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

Name of the component	LB		
Release	EMI.lb.sl5.x86_64-3.2.6	RT Ticket	3896
Software Provider	EMI		
Release Contact	Name: cristina.aiftimiei@pd.infn.it	E-Mail	cristina.aiftimiei@pd.infn.it
Validator	Name: Pablo Briongos	E-Mail	pablo.briongos@ific.uv.es
V. Hours Worked	20h		
Component status	**VERIFIED**	Date	13th June, 2012
Verification start date	7th June, 2012	Verification end date	13th June, 2012

Summary:

This *EMI-2 LB 3.2.6* release for SL5 was successfully upgraded (EMI-1 repositories had to be updated with EMI-2 ones) and reconfigured from a previous *EMI-1 LB 3.1.0* version.

New features and bug fixes were successfully tested an checked. Although there are some problems when using *glite-lb-statistics* command.

The product works as expected and the functionality is correct in the evaluated areas.

It was tested as a standalone server and the basic job registration has been proven to work correctly with an EMI-1 WMS.

The documentation is updated with the new features information.

There is a complete test suite for the product.

The overall qualification of the verification phase is good.

GGUS Tickets:

Summary of Quality Criteria verification:

	Generic Quality Criteria Total (Critical/Non critical)			
	Passed	Not passed	Not Applicable	Total
TP	1			1
VLD	17		4	21
	Specific Quality Criteria			

TP				
VLD	3		2	5

Quality Criteria verification cheatsheet:

DOCUMENTATION QC

GENERIC_DOC_1 (Functional Description)	Y	VLD	Successfully updated in http://egee.cesnet.cz/cvsweb/LB/LBUG.pdf
GENERIC_DOC_2 (Release Notes)	Y	VLD	In EMI2 LB product page:http://www.eu-emi.eu/emi-2-matterhorn-products/-/asset_publisher/B4Rk/content/l%26b-1
GENERIC_DOC_3 (User Documentation)	Y	VLD	http://egee.cesnet.cz/cvsweb/LB/LBUG.pdf
GENERIC_DOC_4 (Online help (man pages))	NA		*Minor release, this QC was already verified.*
GENERIC_DOC_5 (API Documentation)	Y	VLD	http://egee.cesnet.cz/cvsweb/LB/LBDG.pdf
GENERIC_DOC_6 (Administrator Documentation)	Y	VLD	http://egee.cesnet.cz/cvsweb/LB/LBAG.pdf
GENERIC_DOC_7 (Service Reference Card)	Y	VLD	https://twiki.cern.ch/twiki/bin/view/EMI/LBServiceReferenceCard
GENERIC_DOC_8 (Software License)	Y	VLD	http://www.apache.org/licenses/LICENSE-2.0.html
GENERIC_DOC_9 (Release changes testing)	Y	TP	Reported in https://twiki.cern.ch/twiki/bin/view/EGEE/TestReportForLBEMI2FinalRC

SOFTWARE DISTRIBUTION QC

GENERIC_DIST_1 (Source Code Availability)	Y	VLD	Available in product page
GENERIC_DIST_3 (Binary Distribution)	Y	VLD	Available in product page

SOFTWARE FEATURES QC

GENERIC_SOFT_1 (Backwards Compatibility)	Y	VLD	
GENERIC_SOFT_2 (New features testing)	Y	VLD	View executive summary

SERVICE CRITERIA QC

GENERIC_SERVICE_1 (Service control and status)	Y	VLD	Checked with "/etc/init.d/gLite status"
GENERIC_SERVICE_2 (Log Files)	Y	VLD	Log located in "/var/log/messages"
GENERIC_SERVICE_3 (Service Reliability)	NA		*Minor release, this QC was already verified.*
GENERIC_SERVICE_4 (Service Robustness)	NA		*Minor release, this QC was already verified.*
GENERIC_SERVICE_5 (Automatic Configuration)	Y	VLD	YAIM configuration tool works fine
GENERIC_SERVICE_6 (Default Password Configuration)	Y	VLD	

SECURITY QC

GENERIC_SEC_1 (World Writable Files)	Y	VLD	Tested with testsuite: org.glite.testsuites.ctb/LB/tests/lb-test-permissions.sh
GENERIC_SEC_3 (Passwords in world readable files)	Y	VLD	

MISCELLANEOUS QC

GENERIC_MISC_2 (Bug Tracking System)	NA		*Minor release, this QC was already verified.*

AUTHENTICATION QC

AUTHN_IFACE_1 (X.509 Certificate support)	NA		*Minor release, this QC was already verified.*

MONITORING PROBES QC

MON_PROBE_GENERIC_1 (Certificate Lifetime Probe)	NA		*Minor release, this QC was already verified.*
MON_PROBE_GENERIC_2 (Service Probe)	Y	VLD	Tested with testsuite: org.glite.testsuites.ctb/LB/tests/lb-test-nagios-probe.sh

CLIENT TOOLS QC

CLIENT_TOOLS_1 (Command lineOptions coherency)	Y	VLD	
CLIENT_TOOLS_2 (Error Messages)	Y	VLD	

Validator comments:

Validation went through without any error or fail, excepting *glite-lb-statistics* command. When we try to use it we get this:

[root@cg07 ~]# glite-lb-statistics
lb_statistics: can't load L&B plugin (glite_lb_plugin.so: cannot open shared object file: No such file or directory)

This file should be present with *glite-lb-state-machine* package (we have latest version glite-lb-state-machine_1.3.2), but if this package doesn't include it:

[root@cg07 ~]# rpm -ql glite-lb-state-machine
/usr/lib64/glite_lb_plugin.so.0
/usr/lib64/glite_lb_plugin.so.0.0.0
/usr/lib64/libglite_lb_statemachine.so.1
/usr/lib64/libglite_lb_statemachine.so.1.3.2

And if we test the *lb-test-statistics.sh* testsuite we get errors:

```
[glite@cg07 tests]$ ./lb-test-statistics.sh
Jun 13 11:28:13 cg07.ific.uv.es lb-test-statistics.sh:                                        start
Testing if all binaries are available                                                          done
Testing credentials                                                                      done
Test jobs registered.                                                                    done
Sleeping for 10 seconds... Sending events for all test jobs, Submitted => Running
done
Sleeping for 10 seconds... Sending events for all test jobs, Running => Done
done
Sleeping for 10 seconds... Getting job rate (should be around .0166666, testing if > 0): edg_wll_StateRate(): Operation not permitted, (nil)
(standard_in) 1: parse error
./lb-test-statistics.sh: line 197: [: : integer expression expected
                                                                      -TEST FAILED-
        Error: Rate other than expected
Getting average 'Submitted' -> 'Running' transfer time (should be a number > 10): edg_wll_StateRate(): Operation not permitted, (nil)
(standard_in) 1: parse error
./lb-test-statistics.sh: line 209: [: : integer expression expected
                                                                      -TEST FAILED-
        Error: Average value other than expected
Getting the dispersion index (should be a number >= 0): (standard_in) 1: parse error
./lb-test-statistics.sh: line 220: [: : integer expression expected
                                                                      -TEST FAILED-
        Error: Dispersion index value other than expected
Getting average 'Submitted' -> 'Done/OK' transfer time (should be a number > 20): edg_wll_StateRate(): Operation not permitted, (nil)
(standard_in) 1: parse error
./lb-test-statistics.sh: line 235: [: : integer expression expected
                                                                      -TEST FAILED-
        Error: Average value other than expected
Comparing. 'Submitted' -> 'Running' should take longer than 'Submitted' -> 'Done/OK': (standard_in) 1: parse error
./lb-test-statistics.sh: line 245: [: : integer expression expected
                                                                      -TEST FAILED-
        Error: Done earlier than Running
Long term (Regression into bug #73716): Getting average 'Submitted' -> 'Running' transfer times (should be numbers >= 0):edg_wll_StateRate():
Operation not permitted, (nil)

Long term: Getting average 'Running' rates (should be numbers >= 0):edg_wll_StateRate(): Operation not permitted, (nil)

Purging test job (Trying the best, result will not be tested)
Error running the edg_wll_Purge().
Operation not permitted (only superusers may purge)
The jobs were not dumped.
Jun 13 11:28:56 cg07.ific.uv.es lb-test-statistics.sh:                                        end
```

Apart from this issue, new features such as extending messaging capabilities or finalized CREAM support, were manually checked.

Here is some extra information and logging about the tested bug fixes (other bug fixes in this release relative to code errors were certified by TP):

-bug #45971: Missing support for logging RUNNING -> IDLE CREAM job status changes.

Tested with *lb-test-cream.sh* script (it shows some "test failed" but probably due to the script code):

```
[glite@cg07 tests]$ ./lb-test-cream.sh

Jun 11 16:35:36 cg07.ific.uv.es lb-test-cream.sh:                                    start

Testing if all binaries are available                                        done

Testing credentials                                                          done

Testing job sumbitted directly to CREAM-CE

Registering testing job                                                      done

Jobid: (https://cg07.ific.uv.es/CREAM-test-1339425337)

Testing job is in state: Submitted Registered (should be Submitted Registered)
done

logging Accepted                                                             done

Testing job is in state: Submitted Registered (should be Submitted Registered)
done

logging CREAMStatus Pending                                                         done

Testing job is in state: Waiting Pending (should be Waiting Pending)                  done

logging CREAMStatus Idle                                                        done

Testing job is in state: Scheduled Idle (should be Scheduled Idle)                     done

logging CREAMStatus Running                                                     done

Testing job is in state: Running Running (should be Running Running)
done

logging CREAMStatus Really-running                                                  done

Testing job is in state: Running Really-running (should be Running Really-running)
done

logging CREAMStatus Done-ok                                                      done

Testing job is in state: Done Done-ok (should be Done Done-ok)                          done

Purging test job (Trying the best, result will not be tested)

Error running the edg_wll_Purge().

Operation not permitted (only superusers may purge)

The jobs were not dumped.


Testing job submitted to CREAM-CE via WMS

                                                                       done

(https://cg07.ific.uv.es:9000/FY6stMtfkCej7VHmHOVnYA)

Testing job is in state: Submitted  (should be Submitted )                             done

logging Accepted

logging DeQueued

logging HelperCall

logging Match
```

logging HelperReturn   done

Testing job is in state: Waiting (should be Waiting)   done

logging CREAMAccepted   done

Testing job is in state: Waiting (should be Waiting)   done

logging CREAMStore CmdStart   done

Testing job is in state: Waiting (should be Waiting Pending)   -TEST
FAILED-

        Error: Job is not in appropriate state

logging CREAMStatus Pending   done

Testing job is in state: Waiting (should be Waiting Pending)   -TEST
FAILED-

        Error: Job is not in appropriate state

logging EnQueuedSetLoggingJob(https://cg07.ific.uv.es:9000/FY6stMtfkCej7VHmHOVnYA,no_seqcodes_with_CREAM): Invalid argument
(edg_wll_SetSequenceCode(): syntax error in sequence code)

                               -TEST FAILED-

Testing job is in state: Waiting (should be Ready Pending)   -TEST
FAILED-

        Error: Job is not in appropriate state

logging DeQueuedSIDX 1 5

SetLoggingJob(https://cg07.ific.uv.es:9000/FY6stMtfkCej7VHmHOVnYA,-s): Invalid argument (edg_wll_SetSequenceCode(): syntax error in
sequence code)

                               -TEST FAILED-

Testing job is in state: Waiting (should be Ready Pending)   -TEST
FAILED-

        Error: Job is not in appropriate state

logging TransferSIDX 1 5

SetLoggingJob(https://cg07.ific.uv.es:9000/FY6stMtfkCej7VHmHOVnYA,-s): Invalid argument (edg_wll_SetSequenceCode(): syntax error in
sequence code)

                               -TEST FAILED-

Testing job is in state: Waiting (should be Ready Pending)   -TEST
FAILED-

        Error: Job is not in appropriate state

logging CREAMStatus IdleSIDX 1 5

glite-lb-logevent: edg_wll_LogEvent*(): Invalid argument (edg_wll_LogEvent():

Invalid argument;; Logging library ERROR:

Invalid argument;; edg_wll_DoLogEvent(): Error code mapped to EINVAL

Message incomplete;; edg_wll_log_read(): answer read from locallogger)

                               done

Testing job is in state: Waiting (should be Scheduled Idle)   -TEST
FAILED-

        Error: Job is not in appropriate state

logging CREAMStatus Running   done

Testing job is in state: Waiting (should be Running Running)   -TEST
FAILED-

        Error: Job is not in appropriate state

logging CREAMStore CmdSuspend (bug #45971)   done

Testing job is in state: Waiting (should be Running Running)   -TEST FAILED-

        Error: Job is not in appropriate state

testing if job is suspended (bug #45971)   -TEST FAILED-

logging CREAMStatus Idle (bug #45971)   done

Testing job is in state: Waiting (should be Scheduled Idle)   -TEST FAILED-

        Error: Job is not in appropriate state

testing if job is suspended (bug #45971)   done

logging CREAMStatus Running (bug #45971)   done

Testing job is in state: Waiting (should be Running Running)   -TEST FAILED-

        Error: Job is not in appropriate state

testing if job is suspended (bug #45971)   done

logging CREAMStatus Really-running   done

Testing job is in state: Waiting (should be Running Really-running)
-TEST FAILED-

        Error: Job is not in appropriate state

logging CREAMStatus Done-ok   done

Testing job is in state: Waiting (should be Done Done-ok)   -TEST FAILED-

        Error: Job is not in appropriate state

logging DoneSetLoggingJob(https://cg07.ific.uv.es:9000/FY6stMtfkCej7VHmHOVnYA,no_seqcodes_with_CREAM): Invalid argument (edg_wll_SetSequenceCode(): syntax error in sequence code)

        -TEST FAILED-

Testing job is in state: Waiting (should be Done Done-ok)   -TEST FAILED-

        Error: Job is not in appropriate state

logging ClearSIDX 1 5

SetLoggingJob(https://cg07.ific.uv.es:9000/FY6stMtfkCej7VHmHOVnYA,-s): Invalid argument (edg_wll_SetSequenceCode(): syntax error in sequence code)

        -TEST FAILED-

Testing job is in state: Waiting (should be Cleared Done-ok)   -TEST FAILED-

        Error: Job is not in appropriate state

Purging test job (Trying the best, result will not be tested)

Error running the edg_wll_Purge().

Operation not permitted (only superusers may purge)

The jobs were not dumped.

Jun 11 16:36:29 cg07.ific.uv.es lb-test-cream.sh: end

-bug #47774: unnecessary LB indexed query limitations.

[glite@cg07 tests]$ ./lb-test-collections.sh

Jun 11 13:31:23 cg07.ific.uv.es lb-test-collections.sh:
start

Testing if all binaries are available
done

Testing credentials   done

Registering testing collection (https://cg07.ific.uv.es:9000/3S9E53X_TgBG8vbbxvNH-g)
done

Request children with only the parent ID (Regression into bug #47774)... 5 returned
done

Purging test job (Trying the best, result will not be tested)

Error running the edg_wll_Purge().

Operation not permitted (only superusers may purge)

The jobs were not dumped.

Jun 11 13:31:24 cg07.ific.uv.es lb-test-collections.sh:
end

-bug #86772: glite-lb-notify drop does not report error on malformatted notifIDs.

[glite@cg07 tests]$ ./lb-test-notif.sh

Jun 11 15:17:54 cg07.ific.uv.es lb-test-notif.sh:
start

Testing if all binaries are available
done

Testing credentials   done

Registering testing job (https://cg07.ific.uv.es:9000/fuR2vihdXPoyz7kpjvdWsQ)
done

Registering notification (https://cg07.ific.uv.es:9000/NOTIF:InOO0yPX4fGxYEHjwp1ixw)
done

Logging events resulting in DONE state

notification is valid until: '2012-06-11 14:17:55 UTC' (1339424275)

Receiving notifications

Notifications were delivered
done

Trying to drop invalid NotifID (Regression into bug #86772)... EINVAL
done

Dropping the test notification (https://cg07.ific.uv.es:9000/NOTIF:InOO0yPX4fGxYEHjwp1ixw)
done

Purging test job (Trying the best, result will not be tested)

Error running the edg_wll_Purge().

Operation not permitted (only superusers may purge)

The jobs were not dumped.

Jun 11 15:17:57 cg07.ific.uv.es lb-test-notif.sh:

-bug #92708: logd: confirmation socket handling completely broken.

[glite@cg07 tests]$ ./lb-test-il-recovery.sh

Jun 11 15:22:26 cg07.ific.uv.es lb-test-il-recovery.sh:
start

Testing if all binaries are available
done

Testing credentials   done

Registering testing job (https://cg07.ific.uv.es:9000/sEIvj8mIKN7TMyf87D5CqA)
done

Getting No. of sockets (user glite) for a later test... 5
done

Info: No command to stop was given

Generating events resulting in CLEARED state

Info: No command to start was given

Sleeping for 70 seconds (waiting for interlogger to notice and deliver events)...

Testing job (https://cg07.ific.uv.es:9000/sEIvj8mIKN7TMyf87D5CqA) is in state: Cleared

                                                                                    done

Getting No. of sockets (regression into Savannah Bug #92708)... 5
done

Srv. version 2.3 >= 2.3? yes Comparing No. of sockets... OK, less or equal
done

Purging test job (Trying the best, result will not be tested)

Error running the edg_wll_Purge().

Operation not permitted (only superusers may purge)

The jobs were not dumped.

Jun 11 15:23:37 cg07.ific.uv.es lb-test-il-recovery.sh:

-bug #92766: L&B server crashes on certain ACLs.

[glite@cg07 tests]$ ./lb-test-changeacl.sh

Jun 11 16:40:42 cg07.ific.uv.es lb-test-changeacl.sh:
start

Testing if all binaries are available
done

Testing credentials   done

Srv. version 2.3 >= 2.2? yes
done

Srv. version 2.3 >= 2.3? yes Multiple identities will be tested: Regression into Savannah Bug #92766...
done

Testing Tags permissions...
done

Registering testing job https://cg07.ific.uv.es:9000/t84WFqUMW--Cdnt927BTbw
done

Changing ACL...   done

Checking ACL for new values...
done

Removing ACL entries...
done

Purging test job (Trying the best, result will not be tested)

Error running the edg_wll_Purge().

Operation not permitted (only superusers may purge)

The jobs were not dumped.

Jun 11 16:40:44 cg07.ific.uv.es lb-test-changeacl.sh:
end

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):

Comments for SR (TSA1.3):

Comments for DMSU (TSA2.5):

Comments for TP:

-Review statistics problem