

## Quality Criteria Verification Report

Product	CREAM SLURM	Release	1.0.2
Software Provider	EMI	RT Ticket	#7230 #7231
Provider contact	Cristina Aifitimei <a href="mailto:cristina.aifitimei@pd.infn.it">cristina.aifitimei@pd.infn.it</a>		
Verifier	Carles Acosta-Silva <a href="mailto:cacosta@pic.es">cacosta@pic.es</a>		
Hours worked	4 hours	Date	08/09/14
Status	Accepted		

### Summary

Verification of the EMI CREAM with the SLURM module in SL6. There are different issues that have to be considered to configure properly the product (as it was in the verification of the Release 1.0.1). After these changes, the product works correctly.

We have tested:

- CREAM
- CREAM-SLURM
- SLURM server
- WN
- SLURM-WN
- glite-MPI

### Related tickets

There are not GGUS ticket related to this verification.

### Documentation Criteria

Document	Link
Release notes	<a href="http://www.eu-emi.eu/releases/emi-3-monte-bianco/updates/-/asset_publisher/5Na8/content/update-18-07-07-2014-v-3-9-0-1#CREAM_SLURM_v_1_0_2">http://www.eu-emi.eu/releases/emi-3-monte-bianco/updates/-/asset_publisher/5Na8/content/update-18-07-07-2014-v-3-9-0-1#CREAM_SLURM_v_1_0_2</a>
User Documentation	<a href="https://wiki.italiangrid.it/twiki/bin/view/CREAM/UserGuideEMI3">https://wiki.italiangrid.it/twiki/bin/view/CREAM/UserGuideEMI3</a>
API Documentation	<a href="https://wiki.italiangrid.it/twiki/bin/view/CREAM/DevelopersDocumentation">https://wiki.italiangrid.it/twiki/bin/view/CREAM/DevelopersDocumentation</a>
Admin Documentation	<a href="https://wiki.italiangrid.it/twiki/bin/view/CREAM/SystemAdministratorGuideForEMI3">https://wiki.italiangrid.it/twiki/bin/view/CREAM/SystemAdministratorGuideForEMI3</a>
Software License	<i>License type or link</i>

### Generic Criteria

Criteria	Status <sup>1</sup>	Additional Comments
Binary Distribution	OK	Packages installed correctly

<sup>1</sup> OK, WARN, FAIL, NA (Not Applicable) or NT (Not Tested)

Upgrade	NT	
X.509 Certificate support	OK	Tested with x.509 proxies
SHA-2 Certificates Support	OK	Tested in previous verification
RFC Proxy support	OK	
ARGUS Integration	NT	
World Writable Files	OK	Only word writable files in tmp and sockets
Passwords in world readable files	OK	There are no passwords in word readable files
GlueSchema 1.3 Support	OK	See glue-validator tests
GlueSchema 2.0 Support	OK	GLUE2EndPointImplementationVersion=1.16.3. See glue-validator tests
Middleware Version Information	OK	GLUE2EntityOtherInfo: MiddlewareVersion=3.7.4-1.el6
Service Probes	OK	Tests passed in nagios box (test23.egi.cesga.es)
Accounting Records	OK	A workaround is needed. See Basic functionality tests.
Bug Tracking System	OK	GGUS

## Specific QC

### Glue-validator tests

Testing the GlueSchema with glue-validator.

#### 1) GlueSchema 1.3

```
[root@test31 ~]# glue-validator -H test31.egi.cesga.es -p 2170 -b o=grid -g glue1 -s
general -v 3
WARNING - errors 0, warnings 2, info 0 | errors=0;warnings=2;info=0

W037 Description: Wrong type
W037 Affected DN: GlueCEUniqueID=test31.egi.cesga.es:8443/cream-slurm-test_long
                  Mds-Vo-name=resource
                  o=grid
W037 Affected attribute: GlueCEInfoLRMSType
W037 Published value: ['slurm']
W037 Additional information: Expected type is lrms_t

W037 Description: Wrong type
W037 Affected DN: GlueCEUniqueID=test31.egi.cesga.es:8443/cream-slurm-test_short
                  Mds-Vo-name=resource
                  o=grid
W037 Affected attribute: GlueCEInfoLRMSType
W037 Published value: ['slurm']
W037 Additional information: Expected type is lrms_t
```

#### 2) GlueSchema 2.0

```
[root@test31 ~]# glue-validator -H test31.egi.cesga.es -p 2170 -b o=glue -g glue2 -s
general -v 3
WARNING - errors 0, warnings 2, info 0 | errors=0;warnings=2;info=0

W037 Description: Wrong type
W037 Affected DN: GLUE2ResourceID=test31.egi.cesga.es
                  GLUE2ServiceID=test31.egi.cesga.es_ComputingElement
```

```

        GLUE2GroupID=resource
        o=glue
W037 Affected attribute: GLUE2ExecutionEnvironmentPlatform
W037 Published value: ['x86_64']
W037 Additional information: Expected type is Platform_t

W037 Description: Wrong type
W037 Affected DN:
GLUE2EndpointID=test31.egi.cesga.es_ComputingElement_org.glite.ce.ApplicationPublishe
r_4235933715
        GLUE2ServiceID=test31.egi.cesga.es_ComputingElement
        GLUE2GroupID=resource
        o=glue
W037 Affected attribute: GLUE2EndpointInterfaceName
W037 Published value: ['org.glite.ce.ApplicationPublisher']
W037 Additional information: Expected type is InterfaceName_t

```

### 3) Glue2-EGI schema

```

[root@test31 ~]# glue-validator -H test31.egi.cesga.es -p 2170 -b o=glue -s egi-
profile -n -v 2

WARNING - errors 0, warnings 4, info 55 | errors=0;warnings=4;info=55

Summary per type of error, warning and info message:

I045 - Memory higher than 100,000 MB (GLUE2ComputingShareMaxVirtualMemory): 6
I063 - Total instances less than 10 (GLUE2ExecutionEnvironmentTotalInstances): 1
I095 - Recommended attribute not present (Several attributes): 42
I097 - Default value published (GLUE2ComputingShareMaxVirtualMemory): 6
W034 - Mandatory attribute not present (Several attributes): 3
W041 - Rpm used to publish implementation version does not exist
(GLUE2EndpointImplementationVersion): 1

[root@test31 ~]# glue-validator -H test31.egi.cesga.es -p 2170 -b o=glue -s egi-
profile -n -v 2 -k

OK - errors 0, warnings 0, info 12 | errors=0;warnings=0;info=12

Summary per type of error, warning and info message:

I045 - Memory higher than 100,000 MB (GLUE2ComputingShareMaxVirtualMemory): 6
I097 - Default value published (GLUE2ComputingShareMaxVirtualMemory): 6

```

## Basic Functionality Test

- 1) **OK** Querying general information with ldap system. Querying information with glite-ce-service-info

```

[root@test31 ~]# ldapsearch -x -h test31.egi.cesga.es -p 2170 -LLL -b o=glue
"(&(objectclass=GLUE2Endpoint)(GLUE2EndpointImplementationName=CREAM)(GLUE2EntityOthe
rInfo=MiddlewareVersion=*)(GLUE2EndpointURL=*test31.egi.cesga.es*))"
dn: GLUE2EndpointID=test31.egi.cesga.es_org.glite.ce.CREAM,GLUE2ServiceID=test
31.egi.cesga.es_ComputingElement,GLUE2GroupID=resource,o=glue

```

GLUE2ComputingEndpointStaging: staginginout  
GLUE2EndpointQualityLevel: production  
GLUE2EndpointImplementor: glite  
GLUE2EndpointHealthStateInfo: tomcat6 (pid 7491) is running...[ OK ]  
GLUE2EntityOtherInfo: HostDN=CN=host/test31.egi.cesga.es,O=cesga,DC=irisgrid,D  
C=es  
GLUE2EntityOtherInfo: InfoProviderName=glite-ce-glue2-endpoint-static  
GLUE2EntityOtherInfo: InfoProviderVersion=1.1  
GLUE2EntityOtherInfo: InfoProviderHost=test31.egi.cesga.es  
GLUE2EntityOtherInfo: MiddlewareName=EMI  
GLUE2EntityOtherInfo: MiddlewareVersion=3.7.4-1.el6  
GLUE2EntityOtherInfo: ArgusEnabled=FALSE  
GLUE2EndpointCapability: executionmanagement.jobexecution  
GLUE2EndpointHealthState: ok  
GLUE2EndpointServiceForeignKey: test31.egi.cesga.es\_ComputingElement  
GLUE2EntityName: test31.egi.cesga.es\_org.glite.ce.CREAM  
GLUE2EndpointTechnology: webservice  
GLUE2EndpointWSDL: https://test31.egi.cesga.es:8443/ce-cream/services/CREAM2?wsdl  
GLUE2EndpointInterfaceName: org.glite.ce.CREAM  
GLUE2ComputingEndpointComputingServiceForeignKey: test31.egi.cesga.es\_ComputingElement  
GLUE2EndpointURL: https://test31.egi.cesga.es:8443/ce-cream/services  
GLUE2EndpointDowntimeInfo: See the GOC DB for downtimes: https://goc.egi.eu/  
GLUE2EndpointImplementationVersion: 1.16.3  
GLUE2EndpointSemantics: http://wiki.italiangrid.org/twiki/bin/view/CREAM/UserGuide  
GLUE2EndpointIssuerCA: CN=IRISGridCA,DC=irisgrid,DC=es  
GLUE2EndpointServingState: production  
GLUE2EndpointImplementationName: CREAM  
GLUE2EntityCreationTime: 2014-10-07T16:25:44Z  
GLUE2EndpointStartTime: 2014-10-07T09:05:51Z  
GLUE2EndpointInterfaceVersion: 2.1  
GLUE2EndpointSupportedProfile: http://www.ws-i.org/Profiles/BasicProfile-1.0.html  
objectClass: GLUE2Entity  
objectClass: GLUE2Endpoint  
objectClass: GLUE2ComputingEndpoint  
GLUE2EndpointTrustedCA: CN=Grid Canada Certificate Authority,O=Grid,C=CA  
GLUE2EndpointTrustedCA: CN=Scientific Data Grid CA,DC=SDG,DC=Grid,DC=CN  
GLUE2EndpointTrustedCA: CN=TR-Grid CA,O=TRGrid,C=TR  
GLUE2EndpointTrustedCA: CN=MyProxy CA 2013,OU=Certificate Authorities,O=National Center for Supercomputing Applications,C=US  
GLUE2EndpointTrustedCA: CN=UFF Latin American and Caribbean Catch-all Grid CA,O=UFF LACGrid CA,DC=IC,DC=UFF,DC=BR  
GLUE2EndpointTrustedCA: CN=ArmeSfo CA,O=ArmeSfo,C=AM  
GLUE2EndpointTrustedCA: CN=NorduGrid Certification Authority,O=NorduGrid,O=Grid  
GLUE2EndpointTrustedCA: CN=ULAGrid Certification Authority,OU=CeCALCULA,O=Universidad de Los Andes,O=Grid,C=VE  
GLUE2EndpointTrustedCA: CN=NCHC CA,DC=NCHC,DC=ORG,DC=TW  
GLUE2EndpointTrustedCA: CN=Baltic Grid Certification Authority,DC=balticgrid,D  
C=org  
GLUE2EndpointTrustedCA: CN=CERN Grid Certification Authority,DC=cern,DC=ch  
GLUE2EndpointTrustedCA: CN=Academia Sinica Grid Computing Certification Authority Mercury,O=AS,C=TW  
GLUE2EndpointTrustedCA: CN=DigiCert Grid CA-1,O=DigiCert Grid,DC=DigiCert-Grid,DC=com  
GLUE2EndpointTrustedCA: CN=ANSPGrid CA,OU=ANSPGrid CA,O=ANSP,C=BR  
GLUE2EndpointTrustedCA: CN=SEE-GRID CA 2013,DC=SEE-GRID,DC=ORG  
GLUE2EndpointTrustedCA: CN=IRAN-GRID CA,O=IRAN-GRID,O=IPM,C=IR  
GLUE2EndpointTrustedCA: CN=CyGridCA,O=HPCL,O=CyGrid,C=CY  
GLUE2EndpointTrustedCA: CN=UTN-USERFirst-Hardware,OU=http://www.usertrust.com,O=The USERTRUST Network,L=Salt Lake City,ST=UT,C=US  
GLUE2EndpointTrustedCA: CN=MREN-CA,DC=MREN,DC=ac,DC=me  
GLUE2EndpointTrustedCA: CN=KISTI Grid Certificate Authority,O=GRID,O=KISTI,C=K

R

GLUE2EndpointTrustedCA: CN=SRCE CA,OU=srce,O=edu,C=HR  
GLUE2EndpointTrustedCA: CN=Certificate Issuer,OU=Certification Authority,O=AustrianGrid,C=AT  
GLUE2EndpointTrustedCA: CN=CESNET CA 3,O=CESNET CA,DC=cesnet-ca,DC=cz  
GLUE2EndpointTrustedCA: CN=DigiCert Grid Trust CA,OU=www.digicert.com,O=DigiCert Grid,C=US  
GLUE2EndpointTrustedCA: CN=MyProxy,OU=Certificate Authorities,O=National Center for Supercomputing Applications,C=US  
GLUE2EndpointTrustedCA: CN=CILogon Silver CA 1,O=CILogon,C=US,DC=cilogon,DC=org  
GLUE2EndpointTrustedCA: CN=TERENA eScience Personal CA,O=TERENA,C=NL  
GLUE2EndpointTrustedCA: CN=BEgrid CA,O=BELNET,OU=BEGRID,C=BE  
GLUE2EndpointTrustedCA: CN=Russian Data-Intensive Grid CA,O=RDIG,C=RU  
GLUE2EndpointTrustedCA: CN=HellasGrid CA 2006,OU=Certification Authorities,O=HellasGrid,C=GR  
GLUE2EndpointTrustedCA: CN=IRISGridCA,DC=irisgrid,DC=es  
GLUE2EndpointTrustedCA: CN=QuoVadis Root Certification Authority,OU=Root Certification Authority,O=QuoVadis Limited,C=BM  
GLUE2EndpointTrustedCA: CN=AAA Certificate Services,O=Comodo CA Limited,L=Salford,ST=Greater Manchester,C=GB  
GLUE2EndpointTrustedCA: CN=DigiCert Assured ID Root CA,OU=www.digicert.com,O=DigiCert Inc,C=US  
GLUE2EndpointTrustedCA: CN=MaGrid CA,O=MaGrid,C=MA  
GLUE2EndpointTrustedCA: CN=CNRS2-Projets,O=CNRS,C=FR  
GLUE2EndpointTrustedCA: CN=UK e-Science CA 2B,OU=Authority,O=eScienceCA,C=UK  
GLUE2EndpointTrustedCA: CN=MARGI-CA,O=MARGI,C=MK  
GLUE2EndpointTrustedCA: CN=UK e-Science CA 2A,OU=Authority,O=eScienceCA,C=UK  
GLUE2EndpointTrustedCA: CN=TERENA eScience SSL CA,O=TERENA,C=NL  
GLUE2EndpointTrustedCA: CN=NIKHEF medium-security certification auth,O=NIKHEF,C=NL  
GLUE2EndpointTrustedCA: CN=LIP Certification Authority,O=LIPCA,C=PT  
GLUE2EndpointTrustedCA: CN=Two Factor CA 2013,OU=Certificate Authorities,O=National Center for Supercomputing Applications,C=US  
GLUE2EndpointTrustedCA: CN=NERSC Online CA,OU=Certificate Authorities,DC=ES,DC=net  
GLUE2EndpointTrustedCA: CN=CA,OU=UNAM,O=UNAMgrid,C=MX  
GLUE2EndpointTrustedCA: CN=PSC MyProxy CA,O=Pittsburgh Supercomputing Center,C=US  
GLUE2EndpointTrustedCA: CN=HKU Grid CA,DC=GRID,DC=HKU,DC=HK  
GLUE2EndpointTrustedCA: CN=REUNA Certification Authority,O=REUNACA,C=CL  
GLUE2EndpointTrustedCA: CN=GRID2-FR,O=CNRS,C=FR  
GLUE2EndpointTrustedCA: CN=MD-Grid CA,OU=Certification Authority,O=RENAM,DC=MD-Grid,DC=MD  
GLUE2EndpointTrustedCA: CN=KEK GRID Certificate Authority,OU=CRC,O=KEK,C=JP  
GLUE2EndpointTrustedCA: CN=NAREGI CA,OU=CGRD,O=National Research Grid Initiative,C=JP  
GLUE2EndpointTrustedCA: CN=UFF Brazilian Grid Certification Authority,O=UFF Br Grid CA,O=ICPEDU,C=BR  
GLUE2EndpointTrustedCA: CN=Belarusian Grid Certification Authority,O=uip.bas-net.by,DC=grid,DC=by  
GLUE2EndpointTrustedCA: CN=Indian Grid Certification Authority,DC=GARUDAINDIA,DC=IN  
GLUE2EndpointTrustedCA: CN=HIAST GRID CA,O=HIAST,C=SY  
GLUE2EndpointTrustedCA: CN=Institute of High Energy Physics Certification Authority,O=HEP,C=CN  
GLUE2EndpointTrustedCA: CN=COMODO RSA Certification Authority,O=COMODO CA Limited,L=Salford,ST=Greater Manchester,C=GB  
GLUE2EndpointTrustedCA: CN=HellasGrid Root CA 2006,OU=Certification Authorities,O=HellasGrid,C=GR  
GLUE2EndpointTrustedCA: CN=Certification Authority for Latvian Grid,DC=latgrid,DC=LV  
GLUE2EndpointTrustedCA: CN=INFN CA,O=INFN,C=IT  
GLUE2EndpointTrustedCA: CN=CERN Root Certification Authority 2,O=CERN,C=ch  
GLUE2EndpointTrustedCA: CN=UTN-USERFirst-Client Authentication and Email,OU=http://www.usertrust.com,O=The USERTRUST Network,L=Salt Lake City,ST=UT,C=US

```

GLUE2EndpointTrustedCA: CN=RomanianGRID CA,OU=Certification Authority,O=ROSA,D
C=RomanianGRID,DC=RO
GLUE2EndpointTrustedCA: CN=HPCI CA,OU=HPCI,O=NII,C=JP
GLUE2EndpointTrustedCA: CN=SlovakGrid CA,O=SlovakGrid,C=SK
GLUE2EndpointTrustedCA: CN=UK e-Science Root,OU=Authority,O=eScienceRoot,C=UK
GLUE2EndpointTrustedCA: CN=DFN SLCS-CA,OU=DFN-PKI,O=DFN-Verein,C=DE
GLUE2EndpointTrustedCA: CN=CNRS2,O=CNRS,C=FR
GLUE2EndpointTrustedCA: CN=SiGNET CA,O=SiGNET,C=SI
GLUE2EndpointTrustedCA: CN=AEGIS-CA,O=AEGIS,C=RS
GLUE2EndpointTrustedCA: CN=EG-GRID Certification Authority,O=EG-GRID,C=EG
GLUE2EndpointTrustedCA: CN=CERN Root CA,DC=cern,DC=ch
GLUE2EndpointTrustedCA: CN=MyProxy,O=National Institute for Computational Scie
nces,DC=NICS,DC=TENNESSEE,DC=EDU
GLUE2EndpointTrustedCA: CN=Uniandes CA,OU=DTI,O=UNIANDES,O=Uniandes CA,C=CO
GLUE2EndpointTrustedCA: CN=CESNET CA Root,O=CESNET CA,DC=cesnet-ca,DC=cz
GLUE2EndpointTrustedCA: CN=DZ e-Science CA,O=DZ e-Science GRID,DC=ARN,DC=DZ
GLUE2EndpointTrustedCA: CN=BG.ACAD CA,DC=acad,DC=bg
GLUE2EndpointTrustedCA: CN=CACL,OU=Certificate Authorities,O=National Center f
or Supercomputing Applications,C=US
GLUE2EndpointTrustedCA: CN=AddTrust External CA Root,OU=AddTrust External TTP
Network,O=AddTrust AB,C=SE
GLUE2EndpointTrustedCA: CN=GridKa-CA,O=GermanGrid,C=DE
GLUE2EndpointTrustedCA: CN=InCommon IGTF Server CA,OU=InCommon,O=Internet2,C=U
S
GLUE2EndpointTrustedCA: CN=NIIF Root CA,OU=Certificate Authorities,O=NIIF,C=HU
GLUE2EndpointTrustedCA: CN=NECTEC GOC CA,OU=GOC,O=NECTEC,C=TH
GLUE2EndpointTrustedCA: CN=PKIGrid,L=CeSPI,OU=UNLP,O=e-Ciencia,C=AR
GLUE2EndpointTrustedCA: CN=Polish Grid CA,O=GRID,C=PL
GLUE2EndpointTrustedCA: CN=PK-GRID-CA,O=NCP,C=PK
GLUE2EndpointTrustedCA: CN=DigiCert Grid CA-1 G2,O=DigiCert Grid,DC=com,DC=Dig
iCert-Grid
GLUE2EndpointTrustedCA: CN=DFN-Verein PCA Grid - G01,OU=DFN-PKI,O=DFN-Verein,C
=DE
GLUE2EndpointTrustedCA: CN=QuoVadis Grid ICA,OU=Issuing Certification Authorit
y,O=QuoVadis Limited,C=BM
GLUE2EndpointTrustedCA: CN=DigiCert Grid Root CA,O=DigiCert Grid,DC=DigiCert-G
rid,DC=com
GLUE2EndpointTrustedCA: CN=Malaysian Identity Federation and Access Management
,O=MYIFAM,C=MY,DC=MYIFAM,DC=UPM,DC=MY
GLUE2EndpointTrustedCA: CN=CERN Trusted Certification Authority,DC=cern,DC=ch
GLUE2EndpointTrustedCA: CN=UGRID CA,DC=ugrid,DC=org
GLUE2EndpointTrustedCA: CN=Kerberized CA HSM,OU=Certificate Authorities,O=Ferm
ilab,DC=fnal,DC=gov
GLUE2EndpointTrustedCA: CN=DigiCert Grid Trust CA G2,OU=www.digicert.com,O=Dig
iCert Grid,C=US
GLUE2EndpointTrustedCA: CN=Root Certificate Authority at CNIC,DC=Grid,DC=CN
GLUE2ComputingEndpointJobDescription: glite:jd1
GLUE2EndpointID: test31.egi.cesga.es_org.glite.ce.CREAM

```

```

$ glite-ce-service-info test31.egi.cesga.es
Interface Version = [2.1]
Service Version = [1.16.3 - EMI version: 3.7.4-1.el6]
Description = [CREAM 2]
Started at = [Thu Sep 25 10:59:49 2014]
Submission enabled = [YES]
Status = [RUNNING]= [RUNNING]

```

## 2) OK Renewals and delegate proxies

```

$glite-ce-delegate-proxy -e test31.egi.cesga.es:8443 myproxy
Proxy with delegation id [myproxy] succesfully delegated to endpoint
[test31.egi.cesga.es:8443]
$glite-ce-proxy-renew -e test31.egi.cesga.es:8443 myproxy

```

```
Proxy with delegation id [myproxy succesfully renewed to endpoint  
[test31.egi.cesga.es:8443]
```

### 3) **OK** Submit and cancel single core jobs

#### Simple job (no output)

```
$ glite-ce-job-submit -a -r test31.egi.cesga.es:8443/cream-slurm-test_short job-  
sleep.jdl  
https://test31.egi.cesga.es:8443/CREAM890008214  
$ glite-ce-job-status https://test31.egi.cesga.es:8443/CREAM890008214  
  
***** JobID=[https://test31.egi.cesga.es:8443/CREAM1890008214]  
Status      = [REALLY-RUNNING]  
  
$ glite-ce-job-status https://test31.egi.cesga.es:8443/CREAM890008214  
  
***** JobID=[https://test31.egi.cesga.es:8443/CREAM890008214]  
Status      = [DONE-OK]  
ExitCode     = [0]
```

#### Simple job (with output)

```
$ glite-ce-job-submit -a -r test31.egi.cesga.es:8443/cream-slurm-test_short job-  
output.jdl  
https://test31.egi.cesga.es:8443/CREAM055635083  
$ glite-ce-job-status https://test31.egi.cesga.es:8443/CREAM055635083  
  
***** JobID=[https://test31.egi.cesga.es:8443/CREAM055635083]  
Status      = [DONE-OK]  
ExitCode     = [0]  
  
$ glite-ce-job-output https://test31.egi.cesga.es:8443/CREAM055635083  
  
2014-10-06 15:44:54,142 INFO - For JobID  
[https://test31.egi.cesga.es:8443/CREAM055635083] output will be stored in the dir  
./test31.egi.cesga.es_8443_CREAM055635083  
$ cat test31.egi.cesga.es_8443_CREAM055635083/uname.err  
$ cat test31.egi.cesga.es_8443_CREAM055635083/uname.out  
I am a simple echo job test
```

#### Cancelling jobs

```
$ glite-ce-job-submit -a -r test31.egi.cesga.es:8443/cream-slurm-test_short job-  
output.jdl  
https://test31.egi.cesga.es:8443/CREAM605775592  
[cacosta@ui01 ce-jobs]$ glite-ce-job-status  
https://test31.egi.cesga.es:8443/CREAM605775592  
  
***** JobID=[https://test31.egi.cesga.es:8443/CREAM605775592]  
Status      = [REALLY-RUNNING]  
  
$ glite-ce-job-cancel https://test31.egi.cesga.es:8443/CREAM605775592  
  
Are you sure you want to cancel specified job(s) [y/n]: y  
[cacosta@ui01 ce-jobs]$ glite-ce-job-status  
https://test31.egi.cesga.es:8443/CREAM605775592
```

```
***** JobID=[https://test31.egi.cesga.es:8443/CREAM605775592]
Status      = [CANCELLED]
ExitCode    = []
Description  = [Cancelled by user]
```

#### 4) **OK** Information retrieval with several jobs submitted

It is mandatory that the ldap user has access to all the partitions (AllowGroups=...,ldap in slurm.conf for instance).

```
$ squeue
JOBID PARTITION  NAME      USER  ST      TIME  NODES NODELIST(REASON)
17474 test_long  cream_63 dteam048 PD      0:00      1 (Resources)
17475 test_long  cream_60 dteam048 PD      0:00      1 (Priority)
17476 test_long  cream_77 dteam048 PD      0:00      1 (None)
17477 test_long  cream_59 dteam048 PD      0:00      1 (None)
17478 test_long  cream_73 dteam048 PD      0:00      1 (None)
17479 test_long  cream_54 dteam048 PD      0:00      1 (None)
17473 test_long  cream_61 dteam048 R       0:23      1 test02
17472 test_long  cream_26 dteam048 R       0:27      1 test02
17471 test_long  cream_10 dteam048 R       0:32      1 test01
17470 test_long  cream_65 dteam048 R       0:36      1 test01

$ ldapsearch -LLL -x -H ldap://test31.egi.cesga.es:2170 -b 'Mds-Vo-
Name=resource,o=grid' 'objectClass=GlueCE' GlueCEInfoTotalCPUs GlueCEStateFreeCPUs
GlueCEStateTotalJobs GlueCEStateRunningJobs GlueCEStateWaitingJobs
GlueCEPolicyAssignedJobs
dn: GlueCEUniqueID=test31.egi.cesga.es:8443/cream-slurm-test_long,Mds-Vo-name=
resource,o=grid
GlueCEInfoTotalCPUs: 4
GlueCEStateTotalJobs: 10
GlueCEStateFreeCPUs: 0
GlueCEStateWaitingJobs: 6
GlueCEStateRunningJobs: 4

dn: GlueCEUniqueID=test31.egi.cesga.es:8443/cream-slurm-test_short,Mds-Vo-name
=resource,o=grid
GlueCEStateWaitingJobs: 0
GlueCEInfoTotalCPUs: 4
GlueCEStateTotalJobs: 0
GlueCEStateFreeCPUs: 0
GlueCEStateRunningJobs: 0
```

#### 5) **OK** Check for autodisabling in the ce

We specify a limit of 2 jobs into the cream CE. Then, we submit 2 long jobs:

```
[root@test31 ~]# /usr/bin/glite_cream_load_monitor /etc/glite-ce-cream-
utils/glite_cream_load_monitor.conf --show
Threshold for Load Average(1 min): 40 => Detected value for Load Average(1 min):
0.26
Threshold for Load Average(5 min): 40 => Detected value for Load Average(5 min):
0.16
Threshold for Load Average(15 min): 20 => Detected value for Load Average(15 min):
0.10
Threshold for Memory Usage: 95 => Detected value for Memory Usage: 45.06%
Threshold for Swap Usage: 95 => Detected value for Swap Usage: 10.44%
Threshold for Free FD: 500 => Detected value for Free FD: 97375
Threshold for tomcat FD: 800 => Detected value for Tomcat FD: 236
Threshold for FTP Connection: 30 => Detected value for FTP Connection: 1
Threshold for Number of active jobs: 2 => Detected value for Number of active jobs: 2
```



```
Threshold for Number of pending commands: -1 => Detected value for Number of pending
commands: 0
Threshold for Disk Usage: 95% => Detected value for Partition / : 34%
```

```
[root@test31 ~]# squeue
JOBID PARTITION   NAME     USER  ST        TIME  NODES NODELIST(REASON)
17487 test_long  cream_36 dteam048  R         0:03      1 test01
17486 test_long  cream_16 dteam048  R         0:19      1 test01
```

After a while:

```
$ glite-ce-service-info test31.egi.cesga.es
Interface Version = [2.1]
Service Version   = [1.16.3 - EMI version: 3.7.4-1.el6]
Description       = [CREAM 2]
Started at       = [Mon Oct  6 15:58:35 2014]
Submission enabled = [NO]
Status           = [RUNNING]

$ glite-ce-job-submit -a -r test31.egi.cesga.es:8443/cream-slurm-test_long job-
long.jdl
2014-10-06 16:42:10,693 FATAL - jobRegister
```

When the jobs finishes and after a while:

```
$ glite-ce-service-info test31.egi.cesga.es
Interface Version = [2.1]
Service Version   = [1.16.3 - EMI version: 3.7.4-1.el6]
Description       = [CREAM 2]
Started at       = [Mon Oct  6 16:06:37 2014]
Submission enabled = [YES]
Status           = [RUNNING]
$ glite-ce-job-status https://test31.egi.cesga.es:8443/CREAM639683070

***** JobID=[https://test31.egi.cesga.es:8443/CREAM639683070]
Status   = [REALLY-RUNNING]
```

## 6) **OK** Parallel jobs submission

To submit MPI jobs is required the package glite-ce-blahp-1.20.4-1, older versions do not present the MPI extension.

Moreover, a line on /etc/mpi-start/ssh.filelist has to be changed (line 39) adding “-s”. This file is provided by the package mpi-start-1.5.0-1.el6.noarch.

```
38     for MPI_START_REMOTE_NODE in `cat $MPI_START_HOSTFILE`; do
39         if test $MPI_START_REMOTE_NODE = `hostname -s` -o $MPI_START_REMOTE_NODE =
`hostname -f` -o $MPI_START_REMOTE_NODE = "localhost" ; then
```

Then, you can submit MPI jobs:

```
$ glite-ce-job-submit -a -r test31.egi.cesga.es:8443/cream-slurm-test_long job-
mpi.jdl
https://test31.egi.cesga.es:8443/CREAM997758231

$ glite-ce-job-status https://test31.egi.cesga.es:8443/CREAM997758231

***** JobID=[https://test31.egi.cesga.es:8443/CREAM997758231]
Status   = [REALLY-RUNNING]
```

```
[root@test31 ~]# squeue
JOBID PARTITION    NAME      USER  ST        TIME  NODES NODELIST(REASON)
17493 test_long  cream_99 dteam048  R         0:00      2 test[01-02]

$ glite-ce-job-status https://test31.egi.cesga.es:8443/CREAM997758231

*****  JobID=[https://test31.egi.cesga.es:8443/CREAM997758231]
        Status      = [DONE-OK]
        ExitCode     = [0]
```

Retrieving the output:

```
$ glite-ce-job-output https://test31.egi.cesga.es:8443/CREAM997758231

2014-10-06 17:04:41,645 INFO - For JobID
[https://test31.egi.cesga.es:8443/CREAM997758231] output will be stored in the dir
./test31.egi.cesga.es_8443_CREAM997758231

$ cat test31.egi.cesga.es_8443_CREAM997758231/mpi-test.out
Compiling /var/tmp/home_cream_997758231/CREAM997758231/mpi-test-B
/usr/lib64/compat-openmpi/bin/mpicc -o
/var/tmp/home_cream_997758231/CREAM997758231/mpi-test-B
/var/tmp/home_cream_997758231/CREAM997758231/mpi-test-B.c
Successfully compiled /var/tmp/home_cream_997758231/CREAM997758231/mpi-test-B
=[START]=====
Hello world from processor test01.egi.cesga.es, rank 2 out of 4 processors
Hello world from processor test02.egi.cesga.es, rank 3 out of 4 processors
Hello world from processor test01.egi.cesga.es, rank 0 out of 4 processors
Hello world from processor test02.egi.cesga.es, rank 1 out of 4 processors
=[FINISHED]=====
Executing post hook.
Finished the post hook.
Host key verification failed.

$ cat test31.egi.cesga.es_8443_CREAM997758231/mpi-test.err
mpi-start [INFO ]: *****
mpi-start [INFO ]: UID      = dteam048
mpi-start [INFO ]: HOST      = test01.egi.cesga.es
mpi-start [INFO ]: DATE      = Mon Oct 6 16:58:18 CEST 2014
mpi-start [INFO ]: VERSION   = 1.5.0
mpi-start [INFO ]: *****
mpi-start [INFO ]: search for scheduler
mpi-start [INFO ]: activate support for slurm
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
/etc/mpi-start/openmp.hook: line 29: test: -eq: unary operator expected
/var/tmp/home_cream_997758231/CREAM997758231/mpi-test-B.c: In function âmainâ:
/var/tmp/home_cream_997758231/CREAM997758231/mpi-test-B.c:20: warning: incompatible
implicit declaration of built-in function âprintfâ
mpi-start [ERROR ]: failed to remove directory on remote machine
```

There is a minor issue to take into account. As it is stated in standard error file the /var/tmp directory is not removed after the job is finished in the second WN.

```
[dteam048@test02 ~]$ ls /var/tmp/home_cream_997758231/
CREAM997758231  cream_997758231.proxy
```

7) **OK** APEL

To parse a log text file, it is necessary to create it with the next command:

```
/usr/bin/sacct -P -n --  
format=JobID,JobName,User,Group,Start,End,Elapsed,CPUTimeRAW,Partition,NCPUS,NNodes,N  
odeList,MaxRSS,MaxVMSize,State -S $start_date -E $end_date
```

```
Then, the APEL parser is working fine:  
2014-10-06 00:05:02,503 - parser - INFO - Setting up parser for SLURM files  
2014-10-06 00:05:02,549 - apel.parsers.parser - INFO - Site: SITE_NAME=UMD-  
VERIFICATION; batch system: test31.egi.cesga.es  
2014-10-06 00:05:02,549 - apel.parsers.slurm - INFO - Site: SITE_NAME=UMD-  
VERIFICATION; batch system: test31.egi.cesga.es  
2014-10-06 00:05:02,550 - parser - INFO - Scanning directory: /var/log/apel/  
2014-10-06 00:05:02,551 - parser - INFO - /var/log/apel/051614 already parsed,  
omitting  
2014-10-06 00:05:02,551 - parser - INFO - /var/log/apel/110913 already parsed,  
omitting  
2014-10-06 00:05:02,552 - parser - INFO - /var/log/apel/082313 already parsed,  
omitting  
[...]  
2014-10-06 00:05:03,070 - parser - INFO - /var/log/apel/072213 already parsed,  
omitting  
2014-10-06 00:05:03,071 - parser - INFO - /var/log/apel/112913 already parsed,  
omitting  
2014-10-06 00:05:03,071 - parser - INFO - /var/log/apel/082914 already parsed,  
omitting  
2014-10-06 00:05:03,073 - parser - INFO - /var/log/apel/012614 already parsed,  
omitting  
2014-10-06 00:05:03,074 - parser - INFO - /var/log/apel/020414 already parsed,  
omitting  
2014-10-06 00:05:03,074 - parser - INFO - /var/log/apel/050714 already parsed,  
omitting  
2014-10-06 00:05:03,075 - parser - INFO - /var/log/apel/031614 already parsed,  
omitting  
2014-10-06 00:05:03,076 - parser - INFO - /var/log/apel/091713 already parsed,  
omitting  
2014-10-06 00:05:03,077 - parser - INFO - /var/log/apel/012914 already parsed,  
omitting  
2014-10-06 00:05:03,319 - parser - INFO - Finished parsing SLURM log files.  
2014-10-06 00:05:03,320 - parser - INFO - Parser has completed.  
2014-10-06 00:05:03,320 - parser - INFO - =====
```

## New Features/Fixed Bugs

The feature tested is the SLURM integration with the cream CE considering the upgrade of the package info-dynamic-scheduler-slurm from CREAM SLURM module. Please look above in the basic tests for more information.

## Additional Info

Installation was done without special issues.

Relevant packages were installed.

```
[root@test31 ~]# rpm -qa | egrep "glite|emi|info-dynamic-scheduler"  
glite-lb-client-java-2.0.7-1.el6.x86_64  
glite-yaim-core-5.1.2-1.sl6.noarch  
glite-initscript-globus-gridftp-1.0.4-1.sl6.noarch  
emi-cream-ce-1.2.2-2.el6.noarch
```

```
glite-lb-common-9.1.1-1.el6.x86_64
glite-ce-cream-core-1.16.3-1.el6.noarch
glite-ce-monitor-api-java-1.16.1-2.el6.noarch
glite-yaim-mpi-1.1.12-1.el6.noarch
emi-slurm-utils-1.0.1-1.sl6.noarch
axis2-1.6.1-1.emi.noarch
glite-lbjp-common-gss-3.2.16-1.el6.x86_64
glite-lbjp-common-log-1.3.11-1.el6.x86_64
glite-ce-cream-es-1.16.3-1.el6.noarch
glite-ce-monitor-1.16.1-2.el6.noarch
glite-jdl-api-java-3.3.2-2.el6.noarch
glite-ce-job-plugin-1.16.1-2.el6.noarch
emi-version-3.7.4-1.el6.x86_64
emi-mpi-1.0.2-1.el6.noarch
glite-lbjp-common-trio-2.3.13-1.el6.x86_64
glite-ce-cream-utils-1.3.3-1.el6.x86_64
glite-yaim-slurm-utils-1.0.0-2.sl6.noarch
glite-jobid-api-java-1.3.9-1.el6.noarch
glite-ce-common-java-1.16.2-1.el6.noarch
glite-ce-cream-1.16.3-1.el6.noarch
glite-info-provider-service-1.13.3-1.el6.noarch
glite-ce-yaim-cream-ce-4.4.5-1.el6.noarch
glite-yaim-bdii-4.3.15-1.el6.noarch
glite-jobid-api-c-2.2.13-1.el6.x86_64
glite-ce-cream-api-java-1.16.2-1.el6.noarch
glite-lb-logger-2.4.23-1.el6.x86_64
info-dynamic-scheduler-slurm-1.0.2-1.el6.noarch
glite-ce-blahp-1.20.5-1.x86_64
```

## Slurm installation

Required packages:

```
gcc
readline-devel
openssl-devel
pam-devel
munge
munge-devel
mysql-5.1.67-1.el6_3.x86_64
mysql-devel-5.1.67-1.el6_3.x86_64
mysql-server-5.1.67-1.el6_3.x86_64
mysql-libs-5.1.67-1.el6_3.x86_64
```

Installed packages on the cream CE:

```
[root@test31 ~]# rpm -qa | grep ^slurm
slurm-munge-14.03.8-1.el6.x86_64
slurm-14.03.8-1.el6.x86_64
slurm-plugins-14.03.8-1.el6.x86_64
slurm-slurmdbd-14.03.8-1.el6.x86_64
slurm-sql-14.03.8-1.el6.x86_64
slurm-perlapi-14.03.8-1.el6.x86_64
slurm-torque-14.03.8-1.el6.x86_64
```

Configuration files:

/etc/slurm/slurm.conf

```
#
# Example slurm.conf file. Please run configurator.html
```

```

# (in doc/html) to build a configuration file customized
# for your environment.
#
#
# slurm.conf file generated by configurator.html.
#
# See the slurm.conf man page for more information.
#
ControlMachine=test31
#ControlAddr=
#BackupController=
#BackupAddr=

#AUTH
AuthType                = auth/munge
CacheGroups              = 0
CryptoType               = crypto/munge

#CheckpointType=checkpoint/none
##DisableRootJobs=NO
##EnforcePartLimits=NO
##Epilog=
##EpilogSlurmctld=
##FirstJobId=1
##MaxJobId=999999
##GresTypes=
##GroupUpdateForce=0
##GroupUpdateTime=600
##JobCheckpointDir=/var/slurm/checkpoint
##JobCredentialPrivateKey=
##JobCredentialPublicCertificate=
##JobFileAppend=0
##JobRequeue=1
##JobSubmitPlugins=1
##KillOnBadExit=0
##Licenses=foo*4,bar
##MailProg=/bin/mail
##MaxJobCount=5000
##MaxStepCount=40000
##MaxTasksPerNode=128

#MPI
MpiDefault              = none
#MpiParams=ports=-#

#PluginDir=
#PlugStackConfig=
#PrivateData=jobs
ProctrackType           = proctrack/pgid
#Prolog=
#PrologSlurmctld=
#PropagatePrioProcess=0
#PropagateResourceLimits=
#PropagateResourceLimitsExcept=
ReturnToService         = 1
#SallocDefaultCommand=
SlurmctldPidFile        = /var/run/slurmctld.pid
SlurmctldPort           = 6817
SlurmdPidFile           = /var/run/slurmd.pid
SlurmdPort              = 6818
SlurmdSpoolDir          = /tmp/slurmd
SlurmUser               = slurm
#SlurmdUser=root
#SrunEpilog=
#SrunProlog=

```

```

StateSaveLocation      = /tmp
SwitchType             = switch/none
#TaskEpilog=
TaskPlugin             = task/none
#TaskPluginParam=
#TaskProlog=
#TopologyPlugin=topology/tree
#TmpFs=/tmp
#TrackWCKey=no
#TreeWidth=
#UnkillableStepProgram=
#UsePAM=0

# TIMERS
#BatchStartTimeout=10
#CompleteWait=0
#EpilogMsgTime=2000
#GetEnvTimeout=2
#HealthCheckInterval=0
#HealthCheckProgram=
InactiveLimit          = 0
KillWait               = 30
#MessageTimeout=10
#ResvOverRun=0
MinJobAge              = 300
#OverTimeLimit=0
SlurmctlTimeout        = 120
SlurmdTimeout          = 300
#UnkillableStepTimeout=60
#VSizeFactor=0
Waittime               = 0

# SCHEDULING
#DefMemPerCPU=0
FastSchedule           = 0
#MaxMemPerCPU=0
#SchedulerRootFilter=1
#SchedulerTimeSlice=30
###FIFO de tota la vida
SchedulerType          = sched/builtin
SchedulerPort          = 7321
###Amb cons_res els recursos estan considerats com consumable resources
###individualment (el q volem)
SelectType             = select/cons_res
###Nomes CPU com a resource
SelectTypeParameters   = CR_CPU
###default_queue_depth: nº jobs q intentaran ser schedulats
###defer: retardar execucio dels jobs (segons?=
SchedulerParameters    = default_queue_depth=1000,defer=300

# JOB PRIORITY
### priority/basic: order of arrival // priority/multifactor: various factors...
PriorityType           = priority/multifactor
### decay 4 cops cada 4 minuts la meitat del FS
PriorityDecayHalfLife   = 4
PriorityCalcPeriod      = 5
### no afavorim jobs smalls
PriorityFavorSmall      = NO
#PriorityMaxAge=
#PriorityUsageResetPeriod=
### Els següents només tenen sentit amb multifactor
#1) el q afecta walltime de la cua al age
PriorityWeightAge       = 0
#2) el q afecta el FS, es a dir tot

```

```

PriorityWeightFairshare = 1
#3) el job size no afecta a FS
PriorityWeightJobSize = 0
#4) efecte partition (cua) al FS
PriorityWeightPartition = 1
#5) efecte QOS
PriorityWeightQOS = 1

# LOGGING AND ACCOUNTING
#AccountingStorageEnforce=0
#AccountingStorageHost=
AccountingStorageLoc = slurmdbd
#AccountingStoragePass=
#AccountingStoragePort=
AccountingStorageType = accounting_storage/slurmdbd
#AccountingStorageUser=
AccountingStoreJobComment= YES
ClusterName = test
#DebugFlags=
#JobCompHost=
JobCompLoc = /usr/share/apel/slurm_acc.sh
#JobCompPass=
#JobCompPort=
JobCompType = jobcomp/script
#JobCompUser=
JobAcctGatherFrequency = 30
JobAcctGatherType = jobacct_gather/linux
SlurmctldDebug = 3
SlurmctldLogFile = /var/log/slurm/slurmctld.log
SlurmdDebug = 3
SlurmdLogFile = /var/log/slurm/slurmd.log
SlurmSchedLogFile = /var/log/slurm/slurmsched.log
SlurmSchedLogLevel = 1

# POWER SAVE SUPPORT FOR IDLE NODES (optional)
#SuspendProgram=
#ResumeProgram=
#SuspendTimeout=
#ResumeTimeout=
#ResumeRate=
#SuspendExcNodes=
#SuspendExcParts=
#SuspendRate=
#SuspendTime=

# COMPUTE NODES
#NodeName=slurm-test CPUs=1 RealMemory=1024 State=UNKNOWN
NodeName=test01 CPUs=2 State=UNKNOWN
NodeName=test02 CPUs=2 State=UNKNOWN

# PARTITIONS QUEUES
PartitionName=test_long AllocNodes=test31 AllowGroups=ops,opsgm,dteam,ldap
Default=YES DisableRootJobs=NO GraceTime=0 Hidden=NO MaxNodes=2 MaxCPUsPerNode=2
DefaultTime=2-00:00:00 MaxTime=2-00:00:00 MinNodes=1 Nodes=test[01-02] Priority=1
RootOnly=NO ReqResv=NO Shared=NO PreemptMode=OFF State=UP MaxMemPerNode=2000
DefMemPerNode=1000

PartitionName=test_short AllocNodes=test31 AllowGroups=ops,opsgm,dteam,ldap
Default=YES DisableRootJobs=NO GraceTime=0 Hidden=NO MaxNodes=2 MaxCPUsPerNode=2
DefaultTime=02:00:00 MaxTime=02:00:00 MinNodes=1 Nodes=test[01-02] Priority=1
RootOnly=NO ReqResv=NO Shared=NO PreemptMode=OFF State=UP MaxMemPerNode=2000
DefMemPerNode=1000

```

/etc/slurm/slurmdbd.conf (slurmdbd is needed to establish FairShare priorities)

```
# Example slurmdbd.conf file.
#
# See the slurmdbd.conf man page for more information.
#
# Archive info
#ArchiveJobs=yes
#ArchiveDir="/tmp"
#ArchiveSteps=yes
#ArchiveScript=
#JobPurge=12
#StepPurge=1
#
# Authentication info
AuthType=auth/munge
#AuthInfo=/var/run/munge/munge.socket.2
#
# slurmDBD info
DbdAddr=localhost
DbdHost=localhost
#DbdPort=7031
SlurmUser=slurm
#MessageTimeout=300
DebugLevel=4
#DefaultQOS=normal,standby
LogFile=/var/log/slurm/slurmdbd.log
PidFile=/var/run/slurmdbd.pid
#PluginDir=/usr/lib/slurm
#PrivateData=accounts,users,usage,jobs
#TrackWCKey=yes
#
# Database info
StorageType=accounting_storage/mysql
#StorageHost=localhost
#StoragePort=1234
StoragePass=password
StorageUser=slurm
#StorageLoc=slurm_acct_db
```

## Configuration

General configuration is done by YAIM. See the output:

```
INFO: Configuring HOST: test31.egi.cesga.es
INFO: Using site configuration file: /opt/localconf/gLite/yaim/site-info.def
INFO: Sourcing service specific configuration file:
/opt/localconf/gLite/yaim/services/gLite-creamce
INFO: Sourcing node specific configuration file:
/opt/localconf/gLite/yaim/nodes/test31.egi.cesga.es
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: /root
site-info.def date: Jan 10 2014 /opt/localconf/gLite/yaim/site-info.def
```



```
yaim command: -c -s /opt/localconf/gLite/yaim/site-info.def -n MPI_CE -n
creamCE -n SLURM_utils
log file: /opt/glite/yaim/bin/./log/yaimlog
Mon Oct 6 16:05:41 CEST 2014 : /opt/glite/yaim/bin/yaim
```

```
Installed YAIM versions:
glite-ce-yaim-cream-ce 4.4.5-1
glite-yaim-bdii 4.3.15-1
glite-yaim-core 5.1.2-1
glite-yaim-mpi 1.1.12-1
glite-yaim-slurm-utils 1.0.0-2.sl6
```

```
#####
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
INFO: Executing function: config_mpi_ce_check
INFO: Executing function: config_cream_detect_tomcat_check
INFO: Executing function: config_cream_stop_check
INFO: Executing function: config_canl_java_tomcat_check
INFO: Detecting TOMCAT
INFO: Executing function: config_cream_db_check
INFO: Executing function: config_cream_emies_scratch_reinstall_check
INFO: Executing function: config_cream_emies_db_check
INFO: Executing function: config_add_pool_env_check
INFO: Executing function: config_host_certs_check
INFO: Executing function: config_vomsdir_check
INFO: Executing function: config_vomses_check
INFO: Executing function: config_users_check
INFO: Executing function: config_edgusers_check
INFO: Executing function: config_cream_glexec_user_check
INFO: Executing function: config_cream_clean_sudoers_check
INFO: Executing function: config_cream_sudoers_check
INFO: Executing function: config_vomsmmap_check
INFO: Executing function: config_cream_remove_subcluster_ce_check
INFO: Executing function: config_lcas_lcmapi_gt4_check
INFO: Executing function: config_globus_gridftp_check
INFO: Executing function: config_cream_glexec_check
INFO: Executing function: config_cream_blah_check
INFO: Executing function: config_cream_ce_check
INFO: Executing function: config_cream_emies_check
INFO: Executing function: config_cream_cemon_check
INFO: Executing function: config_cream_start_check
INFO: Executing function: config_cream_logrotation_check
INFO: Executing function: config_bdii_5.2_check
INFO: Executing function: config_cream_gip_info_dynamic_check
INFO: Executing function: config_cream_gip_check
INFO: Executing function: config_cream_gip_glue2_check
INFO: Executing function: config_cream_gip_scheduler_plugin_check
INFO: Executing function: config_cream_gip_software_plugin_check
INFO: Executing function: config_cream_vo_tag_dir_check
INFO: Executing function: config_info_service_cream_ce_check
INFO: Executing function: config_info_service_cemon_check
INFO: Executing function: config_cream_info_service_rtepublish_check
INFO: Executing function: config_cream_gliteservices_check
INFO: Executing function: config_cream_locallogger_check
INFO: Executing function: config_glite_locallogger_check
INFO: Executing function: config_slurm_gip_sched_plugin_check
INFO: Executing function: config_slurm_ssh_check
INFO: Executing function: config_mpi_ce_setenv
INFO: Executing function: config_mpi_ce
INFO: Executing function: config_cream_detect_tomcat_setenv
INFO: Executing function: config_cream_detect_tomcat
INFO: Detecting TOMCAT
INFO: Executing function: config_cream_stop_setenv
INFO: Executing function: config_cream_stop
```

```

INFO: Stopping tomcat
Stopping tomcat6: ^[[60G^[^[[0;32m OK ^[[0;39m]^M
INFO: Stopping blah
Shutting down BNotifier: ^[[60G^[^[[0;32m OK ^[[0;39m]^M
Shutting down BUpdaterSLURM: ^[[60G^[^[[0;32m OK ^[[0;39m]^M
INFO: Stopping lb processes
Stopping glite-lb-logd ... done
Stopping glite-lb-interlogd ... not running
INFO: Executing function: config_canl_java_tomcat_setenv
INFO: Executing function: config_canl_java_tomcat
INFO: Stop tomcat in case it's running
tomcat6 is stopped^[[60G^[^[[0;32m OK ^[[0;39m]^M
INFO: Copying hostcert to /etc/grid-security/tomcat-cert.pem for tomcat:root.....
INFO: Copying hostkey to /etc/grid-security/tomcat-key.pem for tomcat:root...
INFO: Configuring /etc/tomcat6/server.xml...
INFO: Linking /usr/share/java/bcprov-1.46.jar to tomcat server lib directory..
INFO: Linking /usr/share/java/canl.jar to tomcat server lib directory..
INFO: Linking /usr/share/java/canl-java-tomcat.jar to tomcat server lib
directory..
INFO: Linking /usr/share/java/commons-io.jar to tomcat server lib directory..
INFO: Defining JAVA_HOME in the Tomcat configuration file
INFO: Starting Tomcat
INFO: Executing function: config_cream_db_setenv
INFO: Executing function: config_cream_db
creamdb version requested by the service is 2.6
The version retrieved from the creamdb database is 2.6
The creamdb database is synchronized with the one requested by the service
INFO: creamdb.db_info table updated.
delegationcreamdb version requested by the service is 2.6
The version retrieved from the delegationcreamdb database is 2.6
The delegationcreamdb database is synchronized with the one requested by the service
INFO: Executing function: config_cream_emies_scratch_reinstall_setenv
INFO: Executing function: config_cream_emies_scratch_reinstall
INFO: Executing function: config_cream_emies_db_setenv
INFO: Executing function: config_cream_emies_db
INFO: Executing function: config_add_pool_env_setenv
INFO: Executing function: config_add_pool_env
INFO: Executing function: config_ldconf
INFO: config_ldconf: function not needed anymore, left empty waiting to be removed
INFO: Executing function: config_sysconfig_edg
INFO: Executing function: config_host_certs
INFO: Executing function: config_crl
INFO: Now updating the CRLs - this may take a few minutes...
WARNING: /usr/libexec/fetch-crl.sh didn't finish successfully
WARNING: CRLs may not be updated, please have a look !
Enabling periodic fetch-crl: ^[[60G^[^[[0;32m OK ^[[0;39m]^M
INFO: Executing function: config_vomsdir_setenv
INFO: Executing function: config_vomsdir
INFO: Executing function: config_vomses
INFO: Executing function: config_users
INFO: Executing function: config_edgusers
INFO: Executing function: config_cream_glexec_user_setenv
INFO: Executing function: config_cream_glexec_user
INFO: CONFIG_USERS is set to yes
INFO: Executing function: config_cream_clean_sudoers_setenv
INFO: Executing function: config_cream_clean_sudoers
INFO: /etc/sudoers file already clean. Probably installation from scratch
INFO: Executing function: config_cream_sudoers_setenv
INFO: Executing function: config_cream_sudoers
INFO: Executing function: config_vomsmap_setenv
INFO: Executing function: config_vomsmap
INFO: Creating grid-map directory in /etc/grid-security/gridmapdir
INFO: Creating voms grid-map file in /etc/grid-security/voms-grid-mapfile
INFO: Creating voms groupmap file in /etc/grid-security/groupmapfile
INFO: Copying the /etc/grid-security/voms-grid-mapfile in the standard location
/etc/grid-security/grid-mapfile

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INFO: Executing function: config_cream_remove_subcluster_ce_setenv
INFO: Executing function: config_cream_remove_subcluster_ce
INFO: Executing function: config_lcas_lcmaps_gt4_setenv
INFO: Executing function: config_lcas_lcmaps_gt4
INFO: Creating LCAS_DB_FILE in /etc/lcas/lcas.db
INFO: Creating LCMAPS_DB_FILE in /etc/lcmaps/lcmaps.db
INFO: Executing function: config_globus_gridftp_setenv
INFO: Executing function: config_globus_gridftp
INFO: Starting gridftp service :
Stopping globus-gridftp-server: ^[[60G^[^[[0;32m OK ^[[0;39m]^M
Starting globus-gridftp-server: ^[[60G^[^[[0;32m OK ^[[0;39m]^M
INFO: Executing function: config_cream_glexec_setenv
INFO: Executing function: config_cream_glexec
INFO: Executing function: config_cream_blah_setenv
INFO: Executing function: config_cream_blah
INFO: Executing function: config_cream_ce_setenv
INFO: Executing function: config_cream_ce
INFO: File /etc/glite-ce-cream/cream-config.xml backed-up in /etc/glite-ce-cream/cream-config.xml.bak_20141006_160618
INFO: Executing function: config_cream_emies_setenv
INFO: Executing function: config_cream_emies
INFO: Executing function: config_cream_cemon_setenv
INFO: Executing function: config_cream_cemon
INFO: Executing function: config_cream_start_setenv
INFO: Executing function: config_cream_start
INFO: Starting blparser
Starting BNotifier: ^[[60G^[^[[0;32m OK ^[[0;39m]^M
Starting BUdaterSLURM: ^[[60G^[^[[0;32m OK ^[[0;39m]^M
INFO: blah not running
INFO: Starting tomcat
Starting tomcat6: ^[[60G^[^[[0;32m OK ^[[0;39m]^M
INFO: Executing function: config_cream_logrotation_setenv
INFO: Executing function: config_cream_logrotation
INFO: Executing function: config_bdii_5.2
Stopping BDII update process: ^[[60G^[^[[0;32m OK ^[[0;39m]^M
Stopping BDII slapd: ^[[60G^[^[[0;32m OK ^[[0;39m]^M
Starting BDII slapd: ^[[60G^[^[[0;32m OK ^[[0;39m]^M
Starting BDII update process: ^[[60G^[^[[0;32m OK ^[[0;39m]^M
INFO: Executing function: config_cream_gip_info_dynamic_setenv
INFO: Executing function: config_cream_gip_info_dynamic
INFO: Executing function: config_cream_gip_setenv
INFO: Executing function: config_cream_gip
WARNING: Queue test_short was enabled for one or more FQANs which specify an entire VO
WARNING: Queue test_short was enabled for one or more FQANs which specify an entire VO
WARNING: Queue test_short was enabled for one or more FQANs which specify an entire VO
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WARNING: Queue test_short was enabled for one or more FQANs which specify an entire VO
WARNING: Queue test_short was enabled for one or more FQANs which specify an entire VO
WARNING: Queue test_long was enabled for one or more FQANs which specify an entire VO
WARNING: Queue test_long was enabled for one or more FQANs which specify an entire VO
WARNING: Queue test_long was enabled for one or more FQANs which specify an entire VO
WARNING: Queue test_long was enabled for one or more FQANs which specify an entire VO

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WARNING: Queue test_long was enabled for one or more FQANs which specify an entire
VO
WARNING: Queue test_long was enabled for one or more FQANs which specify an entire
VO
WARNING: Queue test_long was enabled for one or more FQANs which specify an entire
VO
WARNING: Queue test_long was enabled for one or more FQANs which specify an entire
VO
INFO: Executing function: config_cream_gip_glue2_setenv
INFO: Executing function: config_cream_gip_glue2
INFO: File /etc/glite-ce-glue2/glite-ce-glue2.conf backed-up in /etc/glite-ce-
glue2/glite-ce-glue2.conf.bak_20141006_160635
INFO: Executing function: config_cream_gip_scheduler_plugin_setenv
INFO: Executing function: config_cream_gip_scheduler_plugin
INFO: Executing function: config_cream_gip_software_plugin_setenv
INFO: Executing function: config_cream_gip_software_plugin
INFO: Executing function: config_cream_vo_tag_dir
INFO: Executing function: config_info_service_cream_ce_setenv
INFO: Executing function: config_info_service_cream_ce
INFO: Executing function: config_info_service_cemon_setenv
INFO: Executing function: config_info_service_cemon
INFO: Executing function: config_cream_info_service_rtepublish_setenv
INFO: Executing function: config_cream_info_service_rtepublish
INFO: Executing function: config_cream_gliteservices_setenv
INFO: Executing function: config_cream_gliteservices
INFO: Executing function: config_cream_locallogger_setenv
INFO: Executing function: config_cream_locallogger
INFO: Executing function: config_glite_locallogger_setenv
INFO: Executing function: config_glite_locallogger
INFO: The workaround for bug 22389 already exists
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/run/glite/glite-lb-interlogd.pid for glite-lb-interlogd
Warning: stale /var/run/glite/glite-lb-interlogger.sock for glite-lb-interlogd
Starting glite-lb-interlogd ... done
INFO: Executing function: config_cream_glite_initd
INFO: Executing function: config_slurm_gip_sched_plugin_setenv
INFO: Executing function: config_slurm_gip_sched_plugin
INFO: Executing function: config_slurm_ssh_setenv
INFO: Executing function: config_slurm_ssh
^[[80G[ ^[[1;32mOK^[[0;39m ]^M INFO: Configuration Complete.
INFO: YAIM terminated succesfully.

```