

CERN-RRB-2007-109  
8 OCTOBER 2007

# PRINCIPAL LHCC DELIBERATIONS

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12<sup>TH</sup> MEETING OF THE COMPUTING RESOURCES REVIEW BOARD

23 OCTOBER 2007

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SCIENTIFIC SECRETARY, LHCC

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**GENERAL**

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This document summarises the principal LHCC deliberations concerning the LHC Computing Grid (LCG) Project at the Committee's sessions in May, July and September 2007.

Ramping up of the World-wide LCG (WLCG) resources is in progress and the installed resources are approaching those pledged in the Memorandum of Understanding. The WLCG milestones are being met essentially as scheduled.

The LHCC considers that the upcoming Full Dress Rehearsals (FDRs), scheduled to run from September 2007 to May 2008, and the Common Computing Readiness Challenge (CCRC) 2008 are essential exercises that will allow for the extended testing of the LHC computing system while fostering closer links between the experiments and the WLCG.

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**CONCERNS FROM THE PREVIOUS COMPUTING RESOURCES REVIEW BOARD**

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<b>SUB-SYSTEM</b>	<b>CONCERN</b>	<b>STATUS</b>
Storage Management Systems	Performance and stability of storage management systems need to be improved.	Significant progress was reported on the reliability and availability of the data storage systems. Implementation of the Storage Resource Management (SRM) Version 2.2 is complete and has been tested extensively at some sites.
Services	Overall stability of computing services needs to be improved.  Complete test of the entire chain from the DAQ to the physics analysis is still lacking.	Overall stability has improved but has not yet reached the necessary level.  The complete test remains to be done for all experiments.

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## LCG SUB-AREAS

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### SERVICES

A gradual transition from the Service Challenges to experiment LCG operations is being made and the services are being improved in order to address the needs of the experiments.

### DATA STORAGE

Significant progress was reported on the reliability and availability of the data storage systems. Implementation of the Storage Resource Management (SRM) Version 2.2 is complete and has been tested extensively at some sites. However, testing of SRM Version 2.2 by the experiments has been delayed and while the roll-out plan has been defined, problems may appear in the future, which is particularly worrisome as the deployment is being carried out in the midst of the FDRs. Impressive progress has also been made in improving the performance and stability of the CASTOR storage manager.

### APPLICATIONS AREA

The organisation of the Applications Area is mature and works well, leading to an improved co-ordination of software releases with other areas such as the middleware and deployment. The Application Area projects – the Software Process Infrastructure (SPI), the ROOT data analysis framework, the POOL persistency framework and the Simulation Project (SIMU) – have made substantial progress and the anticipated reduction in manpower has been eased as a result of the approval of extra funding.

### TIER CENTRES

The active involvement of the remote sites is improving, but there remains much to do as disk space and tape writing capacity are often insufficient and the need to exercise all the experiments at the same time remains to be done. The Committee recommends that a combined test of transferring simultaneously data from all the experiments to the Tier-0 centre and from there to Tier-1 centres should be planned.