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Accounting in EGEE/WLCG

Friday 11 May 2007 12:00 (20 minutes)

Describe the scientific/technical community and the scientific/technical activity using (planning to use) the EGEE infrastructure. A high-level description is needed (neither a detailed specialist report nor a list of references).

The accounting activity collects the accounting data of all sites participating in the EGEE and WLCG infrastructures as well as from sites belonging to other grids that are collaborating with EGEE (OSG, Nordugrid, ..).
The data are then available for use, in different views through the Accounting Portal, by: all scientific communities using the named Grid Infrastructures; the owners and administrators of the constituent resources, and the management of the Grid Infrastructures.

Report on the experience (or the proposed activity). It would be very important to mention key services which are essential for the success of your activity on the EGEE infrastructure.

The accounting activity comprises the following services:
- R-GMA: The collection of accounting usage records is done through R-GMA, an implementation of the Grid Monitoring Architecture (GMA) proposed by the Global Grid Forum (GGF).
- Apel: Apel is a log processing application which is used to interpret gatekeeper and batch system logs to produce accounting records.
- Accounting Enforcement Task: To ensure the "data rightness" it is required to supervise and analyse the accounting data. Sites with problems publishing data are contacted using the EGEE GGUS support and ticketing system.
- Accounting Portal: Accounting statistics are available through the accounting portal for the analysis of the different grid users, VO admins and site administrators. The APG advisory board ensures the development of the accounting portal meets the requirements of the grid community.

With a forward look to future evolution, discuss the issues you have encountered (or that you expect) in using the EGEE infrastructure. Wherever possible, point out the experience limitations (both in terms of existing services or missing functionality)

Future work:
- Storage Accounting: availability and usage of disk and tape storage.
- Adoption of more OGF Standards. The OGF Usage Record is already used. Resource Usage Service web services interfaces for data transfer and interrogation are being developed.
- Include information about the reliability of the infrastructure (cancelled/failed/successful jobs) and the efficiency of the jobs/sites.
- Include information about the differences between committed (MoU), installed and used resources.

Describe the added value of the Grid for the scientific/technical activity you (plan to) do on the Grid. This should include the scale of the activity and of

the potential user community and the relevance for other scientific or business applications

The accounting statistics available through the Accounting Portal help the community to understand how the grid is being used by the different VO and users. How the resources are being distributed among the different VO and sites. How many resources (memory, disk, cpu, etc.) are needed to perform the different scientific tasks. The efficiency of the different jobs and the reliability of the sites. To establish SLA and to check them. The added value obtained is an increase in efficiency of use of the resources on the various Grids and an optimisation of resources delivered to the various scientific communities.

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