

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

Name of the component			
Release	EMI.cream-torque.sl5.x86_64-2.0.1	RT Ticket	#4864
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	1		
Component status	Verified	Date	14/01/13
Verification start date	10/01/13	Verification end date	14/01/13

Summary:

EMI.cream-torque.sl5.x86_64-2.0.1 was updated from UMD-2 repository and from scratch without any issue.

GGUS Tickets:

Summary of Quality Criteria verification:

	Generic Quality Criteria Total (Critical/Non critical)			
	Passed	Not passed	Not Applicable	Total
TP				
VLD	18			18
	Specific Quality Criteria			
TP				
VLD	18			18

Quality Criteria verification cheatsheet:

Criteria	Accept	Test	Comments
DOCUMENTATION QC			
GENERIC_DOC_1 (Functional Description)	Optional		
GENERIC_DOC_2 (Release Notes)	Y	VLD	https://rt.egi.eu/rt/Ticket/Display.html?id=4864
GENERIC_DOC_3 (User Documentation)	Y	VLD	https://wiki.italiangrid.it/wiki/bin/view/CREAM/UserGuideEMI2
GENERIC_DOC_4 (Online help (man pages))	Y	VLD	https://wiki.italiangrid.it/wiki/bin/view/CREAM/UserGuideEMI2#Man_pages_for_CREAM_Command_Line
GENERIC_DOC_5 (API Documentation)	Y	VLD	https://wiki.italiangrid.it/wiki/bin/view/CREAM/DevelopersDocumentation
GENERIC_DOC_6 (Administrator Documentation)	Y	VLD	https://wiki.italiangrid.it/wiki/bin/view/CREAM/SystemAdministratorGuideForEMI2
GENERIC_DOC_7 (Service Reference Card)	Y	VLD	https://wiki.italiangrid.it/wiki/bin/view/CREAM/ServiceReferenceCardEMI2
GENERIC_DOC_8 (Software License)	Y	VLD	Emi-cream: Apache Software License 2.0
GENERIC_DOC_9 (Release changes testing)	Y	VLD	https://rt.egi.eu/rt/Ticket/Display.html?id=4864
SOFTWARE DISTRIBUTION QC			
GENERIC_DIST_1 (Source Code Availability)	Y	VLD	http://admin-repo.egi.eu/sw/unverified/um-d.emi.cream-torque.sl5.x86_64/2/0/1/repofiles/EMI.cream-torque.sl5.x86_64
GENERIC_DIST_3 (Binary Distribution)	Y	VLD	
SOFTWARE FEATURES QC			
GENERIC_SOFT_1 (Backwards Compatibility)	Y	VLD	
GENERIC_SOFT_2 (New features testing)	Y	VLD	
SERVICE CRITERIA QC			
GENERIC_SERVICE_1 (Service control and status)	Y	VLD	
GENERIC_SERVICE_2 (Log Files)	Y	VLD	
GENERIC_SERVICE_3 (Service Reliability)	Optional		
GENERIC_SERVICE_4 (Service Robustness)	Optional		
GENERIC_SERVICE_5 (Automatic Configuration)	Optional		
GENERIC_SERVICE_6 (Default Password Configuration)	Y	VLD	
SECURITY QC			
GENERIC_SEC_1 (World Writable Files)	Y	VLD	
GENERIC_SEC_3 (Passwords in world readable files)	Y	VLD	
MISCELLANEOUS QC			
GENERIC_MISC_2 (Bug Tracking System)	Y	VLD	GGUS
AUTHENTICATION QC			
AUTHN_IFACE_1 (X.509 Certificate support)	Y	VLD	
AUTHN_DELEG_1 (Delegation Interface)	Y	VLD	
AUTHORISATION QC			
AUTHZ_PCYDEF_3 (Ban User/FQAN)	Y	VLD	
AUTHZ_PCYDEF_4 (Allowed users definition)	Y	VLD	
AUTHZ_PEP_1 (Policy Enforcement)	Y	VLD	
AUTHZ_PEP_2 (User Mapping)	Y	VLD	
JOB EXECUTION QC			
JOBEXEC_IFACE_1 (Job Execution Interface)	Y	VLD	
JOBEXEC_JOB_1 (Simple Job)	Y	VLD	
JOBEXEC_JOB_2 (Simple Job with input/output)	Y	VLD	
JOBEXEC_JOB_3 (Cancel Job)	Y	VLD	
JOBEXEC_EXECMNGR_1 (Not Invasive Dependencies)	Y	VLD	
JOBEXEC_EXECMNGR_2 (Job Management)	Y	VLD	
JOBEXEC_EXECMNGR_3 (Information Retrieval)	Y	VLD	
JOBEXEC_AVAIL_1 (Service Redundancy)	Y	VLD	
JOBEXEC_AVAIL_2 (Self Disabling Mechanism)	Optional		
JOBEXEC_AVAIL_4 (Timely Job Status Update)	Optional		
PARALLEL JOB QC			
PARALLEL_JOB_1 (Simple parallel job submission)	Y	VLD	
PARALLEL_JOB_2 (Single machine parallel job)	Optional		
PARALLEL_JOB_3 (Fine grained mapping parallel job)	Optional		
MONITORING PROBES QC			
MON_PROBE_GENERIC_1 (Certificate Lifetime)	Optional		
MON_PROBE_GENERIC_2 (Service Probe)	Optional		
MON_PROBE_JOBEXEC_1 (Job Execution Probe)	Y	VLD	

Validator comments:

== EMI.cream-torque.sl5.x86_64-2.0.1 ==

=== Ticket assigned ===

* [<https://rt.egi.eu/guest/Ticket/Display.html?id=4864>]

(!) Verifier must install a new repo for each product, this information is available at RT ticket field:

{}{}

```
[root@test06 yum.repos.d]# cat EMI.cream-torque.sl5.x86_64.repo
# EGI Software Repository - REPO META (releaseId,repositoryId,repofileId) -
(4864,821,747)
```

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

=== Installing ===

* yum update

{}{}

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

Updating:

lcg-info-dynamic-scheduler-pbs	noarch	2.3.1-1.sl5	EMI.cream-	
torque.sl5.x86_64	22 k			

Transaction Summary

}}}

==== 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

(!)

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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
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/iberibeu
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]

-->quedei aqui

(!) 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  
[ ..... ]
```

Starting glite-lb-interlogd ... done

INFO: Executing function: config_cream_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

INFO: Re-starting the torque server

pbs_server is not running.

/var/torque/server_priv/serverdb

Starting TORQUE Server: [OK] ation: [OK]

Max open servers: 9

create queue GRID_ops

Max open servers: 9

create queue GRID_dteam

Max open servers: 9

create queue GRID_opsibeu

Max open servers: 9

create queue GRID_iberibeu

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
set server authorized_users = *@test06.egi.cesga.es
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
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
Max open servers: 9
set queue GRID_opsibeu queue_type = Execution
set queue GRID_opsibeu resources_max.cput = 48:00:00
set queue GRID_opsibeu resources_max.walltime = 72:00:00
set queue GRID_opsibeu enabled = True
set queue GRID_opsibeu started = True
set queue GRID_opsibeu acl_group_enable = True
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
Shutting down TORQUE Server: [ OK ]
/var/torque/server_priv/serverdb
Starting TORQUE Server: [ OK ]
  INFO: Executing function: config_mai_cfg_setenv
  INFO: Executing function: config_mai_cfg
  INFO: configuring maui ...
MPI_CE creamCE TORQUE_server TORQUE_utils
MAUI is already stopped: [ OK ]
Starting MAUI Scheduler: [ OK ]
  INFO: Executing function: config_apel_pbs_setenv
  INFO: Executing function: config_apel_pbs
  INFO: Executing function: config_gip_sched_plugin_pbs_setenv
  INFO: Executing function: config_gip_sched_plugin_pbs
  INFO: Executing function: config_torque_submitter_ssh
  WARNING: The munge key /etc/munge/munge.key does not exist.
  WARNING: Munge is required to submit jobs to the torque server.
  WARNING: Not starting the munge daemon
Reloading sshd: [ OK ]
  INFO: Configuration Complete. [ OK ]
```

INFO: YAIM terminated succesfully.

[root@test06 etc]#

}}}

=== 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
```

}}}

{{{

```
[root@se2 tmp]# ldapsearch -x -h test06.egi.cesga.es -p 2170 -b mds-vo-  
name=resource,o=grid | grep 444  
GlueCEStateWaitingJobs: 4444444  
GlueCEStateWaitingJobs: 4444444  
GlueCEStateWaitingJobs: 4444444  
GlueCEStateWaitingJobs: 4444444  
GlueCEStateWaitingJobs: 4444444  
GlueCEStateWaitingJobs: 4444444  
GlueCEStateWaitingJobs: 4444444  
GlueCEStateWaitingJobs: 4444444
```

```
}}}
```

```
* Checking if MPI has been configured correctly
```

```
{{{
```

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

```
}}}
```

```
==== 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 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  
Thu Jan 10 17:12:24 CET 2013
```

```
}}}
```

```
(!)
```

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

```
{}}
```

```
[esfreire@test13 ~]$ glite-ce-delegate-proxy -e test06.egi.cesga.es esfreire
```


2013-01-10 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
2013-01-10 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
}

}}

[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    = Thu Jan 10 18:17:55 CET 2013
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-olddsyntax.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);

}}}

```

```

[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    = Wed Jan 25 09:50:04 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 2 on test14.egi.cesga.es: n=1
Process 3 on test14.egi.cesga.es: n=1
Process 1 on test15.egi.cesga.es: n=1

```

```

[root@se2 tmp]# cat std.out
Compiling cpi
Successfully compiled cpi
=[START]=====
=====
pi is approximately 3.1415926539002341, Error is 0.0000000003104410
wall clock time = 0.003777
=[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):

EMI.cream-torque.sl5.x86_64-2.0.1 was updated from UMD-2 repository and from scratch without any issue.

Comments for DMSU (TSA2.5):

Comments for TP: