Performance Analyses of EGEE-like Grids in Asia and Latin America

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A measure to estimate the value that Grids can provide to potential users can be obtained by assessing the resources availability, middleware overhead and infrastructure reliability incurred when running an application in a trans-continental e-Infrastructure like EGEE. Celebrating the recent MoU between EELA-2 and EUAsiaGrid projects, both co-funded by EC under the Seventh Framework Programme, the proposed paper aims at providing a comparative study between their respective Grid infrastructures to highlight the maturity level compared with the European infrastructure provided by EGEE project.

Current monitoring tools provide information on the resources status. These figures are useful for Grid managers in order to check the availability of the services but not for end users because they do not provide any indication on the execution of users’ applications, such as the average job delay.

In our approach, by means of a synthetic application - that allows having its processing load and input/output data changed in different test cases – we plan to submit 1000 jobs to both project’s infrastructures from the same user interface (UI). The jobs will be randomly distributed during a period of 2 weeks without carrying about the level of availability of the computing resources (Ces) or about the number of jobs concurrently running at a giving moment. No special requirements will be set on the JDL files. We will let the core Workload Management System (WMS) of each project to automatically choose which CE to submit the jobs, considering both EUAsiaGrid and EELA-2 infrastructures as single entities.

The analysis of the results can be used to measure the quality of service provided by both projects to its respective user community.