

PEB Working Group on Baseline Services

The goal of the working group is to forge an agreement between the experiments and the LHC regional centres on the baseline services to be provided to support the computing models for the initial period of LHC running, which must therefore be in operation by September 2006.

The services concerned are those that supplement the basic services for which there is already general agreement and understanding (e.g. provision of operating system services, local cluster scheduling, compilers, ..) and which are not already covered by other LCG groups such as the *Tier-0/1 Networking Group* or the *3D Project*.

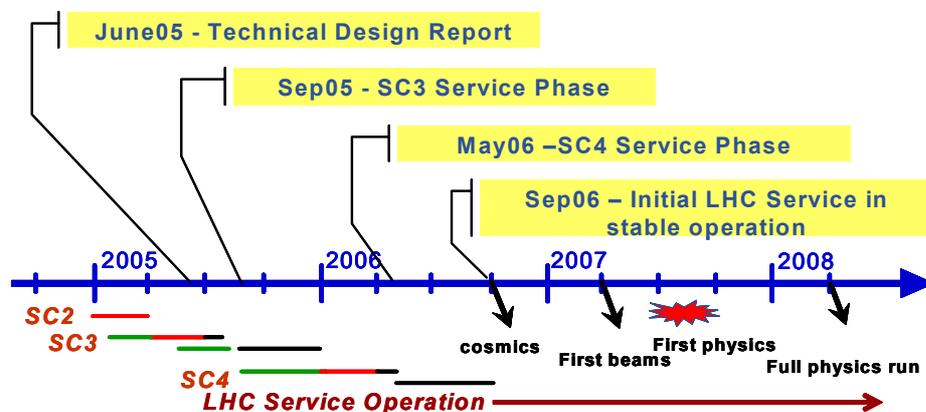
The agreement is needed as input to the LCG TDR, and so the group should complete its work before the end of April 2005. The report should define services with targets for functionality together with scalability/performance metrics. It must take account of the feasibility of putting the services in place during the next twelve months in order that they can be included in the "service phase" of Service Challenge 4 that begins in May 2006 (see outline timeline diagram).

Where software development is necessary to support the services this must be checked for feasibility with the developers. Where there are any doubts about achieving the targets, fall-back solutions must be defined.

When the report is available the project must negotiate, where necessary, work programmes with the software providers.

Guidelines

- The working group must identify the services and associated software that must be provided by the project, and the areas where these will be provided by the experiments.
- Where relevant an agreed fall-back solution should be specified – but this should be a solution that will already be available for the SC3 service in 2005.
- Wherever possible, metrics should be defined for scalability and performance.
- This should not be a design exercise – rather it should draw on existing software, practice and experience – and propose only developments that are achievable within the next 12 months and which have been agreed in principle by the teams that would undertake any such developments.
- Account must be taken of the resources available for any required development, and also the resources available to ensure long-term maintenance.
- Full account must be taken of the implications on regional centres, and grid operations infrastructure.



LCG Phase 2 Planning – Outline Service Timeline

Examples of items where agreement is required

- Storage management services
 - SRM interface – agree on subset of SRM options
 - Specify MSS implementation to be provided at named key sites
 - Availability of base disk pool manager for other sites
- Reliable file transfer service
 - Low-level service that underlies data placement services
 - Network aware, MSS implementation aware
- File placement service
 - Selects “best” site as destination of data
 - Are generalised algorithms realistic? – or should this be an experiment specific service?
- Grid catalogue services
 - Global and local functionality
 - Minimum distribution/synchronisation requirements
 - Performance and scaling metrics
 - Meta-data requirements
 - Relationship of the grid catalogue to application-specific catalogues
- Workload management
 - Essential improvements required
- Grid monitoring tools and services
 - Job status and tracking
 - Resource usage
 - Accounting
- VO management services
- Applications software installation service

Organisation

The working group should include:

- 2 experts from each experiment;
- one expert from each of the Grid Middleware, ARDA, Grid Deployment and Application areas of the project;
- a small number (~3) experts from regional centres, appointed by the GDB chair.

The chair of the working group will be appointed by the PEB.

The group should call on additional experts where necessary.

The group should report to the PEB within two months, with an interim report after 4 weeks. The report, once formally agreed by the PEB, will be provided as input to the TDR editorial group.