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HLRmon: a tool to report accounting information within EGEE

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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).

The usage of computing resources provided by large production Grids, such as the EGEE one, relies on job submission activities. Hence, the necessity of a tool able to report job submission statistics, is crucial for the main stakeholders involved in Grid production infrastructures (ROC managers, site managers, VO managers and VO users). HLRmon is a Web tool reporting information gathered by a distributed accounting system, depending on the role granted to a given HLRmon user.

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.

HLRmon, as a visual Web tool for underlying accounting components, enables access to useful information for managers, administrators and users, thus enhancing their ability to produce needed graphical or tabular reports. These are easy, flexible to obtain and intrinsically confidential. All available reports have been designed and implemented to satisfy real users'demand, according to the requirements gathered from ROC, site and VO managers.

In order to reduce load on accounting databases, daily aggregated data are locally cached in HLRmon and nightly updated. Conversely, more specific requests only are addressed via runtime queries of external database servers.

Thanks to its modular implementation HLRmon may be well and easily adapted to report information about more metrics (such as storage usage) or from different underlying accounting systems, by simply developing a query module interface with data provider.

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.

The accounting information are filtered for the specific user accessing the Web interface. The user firstly requests authorization rights upon registration. Those are then evaluated and, possibly, accepted by HLRmon administrators. The authentication is performed via personal digital certificates. In this way, HLRmon applies a-priori restrictions on the range of items which can be selected by an user, to ensure that sensitive information is only provided to authorized clients.

The useble graphical interface offers to ROC and VO managers the ability to get detailed and portable reports

about the overall job activity on a given Grid infrastructure. In addition, site managers can inspect how the own resources have been exploited, in terms of CPU/Wall time, by the users of the supported VOs. On the other hand, HLRmon helps VO managers to analyse how the respective users are submitting jobs over the negotiated resources. Finally, VO users can only track their own CPU/Wall time consumption.

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