

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

|                         |                                    |                                       |          |
|-------------------------|------------------------------------|---------------------------------------|----------|
| Name of the component   |                                    |                                       |          |
| Release                 | <b>EMI.cream.sl6.x86_64-1.14.2</b> | RT Ticket                             | #4849    |
| 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        | <b>Verified</b>                    | Date                                  | 14/01/13 |
| Verification start date | 10/01/13                           | Verification end date                 | 14/01/13 |

**Summary:**

EMI.cream.sl6.x86\_64-1.14.2 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 |
| <b>TP</b>  |  |            |                |       |
| <b>VLD</b> | 18   |            |                | 18    |
|            | Specific Quality Criteria                              |            |                |       |
| <b>TP</b>  |  |            |                |       |
| <b>VLD</b> | 18   |            |                | 18    |

## Quality Criteria verification cheatsheet:

| Criteria   | Accepted | Tested | Comments  |
|--|----------|--------|---|
| <b>DOCUMENTATION QC</b>                            |          |        |   |
| GENERIC_DOC_1 (Functional Description)             | Optional |        |   |
| GENERIC_DOC_2 (Release Notes)                      | Y        | VLD    | <a href="https://rt.egi.eu/rt/Ticket/Display.html?id=4849">https://rt.egi.eu/rt/Ticket/Display.html?id=4849</a>   |
| GENERIC_DOC_3 (User Documentation)                 | Y        | VLD    | <a href="https://wiki.italiangrid.it/wiki/bin/view/CREAM/UserGuideEMI2">https://wiki.italiangrid.it/wiki/bin/view/CREAM/UserGuideEMI2</a>   |
| GENERIC_DOC_4 (Online help (man pages))            | Y        | VLD    | <a href="https://wiki.italiangrid.it/wiki/bin/view/CREAM/UserGuideEMI2#Man_pages_for_CREAM_Command_Line">https://wiki.italiangrid.it/wiki/bin/view/CREAM/UserGuideEMI2#Man_pages_for_CREAM_Command_Line</a> |
| GENERIC_DOC_5 (API Documentation)                  | Y        | VLD    | <a href="https://wiki.italiangrid.it/wiki/bin/view/CREAM/DevelopersDocumentation">https://wiki.italiangrid.it/wiki/bin/view/CREAM/DevelopersDocumentation</a>   |
| GENERIC_DOC_6 (Administrator Documentation)        | Y        | VLD    | <a href="https://wiki.italiangrid.it/wiki/bin/view/CREAM/SystemAdministratorGuideForEMI2">https://wiki.italiangrid.it/wiki/bin/view/CREAM/SystemAdministratorGuideForEMI2</a>                               |
| GENERIC_DOC_7 (Service Reference Card)             | Y        | VLD    | <a href="https://wiki.italiangrid.it/wiki/bin/view/CREAM/ServiceReferenceCardEMI2">https://wiki.italiangrid.it/wiki/bin/view/CREAM/ServiceReferenceCardEMI2</a>   |
| GENERIC_DOC_8 (Software License)                   | Y        | VLD    | Emi-cream: Apache Software License 2.0  |
| GENERIC_DOC_9 (Release changes testing)            | Y        | VLD    | <a href="https://rt.egi.eu/rt/Ticket/Display.html?id=4849">https://rt.egi.eu/rt/Ticket/Display.html?id=4849</a>   |
| <b>SOFTWARE DISTRIBUTION QC</b>                    |          |        |   |
| GENERIC_DIST_1 (Source Code Availability)          | Y        | VLD    |   |
| GENERIC_DIST_3 (Binary Distribution)               | Y        | VLD    | <a href="http://admin-repo.egi.eu/sw/unverified/umd-2.emi.cream.sl6.x86_64/1/14/2">http://admin-repo.egi.eu/sw/unverified/umd-2.emi.cream.sl6.x86_64/1/14/2</a>   |
| <b>SOFTWARE FEATURES QC</b>                        |          |        |   |
| GENERIC_SOFT_1 (Backwards Compatibility)           | Y        | VLD    |   |
| GENERIC_SOFT_2 (New features testing)              | Y        | VLD    |   |
| <b>SERVICE CRITERIA QC</b>                         |          |        |   |
| 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 Control)       | Y        | VLD    |   |
| <b>SECURITY QC</b>                                 |          |        |   |
| GENERIC_SEC_1 (World Writable Files)               | Y        | VLD    |   |
| GENERIC_SEC_3 (Passwords in world readable files)  | Y        | VLD    |   |
| <b>MISCELLANEOUS QC</b>                            |          |        |   |
| GENERIC_MISC_2 (Bug Tracking System)               | Y        | VLD    | GGUS  |
| <b>AUTHENTICATION QC</b>                           |          |        |   |
| AUTHN_IFACE_1 (X.509 Certificate support)          | Y        | VLD    |   |
| AUTHN_DELEG_1 (Delegation Interface)               | Y        | VLD    |   |
| <b>AUTHORISATION QC</b>                            |          |        |   |
| 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    |   |
| <b>JOB EXECUTION QC</b>                            |          |        |   |
| 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 Mechanisms)        | Optional |        |   |
| JOBEXEC_AVAIL_4 (Timely Job Status Updates)        | Optional |        |   |
| <b>PARALLEL JOB QC</b>                             |          |        |   |
| 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 |        |   |
| <b>MONITORING PROBES QC</b>                        |          |        |   |
| MON_PROBE_GENERIC_1 (Certificate Lifetime)         | Optional |        |   |
| MON_PROBE_GENERIC_2 (Service Probe)                | Optional |        |   |
| MON_PROBE_JOBEXEC_1 (Job Execution Performance)    | Y        | VLD    |   |

**Validator comments:**

== EMI.cream.sl6.x86\_64-1.14.2 ==

=== Ticket assigned ===

\* [<https://rt.egi.eu/guest/Ticket/Display.html?id=4849>]

(!) 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.sl6.x86_64.repo
# EGI Software Repository - REPO META (releaseId,repositoryId,repofileId) -
(4849,815,741)
```

```
[EMI.cream.sl6.x86_64]
name=EMI.cream.sl6.x86_64
baseurl=http://admin-repo.egi.eu/sw/unverified/umd-2.emi.cream.sl6.x86_64/1/14/2/
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:

|                         |        |              |
|-------------------------|--------|--------------|
| dynsched-generic        | noarch | 2.4.2-1.sl6  |
| EMI.cream.sl6.x86_64    | 44 k   |              |
| glite-ce-common-java    | noarch | 1.14.1-1.sl6 |
| EMI.cream.sl6.x86_64    | 154 k  |              |
| glite-ce-cream          | noarch | 1.14.2-1.sl6 |
| EMI.cream.sl6.x86_64    | 532 k  |              |
| glite-ce-cream-api-java | noarch | 1.14.2-1.sl6 |
| EMI.cream.sl6.x86_64    | 2.7 M  |              |

|                           |                      |              |
|---------------------------|----------------------|--------------|
| glite-ce-cream-core       | noarch               | 1.14.2-1.sl6 |
| EMI.cream.sl6.x86_64      | 396 k                |              |
| glite-ce-cream-es         | noarch               | 1.14.2-1.sl6 |
| EMI.cream.sl6.x86_64      | 59 k                 |              |
| glite-ce-cream-utils      | x86_64               | 1.2.2-1.sl6  |
| EMI.cream.sl6.x86_64      | 33 k                 |              |
| glite-ce-yaim-cream-ce    | noarch               | 4.3.1-4.sl6  |
| EMI.cream.sl6.x86_64      | 44 k                 |              |
| lcg-info-dynamic-software | noarch               | 1.0.8-       |
| 1.sl6                     | EMI.cream.sl6.x86_64 | 3.5 k        |
| voms-api-java             | noarch               | 2.0.9-2.el6  |
| EMI.cream.sl6.x86_64      | 153 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=lxb7607.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.egge.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/MpiUtilsdefault 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=umdttest
```

```
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/MpiUtils>  
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/iberibeu
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=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](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
[ ..... ]

```

```

}}

```

=== TESTING ===

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

{

```
[root@ce2 etc]# ldapsearch -x -H ldap://sbdi02.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
```

```
}}}
```

==== 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
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.sl6.x86\_64-1.14.2 was updated from UMD-2 repository and from scratch without any issue. On the WNs, it is necessary follow the workaround suggested on link, [http://www.eu-emi.eu/products/-/asset\\_publisher/1gkD/content/emi-wn-1](http://www.eu-emi.eu/products/-/asset_publisher/1gkD/content/emi-wn-1) , and execute the following command "yum install openldap-clients python-ldap glite-lb-client-progs dpm-perl lfc-perl dpm-devel lfc-devel" , it has not been done yet.

### Comments for DMSU (TSA2.5):

### Comments for TP: