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AMGA Web Interface

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AMGA Web Interface is the implementation of the metadata interface designed by the ARDA team and it is the official metadata service of the EGEE gLite middleware. It provides many interesting features: metadata organization in a hierarchical structure, users, groups and ACLs handling with X509 certificates/proxies support, powerful SQL-like query language, replications. However, interacting with the AMGA services is not always user friendly especially for the non-expert users because the provided clients are unix command line tools and APIs. So the need for a simple and user friendly interface to manage metadata with AMGA arises.

We thought to a web interface to achieve access from any platform: the user just needs a web browser and a VOMS proxy to be authenticated to the AMGA server. After a successful login, he will be able to browse the hierarchy of AMGA collections, to inspect their schema and permissions, and to list their entries. He also has the ability to create a new collection, to define a metadata schema for it, add/edit/delete its entries, and finally to perform queries against its attribute. In all the previous operations, the respect of the collection and entry permissions will be guaranteed allowing users to access information for which he is actually authorized, thanks to the underlying usage of the AMGA APIs.

In future versions, a module to handle users and groups will be added. At the moment, a user needs to own an account in the underlying AMGA server, and he can only set permissions and ACLs per collection, granting access to already existent AMGA groups.

AMGA WI is a J2EE (Java 2 Enterprise Edition) web application developed with pure Java technologies (Java Servlet, Java Server Pages, Custom Tag Libraries). The application design follows the standard multi-layer web

application architecture consisting of a data presentation layer, a logic application layer and a data access layer. All these layers are built making use of the official AMGA Java APIs.

The data presentation layer consists of all web pages that make users able to access all provided features. These pages have a dynamic contents, according to the data stored into the AMGA Server backend. The web pages work with both logic components to perform data manipulation and with access components to retrieve and publish data.

The logic application layer is made up by all the software modules that encapsule the implementation of the provided features (metadata handling and manipulation). Every AMGA logical entity (collection, entry, attribute,..) is mapped to a specific software module. This ensures a very clean and simple software architecture with an high degree of cohesion and decoupling. These components work as services invoked by the overlying web pages.

The data access layer implements all the software components than ensure the data extraction from the AMGA server.

These components work as services invoked by the web pages and they provide a mechanism to retrieve data and publish dynamic content.

A working beta version will be showed during the demo session at EGEE 06 conference.

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