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End-user viewpoint of the EGEE infrastructure using GridICE

Friday 11 May 2007 14:20 (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).

Large Grid infrastructures such as EGEE are characterized by a huge amount of geographically dispersed heterogeneous resources. In this context, end-users ave not a clear knowledge of the type, state and features of the resources constituting the Grid. GridICE is a monitoring tool for Grid systems based on requirements given by different types of users. During the second phase of EGEE, this tool has been expanded in its functionalities to simplify the capability of tracking the user activity.

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 different aggregations and partitions of monitoring data are based on the specific needs of different users categories. Being able to start from summary views and to drill down to details, it is possible to verify the composition of virtual pools or to sketch the sources of problems. A complete history of monitoring data is also maintained to deal with the need for retrospective analysis. Both VO managers and end-users could navigate GridICE Web pages to verify the available resources and their status before to start the submission of a huge number of jobs.
The recent activity was targeted at comparing the information presented by GridICE with that obtained from the batch systems and other monitoring tools in order to improve the data quality of GridICE data. Furthermore, the non-intrusiveness and stability of the tool have been substantially improved even in a very large computing centers such TIER1's.

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)

In our future work, we will concentrate on improving the user experience, both at content and presentation levels (e.g., by adding VOMS group-based aggregations). Furthermore, we will cooperate to improve access to GridICE data from external applications (e.g. LCG Dashboard).

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 monitored data is collected from each site by means of the Information service.
The available measurements include the GLUE Schema and extensions have been defined

to satisfy new requirements. In particular, the new measurements are related to Grid jobs (e.g., Grid and local ID, memory usage, CPU usage) and to summary information of batch systems (e.g., number of total slots, number of worker nodes that are down). End-users have therefore the possibility to obtain information related to Grid resources inventory and availability. Moreover, they are able to track their Grid activities in terms of job state, resource consumption and associated VOMS attributes.

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