



Contribution ID: 53

Type: Poster

WMSMonitor: a tool to monitor the gLite WMS/LB service status and job workflow

Tuesday, 23 September 2008 16:29 (0 minutes)

Describe the activity, tool or service using or enhancing the EGEE infrastructure or results. A high-level description is needed here (Neither a detailed specialist report nor a list of references is required).

WMSMonitor is a tool developed to mainly support administrators for prevention and prompt detection of failures affecting the gLite Grid services responsible of the workload distribution task, namely the WMS and LB. The tool gives the possibility to monitor a pool of service instances reporting via a usable Web interface. Statistics are also gathered to control the overall lifecycle of jobs. This provides both administrators and users with a means to investigate the complex WMS/LB internal dyna

Report on the impact of the activity, tool or service. This should include a description of how grid technology enabled or enhanced the result, or how you have enabled or enhanced the infrastructure for other users.

Not only WMSmonitor supports administrators, but also helps developers to discover problematic service conditions, and to detect performance bottlenecks. Moreover the continuous monitoring over months of intense submission activity, showed how the tool is helpful to various user categories. Firstly, Grid service developers and performance testers are supported in the improvement of the quality of the middleware released. Secondly, during massive submission challenges WMSMonitor can help advanced Grid users to test the system scalability for their VO and, possibly, the quality of the VO tools in use for automatic submission. Finally, aggregated per-VO statistics proved to be useful to Grid operation centres and VO managers, to estimate the overall job submission activities in regions and to cross-check the output of VO-specific monitoring tools.

Describe the added value of the grid for your activity, or the value your tool or service adds for other grid users. This should include the scale of the activity and of the potential user community, and the relevance for other scientific or business applications.

High availability of the WMS is critical, as it acts as a user gateway to computing resources in the Grid. This implies continuous service status monitoring, as well as easy and prompt access to the information required for problem solving. WMSMonitor provides a single access point to both WMS/LB overall service status variables, and to information about individual WMS functional components. For example, job submission, processing and dispatching are monitored by regularly controlling the number of jobs being submitted, the job types, the number of jobs flowing between the various service internal components, and the number of jobs successfully completed. In addition, WMSMonitor keeps an historical archive of the data gathered, to expose on-demand statistics aggregates and reports over configurable time intervals.

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Session Classification: Demos and Posters

Track Classification: Poster