Security on Grid: User Interface, Internals and APIs

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HANDS ON

Certificates

- Do you have a valid certificate?

- Where is your certificate? Which format is it?

- At the end of this section you must have a valid pair "certificate-key" in PEM format.
  - What does this PEM means by the way?

- Is your private key safe enough?
  - Where did you store it?
  - Which permission did you give to the file?

- Verify your certificate and, in particular, gather the following info:
  - Which is the subject string of your certificate?
  - Who issued your certificate?
  - Since which day your certificate is/will be valid?
  - VERY IMPORTANT: when is your certificate going to expire

Still on Certificates

- Check the *openssl* command (man page on the UI)
  - Openssl is a library used to handle certificates
- What is a private key? Check:

openssl rsa -in ~/.globus/userkey.pem –text

- What is X509 ? - Check:

openssl x509 –in ~/.globus/usercert.pem –text

- What is in:

/etc/grid-security/certificates ?

Proxies

- Create a proxy starting using your certificate and your private key.
  - Where is your proxy stored? Which is the permission on the file?
  - Create another proxy in a non standard location
    - Do you still have the old one after that
  - Set your environment in order to be able to use this proxy

- Verify your proxy
  - Which is the lifetime of the proxy
  - How do you generate a shorter proxy?

- Destroy your proxy
  - Verfy you have no proxy anymore

Using the myproxy server

- Get a proxy with grid-proxy-init

- Register a long living proxy with the MyProxy server grid001.ct.infn.it
  - How many passwords you need to supply?
  - What are they needed for?

- Display information about the two proxies
  - The one stored on the MyProxy server
  - The one stored locally on the machine

- Destroys the local proxy and verify it does not exist anymore
- Get a new proxy from the MyProxy server.
  - It is this step that GENIUS will perform when a user requests a Grid service.

- Shows the proxy retrieved from the MyProxy server.