LBNE access control.

BV

[2014-07-01 Tue 12:46]

1   Certificates

Certificates may be used for accessing DocDB or "grid" resources which includes remote-access of LBNE data.

1.1   DocDB and certificates

to write: using SILogon, getting cert accepted by docdb

1.2   Grid Certificates

There are two ways to obtain a "grid" certificate. One is from the Open Science Grid (OSG) and one is to generate an ephemeral one from a Fermilab Kerberos ticket.

to write:

- getting a cert from kerberos using kx509

- getting an OSG certificate, converting to .pem files, voms-init, adding to VO

2   FNAL

2.1   dCache

See here for example.

```
bviren@lycastus:~> ssh bv@lbnegpvm01.fnal.gov
bv@lbnegpvm01:~> export ROLE=Analysis
bv@lbnegpvm01:~> export EXPERIMENT=lbne
bv@lbnegpvm01:~> kx509
```

```
Service kx509/certificate
 issuer= /DC=gov/DC=fnal/O=Fermilab/OU=Certificate Authorities/CN=Kerberized CA HSM
 subject= /DC=gov/DC=fnal/O=Fermilab/OU=People/CN=Brett M. Viren/CN=UID:bv
 serial=02C7AF3B
 hash=1a58ef67
bv@lbnegpvm01:~> voms-proxy-init -rfc -noregen -voms lbne:/lbne/Role=$ROLE -valid 24:0
Your identity: /DC=gov/DC=fnal/O=Fermilab/OU=People/CN=Brett M. Viren/CN=UID:bv
Contacting  voms1.fnal.gov:15029 [/DC=com/DC=DigiCert-Grid/O=Open Science Grid/OU=Serv
Creating proxy ........................................................................

Your proxy is valid until Wed Jul  2 15:21:22 2014
bv@lbnegpvm01:~> voms-proxy-info -all
subject   : /DC=gov/DC=fnal/O=Fermilab/OU=People/CN=Brett M. Viren/CN=UID:bv/CN=992229
issuer    : /DC=gov/DC=fnal/O=Fermilab/OU=People/CN=Brett M. Viren/CN=UID:bv
identity  : /DC=gov/DC=fnal/O=Fermilab/OU=People/CN=Brett M. Viren/CN=UID:bv
type      : RFC compliant proxy
strength  : 1024 bits
path      : /tmp/x509up_u9716
timeleft  : 23:59:56
key usage : Digital Signature, Key Encipherment
=== VO lbne extension information ===
VO        : lbne
subject   : /DC=gov/DC=fnal/O=Fermilab/OU=People/CN=Brett M. Viren/CN=UID:bv
issuer    : /DC=com/DC=DigiCert-Grid/O=Open Science Grid/OU=Services/CN=voms1.fnal.gov
attribute : /lbne/Role=Analysis/Capability=NULL
attribute : /lbne/Role=NULL/Capability=NULL
timeleft  : 23:59:56
uri       : voms1.fnal.gov:15029
bv@lbnegpvm01:~> which root
/usr/bin/which: no root in (/usr/krb5/bin:/usr/lib64/qt-3.3/bin:/usr/kerberos/bin:/usr
bv@lbnegpvm01:~> . /grid/fermiapp/products/common/etc/setups.sh
bv@lbnegpvm01:~> setup ifdhc
bv@lbnegpvm01:~> ups list -aK+ -z /grid/fermiapp/products/lbne/db |grep root
"root" "v5_26_00" "Linux+2.6" "GCC_3_4_6" ""
"root" "v5_32_00" "Linux+2.6-2.5" "" ""
"root" "v5_32_00" "Linux64bit+2.6-2.5" "" ""
bv@lbnegpvm01:~>  setup root v5_32_00 -z /grid/fermiapp/products/lbne/db
bv@lbnegpvm01:~> xrdcp root://fndca1.fnal.gov:1094/pnfs/fnal.gov/usr/lbne/mc/lbne/simu
-bash: xrdcp: command not found
bv@lbnegpvm01:~> root -l root://fndca1.fnal.gov:1094/pnfs/fnal.gov/usr/lbne/mc/lbne/si
```

2

```
 *** DISPLAY not set, setting it to 130.199.229.13:0.0
dlopen error: libXrdOuc.so.0: cannot open shared object file: No such file or director
Load Error: Failed to load Dynamic link library /grid/fermiapp/products/lbne/prd/root/
root [0]
Attaching file root://fndca1.fnal.gov:1094/pnfs/fnal.gov/usr/lbne/mc/lbne/simulated/00
Error in <TPluginHandler::SetupCallEnv>: class TXNetSystem not found in plugin Netx
Error in <TPluginHandler::SetupCallEnv>: class TXNetFile not found in plugin Netx
```

Okay, not xrootd there hunt through the UPS forest some more and:

```
bv@lbnegpvm01:~> ls -d /grid/fermiapp/products/*/xroot*
/grid/fermiapp/products/larsoft/xrootd
bv@lbnegpvm01:~> ups list -aK+ -z /grid/fermiapp/products/larsoft |grep root
..."xrootd" "v3_3_6a" "Linux64bit+2.6-2.12" "e5:prof" ""
bv@lbnegpvm01:~> setup xrootd v3_3_6a -q e5:prof -z /grid/fermiapp/products/larsoft
bv@lbnegpvm01:~> xrdcp root://fndca1.fnal.gov:1094/pnfs/fnal.gov/usr/lbne/mc/lbne/simu
[xrootd] Total 117.07 MB |====================| 100.00 % [119.7 MB/s]
```

Eventual success.