Contribution ID: **145**   Type: **Demonstration**

EnginFrame Genius Grid Portal and VOMS Proxy creation.

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With Enginframe user can interact with files on the UI, can submit and monitor jobs to Grid and manage data and job output inside the VO belongs to. The Web portal eliminates any problems and needs about particular Operating System running on the client, the user can interact with the Grid from everywhere and with everything:
a Java compliant web browser is only required. The purpose of VOMS ProxyInit service is to create the user's grid proxy file, with or without VOMS Extensions, using its personal certificate and private key from his usb pen drive attached to the local workstation, and finally, by means of an encrypted and mutually authenticated connection, transfer just the created proxy file to the server where is installed Enginframe with GENIUS on top. Globus Security Infrastructure provides communication integrity between elements of a computational Grid and support for single sign-on for users and it was implemented in the VOMS ProxyInit service to client-server communication

3. Impact

With the new VOMS ProxyInit service, given a user already belongs to VO, is now possible to create its proxy file using its personal certificate and private key directly form its "local computer",
then by means the Global Security model implementation, it is transferred to the server installed on GENIUS. In this way, the user's private key is kept completely secure and not required to be copied on remote UI machine.
The command line complexity is hidden to users that are able to create a valid grid proxy with few clicks from the GENIUS portal.
Furthermore, VOMS service accepts both P12 and PEM formats so any certificate's conversion and management is needed from user now.
The proxy obtained is fully compatible with the standard Globus proxy format and can contain additional VO-related attributes using from Grid services to perform decision based on their values about the user's request and its authorization.

URL for further information:

https://genius.ct.infn.it/
https://gilda.ct.infn.it/
http://www.nice-italy.com/

4. Conclusions / Future plans

Given the modularity and flexibility of EnginFrame Framework, which acts as a general-purpose framework underneath GENIUS,
the portal can be easily customized and adapted to interact with other Grid Middlewares, even non-Glite based, new Virtual Organization, Scheduler at the same time.
Acting as a simple and intuitive "gate" to access the Grid, the portal brings with itself a huge dissemination power, in fact, it is the official portal of GILDA VO.

Provide a set of generic keywords that define your contribution (e.g. Data Management, Workflows, High Energy Physics)

grid portal, voms, proxy, authentication, genius, enginframe, virtual organization, gilda,

1. Short overview

Grid and their associated tools must be presented to novice users in terms of applications, without needing to know the underlying details of Grid Middlewares.

Genius and EnginFrame Grid portal are an increasingly popular mechanism for creating customizable, Web-based interfaces to Grid services and resources.

This work describes the new portal's capabilities and a new service for VOMS Proxy creation through the portal.

If demonstration is requested please explain what visual or interactive aspects of the contribution necessitate a demonstration rather than a presentation or poster?

Visual and interactive aspects are related to give the possibility to every user and also normal conference partecipants to create their own proxy and try to use grid, submit job, get the output, directly from the portal in a very easy way.

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