



Grid Computing in Egypt.

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Agenda

- 1- installation & configuration
- 3- Authentication/Authorization
- 4- Registration
- 5- Test
- 6- Problems

Installation and configuration

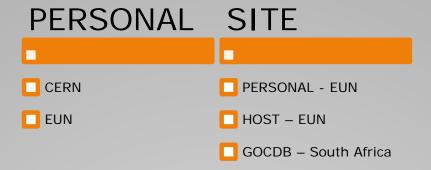
- I was invited to build a T3-Grid site At Zewail City.
- we have 8 physical machines + 2 Virtual machines +
 24 core work station + 12 core work station.
- Also have 8TB Storage.
- We have a plan to make the site bigger than it is.
- I wrote shell script to facilitate the installation.
- We use EMI3 as a middleware
- Some of our resources are for CMP users we support them with EMI-MPI to be able to run some softweres.

The grid is consisting from the following

- 1. BDII_SITE.
- 2. BDII_TOP.
- 3. UI.
- 4. CE TORQUE server (pbs)
- 5. 2 Physical WN + 2 vertual WNs.
- 6. DPM_MYSQL and DPM_DISK on one machine.
- 7. SQUID-server.
- 8. 8 TB separate storage server (nfs).

Installed Configured Via yaim

Authentication/Authorization



- Our site is registred on GOCDB with name EG-ZC-T3 under Afirca/Arabia ROC.
- Our site registerd under GOCDB.
- Now we are a certified site and monitored by Nagios.
- We have squid CernFS.
- CMSSW installed.

13 Sites				
Name	NGI	Infrastructure	Certification Status	Scope(s)
» ASRT	AfricaArabia	Production	Uncertified	EGI, Local
» DZ-01-ARN	AfricaArabia	Production	Certified	EGI, Local
» EG-ZC-T3	AfricaArabia	Production	Certified	EGI, Local
» KE-UONBI-01	AfricaArabia	Production	Uncertified	EGI, Local
» MA-01-CNRST	AfricaArabia	Production	Certified	EGI, Local
» TZ-DIT-01	AfricaArabia	Test	Candidate	Local
» ZA-CHPC	AfricaArabia	Production	Certified	EGI
» ZA-MERAKA	AfricaArabia	Production	Certified	EGI

Production

Production

Production

Production

Production

AfricaArabia

AfricaArabia

AfricaArabia

AfricaArabia

AfricaArabia

» ZA-MERAKA-DEV

» ZA-UCT-ICTS

» ZA-WITS-CORE

» ZA-UFS

» ZA-UJ

Uncertified

Certified

Certified

Certified

Certified

EGI, Local

EGI

EGI

EGI

EGI

CRAB test
<<Done Ok >>

ExitCode

= [0]

```
[amohamed@ui-cfp ~1$ glite-ce-job-submit --debug -a -r ce-cfp.zewailcity.edu.eg
:8443/cream-pbs-cms glite-submit.jdl
2014-04-28 12:32:09,232 DEBUG - Using certificate proxy file [/tmp/x509up_u0]
2014-04-28 12:32:09,245 DEBUG - UO from certificate=[cms]
2014-04-28 12:32:09.245 WARN - No configuration file suitable for loading. Using
 built-in configuration
2014-04-28 12:32:09,245 DEBUG - Logfile is [/tmp/glite_cream_cli_logs/glite-ce-j
ob-submit_CREAM_amohamed_20140428-123209.log1
2014-04-28 12:32:09,245 DEBUG - Processing file [simple.shl...
2014-04-28 12:32:09,245 DEBUG - Adding absolute path [/home/amohamed/simple.shl.
2014-04-28 12:32:09,245 DEBUG - Inserting mangled InputSandbox in JDL: [<"/home/
amohamed/simple.sh">1...
2014-04-28 12:32:09,544 INFO - certUtil::generateUniqueID() - Generated Delegati
onID: [71913b46ade8bdea7bd1984a303990417c970395]
2014-04-28 12:32:12,336 DEBUG - Registering to [https://ce-cfp.zewailcity.edu.eg
:8443/ce-cream/services/CREAM21 JDL=[ StdOutput = "standardout.out"; BatchSystem
= "pbs"; QueueName = "cms"; ShallowRetryCount = 10; Executable = "simple.sh"; T
ype = "Job"; JobType = "Normal"; InputSandbox = { "/home/amohamed/simple.sh" };
StdError = "standarderr.err" ] - JDL File=[glite-submit.jdl]
2014-04-28 12:32:12.763 DEBUG - JobID=[https://ce-cfp.zewailcity.edu.eq:8443/CRE
AM464590133]
2014-04-28 12:32:12,763 DEBUG - UploadURL=[gsiftp://ce-cfp.zewailcity.edu.eg/san
dboxes/cms/CN_Ashraf_Mohamed_CN_743081_CN_amohamed_OU_Users_OU_Organic_Units_DC_
cern_DC_ch_cms_Role_NULL_Capability_NULL_cms033/46/CREAM464590133/ISBI
2014-04-28 12:32:12,764 INFO - Sending file [gsiftp://ce-cfp.zewailcity.edu.eg/s
andboxes/cms/CN_Ashraf_Mohamed_CN_743081_CN_amohamed_OU_Users_OU_Organic_Units_D
C cern DC ch cms Role NULL Capability NULL cms033/46/CREAM464590133/ISB/simple.s
<u> 2014-04-28 12:32:12,959 DEBUG - Will invoke JobStart for JobID [CREAM464590133]</u>
https://ce-cfp.zewailcity.edu.eg:8443/CREAM464590133
[amohamed@ui-cfp ~1$ glite-ce-job-status https://ce-cfp.zewailcity.edu.eg:8443/C
REAM464590133
         JobID=[https://ce-cfp.zewailcity.edu.eg:8443/CREAM464590133]
                         = [DONÊ-OK]
         Status
```

Problems

- Host certificat.<solved>>
- Munge key on both (CE and WNs). <<solved>>
- NTP.
- Static real IPs.<solved>>
- The local patch sys. Could not transfere the job files from CE/sandboxes to WNs/sandboxes so add an external NFS mounted on both machines.

