

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

PERSONAL

SITE



CERN

PERSONAL - EUN

EUN

HOST - EUN

GOCDB - South Africa

- 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
» ZA-MERAKA-DEV	AfricaArabia	Production	Uncertified	EGI, Local
» ZA-UCT-ICTS	AfricaArabia	Production	Certified	EGI
» ZA-UFS	AfricaArabia	Production	Certified	EGI
» ZA-UJ	AfricaArabia	Production	Certified	EGI
» ZA-WITS-CORE	AfricaArabia	Production	Certified	EGI

- Local test << Done Ok >>
- Complete job using pbd << Done Ok >>
- CMSSW test << Done Ok >>
- CRAB test << Done Ok >>

```
[amohamed@ui-cfp ~]$ 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.log]
2014-04-28 12:32:09.245 DEBUG - Processing file [simple.sh]...
2014-04-28 12:32:09.245 DEBUG - Adding absolute path [/home/amohamed/simple.sh].
-
2014-04-28 12:32:09.245 DEBUG - Inserting mangled InputSandbox in JDL: [{"/home/
amohamed/simple.sh"}]...
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/CREAM2] 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.eg: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/ISB]
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
h]
2014-04-28 12:32:12.959 DEBUG - Will invoke JobStart for JobID [CREAM464590133]
https://ce-cfp.zewailcity.edu.eg:8443/CREAM464590133
[amohamed@ui-cfp ~]$ glite-ce-job-status https://ce-cfp.zewailcity.edu.eg:8443/C
REAM464590133

***** JobID=[https://ce-cfp.zewailcity.edu.eg:8443/CREAM464590133]
Status = [DONE-OK]
ExitCode = [0]
```

Problems

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

спасибо
danke 謝謝
ngiyabonga
tesekkür ederim
thank you
dank je
gracias
tapadh leat
bedanki
hvala
спасиуи
dziękuje
moichakkeram
obrigado
sagebur
sukriya
kop khun krap
go raibh maith agat
arigato
takk
dakujem
merci
lanima kasib
감사합니다
merci