

**Quality Criteria Verification
Executive Summary
For QCV, Stage Rollout, DMSU and EGI internal**

Name of the component			
Release	EMI.mpi.sl5.x86_64-1.2.0	RT Ticket: https://rt.egi.eu/guest/Ticket/Display.html?id=3252	
Software Provider			
Release Contact	Name: Cristina Aiftimiei	E-Mail: cristina.aiftimiei@pd.infn.it	
Validator	Name: Esteban Freire García	E-Mail: esfreire@cesga.es	
V. Hours Worked	18 hours		
Component st	VERIFIED	Date	
Verification start date	16/01/12	Verification end date	18/01/12

Summary:

EMI-MPI was installed from UMD repository without any important issue in a fresh installation together with creamCE + Torque + Maui installed from the EMI Production repository

There is still two open bugs which was found during the first UMD verification of WN/Torque + EMI-MPI.1.0. It is a torque/maui problem that affects to MPI jobs but is not exclusive of that kind of jobs. As mentioned in the release notes, Maui versions prior to 3.3.4 do not allocate correctly all the nodes for the execution of jobs. The maui version provided as third-party in EMI/UMD at this moment is maui-3.2.6p21-snap.1234905291.5.el5. I am afraid until there is a new version of MAUI package available in the repository is not going to be possible submit parallel jobs requesting more than one processor in a installation with MPI + creamCE + Torque + Maui. See open ggus tickets below. This will be also mentioned in "Comments for SR "section".

GGUS Tickets:

- https://ggus.eu/ws/ticket_info.php?ticket=57828
- https://ggus.eu/ws/ticket_info.php?ticket=67870

Summary of Quality Criteria verification:

	Generic Quality Criteria Total (Critical/Non critical)			
	Passed	Not passed	Not Applicable	Total
TP				
VLD	11			11
	Specific Quality Criteria			
TP				
VLD	4			4

Quality Criteria verification cheatsheet:

<Insert filled excel cheatsheet>

Criteria	Accepted (Y/N/NA)	Tested (TP/VLD)	Comments
Generic QC			
GENERIC_DOC_1 (Functional Description)	Y	VLD	http://grid.ifca.es/wiki/Middleware/MpiStart/MpiUtils#Functional
GENERIC_DOC_2 (Release Notes)	Y	VLD	http://www.eu-emi.eu/emi-1-kebnekaise-updates/-/asset_publicis
GENERIC_DOC_3 (User Documentation)	Y	VLD	http://grid.ifca.es/wiki/Middleware/MpiStart/UserDocumentation
GENERIC_DOC_4 (Online help (man pages))	Y	VLD	http://grid.ifca.es/wiki/Middleware/MpiStart
GENERIC_DOC_6 (Administrator Documentation)	Y	VLD	http://grid.ifca.es/wiki/Middleware/MpiStart
GENERIC_DOC_8 (Software License)	Y	VLD	GPL
GENERIC_DOC_9 (Release changes testing)	Y	VLD	http://www.eu-emi.eu/emi-1-kebnekaise-updates/-/asset_publicis
GENERIC_DIST_1 (Source Code Availability)	Y	VLD	http://emisoft.web.cern.ch/emisoft/dist/EMI/1/sl5/SRPMS/updates
GENERIC_DIST_2 (Source Distribution)	Y	VLD	http://emisoft.web.cern.ch/emisoft/dist/EMI/1/sl5/SRPMS/updates
GENERIC_DIST_3 (Binary Distribution)	Y	VLD	http://emisoft.web.cern.ch/emisoft/dist/EMI/1/sl5/x86_64/updates
GENERIC_MISC_2 (Bug Tracking System)	Y	VLD	https://ggus.eu/pages/home.php
Compute Capabilities QC			
PARALLEL_MPI_1 (Precompiled MPI job Execution)	Y	VLD	Job submitted without issues for openmpi but (see GGUS #67870 and GGUS #57828).
PARALLEL_MPI_2 (MPI job Execution from source.)	Y	VLD	Job submitted without issues for openmpi but (see GGUS #67870 and GGUS #57828).
PARALLEL_OMP_1 (Precompiled OpenMP job Execution)	Y	VLD	Job submitted without issues for openmpi but (see GGUS #67870 and GGUS #57828).
PARALLEL_OMP_2 (OpenMP job Execution from source)	Y	VLD	Job submitted without issues for openmpi but (see GGUS #67870 and GGUS #57828).
Operations Capabilities QC			
MON_PROBE_GENERIC_2 (Service Probe)			

Validator comments:

emi.mpi was installed on creamCE and on the WNs without problems, the complete list of used repositories from UMD is this:

```
[root@test06 yum.repos.d]# cat EMI.mpi.sl5.x86_64.repo
# EGI Software Repository - REPO META (releaseId,repositoryId,repofileId) -
(3252,405,327)
```

```
[EMI.mpi.sl5.x86_64]
name=EMI.mpi.sl5.x86_64
baseurl=http://admin-repo.egi.eu/sw/unverified/emi.mpi.sl5.x86_64/1/2/0/
enabled=1
protect=1
gpgcheck=1
gpgkey=http://emisoft.web.cern.ch/emisoft/dist/EMI/1/RPM-GPG-KEY-emi
```

EMI-MPI was installed from UMD repository without any important issue in a fresh installation together with creamCE + Torque + Maui installed from the EMI Production repository. Therefore, I am going to put the complete installation.

==== Installing ====

* Installing the CAs

```
{ { {
```

```
yum install ca-policy-egi-core
```

```
yum install lcg-CA
```

```
} } }
```

==== Installing the CREAM-CE software ====

```
{ { {
```

```
[root@test06 yum.repos.d]# rpm -qa | grep java
```

```
java-1.4.2-gcj-compat-1.4.2.0-40jpp.115
```

```
} } }
```

* yum install xml-commons-apis

```
{ { {
```

Installed:

```
xml-commons-apis.x86_64:1.3.02-0.b2.7jpp.10
```

Dependency Installed:

xml-commons.x86_64 0:1.3.02-0.b2.7jpp.10

}}}

* Install the CREAM-CE metapackage:

* yum install emi-cream-ce

{{{

```
=====
=====
=====
=====
```

Package	Arch	Version
Repository	Size	

```
=====
=====
=====
```

Installing:

emi-cream-ce	x86_64	1.0.0-
1.sl5	UMD-1-base	2.3 k

Installing for dependencies:

ant	x86_64	1.6.5-
2jpp.2	sl-base	2.3 M
argus-gsi-pep-callout	x86_64	
1.2.1-1.sl5	UMD-1-base	39 k
argus-pep-api-c	x86_64	2.0.2-
1.sl5	UMD-1-base	53 k
avahi	x86_64	0.6.16-
10.el5_6	sl-security	257 k
avahi-compat-libdns_sd	x86_64	
0.6.16-10.el5_6	sl-security	24 k
axis	x86_64	1.2.1-
2jpp.6	sl-base	3.6 M
bcel	x86_64	5.1-8jpp.1
sl-base	1.1 M	
bdi	noarch	5.2.5-2.el5
UMD-1-updates	20 k	
bouncycastle	x86_64	1.45-
6.el5	epel	4.0 M

c-ares	x86_64	1.6.0-
5.el5	sl-security	49 k
classads	x86_64	1.0.8-
1.el5	epel	453 k
classpathx-jaf	x86_64	1.0-
9jpp.1	sl-base	111 k
classpathx-mail	x86_64	1.1.1-
4jpp.2	sl-base	1.2 M
cleanup-grid-accounts	noarch	
2.0.0-1	UMD-1-base	6.9 k
cups	x86_64	1:1.3.7-
18.el5_5.8	sl-security	3.1 M
eclipse-ecj	x86_64	1:3.2.1-
19.el5	sl-base	9.0 M
emi-trustmanager	noarch	3.0.5-
1.sl5	UMD-1-updates	276 k
emi-trustmanager-tomcat	noarch	
3.0.0-1.sl5	UMD-1-base	30 k
emi-version	x86_64	1.6.0-
1.sl5	UMD-1-updates	2.0 k
expect	x86_64	5.43.0-
5.1	sl-base	160 k
fetch-curl	noarch	2.8.5-1.el5
epel		24 k
geronimo-specs	x86_64	1.0-
0.M2.2jpp.12	sl-base	258 k
geronimo-specs-compat	x86_64	
1.0-0.M2.2jpp.12	sl-base	5.4 k
giflib	x86_64	4.1.3-
7.1.el5_3.1	sl-base	39 k
glexec	x86_64	0.8.10-
1.sl5	UMD-1-base	58 k
glite-apel-core	noarch	2.0.14-
4.sl5	UMD-1-updates	1.0 M
glite-ce-blahp	x86_64	1.16.2-
3.sl5	UMD-1-base	431 k
glite-ce-ce-plugin	noarch	1.13.1-
3.sl5	UMD-1-base	16 k
glite-ce-cream	noarch	1.13.3-
1.sl5	UMD-1-updates	5.7 M
glite-ce-cream-utils	x86_64	1.1.0-
3.sl5	UMD-1-base	26 k
glite-ce-job-plugin	noarch	
1.13.1-3.sl5	UMD-1-base	26 k
glite-ce-monitor	noarch	1.13.3-
1.sl5	UMD-1-updates	5.1 M
glite-ce-yaim-cream-ce	x86_64	
4.2.0-3.sl5	UMD-1-base	42 k

glite-info-provider-service 1.7.0-1.el5 k	noarch UMD-1-updates	53
glite-initscript-globus-gridftp 1.0.4-1.sl5	noarch UMD-1-base	3.5 k
glite-jobid-api-c 1.sl5	x86_64 UMD-1-updates	2.0.3- 19 k
glite-lb-common 8.0.6-1.sl5 k	x86_64 UMD-1-updates	397
glite-lb-logger 1.sl5	x86_64 UMD-1-updates	2.2.6- 95 k
glite-lbjp-common-gss 3.0.4-1.sl5 k	x86_64 UMD-1-updates	43
glite-lbjp-common-log 1.1.2-6.sl5	x86_64 UMD-1-base	11 k
glite-lbjp-common-trio 2.1.2-7.sl5 k	x86_64 UMD-1-updates	71
glite-yaim-bdii 1.el5	noarch UMD-1-updates	4.3.4- 10 k
glite-yaim-core 1.sl5	noarch UMD-1-updates	5.0.2- 116 k
globus-authz 4.el5	x86_64 UMD-1-updates	0.7- 13 k
globus-authz-callout-error 0.5-3.el5	x86_64 UMD-1-updates	10 k
globus-callout 8.el5	x86_64 UMD-1-updates	0.7- 16 k
globus-common 11.6-5.el5 k	x86_64 UMD-1-updates	109
globus-ftp-control 2.el5	x86_64 UMD-1-updates	2.12- 67 k
globus-gfork 6.el5	x86_64 UMD-1-updates	0.2- 18 k
globus-gridftp-server 3.33-2.1.el5 k	x86_64 UMD-1-updates	119
globus-gridftp-server-control 0.46-1.el5 k	x86_64 UMD-1-updates	59
globus-gridftp-server-progs 3.33-2.1.el5 k	x86_64 UMD-1-updates	41
globus-gridmap-callout-error 0.3-2.el5	x86_64 UMD-1-updates	10 k
globus-gsi-callback 2.el5	x86_64 UMD-1-updates	2.8- 38 k

globus-gsi-cert-utils	x86_64	6.7-
2.el5	UMD-1-updates	18 k
globus-gsi-credential	x86_64	3.5-
3.el5	UMD-1-updates	32 k
globus-gsi-openssl-error	x86_64	
0.14-8.el5	UMD-1-updates	15
k		
globus-gsi-proxy-core	x86_64	
4.7-2.el5	UMD-1-updates	33 k
globus-gsi-proxy-ssl	x86_64	2.3-
3.el5	UMD-1-updates	17 k
globus-gsi-sysconfig	x86_64	3.2-
1.el5	UMD-1-updates	28 k
globus-gss-assist	x86_64	5.10-
1.el5	UMD-1-updates	31 k
globus-gssapi-error	x86_64	2.5-
8.el5	UMD-1-updates	13 k
globus-gssapi-gsi	x86_64	7.8-
1.el5	UMD-1-updates	54 k
globus-io	x86_64	6.3-6.el5
UMD-1-updates		43 k
globus-libtool	x86_64	1.2-
4.el5	UMD-1-updates	4.1 k
globus-openssl	x86_64	5.1-
2.el5	UMD-1-updates	4.4 k
globus-openssl-module	x86_64	
1.3-3.el5	UMD-1-updates	13 k
globus-proxy-utils	x86_64	3.10-
1.el5	UMD-1-updates	45 k
globus-usage	x86_64	1.4-
2.el5	UMD-1-updates	15 k
globus-xio	x86_64	2.8-
4.el5	UMD-1-updates	123 k
globus-xio-gsi-driver	x86_64	0.6-
7.el5	UMD-1-updates	29 k
globus-xio-pipe-driver	x86_64	0.1-
3.el5	UMD-1-updates	13 k
glue-schema	noarch	2.0.8-
1.el5	UMD-1-updates	33 k
gridsite-shared	x86_64	1.7.15-
2.sl5	UMD-1-updates	131 k
jakarta-commons-beanutils	x86_64	
1.7.0-5jpp.1	sl-base	567 k
jakarta-commons-collections	x86_64	
3.2-2jpp.3	sl-base	1.2 M
jakarta-commons-daemon	x86_64	
1:1.0.1-6jpp.1	sl-base	46 k
jakarta-commons-dbcp	x86_64	
1.2.1-7jpp.1	sl-base	278 k

jakarta-commons-digester 1.7-5jpp.1	sl-base	x86_64	349 k
jakarta-commons-discovery 1:0.3-4jpp.1	sl-base	x86_64	150 k
jakarta-commons-el 7jpp.1	sl-base	x86_64	1.0- 269 k
jakarta-commons-fileupload 1:1.0-6jpp.1	sl-base	x86_64	53 k
jakarta-commons-httpclient 1:3.0-7jpp.1	sl-base	x86_64	595 k
jakarta-commons-launcher 0.9-6jpp.1	sl-base	x86_64	97 k
jakarta-commons-logging 1.0.4-6jpp.1	sl-base	x86_64	115 k
jakarta-commons-modeler 1.1-8jpp.3.e15	sl-base	x86_64	259 k
jakarta-commons-pool 1.3-5jpp.1	sl-base	x86_64	142 k
java-1.6.0-openjdk 1:1.6.0.0-1.23.1.9.10.e15_7 37 M	sl-security	x86_64	
java-1.6.0-openjdk-devel 1:1.6.0.0-1.23.1.9.10.e15_7 12 M	sl-security	x86_64	
lcas 1.sl5	UMD-1-base	x86_64	1.3.13- 34 k
lcas-lcmaps-gt4-interface 0.1.4-1.sl5	UMD-1-base	x86_64	16 k
lcas-plugins-basic 1.sl5	UMD-1-base	x86_64	1.3.4- 22 k
lcas-plugins-check-executable 1.2.2-1.sl5	UMD-1-base	x86_64	9.2 k
lcas-plugins-voms 1.3.7-1.sl5	UMD-1-base	x86_64	29 k
lcg-expiregridmapdir 3.0.1-1	UMD-1-base	noarch	6.7 k
lcg-info-dynamic-scheduler-generic 2.3.5-1.sl5	UMD-1-base	noarch	47 k
lcg-info-dynamic-software 1.0.5-1.sl5	UMD-1-base	noarch	3.2 k
lcmaps 1.sl5	UMD-1-base	x86_64	1.4.29- 98 k
lcmaps-plugins-basic 1.4.5-1.sl5	UMD-1-base	x86_64	48 k
lcmaps-plugins-verify-proxy 1.4.12-2.sl5 k	UMD-1-updates	x86_64	25
lcmaps-plugins-voms 1.4.3-1.sl5	UMD-1-base	x86_64	39 k

libtool-ltdl	x86_64	1.5.22-
7.el5_4	sl-base	38 k
log4c	x86_64	1.2.1-
7.el5	epel	35 k
log4j	x86_64	1.2.13-
3jpp.2	sl-base	729 k
mx4j	x86_64	1:3.0.1-
6jpp.4	sl-base	2.7 M
mysql	x86_64	5.0.77-
4.el5_5.4	sl-security	4.8 M
mysql-connector-java	x86_64	
1:5.1.12-2.el5	epel	2.5 M
mysql-server	x86_64	5.0.77-
4.el5_5.4	sl-security	9.8 M
openldap-clients	x86_64	
2.3.43-12.el5_6.7	sl-security	223 k
openldap-servers	x86_64	
2.3.43-12.el5_6.7	sl-security	2.2 M
perl-Compress-Zlib	x86_64	
1.42-1.fc6	sl-base	52 k
perl-DBD-MySQL	x86_64	
3.0007-2.el5	sl-base	147 k
perl-DBI	x86_64	1.52-
2.el5	sl-base	605 k
perl-HTML-Parser	x86_64	
3.55-1.fc6	sl-base	91 k
perl-HTML-Tagset	noarch	
3.10-2.1.1	sl-base	14 k
perl-URI	noarch	1.35-3
sl-base		116 k
perl-XML-Parser	x86_64	
2.34-6.1.2.2.1	sl-base	209 k
perl-XML-Simple	noarch	
2.14-4.fc6	sl-base	68 k
perl-libwww-perl	noarch	
5.805-1.1.1	sl-base	375 k
redhat-lsb	x86_64	3.1-
12.3.EL	sl-base	21 k
regexp	x86_64	1.4-
2jpp.2	sl-base	102 k
tomcat5	x86_64	5.5.23-
0jpp.22.el5_7	sl-security	362 k
tomcat5-common-lib	x86_64	
5.5.23-0jpp.22.el5_7	sl-security	225
k		
tomcat5-jasper	x86_64	
5.5.23-0jpp.22.el5_7	sl-security	1.1
M		


```

emi-torque-server          x86_64          1.0.0-
1.sl5                      UMD-1-base      1.7 k
Installing for dependencies:
glite-yaim-torque-server  noarch          5.0.0-
1.sl5                      UMD-1-base      5.9 k
glite-yaim-torque-utils   noarch          5.0.0-
1.sl5                      UMD-1-base      7.5 k
libtorque                 x86_64          2.5.7-7.el5
epel                       93 k
maui                       x86_64          3.2.6p21-
snap.1234905291.5.el5     UMD-1-base
5.7 k
maui-client               x86_64          3.2.6p21-
snap.1234905291.5.el5     UMD-1-base
910 k
maui-server               x86_64          3.2.6p21-
snap.1234905291.5.el5     UMD-1-base
500 k
munge                     x86_64          0.5.8-8.el5
epel                       114 k
munge-libs                x86_64          0.5.8-8.el5
epel                       25 k
torque                    x86_64          2.5.7-7.el5
epel                       49 k
torque-client             x86_64          2.5.7-7.el5
epel                       199 k
torque-server             x86_64          2.5.7-7.el5
epel                       184 k

```

Transaction Summary

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}}}

* yum install emi-torque-utils

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```

Package Version	Repository	Arch	Size

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=====
Installing:
emi-torque-utils                x86_64
1.0.0-1.sl5                    UMD-1-base                1.8 k
Installing for dependencies:
glite-apel-pbs                  noarch
2.0.6-6.sl5                    UMD-1-base                24 k
lcg-info-dynamic-pbs           noarch
2.0.0-1.sl5                    UMD-1-base                3.7 k
lcg-info-dynamic-scheduler-pbs noarch
2.2.1-1.sl5                    UMD-1-base                22 k
lcg-pbs-utils                  x86_64
2.0.0-1.sl5                    UMD-1-base                4.0 k

```

Transaction Summary

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=====
Installation the MPI specific software on the CE
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* Installing the MPI software on CreamCe (Install the mpi metapackage):

* yum install mpi-start

```

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Installing:
mpi-start                       noarch                    1.1.0-1
UMD-1-updates                  x86_64                   35 k

```

Transaction Summary

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```

* yum install glite-yaim-mpi

```

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=====
Package                Arch                Version
Repository             Size

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```

=====
Installing:
glite-yaim-mpi          noarch          1.1.9-
1.sl5                  UMD-1-updates  16 k

```

Transaction Summary

```

}}}
* yum install glite-mpi
{{{

```

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=====
Package              Arch          Version
Repository           Size

```

```

Installing:
glite-mpi            noarch          1.0.1-0.sl5
UMD-1-updates        1.5 k

```

Transaction Summary

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}}}
===== Installing the WNs =====

```

```

* yum install emi-wn

```

```

{{{
=====
Package              Arch          Version
Repository           Size

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```

=====
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=====
Installing:
emi-wn                x86_64                1.0.0-
0.sl5                UMD-1-base                2.7 k
Installing for dependencies:
CGSI_gSOAP_2.7      x86_64
1.3.4-2.sl5        UMD-1-base                92 k
SAGA.lsu-cpp.engine x86_64
1.3.3-4.sl5        UMD-1-base                55 M
a1_grid_env        x86_64
3.0.2-1.sl5        UMD-1-base                3.3 k
boost              x86_64                1.33.1-
10.el5            sl-base                879 k
c-ares            x86_64                1.6.0-
5.el5            sl-security                49 k
c-check          x86_64                0.9.8-
1.sl5            UMD-1-base                146 k
classads        x86_64                1.0.8-
1.el5            epel                453 k
cleanup-grid-accounts noarch
2.0.0-1        UMD-1-base                6.9 k
dcache-srmclient noarch
1.9.5-23      UMD-1-base                7.2 M
dcap          x86_64                2.47.5-1
UMD-1-base    65 k
delegation-api-c x86_64
2.1.0-1.sl5    UMD-1-base                105 k
delegation-cli x86_64                2.1.0-
1.sl5            UMD-1-base                56 k
dpm            x86_64                1.8.1-
2sec.sl5      UMD-1-base                4.5 M
dpm-devel     x86_64                1.8.1-
2sec.sl5      UMD-1-base                665 k
dpm-libs     x86_64                1.8.1-
2sec.sl5      UMD-1-base                321 k
e2fsprogs-devel x86_64
1.39-23.el5    sl-base                633 k
editline      x86_64                2.9-
1.sl5            UMD-1-base                271 k
emi.amga.amga-cli x86_64
2.1.2-1.sl5    UMD-1-base                404 k
emi.saga-adapter.context-cpp x86_64
1.0.2-2.sl5    UMD-1-base                323 k
emi.saga-adapter.isn-common noarch
1.0.1-2.sl5    UMD-1-base                17 k
emi.saga-adapter.isn-cpp x86_64
1.0.2-1.sl5    UMD-1-base                860 k

```

emi.saga-adapter.sd-cpp	x86_64	
1.0.3-1.sl5	UMD-1-base	4.8 M
fetch-curl	noarch	2.8.5-
1.el5	epel	24 k
gfal	x86_64	1.11.19-
3.sl5	UMD-1-updates	1.2 M
gfal-py26	x86_64	
1.11.19-3.sl5	UMD-1-updates	1.2
M		
glib2-devel	x86_64	
2.12.3-4.el5_3.1	sl-base	1.3 M
glite-jobid-api-c	x86_64	
2.0.3-1.sl5	UMD-1-updates	19 k
glite-jobid-api-cpp	x86_64	
1.1.3-1.sl5	UMD-1-updates	4.3 k
glite-lb-client	x86_64	5.0.8-
1.sl5	UMD-1-updates	1.1 M
glite-lb-common	x86_64	
8.0.6-1.sl5	UMD-1-updates	397 k
glite-lbjp-common-gss	x86_64	
3.0.4-1.sl5	UMD-1-updates	43 k
glite-lbjp-common-trio	x86_64	
2.1.2-7.sl5	UMD-1-updates	71 k
glite-service-discovery-api-c	x86_64	
2.2.3-1.sl5	UMD-1-base	47 k
glite-wms-brokerinfo-access	x86_64	
3.3.2-3.sl5	UMD-1-base	62 k
glite-wn-info	noarch	1.0.3-
2.sl5	UMD-1-base	5.5 k
glite-yaim-clients	noarch	
5.0.0-1.sl5	UMD-1-base	21 k
glite-yaim-core	noarch	
5.0.2-1.sl5	UMD-1-updates	116 k
globus-callout	x86_64	0.7-
8.el5	UMD-1-updates	16 k
globus-common	x86_64	
11.6-5.el5	UMD-1-updates	109 k
globus-ftp-client	x86_64	6.0-
2.el5	UMD-1-updates	92 k
globus-ftp-control	x86_64	
2.12-2.el5	UMD-1-updates	67 k
globus-gass-copy	x86_64	
5.14-3.el5	UMD-1-updates	37 k
globus-gass-copy-progs	x86_64	
5.14-3.el5	UMD-1-updates	43 k
globus-gass-transfer	x86_64	
4.3-3.el5	UMD-1-updates	40 k
globus-gsi-callback	x86_64	
2.8-2.el5	UMD-1-updates	38 k

globus-gsi-cert-utils 2.e15	x86_64 UMD-1-updates	6.7- 18 k
globus-gsi-credential 3.5-3.e15	x86_64 UMD-1-updates	32 k
globus-gsi-openssl-error 0.14-8.e15	x86_64 UMD-1-updates	15 k
globus-gsi-proxy-core 4.7-2.e15	x86_64 UMD-1-updates	33 k
globus-gsi-proxy-ssl 2.3-3.e15	x86_64 UMD-1-updates	17 k
globus-gsi-sysconfig 3.2-1.e15	x86_64 UMD-1-updates	28 k
globus-gss-assist 5.10-1.e15	x86_64 UMD-1-updates	31 k
globus-gssapi-error 2.5-8.e15	x86_64 UMD-1-updates	13 k
globus-gssapi-gsi 1.e15	x86_64 UMD-1-updates	7.8- 54 k
globus-io 6.e15	x86_64 UMD-1-updates	6.3- 43 k
globus-libtool 4.e15	x86_64 UMD-1-updates	1.2- 4.1 k
globus-openssl 2.e15	x86_64 UMD-1-updates	5.1- 4.4 k
globus-openssl-module 1.3-3.e15	x86_64 UMD-1-updates	13 k
globus-proxy-utils 3.10-1.e15	x86_64 UMD-1-updates	45 k
globus-xio 4.e15	x86_64 UMD-1-updates	2.8- 123 k
globus-xio-gsi-driver 0.6-7.e15	x86_64 UMD-1-updates	29 k
globus-xio-popen-driver 0.9-3.e15	x86_64 UMD-1-updates	17 k
gridftp-ifce 1.sl5	x86_64 UMD-1-updates	2.1.1- 35 k
gridsite-shared 1.7.15-2.sl5	x86_64 UMD-1-updates	131 k
gsoap 4.e15	x86_64 epel	2.7.13- 444 k
is-interface 1.sl5	x86_64 UMD-1-updates	1.1.3- 68 k
jclassads 2.sl5	noarch UMD-1-base	2.4.0- 95 k
jdk 2000:1.6.0_29-fcs	x86_64 sl-security	68 M
keyutils-libs-devel 1.e15	x86_64 sl-base	1.2- 27 k
krb5-devel 63.e15_7	x86_64 sl-security	1.6.1- 1.9 M

lcg-ManageVOTag	noarch	
4.0.0-1	UMD-1-base	4.8 k
lcg-info	noarch	1.12.2-
1.el5	UMD-1-base	13 k
lcg-infosites	noarch	3.1.0-
1.el5	UMD-1-base	10 k
lcg-tags	noarch	0.4.0-2
UMD-1-base	8.7 k	
lcg-util	x86_64	1.11.19-
3.sl5	UMD-1-updates	420 k
lcg-util-py26	x86_64	
1.11.19-3.sl5	UMD-1-updates	416
k		
lcgdm-devel	x86_64	
1.8.1-2sec.sl5	UMD-1-base	197 k
lcgdm-libs	x86_64	1.8.2-
3sec.sl5	UMD-1-updates	163 k
lfc	x86_64	1.8.1-
2sec.sl5	UMD-1-base	1.5 M
lfc-devel	x86_64	1.8.1-
2sec.sl5	UMD-1-base	320 k
lfc-libs	x86_64	1.8.1-
2sec.sl5	UMD-1-base	100 k
libdcap	x86_64	2.47.5-
1	UMD-1-base	107 k
libdcap-devel	x86_64	
2.47.5-1	UMD-1-base	144 k
libdcap-tunnel-gsi	x86_64	
2.47.5-1	UMD-1-base	18 k
libdcap-tunnel-krb	x86_64	
2.47.5-1	UMD-1-base	17 k
libdcap-tunnel-ssl	x86_64	
2.47.5-1	UMD-1-base	8.6 k
libdcap-tunnel-telnet	x86_64	
2.47.5-1	UMD-1-base	9.8 k
libicu	x86_64	3.6-
5.16.1	sl-security	5.2 M
libselinux-devel	x86_64	
1.33.4-5.7.el5	sl-security	149 k
libsepol-devel	x86_64	
1.15.2-3.el5	sl-base	192 k
libtool-ltdl	x86_64	1.5.22-
7.el5_4	sl-base	38 k
openssl-devel	x86_64	
0.9.8e-12.el5_5.7	sl-security	1.9 M
perl-Compress-Zlib	x86_64	
1.42-1.fc6	sl-base	52 k
perl-Convert-ASN1	noarch	
0.20-1.1	sl-base	41 k

perl-HTML-Parser 3.55-1.fc6	sl-base	x86_64	91 k
perl-HTML-Tagset 3.10-2.1.1	sl-base	noarch	14 k
perl-IO-Socket-SSL 1.01-1.fc6	sl-base	noarch	49 k
perl-LDAP 1:0.33-3.fc6	sl-base	noarch	316 k
perl-Net-SSLeay 1.30-4.fc6	sl-base	x86_64	192 k
perl-URI sl-base	noarch		1.35-3 116 k
perl-XML-Namespacesupport 1.09-1.2.1	sl-base	noarch	15 k
perl-XML-SAX 0.14-8	sl-base	noarch	77 k
perl-dpm 2sec.sl5	UMD-1-base	x86_64	1.8.1- 427 k
perl-lfc 2sec.sl5	UMD-1-base	x86_64	1.8.1- 324 k
perl-libwww-perl 5.805-1.1.1	sl-base	noarch	375 k
pkgconfig 1:0.21-2.el5	sl-base	x86_64	61 k
python-dpm 1.8.1-2sec.sl5	UMD-1-base	x86_64	622 k
python-lfc 2sec.sl5	UMD-1-base	x86_64	1.8.1- 1.0 M
python26-dpm 1.8.1-2sec.sl5	UMD-1-base	x86_64	597 k
python26-lfc 1.8.1-2sec.sl5	UMD-1-base	x86_64	1.0 M
srm-ifce 1.sl5	UMD-1-updates	x86_64	1.1.0- 699 k
transfer-cli 1.sl5	UMD-1-base	x86_64	4.0.0- 1.1 M
transfer-interface 3.7.1-1.sl5	UMD-1-base	noarch	136 k
uberftp 4.el5	epel	x86_64	2.4- 85 k
util-c 1.sl5	UMD-1-base	x86_64	1.3.0- 40 k
voms 1.sl5	UMD-1-base	x86_64	2.0.2- 165 k
voms-clients 2.0.0-1.sl5	UMD-1-base	x86_64	178 k
voms-devel 2.0.0-1.sl5	UMD-1-base	x86_64	18 k
xerces-c 8.el5	epel	x86_64	2.7.0- 1.3 M

```

zlib-devel                x86_64                1.2.3-3
sl-base                    102 k

```

Transaction Summary

```

=====
=====
=====
=====

```

}}}

* yum install emi-wn emi-torque-client

```

{{{
Package                    Arch                Version
Repository                  Size
=====
=====
=====
=====

```

Installing:

```

emi-torque-client          x86_64
1.0.0-1.sl5                UMD-1-base          1.7 k
Installing for dependencies:
emi-version                x86_64              1.6.0-
1.sl5                      UMD-1-updates       2.0 k
glite-yaim-torque-client  noarch
5.0.0-1.sl5                UMD-1-base          5.0 k
glite-yaim-torque-utils   noarch
5.0.0-1.sl5                UMD-1-base          7.5 k
lcg-info-dynamic-pbs      noarch
2.0.0-1.sl5                UMD-1-base          3.7 k
lcg-pbs-utils              x86_64              2.0.0-
1.sl5                      UMD-1-base          4.0 k
libtorque                  x86_64              2.5.7-
7.el5                      epel                 93 k
munge                      x86_64              0.5.8-
8.el5                      epel                 114 k
munge-libs                 x86_64              0.5.8-
8.el5                      epel                 25 k
torque                     x86_64              2.5.7-
7.el5                      epel                 49 k
torque-client              x86_64              2.5.7-
7.el5                      epel                 199 k
torque-mom                 x86_64
2.5.7-7.el5                epel                 164 k

```

Transaction Summary

```

=====
=====

```

```
}}}
```

```
===== Installation the MPI specific software on the WNs =====
```

```
* yum install mpi-start
```

```
{{{
```

```
=====
```

Package Repository	Arch Size	Version
-----------------------	--------------	---------

```
=====
```

Installing:		
mpi-start	noarch	1.1.0-1
UMD-1-updates	35 k	

```
Transaction Summary
```

```
}}}
```

```
* yum install glite-mpi
```

```
{{{
```

```
=====
```

Package Repository	Arch Size	Version
-----------------------	--------------	---------

```
=====
```

Installing:		
glite-mpi	noarch	1.0.1-0.s15
UMD-1-updates	1.5 k	
Installing for dependencies:		
glite-yaim-mpi	noarch	1.1.9-
1.s15	UMD-1-updates	16 k

Transaction Summary

=====
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=====

}}}

* yum install openmpi openmpi-devel

{{{

=====
=====
=====
=====

Package Repository	Arch Size	Version
-----------------------	--------------	---------

Installing:

openmpi	i386	1.4-4.el5
sl-base	139 k	
openmpi	x86_64	1.4-4.el5
sl-base	140 k	
openmpi-devel	i386	1.4-4.el5
sl-base	2.2 M	
openmpi-devel	x86_64	1.4-
4.el5	sl-base	2.2 M

Installing for dependencies:

libgfortran	i386	4.1.2-50.el5
sl-security	231 k	
libgfortran	x86_64	4.1.2-
50.el5	sl-security	243 k
libgomp	i386	4.4.0-6.el5
sl-base	70 k	
libgomp	x86_64	4.4.0-6.el5
sl-base	68 k	
libibcm	i386	1.0.5-1.el5
sl-base	19 k	
libibcm	x86_64	1.0.5-1.el5
sl-base	19 k	
libibverbs	i386	1.1.3-2.el5
sl-base	45 k	
libibverbs	x86_64	1.1.3-2.el5
sl-base	44 k	
libnes	i386	0.9.0-2.el5
sl-base	13 k	

librdmacm	i386	1.0.10-
1.e15	sl-base	23 k
librdmacm	x86_64	1.0.10-
1.e15	sl-base	23 k
mpi-selector	noarch	1.0.2-
1.e15	sl-base	25 k
openib	noarch	1.4.1-5.e15
sl-base	20 k	
openmpi-libs	i386	1.4-4.e15
sl-base	1.5 M	
openmpi-libs	x86_64	1.4-4.e15
sl-base	1.6 M	

Transaction Summary

```

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```

}}}

(!) The devel packages of the MPI packages do not include the compiler as dependency!
You should install it also if you want to support the compilation of MPI applications
(e.g. gcc, gcc-gfortran, gcc-g++)

```

* yum install gcc-gfortran gcc.x86_64 gcc-c++.x86_64 compat-gcc-34.x86_64 compat-
gcc-34-c++.x86_64 compat-gcc-34-g77.x86_64
{{{

```

```

=====
=====
=====
=====

```

Package	Arch	Version
Repository	Size	

```

Installing:

```

compat-gcc-34	x86_64	3.4.6-4
sl-base	4.4 M	
compat-gcc-34-c++	x86_64	
3.4.6-4	sl-base	13 M
compat-gcc-34-g77	x86_64	3.4.6-
4	sl-base	2.4 M
gcc	x86_64	4.1.2-50.e15
sl-security	5.3 M	
gcc-c++	x86_64	4.1.2-
50.e15	sl-security	3.8 M

gcc-gfortran 50.el5	x86_64 sl-security	4.1.2- 3.5 M
Installing for dependencies:		
compat-libf2c-34	x86_64	3.4.6-4
sl-base	56 k	
cpp	x86_64	4.1.2-50.el5
sl-security	2.9 M	
glibc-devel 58.el5_6.3	x86_64 sl-security	2.5- 2.4 M
glibc-headers 58.el5_6.3	x86_64 sl-security	2.5- 594 k
gmp	x86_64	4.1.4-10.el5
sl-base	201 k	
kernel-headers 274.17.1.el5	x86_64 sl-security	2.6.18- 1.3 M
libstdc++-devel 50.el5	x86_64 sl-security	4.1.2- 2.8 M

Transaction Summary

```

=====
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}}}

```

==== Configure the siteinfo.def file for the CreamCE ====

* This is the site-info used to configure the CreamCE + Torque + MPI

(!)

* Taking the information about how to configure MPI in the CreamCE from the following links:

* <https://wiki.egi.eu/wiki/MAN03>

* There is a point in the previous link pointing to this one, that it is where is explained how to configure YAIM to configure torque + MPI:

<http://grid.ifca.es/wiki/Middleware/MpiStart/MpiUtils>

```

{{{
# YAIM example site configuration file - adapt it to your site!

```

```

#####
# CE configuration variables #
#####

```

```

CE_HOST=test06.egi.cesga.es
WMS_HOST=test22.egi.cesga.es

```

BDII_HOST=topbdii02.ncg.ingrid.pt
SITE_BDII_HOST=sbdii02.ncg.ingrid.pt
##LFC_HOST=lx7607.cern.ch
PX_HOST=myproxy.egi.cesga.es
MON_HOST=test07.egi.cesga.es

YAIM_LOGGING_LEVEL=DEBUG

CREAM CE node cluster mode #

CREAMCE_CLUSTER_MODE=no

Site configuration variables #
#####

SITE_EMAIL=egee-admin@cesga.es

SITE_NAME=CESGA-EGEE
SITE_LOC="Santiago de Compostela, Spain"
SITE_LAT=42.875558 #42.8757 # -90 to 90 degrees
SITE_LONG=-8.553147 #-8.5536 # -180 to 180 degrees

Batch server configuration variables #
#####

Jobmanager specific settings
JOB_MANAGER=lcpbs
BATCH_SERVER=test06.egi.cesga.es
CE_BATCH_SYS=torque
BATCH_LOG_DIR=/var/torque
BATCH_VERSION=torque-2.5.7-7

APEL configuration variables #
#####

Database password for the APEL DB.
APEL_MYSQL_HOST=test07.egi.cesga.es
APEL_DB_PASSWORD=""

#####

ARGUS authorisation framework control

#####

Set USE_ARGUS to yes to enable the configuration of ARGUS

###USE_ARGUS=yes
USE_ARGUS=no

In case ARGUS is to be used the following should be set
The ARGUS service PEPD endpoints as a space separated list:

###ARGUS_PEPD_ENDPOINTS="https://test10.egi.cesga.es:8154/authz"
###CREAM_PEPD_RESOURCEID="http://www.egee.cesga.es/test10"

These variables tell YAIM where to find additional configuration files.

WN_LIST=/opt/glite/yaim/etc/wn-list.conf
USERS_CONF=/opt/glite/yaim/etc/users.conf
GROUPS_CONF=/opt/glite/yaim/etc/groups.conf
FUNCTIONS_DIR=/opt/glite/yaim/functions

SE_dpm-specific settings - Ignore if you are not running a DPM

Set these if you are installing a DPM yourself
and/or if you need a default DPM for the lcg-stdout-mon

DPMDATA is now deprecated. Use an entry like \$DPM_HOST:/filesystem in
the DPM_FILESYSTEMS variable.
From now on we use DPM_DB_USER and DPM_DB_PASSWORD to make clear
its different role from that of the dpmmgr unix user who owns the
directories and runs the daemons.

The name of the DPM head node
DPM_HOST=test08.egi.cesga.es

DPMPOOL=egi-pool * This is the site-info used to configure the CreamCE + Torque +
MPI

(!)

* Taking the information about how to configure MPI in the CreamCE from the
following links:

* <https://wiki.egi.eu/wiki/MAN03>

* There is a point in the previous link pointing to this one, that it is where is explained how to configure YAIM to configure torque + MPI:
<http://grid.ifca.es/wiki/Middleware/MpiStart/MpiUtils>
DPM_FILESYSTEMS="\$DPM_HOST:/storage"

```
# The base user
DPM_DB_USER=dpmmgr
DPM_DB_HOST=$DPM_HOST
DPM_DB_PASSWORD=
```

```
# Specifies the default amount of space reserved for a file
#DPMFSIZE=200M
```

```
DPM_INFO_USER=dpm_info
DPM_INFO_PASS=
```

```
# Variable for the port range - Optional, * This is the site-info used to configure the
CreamCE + Torque + MPI
```

(!)

* Taking the information about how to configure MPI in the CreamCE from the following links:

* <https://wiki.egi.eu/wiki/MAN03>
* There is a point in the previous link pointing to this one, that it is where is explained how to configure YAIM to configure torque + MPI:
<http://grid.ifca.es/wiki/Middleware/MpiStart/MpiUtils> default value is shown
RFIO_PORT_RANGE="20000 25000"

```
# This largely replaces CE_CLOSE_SE but it is a list of hostnames
SE_MOUNT_INFO_LIST="none"
SE_LIST="$DPM_HOST"
SE_ARCH="multidisk" # "disk, tape, multidisk, other"
```

```
#####
# SubCluster configuration #
#####
# Architecture and environment specific settings
CE_CPU_MODEL=Opteron
CE_CPU_VENDOR=amd
CE_CPU_SPEED=2200

CE_OS="ScientificSL" # Forma correcta
CE_OS_RELEASE=5.5
CE_OS_VERSION="Boron"
```

```

#New variables
CE_PHYSCPU=2
CE_LOGCPU=2
CE_OS_ARCH=x86_64
CE_CAPABILITY="CPUScalingReferenceSI00=2395"
CE_OTHERDESCR="Cores=24,Benchmark=9.58-HEP-SPEC06"
SE_MOUNT_INFO_LIST="none"
CE_SI00=2395

CE_MINPHYSMEM=524
CE_MINVIRTMEM=512
CE_SMPSIZE=2
CE_SF00=1714
CE_OUTBOUNDIP=TRUE
CE_INBOUNDIP=FALSE * This is the site-info used to configure the CreamCE +
Torque + MPI

(!)

* Taking the information about how to configure MPI in the CreamCE from the
following links:

* https://wiki.egi.eu/wiki/MAN03
* There is a point in the previous link pointing to this one, that it is where is explained
how to configure YAIM to configure torque + MPI:
http://grid.ifca.es/wiki/Middleware/MpiStart/MpiUtils
CE_RUNTIMEENV="
  LCG-2
  LCG-2_1_0
  LCG-2_1_1
  LCG-2_2_0
  LCG-2_3_0
  LCG-2_3_1
  LCG-2_4_0
  LCG-2_5_0
  LCG-2_6_0
  LCG-2_7_0
  GLITE-3_0_0
  GLITE-3_0_2
  GLITE-3_1_0
  R-GMA
"

###CREAM CE Variables
CEMON_HOST=test06.egi.cesga.es
CREAM_DB_USER=umdtest
CREAM_DB_PASSWORD="" * This is the site-info used to configure the CreamCE +
Torque + MPI

```

(!)

* Taking the information about how to configure MPI in the CreamCE from the following links:

* <https://wiki.egi.eu/wiki/MAN03>

* There is a point in the previous link pointing to this one, that it is where is explained how to configure YAIM to configure torque + MPI:

<http://grid.ifca.es/wiki/Middleware/MpiStart/MpiUtils>

MYSQL_PASSWORD=""

BLPARSER_HOST=test06.egi.cesga.es

```
# MPI CONFIGURATION
```

```
#####
```

```
MPI_OPENMPI_ENABLE="yes"
```

```
MPI_OPENMPI_VERSION="1.4-4"
```

```
##If you do NOT provide a shared home, set $MPI_SHARED_HOME to "no" (default).
```

```
MPI_SHARED_HOME="no"
```

```
## If you do NOT have SSH Hostbased Authentication between your WNs, set the below variable to "no" (default). Else, set it to "yes".
```

```
MPI_SSH_HOST_BASED_AUTH="yes"
```

```
### If you use Torque as batch system, you may want to let the yaim plugin configure a submit filter for you. Uncomment the following line to do so
```

```
MPI_SUBMIT_FILTER="yes"
```

```
# VOS="atlas alice lhcb cms dteam biomed"
```

```
# Space separated list of supported VOs by your site
```

```
VOS="ops dteam ops.vo.ibergrid.eu iber.vo.ibergrid.eu"
```

```
QUEUES="GRID_ops GRID_dteam GRID_opsibeu GRID_iberibeu"
```

```
VO_SW_DIR=/opt/exp_soft
```

```
#New in Yaim 3.0.1
```

```
GRID_OPS_GROUP_ENABLE="ops /VO=ops/GROUP=/ops/ROLE=lcgadmin"
```

```
GRID_DTEAM_GROUP_ENABLE="dteam
```

```
/VO=dteam/GROUP=/dteam/ROLE=lcgadmin"
```

```
GRID_OPSIBEU_GROUP_ENABLE="ops.vo.ibergrid.eu
```

```
/VO=ops.vo.ibergrid.eu/GROUP=/ops.vo.ibergrid.eu/ROLE=VO-Admin
```

```
/VO=ops.vo.ibergrid.eu/GROUP=/ops.vo.ibergrid.eu/ROLE=Production"
```

```
GRID_IBERIBEU_GROUP_ENABLE="iber.vo.ibergrid.eu
```

```
/VO=iber.vo.ibergrid.eu/GROUP=/iber.vo.ibergrid.eu/ROLE=VO-Admin /VO=iber.vo.
```

```
* This is the site-info used to configure the CreamCE + Torque + MPI
```

(!)

* Taking the information about how to configure MPI in the CreamCE from the following links:

* <https://wiki.egi.eu/wiki/MAN03>

* There is a point in the previous link pointing to this one, that it is where is explained how to configure YAIM to configure torque + MPI:

<http://grid.ifca.es/wiki/Middleware/MpiStart/MpiUtilsibergrid.eu/GROUP=/iber.vo.ibergrid.eu/ROLE=Production>"

#:::~::~:

#ops

#:::~::~:

VO_OPS_SW_DIR=\$VO_SW_DIR/ops

VO_OPS_DEFAULT_SE=\$DPM_HOST

VO_OPS_STORAGE_DIR=\$CLASSIC_STORAGE_DIR/ops

VO_OPS_QUEUES="GRID_ops"

VO_OPS_VOMS_SERVERS="vomss://voms.cern.ch:8443/voms/ops?/ops/"

VO_OPS_VOMSES=""ops voms.cern.ch 15009

/DC=ch/DC=cern/OU=computers/CN=voms.cern.ch ops"

VO_OPS_VOMS_CA_DN=""/DC=ch/DC=cern/CN=CERN Trusted Certification Authority' '/DC=ch/DC=cern/CN=CERN Trusted Certification Authority"

#:::~::~:

#dteam

#:::~::~:

VO_DTEAM_SW_DIR=\$VO_SW_DIR/dteam

VO_DTEAM_DEFAULT_SE=\$DPM_HOST

VO_DTEAM_STORAGE_DIR=\$CLASSIC_STORAGE_DIR/dteam

VO_DTEAM_QUEUES="GRID_dteam"

VO_DTEAM_VOMS_SERVERS='vomss://voms.hellasgrid.gr:8443/voms/dteam?/dteam/'

VO_DTEAM_VOMSES=""dteam lcg-voms.cern.ch 15004

/DC=ch/DC=cern/OU=computers/CN=lcg-voms.cern.ch dteam 24' 'dteam voms.cern.ch 15004 /DC=ch/DC=cern/OU=computers/CN=voms.cern.ch dteam 24' 'dteam

voms.hellasgrid.gr 15004 /C=GR/O=HellasGrid/

OU=hellasgrid.gr/CN=voms.hellasgrid.gr dteam 24' 'dteam voms2.hellasgrid.gr 15004

/C=GR/O=HellasGrid/OU=hellasgrid.gr/CN=voms2.hellasgrid.gr dteam 24"

VO_DTEAM_VOMS_CA_DN=""/DC=ch/DC=cern/CN=CERN Trusted Certification Authority' '/DC=ch/DC=cern/CN=CERN Trusted Certification Authority'

'/C=GR/O=HellasGrid/OU=Certification Authorities/CN=HellasGrid CA 2006'

'/C=GR/O=HellasGrid/OU=Certif

ication Authorities/CN=HellasGrid CA 2006"

IBERGRID VOS

ops.vo.ibergrid.eu

VO_OPS_VO_IBERGRID_EU_SW_DIR=\$VO_SW_DIR/opsibeu

VO_OPS_VO_IBERGRID_EU_DEFAULT_SE=\$DPM_HOST

VO_OPS_VO_IBERGRID_EU_STORAGE_DIR=\$CLASSIC_STORAGE_DIR/opsibeu

VO_OPS_VO_IBERGRID_EU_QUEUES="GRID_opsibeu"

VO_OPS_VO_IBERGRID_EU_VOMS_SERVERS=""vomss://voms02.ncg.ingrid.pt:8443/voms/ops.vo.ibergrid.eu?/ops.vo.ibergrid.eu"

```
VO_OPS_VO_IBERGRID_EU_VOMSES="ops.vo.ibergrid.eu voms02.ncg.ingrid.pt
40001 /C=PT/O=LIPCA/O=LIP/OU=Lisboa/CN=voms02.ncg.ingrid.pt
ops.vo.ibergrid.eu"
VO_OPS_VO_IBERGRID_EU_VOMS_CA_DN="/C=PT/O=LIPCA/CN=LIP
Certification Authority"
```

```
# iber.vo.ibergrid.eu
VO_IBER_VO_IBERGRID_EU_SW_DIR=$VO_SW_DIR/iberibeu
VO_IBER_VO_IBERGRID_EU_DEFAULT_SE=$DPM_HOST
VO_IBER_VO_IBERGRID_EU_STORAGE_DIR=$CLASSIC_STORAGE_DIR/iberi
beu
VO_IBER_VO_IBERGRID_EU_QUEUES="GRID_iberibeu"
VO_IBER_VO_IBERGRID_EU_VOMS_SERVERS="vomss://voms02.ncg.ingrid.pt:8
443/voms/iber.vo.ibergrid.eu?/iber.vo.ibergrid.eu"
VO_IBER_VO_IBERGRID_EU_VOMSES="iber.vo.ibergrid.eu voms02.ncg.ingrid.pt
40003 /C=PT/O=LIPCA/O=LIP/OU=Lisboa/CN=voms02.ncg.ingrid.pt
iber.vo.ibergrid.eu"
VO_IBER_VO_IBERGRID_EU_VOMS_CA_DN="/C=PT/O=LIPCA/CN=LIP
Certification Authority"
}}}
```

```
{
ops.vo.ibergrid.eu and iber.vo.ibergrid.eu VOs were included from verification VOMS
server installed at LIP. (voms02.ncg.ingrid.pt)
```

LB and WMS were configured at IFIC (tst04.ific.uv.es & tst05.ific.uv.es)

TopBDII was configured for verification in topbdii02.ncg.ingrid.pt.

```
}}
```

* Set your siteinfo.def file, which is the input file used by yaim. Documentation about yaim variables relevant for CREAM CE is available at:

* [https://twiki.cern.ch/twiki/bin/view/LCG/Site-info_configuration_variables#cream_CE]

(!) Be sure that CREAMCE_CLUSTER_MODE is set to no (or not set at all).

(!) The MPI_CE profile should be the first in the yaim configuration, otherwise the Glue variables will not be properly defined. This restriction may be removed in future versions.

==== Configuring with YAIM the CreamCE ====

```
{
```

```
/opt/glite/yaim/bin/yaim -c -s /opt/glite/yaim/etc/site-info.def -n MPI_CE -n creamCE -
n TORQUE_server -n TORQUE_utils
[ ..... ]
Stopping glite-lb-logd ... not running
Stopping glite-lb-interlogd ... not running
Starting glite-lb-logd ... This is LocalLogger, part of Workload Management System in
EU DataGrid & EGEE.
done
Warning: stale /var/cream_lb/glite-lb-interlogd.pid for glite-lb-interlogd
Warning: stale /tmp/interlogger.sock for glite-lb-interlogd
Starting glite-lb-interlogd ... done
  DEBUG: Skipping function: config_glite_initd_setenv because it is not defined
  INFO: Executing function: config_glite_initd
  INFO: Executing function: config_torque_server_setenv
  INFO: Currently this function doesn't set any environment variables.
  INFO: Executing function: config_torque_server
  DEBUG: Add all the pbs services...
  DEBUG: Define the batch server name
  DEBUG: Create the node list
  DEBUG: Saving the existing nodes configuration
  DEBUG: (Re)start the torque server
  INFO: Re-starting the torque server
Shutting down TORQUE Server:                [ OK ]
/var/torque/server_priv/serverdb
Starting TORQUE Server:                      [ OK ]
  DEBUG: Create the pbs queues
  DEBUG: Queue "GRID_ops" already exists, it won't be created.
  DEBUG: Queue "GRID_dteam" already exists, it won't be created.
  DEBUG: Queue "GRID_opsibeu" already exists, it won't be created.
  DEBUG: Queue "GRID_iberibeu" already exists, it won't be created.
Max open servers: 9
set server scheduling = True
set server acl_host_enable = False
set server managers = root@test06.egi.cesga.es
set server operators = root@test06.egi.cesga.es
set server default_queue = dteam
set server log_events = 511
set server mail_from = adm
set server mail_domain = never
set server query_other_jobs = True
set server scheduler_iteration = 600
set server default_node = lcgpro
set server node_pack = False
set server kill_delay = 10
Max open servers: 9
set queue GRID_ops queue_type = Execution
set queue GRID_ops resources_max.cput = 48:00:00
set queue GRID_ops resources_max.walltime = 72:00:00
set queue GRID_ops enabled = True
set queue GRID_ops started = True
```

```
set queue GRID_ops acl_group_enable = True
  DEBUG: Mapping: ops --> ops
  DEBUG: Mapping: /VO=ops/GROUP=/ops/ROLE=lcgadmin --> opssgm
Max open servers: 9
set queue GRID_dteam queue_type = Execution
set queue GRID_dteam resources_max.cput = 48:00:00
set queue GRID_dteam resources_max.walltime = 72:00:00
set queue GRID_dteam enabled = True
set queue GRID_dteam started = True
set queue GRID_dteam acl_group_enable = True
  DEBUG: Mapping: dteam --> dteam
  DEBUG: Mapping: /VO=dteam/GROUP=/dteam/ROLE=lcgadmin --> dteamsgm
Max open servers: 9
set queue GRID_opsibeu queue_type = Execution
  DEBUG: Mapping: ops.vo.ibergrid.eu --> opsibeu
  DEBUG: Mapping: /VO=ops.vo.ibergrid.eu/GROUP=/ops.vo.ibergrid.eu/ROLE=VO-Admin --> opsibeusgm
  DEBUG: Mapping:
/VO=ops.vo.ibergrid.eu/GROUP=/ops.vo.ibergrid.eu/ROLE=Production --> opsibeuprd
Max open servers: 9
set queue GRID_iberibeu queue_type = Execution
set queue GRID_iberibeu resources_max.cput = 48:00:00
set queue GRID_iberibeu resources_max.walltime = 72:00:00
set queue GRID_iberibeu enabled = True
set queue GRID_iberibeu started = True
set queue GRID_iberibeu acl_group_enable = True
  DEBUG: Mapping: iber.vo.ibergrid.eu --> ibeibeu
  DEBUG: Mapping:
/VO=iber.vo.ibergrid.eu/GROUP=/iber.vo.ibergrid.eu/ROLE=VO-Admin -->
ibeibeusgm
  DEBUG: Mapping:
/VO=iber.vo.ibergrid.eu/GROUP=/iber.vo.ibergrid.eu/ROLE=Production -->
ibeibeuprd
Shutting down TORQUE Server:          [ OK ]
/var/torque/server_priv/serverdb
Starting TORQUE Server:                [ OK ]
  DEBUG: zip server log
  INFO: Executing function: config_mai_cfg_setenv
  DEBUG: Currently this function doesn't set any environment variables.
  INFO: Executing function: config_mai_cfg
  INFO: configuring maui ...
  DEBUG: Saving the existing maui configuration
MPI_CE creamCE TORQUE_server TORQUE_utils
  DEBUG: Starting Maui ...
Shutting down MAUI Scheduler:          [ OK ]
Starting MAUI Scheduler:                [ OK ]
  INFO: Executing function: config_apel_pbs_setenv
  DEBUG: This function currently doesn't set any environment variables.
  INFO: Executing function: config_apel_pbs
```



```

DEBUG: Check if the parser config template (/etc/glite-apel-pbs/parser-config.xml)
exists, exists if not
DEBUG: Create a parser config xml file (/etc/glite-apel-pbs/parser-config-yaim.xml)
DEBUG: Creating APEL parser configuration in /etc/glite-apel-pbs/parser-config.xml
DEBUG: Change the ownership and permissions of the created config file
DEBUG: Add a cron job (edg-apel-pbs-parser) for periodic configuration.
INFO: Executing function: config_gip_sched_plugin_pbs_setenv
DEBUG: This function currently doesn't set any environment variables.
INFO: Executing function: config_gip_sched_plugin_pbs
DEBUG: Checks if the batch system is correct for this function
DEBUG: Define the 'max jobs' cmd for the VOs
DEBUG: Add BATCH_SERVER to the /var/torque/server_name file to enable torque
clients
DEBUG: Create ERT configuration
DEBUG: Skipping function: config_torque_submitter_ssh_setenv because it is not
defined
INFO: Executing function: config_torque_submitter_ssh
Reloading sshd: [ OK ]
INFO: Configuration Complete. [ OK ]
INFO: YAIM terminated succesfully.

}}}

```

(!) I needed to configure like 3 times, and start pbs_server daemon by hand in order to the YAIM configuration finished OK

==== Configure the siteinfo.def file for the WNs =====

* This is the site-info used to configure the Wns + Torque + MPI

(!)

* Taking the information about how to configure MPI in the WNs from the following links:

* <https://wiki.egi.eu/wiki/MAN03>

* There is a point in the previous link pointing to this one, that it is where is explained how to configure YAIM to configure torque + MPI:

<http://grid.ifca.es/wiki/Middleware/MpiStart/MpiUtils>

```

{{{
# YAIM example site configuration file - adapt it to your site!

```

```

#####
# CE configuration variables #
#####

```

```

CE_HOST=test06.egi.cesga.es
WMS_HOST=test22.egi.cesga.es

```

BDII_HOST=topbdii02.ncg.ingrid.pt
SITE_BDII_HOST=sbdii02.ncg.ingrid.pt
##LFC_HOST=lx7607.cern.ch
PX_HOST=myproxy.egi.cesga.es
MON_HOST=test07.egi.cesga.es

YAIM_LOGGING_LEVEL=DEBUG

CREAM CE node cluster mode #

CREAMCE_CLUSTER_MODE=no

Site configuration variables #
#####

SITE_EMAIL=egee-admin@cesga.es

SITE_NAME=CESGA-EGEE
SITE_LOC="Santiago de Compostela, Spain"
SITE_LAT=42.875558 #42.8757 # -90 to 90 degrees
SITE_LONG=-8.553147 #-8.5536 # -180 to 180 degrees

Batch server configuration variables #
#####

Jobmanager specific settings
JOB_MANAGER=lcpbs
BATCH_SERVER=test06.egi.cesga.es
CE_BATCH_SYS=torque
BATCH_LOG_DIR=/var/torque
BATCH_VERSION=torque-2.5.7-7

APEL configuration variables #
#####

Database password for the APEL DB.
APEL_MYSQL_HOST=test07.egi.cesga.es
APEL_DB_PASSWORD=""

#####

ARGUS authorisation framework control

```
#####
```

```
# Set USE_ARGUS to yes to enable the configuration of ARGUS
```

```
###USE_ARGUS=yes  
USE_ARGUS=no
```

```
# In case ARGUS is to be used the following should be set  
# The ARGUS service PEPD endpoints as a space separated list:
```

```
###ARGUS_PEPD_ENDPOINTS="https://test10.egi.cesga.es:8154/authz"  
###CREAM_PEPD_RESOURCEID="http://www.egee.cesga.es/test10"
```

```
# These variables tell YAIM where to find additional configuration files.
```

```
WN_LIST=/opt/glite/yaim/etc/wn-list.conf  
USERS_CONF=/opt/glite/yaim/etc/users.conf  
GROUPS_CONF=/opt/glite/yaim/etc/groups.conf  
FUNCTIONS_DIR=/opt/glite/yaim/functions
```

```
#  
# SE_dpm-specific settings - Ignore if you are not running a DPM  
#  
# Set these if you are installing a DPM yourself  
# and/or if you need a default DPM for the lcg-stdout-mon  
#  
# DPMDATA is now deprecated. Use an entry like $DPM_HOST:/filesystem in  
# the DPM_FILESYSTEMS variable.  
# From now on we use DPM_DB_USER and DPM_DB_PASSWORD to make clear  
# its different role from that of the dpmmgr unix user who owns the  
# directories and runs the daemons.
```

```
# The name of the DPM head node  
DPM_HOST=test08.egi.cesga.es
```

```
DPMPOOL=egi-pool  
DPM_FILESYSTEMS="$DPM_HOST:/storage"
```

```
# The base user  
DPM_DB_USER=dpmmgr  
DPM_DB_HOST=$DPM_HOST  
DPM_DB_PASSWORD=
```

```

# Specifies the default amount of space reserved for a file
#DPMFSIZE=200M

DPM_INFO_USER=dpm_info
DPM_INFO_PASS=

# Variable for the port range - Optional, default value is shown
# RFIO_PORT_RANGE="20000 25000"

# This largely replaces CE_CLOSE_SE but it is a list of hostnames
SE_MOUNT_INFO_LIST="none"
SE_LIST="$DPM_HOST"
SE_ARCH="multidisk" # "disk, tape, multidisk, other"

#####
# SubCluster configuration #
#####
# Architecture and environment specific settings
CE_CPU_MODEL=Opteron
CE_CPU_VENDOR=amd
CE_CPU_SPEED=2200

CE_OS="ScientificSL" # Forma correcta
CE_OS_RELEASE=5.5
CE_OS_VERSION="Boron"

#New variables
CE_PHYSCPU=2
CE_LOGCPU=2
CE_OS_ARCH=x86_64
CE_CAPABILITY="CPUScalingReferenceSI00=2395"
CE_OTHERDESCR="Cores=24,Benchmark=9.58-HEP-SPEC06"
SE_MOUNT_INFO_LIST="none"
CE_SI00=2395

CE_MINPHYSMEM=524
CE_MINVIRTMEM=512
CE_SMPSIZE=2
CE_SF00=1714
CE_OUTBOUNDIP=TRUE
CE_INBOUNDIP=FALSE
CE_RUNTIMEENV="
    LCG-2
    LCG-2_1_0
    LCG-2_1_1
    LCG-2_2_0

```

```
LCG-2_3_0
LCG-2_3_1
LCG-2_4_0
LCG-2_5_0
LCG-2_6_0
LCG-2_7_0
GLITE-3_0_0
GLITE-3_0_2
GLITE-3_1_0
R-GMA
"
```

```
###CREAM CE Variables
CEMON_HOST=test06.egi.cesga.es
CREAM_DB_USER=umdttest
CREAM_DB_PASSWORD=""
MYSQL_PASSWORD=""
BLPARSER_HOST=test06.egi.cesga.es
```

```
# MPI CONFIGURATION
#####
MPI_OPENMPI_ENABLE="yes"
## If you do NOT have SSH Hostbased Authentication between your WNs, set the
below variable to "no" (default). Else, set it to "yes".
MPI_SSH_HOST_BASED_AUTH="yes"
```

```
# VOS="atlas alice lhcb cms dteam biomed"
# Space separated list of supported VOs by your site
VOS="ops dteam ops.vo.ibergrid.eu iber.vo.ibergrid.eu"
QUEUES="GRID_ops GRID_dteam GRID_opsibeu GRID_iberibeu"
VO_SW_DIR=/opt/exp_soft
```

```
#New in Yaim 3.0.1
GRID_OPS_GROUP_ENABLE="ops /VO=ops/GROUP=/ops/ROLE=lcgadmin"
GRID_DTEAM_GROUP_ENABLE="dteam
/VO=dteam/GROUP=/dteam/ROLE=lcgadmin"
GRID_OPSIBEU_GROUP_ENABLE="ops.vo.ibergrid.eu
/VO=ops.vo.ibergrid.eu/GROUP=/ops.vo.ibergrid.eu/ROLE=VO-Admin
/VO=ops.vo.ibergrid.eu/GROUP=/ops.vo.ibergrid.eu/ROLE=Production"
GRID_IBERIBEU_GROUP_ENABLE="iber.vo.ibergrid.eu
/VO=iber.vo.ibergrid.eu/GROUP=/iber.vo.ibergrid.eu/ROLE=VO-Admin
/VO=iber.vo.ibergrid.eu/GROUP=/iber.vo.ibergrid.eu/ROLE=Production"
```

```
#:~::~:
#ops
#:~::~:
VO_OPS_SW_DIR=$VO_SW_DIR/ops
VO_OPS_DEFAULT_SE=$DPM_HOST
```

```

VO_OPS_STORAGE_DIR=$CLASSIC_STORAGE_DIR/ops
VO_OPS_QUEUES="GRID_ops"
VO_OPS_VOMS_SERVERS="vomss://voms.cern.ch:8443/voms/ops?/ops/"
VO_OPS_VOMSES=""ops voms.cern.ch 15009
/DC=ch/DC=cern/OU=computers/CN=voms.cern.ch ops"
VO_OPS_VOMS_CA_DN=""/DC=ch/DC=cern/CN=CERN Trusted Certification
Authority' /DC=ch/DC=cern/CN=CERN Trusted Certification Authority'"

#:::
#dteam
#:::
VO_DTEAM_SW_DIR=$VO_SW_DIR/dteam
VO_DTEAM_DEFAULT_SE=$DPM_HOST
VO_DTEAM_STORAGE_DIR=$CLASSIC_STORAGE_DIR/dteam
VO_DTEAM_QUEUES="GRID_dteam"
VO_DTEAM_VOMS_SERVERS='vomss://voms.hellasgrid.gr:8443/voms/dteam?/dtea
m/'
VO_DTEAM_VOMSES=""dteam lcg-voms.cern.ch 15004
/DC=ch/DC=cern/OU=computers/CN=lcg-voms.cern.ch dteam 24' 'dteam voms.cern.ch
15004 /DC=ch/DC=cern/OU=computers/CN=voms.cern.ch dteam 24' 'dteam
voms.hellasgrid.gr 15004 /C=GR/O=HellasGrid/
OU=hellasgrid.gr/CN=voms.hellasgrid.gr dteam 24' 'dteam voms2.hellasgrid.gr 15004
/C=GR/O=HellasGrid/OU=hellasgrid.gr/CN=voms2.hellasgrid.gr dteam 24'"
VO_DTEAM_VOMS_CA_DN=""/DC=ch/DC=cern/CN=CERN Trusted Certification
Authority' /DC=ch/DC=cern/CN=CERN Trusted Certification Authority'
'/C=GR/O=HellasGrid/OU=Certification Authorities/CN=HellasGrid CA 2006'
'/C=GR/O=HellasGrid/OU=Certif
ication Authorities/CN=HellasGrid CA 2006'"

## IBERGRID VOS ##
# ops.vo.ibergrid.eu
VO_OPS_VO_IBERGRID_EU_SW_DIR=$VO_SW_DIR/opsibeu
VO_OPS_VO_IBERGRID_EU_DEFAULT_SE=$DPM_HOST
VO_OPS_VO_IBERGRID_EU_STORAGE_DIR=$CLASSIC_STORAGE_DIR/opsib
eu
VO_OPS_VO_IBERGRID_EU_QUEUES="GRID_opsibeu"
VO_OPS_VO_IBERGRID_EU_VOMS_SERVERS=""vomss://voms02.ncg.ingrid.pt:84
43/voms/ops.vo.ibergrid.eu?/ops.vo.ibergrid.eu"
VO_OPS_VO_IBERGRID_EU_VOMSES=""ops.vo.ibergrid.eu voms02.ncg.ingrid.pt
40001 /C=PT/O=LIPCA/O=LIP/OU=Lisboa/CN=voms02.ncg.ingrid.pt
ops.vo.ibergrid.eu"
VO_OPS_VO_IBERGRID_EU_VOMS_CA_DN=""/C=PT/O=LIPCA/CN=LIP
Certification Authority'"

# iber.vo.ibergrid.eu
VO_IBER_VO_IBERGRID_EU_SW_DIR=$VO_SW_DIR/iberibeu
VO_IBER_VO_IBERGRID_EU_DEFAULT_SE=$DPM_HOST
VO_IBER_VO_IBERGRID_EU_STORAGE_DIR=$CLASSIC_STORAGE_DIR/iberi
beu
VO_IBER_VO_IBERGRID_EU_QUEUES="GRID_iberibeu"

```

```
VO_IBER_VO_IBERGRID_EU_VOMS_SERVERS="vomss://voms02.ncg.ingrid.pt:8443/voms/iber.vo.ibergrid.eu?/iber.vo.ibergrid.eu"
VO_IBER_VO_IBERGRID_EU_VOMSES="iber.vo.ibergrid.eu voms02.ncg.ingrid.pt40003 /C=PT/O=LIPCA/O=LIP/OU=Lisboa/CN=voms02.ncg.ingrid.ptiber.vo.ibergrid.eu"
VO_IBER_VO_IBERGRID_EU_VOMS_CA_DN="/C=PT/O=LIPCA/CN=LIPCertification Authority"
}}
}}
```

==== Configuring with YAIM the WNs ====

```
{
[root@test14 etc]# /opt/glite/yaim/bin/yaim -c -s /opt/glite/yaim/etc/site-info.def -n
MPI_WN -n WN -n TORQUE_client
```

WARNING:

WARNING:

```
*****
*****
```

WARNING: Your siteinfo directory is world readable. This is generally a bad idea
WARNING: as configuration files may contain passwords and other sensitive information.

WARNING:

```
*****
*****
```

WARNING:

```
DEBUG: Sourcing /opt/glite/yaim/bin/./defaults/site-info.pre
INFO: Using site configuration file: /opt/glite/yaim/etc/site-info.def
DEBUG: Sourcing site-info.def file: /opt/glite/yaim/etc/site-info.def
DEBUG: Sourcing /opt/glite/yaim/bin/./defaults/site-info.post
DEBUG: Sourcing /opt/glite/yaim/bin/./defaults/glite-wn.post
DEBUG: Sourcing /opt/glite/yaim/bin/./defaults/mapping
INFO:
```

```
#####
```

```
.      /'.-' )
.  yA,-"-,(,m,:/) .oo.  oo  o   ooo o.  .oo
.  /   .-Y a a Y-.  8. 8' 8'8.  8 8b d'8
.  /      ~~/      8' .8oo88.  8 8 8' 8
.  (/      '===='   8 8' 8. 8 8 Y 8
.  Y,-"-,Yy,-,./   o8o o8o  o88o o8o o8o  o8o
.  I_))_ I_))_)
```

```
current working directory: /opt/glite/yaim/etc
site-info.def date: Jan 17 10:08 /opt/glite/yaim/etc/site-info.def
yaim command: -c -s /opt/glite/yaim/etc/site-info.def -n MPI_WN -n WN -n
TORQUE_client
log file: /opt/glite/yaim/bin/./log/yaimlog
```

Tue Jan 17 10:09:04 CET 2012 : /opt/glite/yaim/bin/yaim

Installed YAIM versions:
glite-yaim-clients 5.0.0-1
glite-yaim-core 5.0.2-1
glite-yaim-mpi 1.1-9
glite-yaim-torque-client 5.0.0-1
glite-yaim-torque-utils 5.0.0-1
0

```
#####  
INFO: The default location of the grid-env.(c)sh files will be: /usr/libexec  
INFO: Sourcing the utilities in /opt/glite/yaim/functions/utils  
INFO: Detecting environment  
DEBUG: Detect platform: OS flavour detected is: redhat  
DEBUG: Detected architecture is 64BIT  
DEBUG: Detect platform: OS type detected: sl5  
DEBUG: GROUPS_CONF is defined. Adding global groups to the groups.conf temp  
file  
DEBUG: GROUPS_CONF points now to the groups.conf temp file  
DEBUG: GROUPS_CONF=/tmp/yaim.z31986  
DEBUG: Resulted NODE_TYPE_LIST is : MPI_WN WN TORQUE_client  
DEBUG: Setting environment variable GRID_ENV_LOCATION, to value  
"/usr/libexec".  
DEBUG: Unset environment variable GRID_ENV_LOCATION.  
DEBUG: Setting environment variable LCG_LOCATION, to value "/usr".  
DEBUG: Unset environment variable LCG_LOCATION.  
DEBUG: Setting environment variable GLITE_LOCATION, to value "/usr".  
DEBUG: Unset environment variable GLITE_LOCATION.  
DEBUG: Setting environment variable GLITE_LOCATION_VAR, to value "/var".  
DEBUG: Unset environment variable GLITE_LOCATION_VAR.  
DEBUG: Appending value "/bin" to environment variable PATH.  
DEBUG: Deleting value "/bin" from environment variable PATH.  
DEBUG: Appending value "/opt/glite/share/man" to environment variable  
MANPATH.  
DEBUG: Deleting value "/opt/glite/share/man" from environment variable  
MANPATH.  
DEBUG: Sourcing node definition file: /opt/glite/yaim/bin/./node-info.d/glite-  
mpi_wn  
DEBUG: Sourcing node definition file: /opt/glite/yaim/bin/./node-info.d/glite-wn  
DEBUG: Sourcing node definition file: /opt/glite/yaim/bin/./node-info.d/glite-  
torque_client  
INFO: Executing function: config_mpi_wn_check  
DEBUG: This function doesn't currently require any variables.  
DEBUG: Skipping function: config_ldconf_check because it is not defined  
DEBUG: Skipping function: config_sysconfig_edg_check because it is not defined  
DEBUG: Skipping function: config_sysconfig_globus_check because it is not defined  
INFO: Executing function: config_sysconfig_lcg_check  
DEBUG: Skipping function: config_crl_check because it is not defined  
DEBUG: Skipping function: config_rfiio_check because it is not defined
```


INFO: Executing function: config_globus_clients_check
INFO: Executing function: config_lcgenv_check
INFO: Executing function: config_users_check
INFO: Executing function: config_sw_dir_check
DEBUG: Skipping function: config_fts_client_check because it is not defined
INFO: Executing function: config_amga_client_check
DEBUG: This function doesn't currently require any variables.
INFO: Executing function: config_wn_check
INFO: Executing function: config_vomsdir_check
INFO: Executing function: config_vomses_check
INFO: Executing function: config_glite_saga_check
INFO: Executing function: config_add_pool_env_check
INFO: Executing function: config_wn_info_check
INFO: Executing function: config_torque_client_check
INFO: Executing function: config_mpi_wn_setenv
DEBUG: Configuring OPENMPI (Path "" Version "")
DEBUG: Searching for MPI flavour openmpi
INFO: Found OPENMPI at /usr/lib64/openmpi/1.4-gcc
DEBUG: Setting environment variable MPI_OPENMPI_PATH, to value
"/usr/lib64/openmpi/1.4-gcc".
DEBUG: Unset environment variable MPI_OPENMPI_PATH.
DEBUG: Trying to detect version of OPENMPI installed.
INFO: Installed version of OPENMPI is 1.4
DEBUG: Setting environment variable MPI_OPENMPI_VERSION, to value "1.4".
DEBUG: Unset environment variable MPI_OPENMPI_VERSION.
DEBUG: Setting environment variable MPI_SSH_HOST_BASED_AUTH, to value
"yes".
DEBUG: Unset environment variable MPI_SSH_HOST_BASED_AUTH.
DEBUG: Setting environment variable I2G_MPI_START, to value "/usr/bin/mpi-
start".
DEBUG: Unset environment variable I2G_MPI_START.
DEBUG: Setting environment variable MPI_DEFAULT_FLAVOUR, to value
"openmpi".
DEBUG: Unset environment variable MPI_DEFAULT_FLAVOUR.
INFO: Executing function: config_mpi_wn
DEBUG: Skipping function: config_ldconf_setenv because it is not defined
INFO: Executing function: config_ldconf
INFO: config_ldconf: function not needed anymore, left empty waiting to be removed
DEBUG: Skipping function: config_sysconfig_edg_setenv because it is not defined
INFO: Executing function: config_sysconfig_edg
DEBUG: Skipping function: config_sysconfig_globus_setenv because it is not
defined
INFO: Executing function: config_sysconfig_globus
DEBUG: Skipping function: config_sysconfig_lcg_setenv because it is not defined
INFO: Executing function: config_sysconfig_lcg
DEBUG: Skipping function: config_crl_setenv because it is not defined
INFO: Executing function: config_crl
INFO: Now updating the CRLs - this may take a few minutes...
Enabling periodic fetch-crl: [OK]
DEBUG: fetch-crl cron enabled

DEBUG: Skipping function: config_rfiio_setenv because it is not defined
INFO: Executing function: config_rfiio
INFO: Executing function: config_globus_clients_setenv
DEBUG: Setting environment variable GT_PROXY_MODE, to value "old".
DEBUG: Unset environment variable GT_PROXY_MODE.
INFO: Executing function: config_globus_clients
INFO: Configure the globus service - not needed in EMI
DEBUG: Skipping function: config_lcgenv_setenv because it is not defined
INFO: Executing function: config_lcgenv
DEBUG: Setting environment variable LCG_GFAL_INFOSYS, to value "topbdii02.ncg.ingrid.pt:2170".
DEBUG: Unset environment variable LCG_GFAL_INFOSYS.
DEBUG: Setting environment variable MYPROXY_SERVER, to value "myproxy.egi.cesga.es".
DEBUG: Unset environment variable MYPROXY_SERVER.
DEBUG: Appending value "/opt/d-cache/srm/bin:/opt/d-cache/dcap/bin" to environment variable PATH.
DEBUG: Deleting value "/opt/d-cache/srm/bin:/opt/d-cache/dcap/bin" from environment variable PATH.
DEBUG: Appending value "/opt/d-cache/dcap/lib64" to environment variable LD_LIBRARY_PATH.
DEBUG: Deleting value "/opt/d-cache/dcap/lib64" from environment variable LD_LIBRARY_PATH.
DEBUG: Setting environment variable SRM_PATH, to value "/opt/d-cache/srm".
DEBUG: Unset environment variable SRM_PATH.
DEBUG: Setting environment variable VO_OPS_DEFAULT_SE, to value "test08.egi.cesga.es".
DEBUG: Unset environment variable VO_OPS_DEFAULT_SE.
DEBUG: Setting environment variable VO_OPS_SW_DIR, to value "/opt/exp_soft/ops".
DEBUG: Unset environment variable VO_OPS_SW_DIR.
DEBUG: Setting environment variable VO_DTEAM_DEFAULT_SE, to value "test08.egi.cesga.es".
DEBUG: Unset environment variable VO_DTEAM_DEFAULT_SE.
DEBUG: Setting environment variable VO_DTEAM_SW_DIR, to value "/opt/exp_soft/dteam".
DEBUG: Unset environment variable VO_DTEAM_SW_DIR.
DEBUG: Setting environment variable VO_OPS_VO_IBERGRID_EU_DEFAULT_SE, to value "test08.egi.cesga.es".
DEBUG: Unset environment variable VO_OPS_VO_IBERGRID_EU_DEFAULT_SE.
DEBUG: Setting environment variable VO_OPS_VO_IBERGRID_EU_SW_DIR, to value "/opt/exp_soft/opsibeu".
DEBUG: Unset environment variable VO_OPS_VO_IBERGRID_EU_SW_DIR.
DEBUG: Setting environment variable VO_IBER_VO_IBERGRID_EU_DEFAULT_SE, to value "test08.egi.cesga.es".
DEBUG: Unset environment variable VO_IBER_VO_IBERGRID_EU_DEFAULT_SE.
DEBUG: Setting environment variable VO_IBER_VO_IBERGRID_EU_SW_DIR, to value "/opt/exp_soft/iberibeu".

DEBUG: Unset environment variable VO_IBER_VO_IBERGRID_EU_SW_DIR.
DEBUG: Setting environment variable DPNS_HOST, to value "test08.egi.cesga.es".
DEBUG: Unset environment variable DPNS_HOST.
DEBUG: Setting environment variable DPM_HOST, to value "test08.egi.cesga.es".
DEBUG: Unset environment variable DPM_HOST.
DEBUG: Skipping function: config_users_setenv because it is not defined
INFO: Executing function: config_users
INFO: Executing function: config_sw_dir_setenv
DEBUG: This function doesn't currently set any environment variables.
INFO: Executing function: config_sw_dir
WARNING: YAIM has detected multiple sgm accounts
WARNING: Execute the following command manually: chmod -R ug+rw,o-w
/opt/exp_soft/ops
WARNING: to ensure that the VO software area in /opt/exp_soft/ops has the correct permissions.
WARNING: YAIM has detected multiple sgm accounts
WARNING: Execute the following command manually: chmod -R ug+rw,o-w
/opt/exp_soft/dteam
WARNING: to ensure that the VO software area in /opt/exp_soft/dteam has the correct permissions.
WARNING: YAIM has detected multiple sgm accounts
WARNING: Execute the following command manually: chmod -R ug+rw,o-w
/opt/exp_soft/opsibeu
WARNING: to ensure that the VO software area in /opt/exp_soft/opsibeu has the correct permissions.
WARNING: YAIM has detected multiple sgm accounts
WARNING: Execute the following command manually: chmod -R ug+rw,o-w
/opt/exp_soft/iberibeu
WARNING: to ensure that the VO software area in /opt/exp_soft/iberibeu has the correct permissions.
DEBUG: Skipping function: config_fts_client_setenv because it is not defined
INFO: Executing function: config_fts_client
INFO: Executing function: config_amga_client_setenv
INFO: Executing function: config_amga_client
INFO: Executing function: config_wn_setenv
DEBUG: Setting environment variable SITE_NAME, to value "CESGA-EGEE".
DEBUG: Unset environment variable SITE_NAME.
DEBUG: Setting environment variable GLITE_ENV_SET, to value "TRUE".
DEBUG: Unset environment variable GLITE_ENV_SET.
DEBUG: Setting environment variable SITE_GIIS_URL, to value "sbdi02.ncg.ingrid.pt".
DEBUG: Unset environment variable SITE_GIIS_URL.
INFO: Executing function: config_wn
INFO: Executing function: config_vomsdir_setenv
DEBUG: This function currently doesn't set any environment variables.
INFO: Executing function: config_vomsdir
DEBUG: .lsc file configuration for VO ops...
DEBUG: Create the /etc/grid-security/vomsdir/ops/voms.cern.ch.lsc
DEBUG: Copying /DC=ch/DC=cern/OU=computers/CN=voms.cern.ch in /etc/grid-security/vomsdir/ops/voms.cern.ch.lsc

DEBUG: Copying the voms.cern.ch CA DN /DC=ch/DC=cern/CN=CERN Trusted Certification Authority in /etc/grid-security/vomsdir/ops/voms.cern.ch.lsc
DEBUG: Copying the CA DN /DC=ch/DC=cern/CN=CERN Trusted Certification Authority in /etc/grid-security/vomsdir/ops/.lsc
DEBUG: .lsc file configuration for VO dteam...
DEBUG: Create the /etc/grid-security/vomsdir/dteam/lcg-voms.cern.ch.lsc
DEBUG: Copying /DC=ch/DC=cern/OU=computers/CN=lcg-voms.cern.ch in /etc/grid-security/vomsdir/dteam/lcg-voms.cern.ch.lsc
DEBUG: Create the /etc/grid-security/vomsdir/dteam/voms.cern.ch.lsc
DEBUG: Copying /DC=ch/DC=cern/OU=computers/CN=voms.cern.ch in /etc/grid-security/vomsdir/dteam/voms.cern.ch.lsc
DEBUG: Create the /etc/grid-security/vomsdir/dteam/voms.hellasgrid.gr.lsc
DEBUG: Copying /C=GR/O=HellasGrid/OU=hellasgrid.gr/CN=voms.hellasgrid.gr in /etc/grid-security/vomsdir/dteam/voms.hellasgrid.gr.lsc
DEBUG: Create the /etc/grid-security/vomsdir/dteam/voms2.hellasgrid.gr.lsc
DEBUG: Copying /C=GR/O=HellasGrid/OU=hellasgrid.gr/CN=voms2.hellasgrid.gr in /etc/grid-security/vomsdir/dteam/voms2.hellasgrid.gr.lsc
DEBUG: Copying the lcg-voms.cern.ch CA DN /DC=ch/DC=cern/CN=CERN Trusted Certification Authority in /etc/grid-security/vomsdir/dteam/lcg-voms.cern.ch.lsc
DEBUG: Copying the voms.cern.ch CA DN /DC=ch/DC=cern/CN=CERN Trusted Certification Authority in /etc/grid-security/vomsdir/dteam/voms.cern.ch.lsc
DEBUG: Copying the voms.hellasgrid.gr CA DN /C=GR/O=HellasGrid/OU=Certification Authorities/CN=HellasGrid CA 2006 in /etc/grid-security/vomsdir/dteam/voms.hellasgrid.gr.lsc
DEBUG: Copying the voms2.hellasgrid.gr CA DN /C=GR/O=HellasGrid/OU=Certification Authorities/CN=HellasGrid CA 2006 in /etc/grid-security/vomsdir/dteam/voms2.hellasgrid.gr.lsc
DEBUG: .lsc file configuration for VO ops.vo.ibergrid.eu...
DEBUG: Create the /etc/grid-security/vomsdir/ops.vo.ibergrid.eu/voms02.ncg.ingrid.pt.lsc
DEBUG: Copying /C=PT/O=LIPCA/O=LIP/OU=Lisboa/CN=voms02.ncg.ingrid.pt in /etc/grid-security/vomsdir/ops.vo.ibergrid.eu/voms02.ncg.ingrid.pt.lsc
DEBUG: Copying the voms02.ncg.ingrid.pt CA DN /C=PT/O=LIPCA/CN=LIP Certification Authority in /etc/grid-security/vomsdir/ops.vo.ibergrid.eu/voms02.ncg.ingrid.pt.lsc
DEBUG: .lsc file configuration for VO iber.vo.ibergrid.eu...
DEBUG: Create the /etc/grid-security/vomsdir/iber.vo.ibergrid.eu/voms02.ncg.ingrid.pt.lsc
DEBUG: Copying /C=PT/O=LIPCA/O=LIP/OU=Lisboa/CN=voms02.ncg.ingrid.pt in /etc/grid-security/vomsdir/iber.vo.ibergrid.eu/voms02.ncg.ingrid.pt.lsc
DEBUG: Copying the voms02.ncg.ingrid.pt CA DN /C=PT/O=LIPCA/CN=LIP Certification Authority in /etc/grid-security/vomsdir/iber.vo.ibergrid.eu/voms02.ncg.ingrid.pt.lsc
DEBUG: Skipping function: config_vomses_setenv because it is not defined
INFO: Executing function: config_vomses
INFO: Executing function: config_glite_saga_setenv
INFO: SAGA configuration is not required
INFO: Executing function: config_glite_saga
INFO: SAGA configuration is not required
INFO: Executing function: config_add_pool_env_setenv

```
DEBUG: Currently this function doesn't set any environment variables.
INFO: Executing function: config_add_pool_env
DEBUG: Creating links for the grid environment in /etc/profile.d/
DEBUG: Skipping function: config_wn_info_setenv because it is not defined
INFO: Executing function: config_wn_info
WARNING: No subcluster has been defined for the WN in the WN_LIST file
/opt/glite/yaim/etc/wn-list.conf
WARNING: YAIM will use the default subcluster id: CE_HOST ->
test06.egi.cesga.es
DEBUG: Skipping function: config_torque_client_setenv because it is not defined
INFO: Executing function: config_torque_client
DEBUG: configuring batch server name
DEBUG: configuring pbs services
DEBUG: ssh configuration
DEBUG: configuring known hosts
DEBUG: configuring pbs
WARNING: /var/torque/mom_priv/config already exists, YAIM will not touch it
INFO: starting pbs_mom...
Shutting down TORQUE Mom: [ OK ]
Starting TORQUE Mom: [ OK ]
DEBUG: creating edg-pbs-knownhosts cron job...
DEBUG: creating mom_logs cron job...
INFO: Configuration Complete. [ OK ]
INFO: YAIM terminated succesfully.
```

```
}}}
```

```
==== TESTING ====
```

```
===== Checking ldap (OK) =====
```

```
{}}
```

```
[root@ce2 etc]# ldapsearch -x -H ldap://sbdii02.ncg.ingrid.pt:2170 -b o=grid | grep
cesga
```

```
# test06.egi.cesga.es, UMD-VERIFICATION, grid
```

```
dn: GlueClusterUniqueID=test06.egi.cesga.es,Mds-Vo-name=UMD-
VERIFICATION,o=gri
```

```
GlueClusterUniqueID: test06.egi.cesga.es
```

```
GlueClusterService: test06.egi.cesga.es:8443/cream-pbs-GRID_ops
```

```
GlueClusterService: test06.egi.cesga.es:8443/cream-pbs-GRID_dteam
```

```
GlueClusterService: test06.egi.cesga.es:8443/cream-pbs-GRID_opsibergrid
```

```
GlueClusterService: test06.egi.cesga.es:8443/cream-pbs-GRID_ibergrid
GlueForeignKey: GlueCEUniqueID: test06.egi.cesga.es:8443/cream-pbs-GRID_ops
GlueForeignKey: GlueCEUniqueID: test06.egi.cesga.es:8443/cream-pbs-GRID_dteam
GlueForeignKey: GlueCEUniqueID: test06.egi.cesga.es:8443/cream-pbs-GRID_opsibe
GlueForeignKey: GlueCEUniqueID: test06.egi.cesga.es:8443/cream-pbs-GRID_ibergr
GlueClusterName: test06.egi.cesga.es
}}}
```

```
{{{
```

```
[root@ce2 etc]# ldapsearch -x -H ldap://topbdii02.ncg.ingrid.pt:2170 -b o=grid | grep
test06
```

```
# test06.egi.cesga.es, UMD-VERIFICATION, local, grid
```

```
dn: GlueClusterUniqueID=test06.egi.cesga.es,Mds-Vo-name=UMD-
VERIFICATION,Mds-V
```

```
GlueClusterUniqueID: test06.egi.cesga.es
```

```
GlueClusterService: test06.egi.cesga.es:8443/cream-pbs-GRID_ops
```

```
GlueClusterService: test06.egi.cesga.es:8443/cream-pbs-GRID_dteam
```

```
GlueClusterService: test06.egi.cesga.es:8443/cream-pbs-GRID_opsibergrid
```

```
GlueClusterService: test06.egi.cesga.es:8443/cream-pbs-GRID_ibergrid
```

```
GlueForeignKey: GlueCEUniqueID: test06.egi.cesga.es:8443/cream-pbs-GRID_ops
```

```
GlueForeignKey: GlueCEUniqueID: test06.egi.cesga.es:8443/cream-pbs-GRID_dteam
```

```
GlueForeignKey: GlueCEUniqueID: test06.egi.cesga.es:8443/cream-pbs-GRID_opsibe
```

```
GlueForeignKey: GlueCEUniqueID: test06.egi.cesga.es:8443/cream-pbs-GRID_ibergr
```

```
GlueClusterName: test06.egi.cesga.es
```

```
{{{
```

```
[root@ce2 etc]# ldapsearch -x -H ldap://test06.egi.cesga.es:2170 -b o=grid | grep  
GlueCEStateFreeCPUs  
GlueCEStateFreeCPUs: 4  
GlueCEStateFreeCPUs: 4  
GlueCEStateFreeCPUs: 4  
GlueCEStateFreeCPUs: 4
```

```
}}}
```

```
{{{
```

```
[root@ce2 common]# ldapsearch -x -h test06.egi.cesga.es -p 2170 -b mds-vo-  
name=resource,o=grid | grep MPI  
GlueHostApplicationSoftwareRunTimeEnvironment: MPI-START  
GlueHostApplicationSoftwareRunTimeEnvironment: MPI_NO_SHARED_HOME  
GlueHostApplicationSoftwareRunTimeEnvironment: OPENMPI  
GlueHostApplicationSoftwareRunTimeEnvironment: OPENMPI-1.4-4
```

```
}}}
```

* Checking if MPI has been configured correctly

```
{{{
```

```
[root@test06 etc]# cat /var/torque/torque.cfg  
SUBMITFILTER /var/torque/submit_filter
```

```
}}}
```

```
{{{
```

```
[root@test06 etc]# cat /var/torque/submit_filter.pl  
cat: /var/torque/submit_filter.pl: No such file or directory
```

```
}}}
```

==== Checking if ssh works in bidirectional sense ====

* From WN to CE (OK)

```
{{{
```

```
[root@test14 ~]# su - dteam004
```

```
[dteam004@test14 ~]$ ssh test06.egi.cesga.es
```

```
[dteam004@test06 ~]$
```

```
}}}
```

==== Trying some internal commands ====

{{{

[root@test06 etc]# qstat -B

Server	Max	Tot	Que	Run	Hld	Wat	Trn	Ext	Status
--------	-----	-----	-----	-----	-----	-----	-----	-----	--------

-----	---	---	---	---	---	---	---	---	-----
test06.egi.cesga	0	0	0	0	0	0	0	0	Active

[root@test06 etc]# qstat -Q

Queue	Max	Tot	Ena	Str	Que	Run	Hld	Wat	Trn	Ext	T
-------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	---

-----	---	---	---	---	---	---	---	---	---	---	---
GRID_ops	0	0	yes	yes	0	0	0	0	0	0	E
GRID_dteam	0	0	yes	yes	0	0	0	0	0	0	E
GRID_opsibeu	0	0	yes	yes	0	0	0	0	0	0	E
GRID_iberibeu	0	0	yes	yes	0	0	0	0	0	0	E

}}}

* Checking the environment on the WNs

{{{

```
[dteam004@test14 ~]$ env|grep MPI_  
MPI_OPENMPI_PATH=/usr/lib64/openmpi/1.4-gcc  
MPI_OPENMPI_VERSION=1.4  
MPI_DEFAULT_FLAVOUR=openmpi  
I2G_MPI_START=/usr/bin/mpi-start
```

}}}

* Submitting a direct qsub

{{{

```
[opssgm004@test06 ~]$ vi test.sh  
[opssgm004@test06 ~]$ chmod +x test.sh  
[opssgm004@test06 ~]$ qsub -q GRID_ops -l nodes=test14.egi.cesga.es test.sh  
0.test06.egi.cesga.es  
[opssgm004@test06 ~]$ ls  
test.sh test.sh.e0 test.sh.o0  
[opssgm004@test06 ~]$ cat test.sh.e0  
[opssgm004@test06 ~]$ cat test.sh.o0  
test14.egi.cesga.es
```


Mon Jan 16 17:12:24 CET 2012

}}}

(!)

==== Submitting a job from the CESGA UI ====

{{{

```
[esfreire@test13 ~]$ glite-ce-delegate-proxy -e test06.egi.cesga.es esfreire
2012-01-16 17:16:39,606 NOTICE - Proxy with delegation id [esfreire] succesfully
delegated to endpoint [https://test06.egi.cesga.es:8443//ce-cream/services/gridsite-
delegation]
```

```
[esfreire@test13 ~]$ glite-ce-proxy-renew -e test06.egi.cesga.es esfreire
2012-01-16 17:17:51,075 NOTICE - Proxy with delegation id [esfreire] succesfully
renewed to endpoint [https://test06.egi.cesga.es:8443//ce-cream/services/gridsite-
delegation]
```

}}}

{{{

```
[[[
[esfreire@test13 ~]$ glite-ce-job-submit -D esfreire -r test06.egi.cesga.es:8443/cream-
pbs-GRID_ops testCream1.jdl
https://test06.egi.cesga.es:8443/CREAM976905590
```

```
[esfreire@test13 ~]$ glite-ce-job-status
https://test06.egi.cesga.es:8443/CREAM976905590
```

```
***** JobID=[https://test06.egi.cesga.es:8443/CREAM976905590]
      Status      = [DONE-OK]
      ExitCode    = [0]
```

}}}

==== Submitting MPI jobs ====

{{{

```
[esfreire@test13 verification]$ cat job1.jdl
CPUNumber      = 4;
Executable     = "/usr/bin/mpi-start";
Arguments      = "-v -pre hooks.sh cpi";
InputSandbox   = {"cpi.c", "hooks.sh"};
StdOutput      = "std.out";
```

```

StdError    = "std.err";
OutputSandbox = {"std.out","std.err"};
##OutputSandboxBaseDestUri = "gsiftp://localhost";
OutputSandboxBaseDestUri = "gsiftp://se2.egi.cesga.es/tmp";
Requirements =
  Member("MPI-START", other.GlueHostApplicationSoftwareRunTimeEnvironment)
  &&
  Member("OPENMPI", other.GlueHostApplicationSoftwareRunTimeEnvironment);
}}}

```

```

{{{
[esfreire@test13 verification]$ cat cat hooks.sh
#!/bin/sh

```

```

pre_run_hook () {

  # Compile the program.
  echo "Compiling ${I2G_MPI_APPLICATION}"

  sleep 20

  # Actually compile the program.
  cmd="mpicc ${MPI_MPICC_OPTS} -o ${I2G_MPI_APPLICATION}
${I2G_MPI_APPLICATION}.c"
  $cmd
  if [ ! $? -eq 0 ]; then
    echo "Error compiling program. Exiting..."
    return 1
  fi

  # Everything's OK.
  echo "Successfully compiled ${I2G_MPI_APPLICATION}"

  return 0
}

```

```

}}}
* Applying 4 CPUS fails
{{{

```

```

[esfreire@test13 verification]$ glite-ce-job-status -L 2
https://test06.egi.cesga.es:8443/CREAM387628043

```

```

***** JobID=[https://test06.egi.cesga.es:8443/CREAM387628043]
  Current Status = [ABORTED]
  Working Dir    = [[reserved]]
  ExitCode       = []
  FailureReason  = [BLAH error: submission command failed (exit code = 1)
(stdout:) (stderr:qsub: Job exceeds queue resource limits MSG=cannot locate feasible
nodes-) N/A (jobId = CREAM387628043)]

```

```

Grid JobID    = [N/A]
LRMS Abs JobID = [[reserved]]
LRMS JobID    = [[reserved]]
Deleg Proxy ID = [esfreire]
DelegProxyInfo = [Valid From    : 1/17/12 3:24 PM (GMT)
                  Valid To      : 1/17/12 8:10 PM (GMT)
                  Holder Subject : /DC=es/DC=irisgrid/O=cesga/CN=javier-lopez
                  Holder CA      : /DC=es/DC=irisgrid/CN=IRISGridCA

                  VO              : ops
                  AC Issuer       :
CN=voms.cern.ch,OU=computers,DC=cern,DC=ch
                  Attribute      : /ops/Role=lcgadmin/Capability=NULL
/ops/NGI/Role=NULL/Capability=NULL
/ops/NGI/Portugal/Role=NULL/Capability=NULL
/ops/NGI/Spain/Role=NULL/Capability=NULL /ops/Role=NULL/Capability=NULL
]
Worker Node    = [N/A]
Local User     = [opssgm006]
CREAM ISB URI  =
[gsiftp://test06.egi.cesga.es/var/cream_sandbox/opssgm/_DC_es_DC_irisgrid_O_cesga
_CN_javier_lopez_ops_Role_lcgadmin_Capability_NULL_opssgm006/38/CREAM387
628043/ISB]
CREAM OSB URI  =
[gsiftp://test06.egi.cesga.es/var/cream_sandbox/opssgm/_DC_es_DC_irisgrid_O_cesga
_CN_javier_lopez_ops_Role_lcgadmin_Capability_NULL_opssgm006/38/CREAM387
628043/OSB]
JDL            = [[ StdOutput = "std.out"; BatchSystem = "pbs"; QueueName =
"GRID_ops"; Executable = "/usr/bin/mpi-start"; Arguments = "-v -pre hooks.sh cpi";
VirtualOrganisation = "ops"; OutputSandboxBaseDestUri =
"gsiftp://se2.egi.cesga.es/tmp"; OutputSandbox = { "std.out","std.err" }; InputSandbox
= { "/home/esfreire/verification/cpi.c","/home/esfreire/verification/hooks.sh" };
StdError = "std.err"; CPUNumber = 4; Requirements = Member("MPI-
START",other.GlueHostApplicationSoftwareRunTimeEnvironment) &&
Member("OPENMPI",other.GlueHostApplicationSoftwareRunTimeEnvironment) ]]
Type          = [normal]

```

Job status changes:

```

-----
Status    = [REGISTERED] - [Tue 17 Jan 2012 18:12:50] (1326820370)
Status    = [PENDING] - [Tue 17 Jan 2012 18:12:52] (1326820372)
Status    = [ABORTED] - [Tue 17 Jan 2012 18:12:57] (1326820377)

```

Issued Commands:

```

-----
*** Command Name      = [JOB_REGISTER]
   Command Category   = [JOB_MANAGEMENT]
   Command Status     = [SUCCESSFULL]
   Creation Time      = [Tue 17 Jan 2012 18:12:50] (1326820370)

```

Start Scheduling Time = [Tue 17 Jan 2012 18:12:50] (1326820370)
Start Processing Time = [Tue 17 Jan 2012 18:12:50] (1326820370)
Execution Completed Time = [Tue 17 Jan 2012 18:12:50] (1326820370)

```
*** Command Name      = [JOB_START]
    Command Category   = [JOB_MANAGEMENT]
    Command Status     = [ERROR]
    Command Fail Reason = [BLAH error: submission command failed (exit
code = 1) (stdout:) (stderr:qsub: Job exceeds queue resource limits MSG=cannot locate
feasible nodes-) N/A (jobId = CREAM387628043)]
    Creation Time      = [Tue 17 Jan 2012 18:12:52] (1326820372)
    Start Scheduling Time = [Tue 17 Jan 2012 18:12:52] (1326820372)
    Start Processing Time = [Tue 17 Jan 2012 18:12:52] (1326820372)
    Execution Completed Time = [Tue 17 Jan 2012 18:12:57] (1326820377)
```

}}}

* Applying 2 CPUS run but it just uses a CPU

{{{

[root@se2 tmp]# cat std.err

mpi-start [INFO]:

mpi-start [INFO]: UID = opssgm006

mpi-start [INFO]: HOST = test15.egi.cesga.es

mpi-start [INFO]: DATE = Tue Jan 17 16:29:51 CET 2012

mpi-start [INFO]: VERSION = 1.1.0

mpi-start [INFO]:

mpi-start [INFO]: search for scheduler

mpi-start [INFO]: activate support for pbs

mpi-start [INFO]: Unable to detect number of cores per cpu, assuming 1

mpi-start [INFO]: Detected 0 CPU socket(s) and 1 core(s) per CPU

mpi-start [INFO]: activate support for openmpi

mpi-start [INFO]: call backend MPI implementation

mpi-start [INFO]: start program with mpirun

Process 0 on test15.egi.cesga.es: n=1

Using 16384 intervals

Process 1 on test15.egi.cesga.es: n=1

[root@se2 tmp]# cat std.out

Compiling cpi

Successfully compiled cpi

=[START]=====

=====

pi is approximately 3.1415926539002363, Error is 0.0000000003104432

wall clock time = 0.001899

=[FINISHED]=====

=====

}}}

```
{{{
```

```
[esfreire@test13 verification]$ cat job2.jdl
CPUNumber = 2;
Executable = "/usr/bin/mpi-start";
Arguments = "-t openmpi -v -pre hooks.sh cpi";
InputSandbox = {"cpi.c", "hooks.sh"};
StdOutput = "std.out";
StdError = "std.err";
OutputSandbox = {"std.out", "std.err"};
OutputSandboxBaseDestUri = "gsiftp://se2.egi.cesga.es/tmp";
Requirements =
  Member("MPI-START", other.GlueHostApplicationSoftwareRunTimeEnvironment)
  &&
  Member("OPENMPI", other.GlueHostApplicationSoftwareRunTimeEnvironment);
```

```
[esfreire@test13 verification]$ glite-ce-job-status
https://test06.egi.cesga.es:8443/CREAM942629962
```

```
***** JobID=[https://test06.egi.cesga.es:8443/CREAM942629962]
      Status = [DONE-OK]
      ExitCode = [0]
```

```
}}}
```

```
{{{
```

```
[root@se2 tmp]# cat std.err
mpi-start [INFO ]:
*****
mpi-start [INFO ]: UID = opssgm006
mpi-start [INFO ]: HOST = test15.egi.cesga.es
mpi-start [INFO ]: DATE = Tue Jan 17 18:17:55 CET 2012
mpi-start [INFO ]: VERSION = 1.1.0
mpi-start [INFO ]:
*****
mpi-start [INFO ]: search for scheduler
mpi-start [INFO ]: activate support for pbs
mpi-start [INFO ]: Unable to detect number of cores per cpu, assuming 1
mpi-start [INFO ]: Detected 0 CPU socket(s) and 1 core(s) per CPU
mpi-start [INFO ]: activate support for openmpi
mpi-start [INFO ]: call backend MPI implementation
mpi-start [INFO ]: start program with mpirun
Process 0 on test15.egi.cesga.es: n=1
Using 16384 intervals
Process 1 on test15.egi.cesga.es: n=1
```

```
[root@se2 tmp]# cat std.out
Compiling cpi
Successfully compiled cpi
=[START]=====
=====
pi is approximately 3.1415926539002363, Error is 0.0000000003104432
wall clock time = 0.001998
=[FINISHED]=====
=====
```

```
}}}
```

```
{{{
```

```
[esfreire@test13 verification]$ cat job3.jdl
NodeNumber = 2;
SMPGranularity = 2;
WholeNodes = True;
Executable = "/usr/bin/mpi-start";
Arguments = "-v -pre hooks.sh cpi";
InputSandbox = {"cpi.c", "hooks.sh"};
StdOutput = "std.out";
StdError = "std.err";
OutputSandbox = {"std.out", "std.err"};
OutputSandboxBaseDestUri = "gsiftp://se2.egi.cesga.es/tmp";
Requirements =
  Member("MPI-START", other.GlueHostApplicationSoftwareRunTimeEnvironment)
  &&
  Member("OPENMPI", other.GlueHostApplicationSoftwareRunTimeEnvironment);
```

```
[esfreire@test13 verification]$ glite-ce-job-submit -r test06.egi.cesga.es:8443/cream-
pbs-GRID_ops -D esfreire job3.jdl
https://test06.egi.cesga.es:8443/CREAM342252956
```

```
}}}
```

```
{{{
```

```
[root@se2 tmp]# cat std.err
mpi-start [INFO ]:
*****
mpi-start [INFO ]: UID = opssgm006
mpi-start [INFO ]: HOST = test15.egi.cesga.es
mpi-start [INFO ]: DATE = Tue Jan 17 18:27:14 CET 2012
mpi-start [INFO ]: VERSION = 1.1.0
mpi-start [INFO ]:
*****
mpi-start [INFO ]: search for scheduler
mpi-start [INFO ]: activate support for pbs
mpi-start [INFO ]: Unable to detect number of cores per cpu, assuming 1
```

```

mpi-start [INFO ]: Detected 0 CPU socket(s) and 1 core(s) per CPU
mpi-start [INFO ]: activate support for openmpi
mpi-start [INFO ]: call backend MPI implementation
mpi-start [INFO ]: start program with mpirun
Process 0 on test15.egi.cesga.es: n=1
Using 16384 intervals
Process 1 on test15.egi.cesga.es: n=1
[root@se2 tmp]# cat std.out
Compiling cpi
Successfully compiled cpi
=[START]=====
=====
pi is approximately 3.1415926539002363, Error is 0.0000000003104432
wall clock time = 0.001926
=[FINISHED]=====
=====
}}}

```

```

{{{
[esfreire@test13 verification]$ cat job-oldsyntax.jdl
CPUNumber    = 4;
Executable   = "starter.sh";
Arguments    = "cpi OPENMPI";
InputSandbox = {"starter.sh", "cpi.c", "hooks.sh"};
StdOutput    = "std.out";
StdError     = "std.err";
OutputSandbox = {"std.out", "std.err"};
OutputSandboxBaseDestUri = "gsiftp://se2.egee.cesga.es/tmp";
Environment  = {"I2G_MPI_PRE_RUN_HOOK=hooks.sh"};
Requirements =
  Member("MPI-START", other.GlueHostApplicationSoftwareRunTimeEnvironment)
  &&
  Member("OPENMPI", other.GlueHostApplicationSoftwareRunTimeEnvironment);
}}}

```

* With more 4 CPUs:

```

{{{
[esfreire@test13 verification]$ glite-ce-job-submit -r test06.egi.cesga.es:8443/cream-
pbs-GRID_ops -D esfreire job-oldsyntax.jdl
https://test06.egi.cesga.es:8443/CREAM055213399
[esfreire@test13 verification]$ glite-ce-job-status
https://test06.egi.cesga.es:8443/CREAM055213399

```

```

***** JobID=[https://test06.egi.cesga.es:8443/CREAM055213399]
      Status    = [ABORTED]
      ExitCode   = []
      FailureReason = [BLAH error: submission command failed (exit code = 1)
(stdout:) (stderr:qsub: Job exceeds queue resource limits MSG=cannot locate feasible
nodes-) N/A (jobId = CREAM055213399)]

```

```
}}}
```

```
* With 2 CPUS:
```

```
{{{
```

```
[esfreire@test13 verification]$ glite-ce-job-submit -r test06.egi.cesga.es:8443/cream-  
pbs-GRID_ops -D esfreire job-oldsyntax.jdl  
https://test06.egi.cesga.es:8443/CREAM140430493
```

```
[esfreire@test13 verification]$ glite-ce-job-status  
https://test06.egi.cesga.es:8443/CREAM140430493
```

```
***** JobID=[https://test06.egi.cesga.es:8443/CREAM140430493]  
Status      = [DONE-OK]  
ExitCode    = [0]
```

```
}}}
```

```
{{{
```

```
[root@se2 tmp]# cat std.err
```

```
mpi-start [INFO ]:
```

```
*****
```

```
mpi-start [INFO ]: UID    = opssgm006
```

```
mpi-start [INFO ]: HOST    = test15.egi.cesga.es
```

```
mpi-start [INFO ]: DATE    = Tue Jan 17 18:32:21 CET 2012
```

```
mpi-start [INFO ]: VERSION = 1.1.0
```

```
mpi-start [INFO ]:
```

```
*****
```

```
mpi-start [INFO ]: search for scheduler
```

```
mpi-start [INFO ]: activate support for pbs
```

```
mpi-start [INFO ]: Unable to detect number of cores per cpu, assuming 1
```

```
mpi-start [INFO ]: Detected 0 CPU socket(s) and 1 core(s) per CPU
```

```
mpi-start [INFO ]: activate support for openmpi
```

```
mpi-start [INFO ]: call backend MPI implementation
```

```
mpi-start [INFO ]: start program with mpirun
```

```
Process 0 on test15.egi.cesga.es: n=1
```

```
Using 16384 intervals
```

```
Process 1 on test15.egi.cesga.es: n=1
```

```
[root@se2 tmp]# cat std.out
```

```
Compiling cpi
```

```
Successfully compiled cpi
```

```
=[START]=====
```

```
=====
```

```
pi is approximately 3.1415926539002363, Error is 0.0000000003104432
```

```
wall clock time = 0.001946
```


=[FINISHED]=
=====

}}}

==== Checking edg-apel-sge-parser crond ====

{{{

[root@test06 etc]# export APEL_HOME=""

[root@test06 etc]# /usr/bin/apel-pbs-log-parser -f /etc/glite-apel-pbs/parser-config-yaim.xml

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Read-in configuration: [quiet, p, inspectTables, c, e, recursiveEventFiles, b, recursiveBlahdFiles] [DBPassword=****, site=CESGA-EGEE, pbslog=/var/torque/server_priv/accounting, GIIS=test06.egi.cesga.es, CEhost=test06.egi.cesga.es, blahdlogPrefix=blahp.log-, DBURL=jdbc:mysql://test07.egi.cesga.es:3306/accounting, DBUsername=accounting, timeZone=UTC, blahdlog=/var/log/cream/accounting]

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - ----- Starting the apel application -----

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - **** APEL is examining the schema ****

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Checking the LcgRecords table

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - The LcgRecords schema is up-to-date

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Checking the BlahdRecords table

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - The BlahdRecords schema is up-to-date

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Checking the LcgProcessedFiles table

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - The LcgProcessedFiles schema is up-to-date

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Checking the SpecRecords table for patch 28593

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Checking the SpecRecords table for patch 65723

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - The SpecRecords schema is up-to-date

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Checking the GkRecords table

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - The GkRecords schema is up-to-date

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Checking the MessageRecords table

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - The MessageRecords schema is up-to-date

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - **** Schema checks complete ****

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Finding CPU spec values from GIIS server: test06.egi.cesga.es

Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - LDAP URL:
ldap://test06.egi.cesga.es:2170
Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - The ClusterId : SpecInt pair are
latest, no update required test06.egi.cesga.es:8443/cream-pbs-GRID_dteam:2395
Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - The ClusterId : SpecInt pair are
latest, no update required test06.egi.cesga.es:8443/cream-pbs-GRID_ops:2395
Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - The ClusterId : SpecInt pair are
latest, no update required test06.egi.cesga.es:8443/cream-pbs-GRID_iberibeu:2395
Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - The ClusterId : SpecInt pair are
latest, no update required test06.egi.cesga.es:8443/cream-pbs-GRID_opsibeu:2395
Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Reprocess disabled, checking
new event logs only
Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - **** Updating PBS end event
table (EventRecords) ****
Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Processing batch log file:
test06.egi.cesga.es /var/torque/server_priv/accounting/20120117
Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Ignoring already processed event
log file: test06.egi.cesga.es /var/torque/server_priv/accounting/20120116
Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Event records inserted: 7
Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Checking the BlahdRecords table
Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - The BlahdRecords schema is up-
to-date
Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Reprocess disabled, checking
new event logs only
Tue Jan 17 17:35:16 UTC 2012: apel-pbs-log-parser - Processing
/var/log/cream/accounting/blahp.log-20120117
Tue Jan 17 17:35:17 UTC 2012: apel-pbs-log-parser - Ignoring already processed
accounting log file: test06.egi.cesga.es /var/log/cream/accounting/blahp.log-20120116
Tue Jan 17 17:35:17 UTC 2012: apel-pbs-log-parser - Blahd records inserted: 7
Tue Jan 17 17:35:17 UTC 2012: apel-pbs-log-parser - ----- Processing finished -----

}}}

Not applicable Quality Criteria

Specific Functional Tests to be repeated in SR:

Test number	Description	Motivation

Specific Non-functional tests (Scalability, etc...) to be repeated in SR:

Test number	Description	Motivation

Comments for UMD QC definition (TSA2.2):

- Review criteria xxxx
- Add criteria xxxx

Comments for SR (TSA1.3):

It has been seen that CREAM/torque + MAUI is not able to execute parallel jobs when it requested more than one processor. There is still two open bugs which was found during the first UMD verification of WN/Torque + EMI-MPI.1.0. It is a torque/maui problem that affects to MPI jobs but is not exclusive of that kind of jobs. As mentioned in the release notes, Maui versions prior to 3.3.4 do not allocate correctly all the nodes for the execution of jobs. More information can be found in the open ggus tickets:

GGUS Tickets:

- https://ggus.eu/ws/ticket_info.php?ticket=57828
- https://ggus.eu/ws/ticket_info.php?ticket=67870

Comments for DMSU (TSA2.5):

Comments for TP: