

RDIG MONITORING AND ACCOUNTING

Friday 11 May 2007 15:00 (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 developed monitoring system allows to keep an eye on parameters of Grid sites' operation in real time. There is also an option to keep track of a history of sites usage. The system is based on MonALISA package (Monitoring Agents in Large Integrated Systems Architecture) and our own developments. It permits to get an information on resources of computational sites, virtual organizations activities and some parameters of network channels.

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.

We have experience in monitoring and accounting of grid sites using LDAP, R-GMA, MonALISA.

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)

Following parameters were chosen for Russian Grid segment:
number of busy, free and down CPUs;
amount of running and waiting jobs for each virtual organization (VO);
used and available disc space for each VO;
main servers loading (e.g. for Computing Element);
Round Trip Time (RTT) in networks between Resource Centers.
The new monitoring system based on current one is developed now. It will include different subsystems such as job monitoring, network monitoring, storage monitoring and other impro

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

Additional task was an accounting system. It stores the data on resource utilization on Grid sites by virtual organizations and single users. The derivable parameters are jobs count, consumed CPU time, average job waiting time, used physical memory. Information is taking from R-GMA (Relational Grid Monitoring Architecture) system and stored in local Oracle DB. Web interface allows to select and group parameters by different criteria such as period of time, virtual organization, Grid site.
Now RDIG Monitoring and Accounting Web site is functioning well and is in use.

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