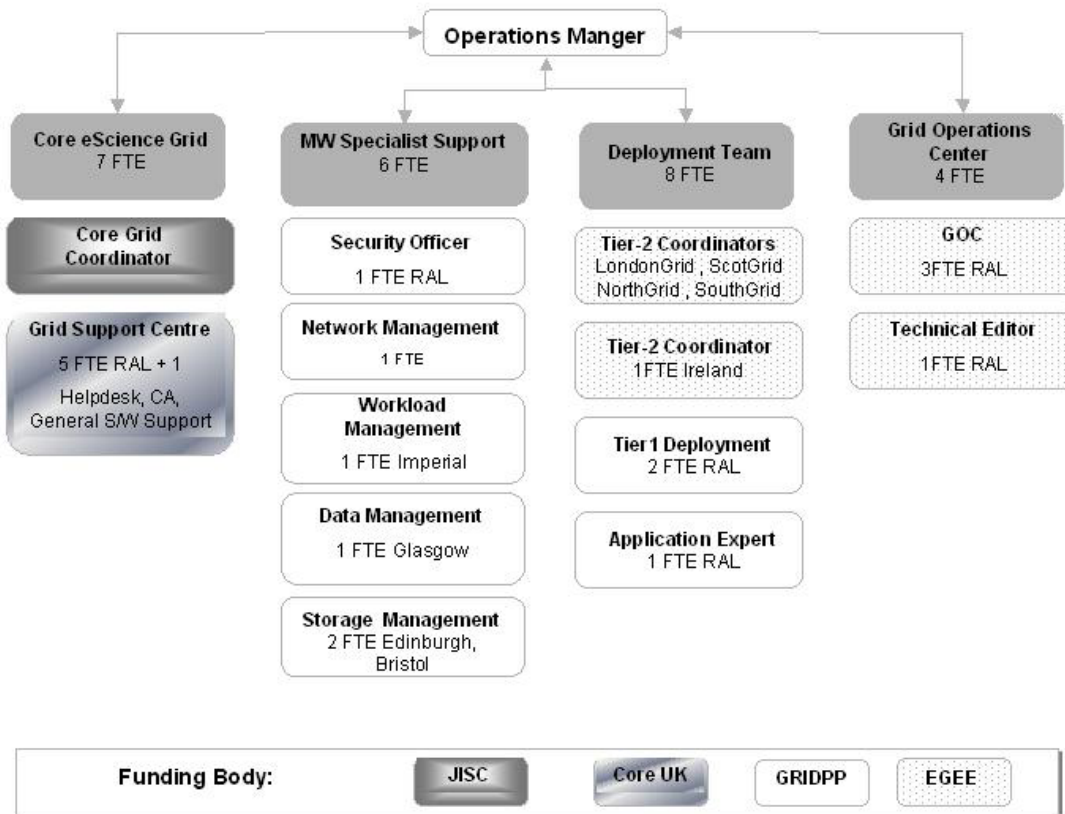


FIGURE 1:. ORGANISATIONAL MODEL

## 1.2 ROLES AND RESPONSIBILITIES

### 1.2.1 Management team

This ROC will be led by a production manager who will oversee all operations in the federation, and will perform the dual role of functioning as an EGEE ROC and CIC. The production manager will be also be responsible for negotiating SLAs with resource centres in the region and will report to the ROC coordination manager (Italy) and to the OAG.

### 1.2.2 User Support and operations team

The Grid Support Centre (GSC) will provide general support to the user community. The GSC will manage the local CA providing certificates to users and resources, address general queries concerning globus technology through a helpdesk and provide training in the relevant areas. The team may also run core services for the ROC such as a regional VOMS. The operations team will also provide front-line monitoring of resources distributed throughout the ROC. This includes managing site information, proactive monitoring and SLAs. The operations team will also provide monitoring for any core grid-wide services distributed throughout the ROC.

### 1.2.3 The specialist support team

This team deals with specific issues regarding the middleware and is concerned primarily with the operation and smooth running of services. The team provides customised releases based on the official release to the resource centres. It has responsibility for Data and Storage Management, Workload Management and

#### 1.2.3.1 *Data and Storage Management*

The specialist support team is responsible for providing a first point of contact for system managers in the areas of data and storage management.

#### 1.2.3.2 *Work Load Management System*

The specialist support team will provide an officer responsible for the work load management system (WLMS) for the EGEE and LCG projects. Decisions on the number and locations of the WLMS nodes will be made in conjunction with the Grid Operations Team, the Tier-2 Coordinators and the experiments. This FTE will work closely with the Grid Operations Team in order to debug problems associated with the WLMS and is expected to give general support in this area. Understanding of the EDG WLMS architecture, along with practical experience of its support will be important for the rapid provision of this service. Finally, this post will be expected to produce a set of monitoring tools that will publish information about the state and history of WLMS on the Web.

#### 1.2.3.3 *Security Officer*

The specialist support team will provide an officer responsible for security. The Security Officer provide expert support to the RCs in matters of security, with particular attention to responding to security vulnerabilities and incidents. The duties will also include the negotiation of security policies and procedures acceptable to the member institutes, Tier-1 and Tier-2 centres, the applications and Grids such as LCG, EGEE, US HEP and the UK core programme Grid.

The Security Officer will also have a role in co-ordinating security policies and procedures between GridPP, LCG, EGEE, US HEP and the Tier-2/Tier-1 sites where necessary, and where possible will represent the requirements of the partner sites in the wider LCG, EGEE and other Grid contexts.

Other possible tasks include providing advice on firewall configuration for secure Grid operation, the investigation and deployment of Grid intrusion detection and monitoring tools, the investigation, development and deployment of Grid service security analysis tools.

#### 1.2.3.4 *Networking*

The specialist support team will provide an officer responsible for the network management. The office will perform the following functions:

- Provide expertise and assistance in the deployment and configuration of all network related middleware components, most of which will follow the LCG/EGEE definition, implementation and deployment schedule.
- Perform proactive performance monitoring, and aiding in diagnosis and reporting of performance problems through the normal channels.
- Assemble statistics on all Tier-2 network connection capacities and usage and building an appropriate traffic planning model.
- Represent the needs of all Tier-2 centres in respect of networking at all appropriate meetings.

#### 1.2.4 Deployment Team

This team is responsible for deploying grid technology through the resource centres, coordinating the local effort as appropriate, and liaising closely both with the middleware developers and with complementary support teams (UK Grid Support Centre, European Grid Support Centre, EGEE Operations and Support Centres).

#### 1.2.5 Virtual Organization Management and Services

To be completed

### 1.3 STAFFING

To be completed

### 1.4 TASK BREAKDOWN

The management team is responsible for providing the following:

- An execution plan to the OMC (M03);
- A quarterly report to the OMC;
- Making cost claims to the PO;
- Recruiting and managing the necessary personnel to implement this plan;
- Oversee deployment of grid middleware through the region.

The deployment team is responsible for the following:

- Rollout of middleware to the resource centres;
- Certification of new resource centres;
- Provision of immediate support to resource centres
- Providing information on platform requirements

- Assessing new middleware

The grid operations team is responsible for the following:

- Monitoring resource centres
- Tool development
  - Custom Monitoring for ROCs
  - Proactive monitoring (Nagios)
  - Integrate available tools
- Packaging the tools developed
- Documentation on the tools developed including:
  - The operational procedures document
  - The GOC installation guide

### **1.5 DELIVERABLES FOR 1<sup>ST</sup> 3 MONTHS**

The management team has responsibility for the following deliverables during the first three months:

- An execution plan;
- A set of web pages describing the ROC;
- Completing recruitment;
- Completing the quarterly reporting 1 and making the cost claims
- Agreement of its responsibilities with the OMC.

The deployment has responsibility for the following deliverables during the first three months:

- Rollout (installation and certification of LCG2 middleware to resource centres and in particular to have at least 1 Tier-2 site operational);
- Provide Support to the clients of the ROC;

The grid operations team has responsibility for the following deliverables during the first three months:

- Monitoring resources deployed in the UK/I and other ROCs
- Establishing a prototype GOC;
- Packaging the monitoring software;
- Establishing a second GOC (probably in Taipei);
- Establishing a CA and helpdesk

### **1.6 MILESTONES FOR 1<sup>ST</sup> 3 MONTHS**

- UK/I ROC Web Pages
- CIC Services Defined
- Preliminary Implementation of Tailored Monitoring (UK Only, GridPP)

- UKI Helpdesk
- Recognised Certificate Authorities in both UK and Ireland
- N Sites Certified ( $\geq 1$  Site/T2)