

# Internal Review of the LCG-Services

## The Mandate:

(by Les Robertson)

## Purpose & Scope

The review panel is asked to examine the state of readiness of the LCG services at the beginning of Service Challenge 4. The scope of the review covers all aspects of the project, except the Applications Area for which a separate internal review process is used. The panel should take account of:

- the overall goals and plans of the project defined in the [LCG TDR](#);
- the requirements of the experiments as documented in the [TDRs](#) and the updates prepared for the SC4 workshop in Mumbai in February;
- the agreed LCG [project plans](#) of the activity areas and the Tier-1 sites;
- the recent quarterly status and progress [reports](#);
- the conclusions of the review of the CASTOR 2 mass storage system, used at the Tier-0 and some of the Tier-1 sites, which will take place shortly before this review.

Rather than attempting to cover all aspects of the project in such a short time, it is proposed that the review pays specific attention to the following topics:

- state of readiness of CERN and the Tier-1 centres, including operational procedures and expertise, 24 X 7 support, resource planning to provide the required capacity and performance, site test and validation programme;
- the EGEE-middleware deployment and maintenance process, including the relationship between the development and deployment teams;
- the plans for testing the functionality, reliability and performance of the overall service;
- interoperability between the LCG sites in EGEE, OSG and NDGF;
- state of the integration of Tier-2 sites into the service.

## Members of the review panel

Volker Gülzow (DESY) - chair	Jeff Templon (NIKHEF)
John Gordon (RAL)	Frank Würthwein (UCSD)
Allessandro de Salvo (INFN-Rome)	

### **Timing & Reporting**

The review will be held on 8-9 June, close to the beginning of SC4. The review panel chair will present his findings and recommendations to the LCG Management Board within four weeks of the review. The Management Board will decide on any action to be taken.

End of mandate-statement

### **The review procedure:**

The panel has decided to have a two day meeting at CERN on June 8<sup>th</sup> and 9<sup>th</sup>, starting at 9am and ending around 4pm. The first day will be reserved for a review of the operational readiness of the Tier 1's. In order of having a most efficient review, the panel has send out a questionnaire to the Tier 1's (see Annex 1), which has to be answered by May 26<sup>th</sup>. In addition the panel is very much interested in getting the experiments opinion and view. Therefore the experiments were asked to put in short statements about their 2 or 3 major concerns about the Tier 1's, they are using as well by May 26<sup>th</sup>. The panel will give the Tier1's the possibility to respond to the experiments statements. During the meeting there will be a 30 minutes slot/Tier1, where a representative of the Tier1 should be available for clarification issues.

The second day is reserved for middleware issues. In particular the workflow from development to deployment should be looked at. Therefore representatives from both groups will be invited, to give short presentations from their view. Further the experiments are asked, to make statements about their view on services and functionality. Further on there is the issue of interoperability between OSG and gLite, which will be covered on Friday afternoon. Again the experiments are asked to make a statement on how the experiment can cope with this topic.

The panel will use as much as possible available other information sources like findings from other panels etc. It's not the intention of the panel to re-review topics, which have been reviewed already.

### **Reporting:**

The panel will present the findings to the LCG management board in July 2006.

### **Annex: Questionnaire**

## **Preamble**

The following questionnaire will be used to prepare a internal review of LCG Services, which will take place on June 8<sup>th</sup> and 9<sup>th</sup> at CERN. The review panel was asked by the

LCG project leader to examine the state of readiness of LCG Services at the beginning of SC 4. In particular the panel will pay particular attention to the readiness of the WLCG Tier 1 centres. It is intended also to take a close look on operational aspects. The period, which should be covered by the answers is

**for the years 2006, 2007 and 2008.**

The Tier 1's are kindly asked to fill in the questionnaire by

**Friday, May 26<sup>th</sup>.**

It will be highly useful to have a representative of the Tier 1 during the review attending to answer questions for clarification. Please feel free to add any additional relevant information.

## **1. General:**

- 1.1: Which Tier 2 and Tier 3 centres do you expect to be served by your Tier 1? What are the open candidates?**
- 1.2: Is the experiments' planning transparent to your Tier 1? If not, where do you see deficiencies?**
- 1.3: Do you expect more information from the experiments? What kind?**
- 1.4: How do you communicate with the experiments?**
- 1.5: How many grid users do you expect?**
- 1.6: What do you expect as the main tasks, the users will carry out?**
- 1.7: What are the procurements, planned for 2006, 2007 and 2008?**

- 1.8:** What are typical procurement steps necessary?,
- 1.9:** how long do they take in your experience?
- 1.10:** Do you have full and secured funding for your Tier 1 pledges for 2006/7/8? Can you purchase and operate the fabric, promised in the MoU with the available resources?
- 1.11:** What are the plans for securing funding for additional years?

## **2. Network:**

- 2.1:** What information did you use to decide the necessary bandwidth between your centre and the various T1s, T2s and/or T3s you will serve? Will all traffic goes through your general NREN connection or will you have dedicated links? When do you expect to be able to acquire this bandwidth?
- 2.2:** What is your Tier 1 LAN-concept? What are the expected bandwidth demands, what is/will be the technology, you will use in the fabric?

## **3. Infrastructure:**

- 3.1:** What is today's power/cooling/space available for LHC at your Tier 1 , what are the limits and upgrade plans?

## **4. Organisational matters:**

- 4.1:** How much personnel in % FTE is provided for the operational issues?
- 4.2:** How is user support organised?

**4.3: How are Tier 1 operations incorporated into the normal Lab Computer centre business?**

**4.4: Will local user accounts and filespace be provided in addition to grid access?**

## **5. Operational matters:**

**5.1: How do you ensure the minimal service level, stated in the MoU, Annex 3.2?**

**5.2: How are the 24/7 operations organized?**

**5.3: When will it start?**

**5.4: How do you communicate with LCG/Grid operations?**

**5.5: Please describe your Error/Problem tracking system.**

**5.6: What is the monitoring and reporting concept? What are the tools in use? What are your plans?**

**5.7: What is the installation management concept? What are the tools in used are planned?**

**5.8: Please describe the level of automation of these tasks?**

## **6. Storage:**

**6.1: Please describe your storage solution today and your concept for the next few years.**

- 6.2: What are the building blocks for disk storage? (FC, SATA, ...)**
- 6.3: How is the setup of your mass storage system hard- and software wise?**
- 6.4: What is status of 3D and general database support, is this covered by the Tier 1 responsibility?**

## **7. Computing:**

- 7.1: What are your buildings blocks as Computing units?**
- 7.2: What is the middleware in use?**
- 7.3: Do you see operational problems with the middleware?**
- 7.4: What special system software is provided?**
- 7.5: What is the batch system used?**
- 7.6: What are your basic operating systems, what will be used in future?**
- 7.7: What are the 64 bit multi core and memory support plans?**