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Implementation of GLUE 2.0 support in the EMI Data Area

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Overview

Information provided by EMI Data Products concerning the state of handled Storage Areas is published through a group of dedicated components, basically called Info Providers. The Info Providers collect and publish status information on Information Service, currently implemented by BDII using LDAP server. The published information adheres to standard GLUE schemas. At the moment the versions 1.3 and 2.0 of GLUE schema exist. Up to EMI starts, the Information Service was exclusively based on the version 1.3 of GLUE schema, and therefore all the Info Providers were publishing status information accordingly. One task of EMI project is to migrate seamlessly to the new-updated version of GLUE schema, and consequently to demand the use of both versions of GLUE schema for all the EMI Data implementations. We have taken this opportunity to report on the implementation of support for the Glue 2.0 information model in the EMI Data Area.

Impact

The GLUE 2.0 schema was designed to allow a more accurate and natural description of the resources available on grid infrastructures. By supporting this, EMI Data is promoting the optimal use of grid resources.

Description of the work

EMI Data has committed to the implementation of GLUE 2.0 support across the relevant services and clients. This has involved reaching agreement on a common EMI interpretation of the schema to ensure a consistent implementation across components. In the case of StoRM, for example, this also has demanded a review of how the information was collected and published by Info Providers; and the development of a new interface by an API through which it might have been retrieved all the information necessary to give a representation of the status of each Storage Area managed by StoRM. On the one hand this allows StoRM to greatly simplify the development of info provider and on the other hand to change the implementation without modifying the external functional behaviour.

We describe the various tasks required to realise the GLUE 2.0 support and describe the status of the work. In addition, detail is given on

validation, testing and rollout as well as plans to further exploit the potential of the new schema.

Conclusions

The EMI data group has reached an agreement on the interpretation of the GLUE 2.0 schema. StoRM, dCache, and DMP publish storage information according to the new schema. The development of this feature has also enabled an internal refactoring as in the case of StoRM. EMI has committed to the implementation of GLUE 2.0 support across the relevant services and clients.

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