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

Name of the component	Emi.cemon		
Release	1.13.3	RT Ticket	2931
Software Provider			
Release Contact	Name:	E-Mail	
	Cristina Aiftimiei	cristina.aiftimiei@pd.infn.it	
Validator	Name:	E-Mail	
	Enol Fernández	enolfc@gmail.com	
V. Hours Worked	4		
Component status	**Accepted**	Date	26/10/2011
Verification start date	25/10/2011	Verification end date	26/10/2011

Summary:
This CEMon release fixes configuration in the server and bugs in the client command line. Since no previous verification of the features was performed before, the tests included also basic functionality of the product. No issues found in functionality checks. However the administrator documentation lacks important information. There were found several world writable files not relevant to CEMon.

GGUS Tickets:
No tickets created during verification

Summary of Quality Criteria verification:

	Generic Quality Criteria Total (Critical/Non critical)			
	Passed	Not passed	Not Applicable	Total
TP	0	0	0	0
VLD	16	1	3	20
	Specific Quality Criteria			
TP	0	0	0	0
VLD	4	0	6	10

RELEASE:	emi.cemon.sl5.x86_64-1.13.3		
VALIDATOR:	Enol Fernández	**RT TICKET:**	#2931
Criteria	**Accepted**	**Tested**	**Comments**

Generic QC

Criteria	Accepted	Tested	Comments
GENERIC_DOC_1 (Functional Description)	Y	VLD	Available at http://wiki.italiangrid.org/twiki/bin/view/CEMon/FunctionalDescription
GENERIC_DOC_2 (Release Notes)	Y	VLD	Release notes are available but missing in the release.xml
GENERIC_DOC_3 (User Documentation)	Y	VLD	Available at http://wiki.italiangrid.org/twiki/bin/view/CEMon/CliUserGuide
GENERIC_DOC_4 (Online help (man pages))	Y	VLD	Commands have -h option, missing man pages
GENERIC_DOC_5 (API Documentation)	Y	VLD	API documentation available at http://grid.pd.infn.it/cemon/field.php?n=Main.CEMonClientAPIGuide
GENERIC_DOC_6 (Administrator Documentation)	N	VLD	Administrator documentation is available but it not sufficient to operate the product.
GENERIC_DOC_7 (Service Reference Card)	Y	VLD	Available at http://wiki.italiangrid.org/twiki/bin/view/CEMon/ServiceReferenceCard
GENERIC_DOC_8 (Software License)	Y	VLD	Apache 2
GENERIC_DOC_9 (Release changes testing)	Y	VLD	Test report at http://wiki.italiangrid.org/twiki/bin/view/CEMon/Cemon1133TestingReport
GENERIC_DIST_1 (Source Code Availability)	Y	VLD	Repository accesible
GENERIC_DIST_2 (Source Distribution)	Y	VLD	Source packages available
GENERIC_DIST_3 (Binary Distribution)	Y	VLD	Packages install without issues
GENERIC_SERVICE_1 (Service control and stat	Y	VLD	Service is started with CREAM
GENERIC_SERVICE_2 (Log Files)	Y	VLD	Log files available and containing relevant information
GENERIC_SERVICE_3 (Service Reliability)	NA	VLD	Tested in CREAM
GENERIC_SERVICE_4 (Service Robustness)	NA	VLD	Tested in CREAM
GENERIC_SERVICE_4 (Automatic Configuration	Y	VLD	Automatic configuration with yaim succeded
GENERIC_SEC_1 (World Writable Files)	Y	VLD	No writable files for CEMon, SEVERAL Blah world writable files found
GENERIC_SEC_2 (Directory Traversal Attacks t	NA	VLD	Not known directory traversal vulnerability for CEMon
GENERIC_MISC_2 (Bug Tracking System)	Y	VLD	EMI is part of GGUS 3rd line support

Security Capabilities QC

Criteria	Accepted	Tested	Comments
AUTHN_IFACE_1 (X.509 Certificate support)	**Y**	**VLD**	X509 certificates accepted
AUTHN_IFACE_2 (SAML authentication)	**NA**	**VLD**	SAML support not included
AUTHN_DELEG_1 (Delegation Interface)	**NA**	**VLD**	No delegation performed
AUTHZ_PCYDEF_3 (Ban UserFQAN)	**NA**	**VLD**	No banning without argus
AUTHZ_PCYDEF_4 (Allowed users definition)	**Y**	**VLD**	FQAN and user DN policies can be defined with ARGUS
AUTHZ_PEP_1 (Policy Enforcement)	**Y**	**VLD**	Policies are enforced correctly. Tested with argus.
AUTHZ_PEP_2 (User Mapping)	**NA**	**VLD**	No mapping needed

Information Capabilities QC

Criteria	Accepted	Tested	Comments
INFOMODEL_SCHEMA_1 (GlueSchema Suppo	Y	VLD	GlueSchema information available. Also available as Classad.
INFODISC_IFACE_1 (Information Discovery Inte	NA	VLD	CEMon has its own interface, not applicable

Operations Capabilities QC

Criteria	Accepted	Tested	Comments
MON_PROBE_GENERIC_2 (Service Probe)	NA	VLD	No CEMon probe available

Validator comments:

Documentation issues:

There is no changelog information in the release.xml (or at least not in the RT ticket)

The system administrator guide lacks information (not critical since the component is not used in EGI, but it makes the product rather unusable without previous configuration experience)

The description of the configuration is insufficient. There is no clear description about the contents of the config files or what the scripts that are used to generate the information should do.

There are missing pointers (in section 1.3.3): The CEMon CLI is part of the EMI-UI. To configure it please refer to xxx.

Installation/Configuration steps in CE:
- Added new repository for CEMon packages (coming from ticket)
- yum update
- Reconfiguration using yaim (add USE_CEMON=true to config files)

Installation/Configuration steps in UI:
- Added new repository for CEMon packages (coming from ticket)
- yum update
- No Reconfiguration (as specified in release notes)
-

Test performed:
- check that the CEMon service is announced in the BDII:

For glue 2:

```
$ ldapsearch -h localhost -x -p 2170 -b "o=glue" "objectclass=Glue2Endpoint"
...
GLUE2EndpointInterfaceName: org.glite.ce.Monitor
GLUE2EndpointURL: https://test06.egi.cesga.es:8443/ce-monitor/services
GLUE2EndpointDowntimeInfo: See the GOC DB for downtimes: https://goc.egi.eu/
GLUE2EndpointImplementationVersion: 1.13.3
...
```

For glue 1:

```
$ ldapsearch -h localhost -x -p 2170 -b "o=grid"
"GlueServiceType=org.glite.ce.Monitor"
...
GlueServiceEndpoint: https://test06.egi.cesga.es:8443/ce-monitor/services
GlueServiceVersion: 1.13.3
GlueSchemaVersionMinor: 3
GlueServiceName: UMD-VERIFICATION-Monitor
GlueServiceType: org.glite.ce.Monitor
...
```

- Test basic commands:

```
$ glite-ce-monitor-gettopics https://test06.egi.cesga.es:8443/ce-
monitor/services/CEMonitor
Topic [CREAM_JOBS]
   Dialect [CLASSAD]
      queryLanguage [ClassAd]
Topic [CE_MONITOR]
   Dialect [ISM_CLASSAD_GLUE_1.2]
      queryLanguage [RegEx]
      queryLanguage [ClassAd]
    …
```

```
$ glite-ce-monitor-getinfo https://test06.egi.cesga.es:8443/ce-
monitor/services/CEMonitor
Description=[cemonitor service]
Version    =[1.0]
HostDN     =[/DC=es/DC=irisgrid/O=cesga/CN=host/test06.egi.cesga.es]
Topic [CREAM_JOBS]
   Dialect [CLASSAD]
      queryLanguage [ClassAd]
Topic [CE_MONITOR]
   Dialect [ISM_CLASSAD_GLUE_1.2]
      queryLanguage [RegEx]
      queryLanguage [ClassAd]
   Dialect [ISM_CLASSAD]
      queryLanguage [RegEx]
      queryLanguage [ClassAd]
   Dialect [ISM_LDIF_GLUE_1.2]
      queryLanguage [RegEx]
      queryLanguage [ClassAd]
   Dialect [ISM_LDIF]
      queryLanguage [RegEx]
      queryLanguage [ClassAd]
Action [SendExpiredNotification::]
Action [DoNotSendNotification::]
Action [SendNotification::]
```

- Get events

```
$ glite-ce-job-submit -r test06.egi.cesga.es:8443/cream-pbs-GRID_dteam  -D
enolID job1.jdl
https://test06.egi.cesga.es:8443/CREAM977347450

$ glite-ce-monitor-getevent --topic CREAM_JOBS
https://test06.egi.cesga.es:8443/ce-monitor/services/CEMonitor
cert=/tmp/x509up_u504 - key=/tmp/x509up_u504
Event[0]:
      Message[0]=[[
      CREAM_JOB_ID = "CREAM977347450";
      CREAM_URL = "https://test06.egi.cesga.es:8443/ce-cream/services/CREAM2";
      JOB_STATUS = "REGISTERED";
      TIMESTAMP = "1319628854000";
      WORKER_NODE = "N/A"
]]
      Message[1]=[[
      CREAM_JOB_ID = "CREAM977347450";
      CREAM_URL = "https://test06.egi.cesga.es:8443/ce-cream/services/CREAM2";
      JOB_STATUS = "PENDING";
      TIMESTAMP = "1319628855000";
      WORKER_NODE = "N/A"
]]
      Message[2]=[[
      CREAM_JOB_ID = "CREAM977347450";
      CREAM_URL = "https://test06.egi.cesga.es:8443/ce-cream/services/CREAM2";
      JOB_STATUS = "IDLE";
      TIMESTAMP = "1319628855000";
      WORKER_NODE = "N/A"
]]
      Message[3]=[[
      CREAM_JOB_ID = "CREAM977347450";
      CREAM_URL = "https://test06.egi.cesga.es:8443/ce-cream/services/CREAM2";
      JOB_STATUS = "RUNNING";
      TIMESTAMP = "1319628856000";
      WORKER_NODE = "N/A"
]]
```

- Test subscription (with and without https)

Without https:

```
$ glite-ce-monitor-subscribe --topic CREAM_JOBS --consumer-url
http://test13.egi.cesga.es:1975  https://test06.egi.cesga.es:8443/ce-
monitor/services/CEMonitor
SubscriptionID=[uuid-1319634991027]
$ glite-ce-monitor-subinfo  https://test06.egi.cesga.es:8443/ce-
monitor/services/CEMonitorID=[uuid-1319634991027] Topic=[CREAM_JOBS]
Consumer=[http://test13.egi.cesga.es:1975] Rate=[20] Expiration=Wed Oct 26
15:26:26 2011
[…] submit several jobs […]

$ glite-ce-monitor-unsubscribe --id uuid-1319634991027
https://test06.egi.cesga.es:8443/ce-monitor/services/CEMonitor

$ glite-ce-monitor-consumer 1975
Socket connection successful on port 1975 master socket 3
Accepting connection ...
Wed Oct 26 15:20:36 2011
 - 1: accepted connection from IP=84.21.169.39 (test06.egi.cesga.es)
Event Producer=CREAM Job Sensor
Event ID       =-1
Topic [CREAM_JOBS]
   Dialect [CLASSAD]
      queryLanguage [ClassAd]
>>> Event #1 - Dumping messages:
Event #1 - Message #0
[ SUBSCRIPTION_ID = "uuid-1319635239888";
KEEP_ALIVE = true; ]
Accepting connection ...
Wed Oct 26 15:21:56 2011
 - 5: accepted connection from IP=84.21.169.39 (test06.egi.cesga.es)
Event Producer=CREAM Job Sensor
Event ID       =-1
Topic [CREAM_JOBS]
   Dialect [CLASSAD]
      queryLanguage [ClassAd]
>>> Event #5 - Dumping messages:
Event #5 - Message #0
[
                       CREAM_JOB_ID = "CREAM855571668";
                       CREAM_URL = "https://test06.egi.cesga.es:8443/ce-
cream/services/CREAM2";
                       JOB_STATUS = "REGISTERED";
                       TIMESTAMP = "1319635305000";
                       WORKER_NODE = "N/A"
]
Event #5 - Message #1
[
                       CREAM_JOB_ID = "CREAM855571668";
                       CREAM_URL = "https://test06.egi.cesga.es:8443/ce-
cream/services/CREAM2";
                       JOB_STATUS = "PENDING";
                       TIMESTAMP = "1319635305000";
                       WORKER_NODE = "N/A"
]
Event #5 - Message #2
[
                       CREAM_JOB_ID = "CREAM855571668";
                       CREAM_URL = "https://test06.egi.cesga.es:8443/ce-
cream/services/CREAM2";
                       JOB_STATUS = "IDLE";
                       TIMESTAMP = "1319635305000";
                       WORKER_NODE = "N/A"
]
Event #5 - Message #3
[
                       CREAM_JOB_ID = "CREAM855571668";
                       CREAM_URL = "https://test06.egi.cesga.es:8443/ce-
cream/services/CREAM2";
```

```
                        JOB_STATUS = "RUNNING";
                        TIMESTAMP = "1319635307000";
                        WORKER_NODE = "N/A"
]
[ continues until unsubscribed]
```

With https:

```
$ glite-ce-monitor-subscribe --cert $X509_USER_PROXY --key $X509_USER_PROXY --
topic    CREAM_JOBS    --consumer-url    https://test13.egi.cesga.es:1979
https://test06.egi.cesga.es:8443/ce-monitor/services/CEMonitor
SubscriptionID=[uuid-1319635977049]

$ glite-ce-monitor-consumer --key $X509_USER_PROXY --cert $X509_USER_PROXY
1979
Socket connection successful on port 1979 master socket 3
Accepting connection ...
Wed Oct 26 15:32:53 2011
 - 1: accepted connection from IP=84.21.169.39 (test06.egi.cesga.es)
Event Producer=CREAM Job Sensor
Event ID      =-1
Topic [CREAM_JOBS]
   Dialect [CLASSAD]
      queryLanguage [ClassAd]
>>> Event #1 - Dumping messages:
Event #1 - Message #0
[
      CREAM_JOB_ID = "CREAM293176400";
      CREAM_URL          =          "https://test06.egi.cesga.es:8443/ce-
cream/services/CREAM2";
      JOB_STATUS = "REGISTERED";
      TIMESTAMP = "1319635718000";
      WORKER_NODE = "test15.egi.cesga.es"
]
…
```

-   Test subscription dump to file: results similar to previous tests, but messages get
    written to file.

```
$ glite-ce-monitor-consumer --key $X509_USER_PROXY --cert $X509_USER_PROXY --
outpath . 1977
Socket connection successful on port 1977 master socket 3
Accepting connection ...
Wed Oct 26 15:28:23 2011
 - 1: accepted connection from IP=84.21.169.39 (test06.egi.cesga.es)
Event Producer=CREAM Job Sensor
Event ID      =-1
Topic [CREAM_JOBS]
   Dialect [CLASSAD]
      queryLanguage [ClassAd]
Notification redirected to [./test06.egi.cesga.es]
>>> Event #1 - Dumping messages:
Event #1 - Message #0
Event #1 - Message #1
Event #1 - Message #2
Event #1 - Message #3
Event #1 - Message #4
Event #1 - Message #5

$ head test06.egi.cesga.es
[
      CREAM_JOB_ID = "CREAM855571668";
      CREAM_URL          =          "https://test06.egi.cesga.es:8443/ce-
cream/services/CREAM2";
      JOB_STATUS = "REGISTERED";
      TIMESTAMP = "1319635305000";
```

```
        WORKER_NODE = "test15.egi.cesga.es"
]

[
        CREAM_JOB_ID = "CREAM855571668";
```

Specific Functional Tests to be repeated in SR:
None

Specific Non-functional tests (Scalability, etc…) to be repeated in SR:
None

Comments for UMD QC definition (TSA2.2):
None

Comments for SR (TSA1.3):
None

Comments for DMSU (TSA2.5):
No comments.

Comments for TP:
There are world writable files in the system, while they are apparently not related to CEMon, some of them are related to BLAH. This is a security issue that should be fixed.