



Enabling Grids for E-science

MyProxy Server Installation

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- **Proxy Renewal mechanism.**
- **MyProxy Server Installation.**
 - Configure `/etc/myproxy-server.config`
 - Configure `/etc/init.d/myproxy` script
 - Start MyProxy Server.
- **Testing MyProxy Server.**
 - `myproxy-init -s <myproxy server>`
 - `myproxy-get-delegation -s <myproxy server>`

- **Proxy has limited lifetime (default is 12 h)**
 - Bad idea to have longer proxy.
 - Long jobs may outlive the validity of the initial proxy; if so and the proxy is not renewed, the job will die prematurely.
 - To avoid this the WMS allows the proxy to be renewed automatically if user's credentials are managed by a myproxy server (*proxy renewal mechanism*).
- **A dedicated service on the RB can renew automatically the proxies for jobs which need them.**
- **To use the **automatic proxy renewal mechanism** register user's credential using the command:**
`myproxy-init -s <server> -t <hours> -d -n`
 and specify MyProxy server in a job's JDL as follow:
`MyProxyServer = "grid001.ct.infn.it";`

Installing MyProxy Server



- MyProxy is not gLite/lcg native (*external dependencies*)
- It is distributed together with the most of gLite services (UI,WMS..)

- Check that `$LD_LIBRARY_PATH` exports globus and myproxy lib

```
%echo $LD_LIBRARY_PATH
/usr/lib:/opt/glite/lib:/opt/glite/externals/lib:/opt/globus/lib:/opt/glite/externals/myproxy-1.14/lib
```

- Check that globus bin directory is into `$PATH`

```
%echo $PATH
/opt/globus/bin:/usr/java/j2sdk1.4.2_08/bin:/usr/bin:/opt/glite/bin:/opt/glite/externals/bin:/usr/java/j2sdk1.4.2_08/bin:/opt/glite/externals/bin:/opt/glite/bin:/opt/glite/externals/myproxy-1.14/bin:/opt/globus/bin:/usr/sue/sbin
```

- Request host certificates for MyProxy Server.
 - <https://gilda.ct.infn.it/CA/mgt/restricted/srvreq.php>
- Install host certificate (hostcert.pem and hostkey.pem) in **/etc/grid-certificates**.
 - *chmod 644 hostcert.pem*
 - *chmod 400 hostkey.pem*
- If planning to use certificates released by unsupported EGEE CA's, be sure that their public key and CRLs (usually distributed with an rpm) are installed.
 - The CRL of the VO GILDA are available from https://gilda.ct.infn.it/RPMS/ca_GILDA-0.28.1.i386.rpm

- Copy `/opt/glite/externals/myproxy-1.14/etc/myproxy-server.config` to `/etc`.
- Edit `/etc/myproxy-server.config` and define the access policies

```

accepted_credentials "/C=BE/O=BEGRID/*"
accepted_credentials "/C=AT/O=AustrianGrid/*"
accepted_credentials "/C=TW/*"
accepted_credentials "/C=CN/O=IHEP/OU=CC/*"
accepted_credentials "/C=AM/O=ArmeSFo/*"
accepted_credentials "/C=it/O=GILDA/*"
accepted_credentials "/C=IT/O=GILDA/*" proxy certificate subjects
    accepted to be stored
authorized_retrievers "*" certificate subject allowed to request
    credentials delegation
authorized_renewevers "*" certificate subject allowed to request
    credentials renew

```

- Download and install the configuration script.

`rpm -ivh http://grid-deployment.web.cern.ch/grid-deployment/download/RpmDir_i386-rh73-manual/external/myproxy-config-1.1.8-13.edg1.noarch.rpm`

- Edit `/etc/init.d/myproxy`

Comment

```

.${GLOBUS_LOCATION}/libexec/globus-script-initializer
.${libexecdir}/globus-sh-tools.sh

```

Comment

```

MKCONFIG="/etc/rc.d/init.d/myproxy-generate-config.pl $CERTDIR
$X509_USER_CERT $EDG_LOCATION/etc/edg-myproxy.conf $CONFIG"

```

Replace

```

MYPROXY=/opt/glite/externals/myproxy-1.14/sbin/myproxy-server

```


- Listening port, storing directory for credentials and configuration file could be changed setting the appropriate variables (PORT, STORE, CONFIG) on init script.
 - **PORT="-p 751X"**
 - **STORE="-s /var/myproxy"**
 - **CONFIG="-c \$CONFIG"**
- Pay attention to ownerships/permissions for \$STORE ! (root / 700).

- **-A RH-Firewall-1-INPUT -m state --state NEW -m tcp -p tcp --dport 7513 -j ACCEPT**
- **service iptables restart**
- **/etc/init.d/myproxy start**



Testing MyProxy Server

- **myproxy-init -s <host_name>**
 - -s: <host_name> specifies the hostname of the myproxy server

- **myproxy-info -s <host_name>**
 - Get information about stored long living proxy

- **myproxy-get-delegation -s <host_name>**
 - Get a new proxy from the MyProxy server

- **myproxy-destroy -s <host_name>**
 - Destroy the credential into the server

- Check out the **myproxy-xxx - - help** option

%voms-proxy-destroy (remove local credentials)

%myproxy-init -s <server name> -p <port>

...

Enter GRID pass phrase for this identity:

...

Enter MyProxy pass phrase:

...

A proxy valid for 168 hours (7.0 days) for user xxx now exists on ui-test.trigrid.it.

Now your credentials are stored on MyProxy server, and are available for delegation or renewal by RB

```
%myproxy-get-delegation -s <server name> -p <port>
```

Enter MyProxy pass phrase:

A proxy has been received for user XXX in
/tmp/x509up_u5XX

%voms-proxy-info -all

subject : /C=IT/O=GILDA/OU=Personal

Certificate/L=INFN/CN=Emidio

**Giorgio/Email=emidio.giorgio@ct.infn.it/CN=proxy/CN
=proxy/CN=proxy**

issuer : /C=IT/O=GILDA/OU=Personal

Certificate/L=INFN/CN=Emidio

**Giorgio/Email=emidio.giorgio@ct.infn.it/CN=proxy/CN
=proxy**

identity : /C=IT/O=GILDA/OU=Personal

Certificate/L=INFN/CN=Emidio

Giorgio/Email=emidio.giorgio@ct.infn.it

