

1. data-intensive analysis, including high performance access to the current versions of the Experiments' real and simulated datasets;
2. end-user analysis.
- iii. Support of the termination of high speed network connections by all Tier1 and Tier2 Centres as requested.
- iv. Coordination of the overall design of the network between the Host Laboratory, Tier1 and Tier2 Centres, in collaboration with national research networks and international research networking organisations.
- v. Tools, libraries and infrastructure in support of application program development and maintenance.
- vi. Basic services for the support of standard<sup>5</sup> physics "desktop" systems used by members of the LHC Collaborations resident at CERN (e.g. mail services, home directory servers, web servers, help desk).
- vii. Administration of databases used to store physics data and associated meta-data.
- viii. Infrastructure for the administration of the Virtual Organisation (VO) associated with each Experiment.
- ix. Provision of the following services for Grid Coordination and Operation:
  1. Overall management and coordination of the LHC grid - ensuring an effective management structure for grid coordination and operation (e.g. policy and strategy coordination, security, resource planning, daily operation,...);
  2. The fundamental mechanism for integration, certification and distribution of software required for grid operation;
  3. Organisation of adequate support for this software, generally by negotiating agreements with other organisations;
  4. Participation in the grid operations management by providing an engineer in charge of daily operation one week in four (this service is shared with three or more other institutes providing amongst them 52-week coverage).

The following parameters define the minimum levels of service. They will be reviewed by the operational boards of the WLCG Collaboration.

Service	Maximum delay in responding to operational problems			Average availability <sup>6</sup> measured on an annual basis	
	Service interruption	Degradation of the capacity of the service by more than 50%	Degradation of the capacity of the service by more than 20%	During accelerator operation	At all other times
Raw data recording	4 hours	6 hours	6 hours	99%	n/a
Event reconstruction or distribution of data to Tier-1 Centres during	6 hours	6 hours	12 hours	99%	n/a

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<sup>5</sup> The standard supported desktop systems are agreed periodically between CERN and its user community.

<sup>6</sup> (time running)/(scheduled up-time)