Contribution ID: **31** Type: **Demonstration**

A General Purpose Grid Portal for simplified access to Distributed Computing Infrastructures

Description of the work

Since one of the major obstacles that very often prevent new users from using the grid infrastructure is the AA complexity, the portal is based on an external authentication layer providing strong user identification by means of an accredited identity federation.
The portal is interfaced to an online CA, which provides users with digital certificates in a transparent way; a long term proxy is then created and saved into a MyProxy server in an encrypted form.
Through the portal users can then submit either simple jobs or complex workflows to the grid by simply providing a passphrase to retrieve and decrypt the proxy without the need of directly managing the X509 certificate.
Users belonging to a specific community can have a customized view where they can submit their applications to several different middleware stacks.

The portal also provides a simple but powerful data-management tool that does not require custom software on the client side and allows users to upload data to the Grid, move data among Grid sites and download the output of the grid jobs. Users are notified by mail when the upload/download operations are completed.

The demo will show how users register to the portal, how the portal will get a digital certificate from the online CA on behalf of the user, how users register to a VO, how the proxy is created and stored in the repository, how simply jobs can be submitted to the grid and customized view for SPES experiment community.

Link for further information

https://wiki.italiangrid.org/twiki/bin/view/IGIPortal/WebHome

Wider impact of this work

This solution can have a huge impact on the user communities that currently are not using the grid because of the too complex access and it can then greatly improve the number of grid users.

Printable Summary

The Italian National Grid Infrastructure (IGI) has developed a web portal which provides a powerful and easy to use access gateway to distributed computing and storage resources.
To hide the complexity of X509 certificates the portal is interfaced to an online CA that provides certificates to users belonging to an accredited identity federation.

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