

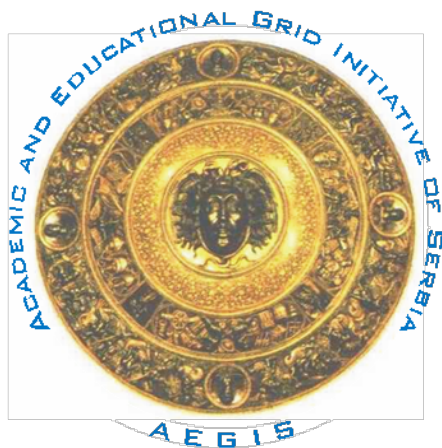


Enabling Grids for E-science

# Obtaining and using grid certificate

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SEE-GRID-SCI  
SEE-GRID infrastructure for regional eScience



Information Society



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[www.eu-egee.org](http://www.eu-egee.org)

- Certificates
- User Interface
- Obtaining a certificate
- Converting certificates
- Proxies
- Proxy renewal

- Grid passport
- X.509
- Public key infrastructure (public and private key)
- Subject Name (SN)

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- Certification Authority (CA) – AEGIS CA
- Virtual Organization (VO)
- Certificate Revocation List – CRL

- Access point to Grid
- User must have a local account on machine
- Basic grid operations:
  - list resources suitable for job
  - submit jobs
  - cancel jobs
  - show job status
  - retrieve job output
  - file operations

- .globus  
\$ grid-cert-request  
userkey.pem usercert\_request.pem usercert.pem
- Right permissions:
  - 444 usercert.pem
  - 400 userkey.pem
- Checking a certificate  
\$ grid-cert-info [-subject | -enddate | -issuer)

- Creating p12 certificate  

```
$ openssl pkcs12 -export -in ~/.globus/usercert.pem -  
inkey ~/.globus/userkey.pem -name "My Certificate" -  
out mycertificate.p12
```
- Importing certificate into the mail client and web browser
- VO membership request (web interface)

- Standard proxies
  - \$ grid-proxy-init
  - \$ grid-proxy-info
  - \$ grid-proxy-destroy
- VOMS proxies
  - Group
  - Role
  - \$ voms-proxy-init -voms <vo>
  - \$ voms-proxy-init -voms <alias>:<group name>
  - :[Role=<role name>]
  - \$ voms-proxy-info (-all)

- MyProxy server

```
$ echo $MYPROXY_SERVER
```

```
$myproxy-init -s <myproxy_server> -d -n
```

```
$myproxy-info -s <myproxy_server> -d
```

```
$ myproxy-destroy -s <myproxy_server> -d
```



- <http://ca.aegis.rs>
- <https://edms.cern.ch/file/722398//gLite-3-UserGuide.pdf>
- [http://wiki.egee-see.org/index.php/Quick\\_User\\_Guide\\_for\\_Submitting\\_Jobs](http://wiki.egee-see.org/index.php/Quick_User_Guide_for_Submitting_Jobs)