

Annex 3.4. Grid Operations Services

This section lists services required for the operation and management of the grid for LHC computing.

This section reflects the current (September 2005) state of experience with operating grids for high energy physics. It will be refined as experience is gained.

- **Grid Operations Centres** – Responsible for maintaining configuration databases, operating the monitoring infrastructure, pro-active fault and performance monitoring, provision of accounting information, and other services that may be agreed. Each Grid Operations Centre shall be responsible for providing a defined sub-set of services, agreed by the WLCG Collaboration. Some of these services may be limited to a specific region or period (e.g. prime shift support in the country where the centre is located). Centres may share responsibility for operations as agreed from time to time by the WLCG Collaboration.
- **User Support** for grid and computing service operations:
 - First level (end-user) helpdesks are assumed to be provided by LHC Experiments and/or national or regional centres, and are not covered by this MoU.
 - **Grid Call Centres** – Provide second level support for grid-related problems, including pro-active problem management. These centres would normally support only service staff from other centres and expert users. Each call centre shall be responsible for the support of a defined set of users and regional centres and shall provide coverage during specific hours.