

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

Name of the component	EMI.wms.sl6.x86_64_3.6.0		
Release	05/08/13	RT Ticket	5882
Software Provider	EMI-3		
Release Contact	Name:	E-Mail	
	Cristina Aiftimei	cristina.aiftimei@pd.infn.it	
Validator	Name:	E-Mail	
	Pablo Briongos	pablo.briongos@ific.uv.es	
V. Hours Worked	<b>VERIFIED</b>		
Component status	30h	Date	08 <sup>th</sup> August, 2013
Verification start date	05 <sup>th</sup> August, 2013	Verification end date	08 <sup>th</sup> August, 2013

**Summary:**

\*EMI-3 WMS 3.6.0 SL6 was successfully upgraded and re-configured from a previous EMI-3 WMS 3.5.1 version, in a clean Scientific Linux 6.3 (carbon) node, collocated with LB 4.0.11 SL6 release for EMI-3.

\*This release is a minor release, so bugfixes which could be locally tested were checked successfully.

\*There was an issue during verification related to ARGUS users mapping . It's reported in Validator Comments and a GGUS ticket is opened for it. This issue doesn't affect to the verification phase, so this release will go to staged rollout.

**GGUS Tickets:**

[https://ggus.eu/ws/ticket\\_info.php?ticket=96468](https://ggus.eu/ws/ticket_info.php?ticket=96468)

**Summary of Quality Criteria verification:**

	Generic Quality Criteria Total (Critical/Non critical)			
	Passed	Not passed	Not Applicable	Total
<b>TP</b>				
<b>VLD</b>	23			23
	Specific Quality Criteria			
<b>TP</b>				
<b>VLD</b>	7		33	40

**Quality Criteria verification cheatsheet:**

**DOCUMENTATION QC**

GENERIC_DOC_1 (Functional Description)	Y	VLD	<a href="http://web.infn.it/gLiteWMS/index.php/techdoc/howtosandguides/57-archoverview">http://web.infn.it/gLiteWMS/index.php/techdoc/howtosandguides/57-archoverview</a>
GENERIC_DOC_2 (Release Notes)	Y	VLD	<a href="http://www.eu-emi.eu/releases/emi-3-monte-bianco/updates/-/asset_publisher/5Na8/content/update-7-05-08-2013-v-3-5-0-1#WMS_v_3_6_0">http://www.eu-emi.eu/releases/emi-3-monte-bianco/updates/-/asset_publisher/5Na8/content/update-7-05-08-2013-v-3-5-0-1#WMS_v_3_6_0</a>
GENERIC_DOC_3 (User Documentation)	Y	VLD	<a href="http://web.infn.it/gLiteWMS/images/WMS/Docs/wmproxy-guide.pdf">http://web.infn.it/gLiteWMS/images/WMS/Docs/wmproxy-guide.pdf</a>
GENERIC_DOC_4 (Online help (man pages))	Y	VLD	
GENERIC_DOC_5 (API Documentation)	Y	VLD	<a href="http://web.infn.it/gLiteWMS/wmproxy-api/egee-jra1-wm/glite-wmproxy-api-index.shtml">http://web.infn.it/gLiteWMS/wmproxy-api/egee-jra1-wm/glite-wmproxy-api-index.shtml</a>
GENERIC_DOC_6 (Administrator Documentation)	Y	VLD	<a href="https://wiki.italiangrid.it/twiki/bin/view/WMS/WMSSystemAdministratorGuide">https://wiki.italiangrid.it/twiki/bin/view/WMS/WMSSystemAdministratorGuide</a>
GENERIC_DOC_7 (Service Reference Card)	Y	VLD	<a href="https://wiki.italiangrid.it/twiki/bin/view/WMS/EMIWMSServiceRefCard">https://wiki.italiangrid.it/twiki/bin/view/WMS/EMIWMSServiceRefCard</a>
GENERIC_DOC_8 (Software License)	Y	VLD	<a href="http://web2.infn.it/gLiteWMS/index.php/license">http://web2.infn.it/gLiteWMS/index.php/license</a>
GENERIC_DOC_9 (Release changes testing)	Y	VLD	<a href="https://wiki.italiangrid.it/twiki/bin/view/WMS/WMS350UpdatePrecertificationReport">https://wiki.italiangrid.it/twiki/bin/view/WMS/WMS350UpdatePrecertificationReport</a>

**SOFTWARE DISTRIBUTION QC**

GENERIC_DIST_1 (Source Code Availability)	Y	VLD	Source code and rpm's available in product page
GENERIC_DIST_3 (Binary Distribution)	Y	VLD	Available in product page. There are some glite files created in /opt location; this is discouraged

**SOFTWARE FEATURES QC**

GENERIC_SOFT_1 (Backwards Compatibility)	Y	VLD	Tested successfully with UI from EMI-2 and glite 3.2, VOMS from EMI-2, CE and WN from EMI-2, BDII from EMI-2, and MyProxy from EMI-2
GENERIC_SOFT_2 (New features testing)	Y	VLD	View executive summary

**SERVICE CRITERIA QC**

GENERIC_SERVICE_1 (Service control and status)	Y	VLD	/etc/init.d/gLite status start stop restart works fine
GENERIC_SERVICE_2 (Log Files)	Y	VLD	Located in /var/log/wms
GENERIC_SERVICE_3 (Service Reliability)	Y	VLD	
GENERIC_SERVICE_4 (Service Robustness)	Y	VLD	
GENERIC_SERVICE_5 (Automatic Configuration)	Y	VLD	Configuration with YAİM was successful
GENERIC_SERVICE_6 (Default Password Configuration)	Y	VLD	
GENERIC_SERVICE_7 (Default Configuration )	Y	VLD	Default values on YAİM parameters indicated in: <a href="https://wiki.cern.ch/twiki/bin/view/LCG/Site-info_configuration_variables#WMS">https://wiki.cern.ch/twiki/bin/view/LCG/Site-info_configuration_variables#WMS</a>

**SECURITY QC**

GENERIC_SEC_1 (World Writable Files)	Y	VLD	Tested with: find / -type f -perm -002 -exec ls -l {} \;
GENERIC_SEC_3 (Passwords in world readable files)	Y	VLD	

**MISCELLANEOUS QC**

GENERIC_MISC_1 (Bug Tracking System)	Y	VLD	TP enlisted has 3rd level support in GGUS
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**AUTHENTICATION QC**

AUTHN_CRED_1 (X.509 Certificate support)	Y	VLD	
AUTHN_CRED_2 (SHA2 Certificate support)	NA	VLD	Skipped, minor release
AUTHN_CRED_3 (RFC Proxy support)	NA	VLD	Skipped, minor release
AUTHN_PROTO_1 (TLSSSLv3 Support)	NA	VLD	Skipped, minor release
AUTHN_DELEG_1 (Delegation Interface)	Y	VLD	Delegation works fine, in this case, GridSite delegation. Automatic (-a) or delegating to an id (-d)

**AUTHORISATION QC**

AUTHZ_PCYDEF_3 (Ban UserGroup of users)	Y	VLD	Ban users/group works fine. Specify ban politics in /etc/glite-wms/glite_wms_wmproxy.gaci
AUTHZ_PCYDEF_4 (Allowed users definition)	Y	VLD	FQAN and user DN policies can be defined
AUTHZ_PEP_2 (User Mapping)	Y	VLD	Gridmap file mapping OK
AUTHZ_PEP_3 (Argus Integration)	Y	VLD	Tested successfully the integration with ARGUS but with restrictions. View executive summary

**JOB SCHEDULING QC**

JOBSCH_IFACE_1 (Job Scheduling Interface)	NA	VLD	Skipped, minor release
JOBSCH_EXEC_1 (Remote Job Management )	NA	VLD	Skipped, minor release
JOBSCH_EXEC_2 (Remote Resource Information GlueSchema 1.3)	NA	VLD	Skipped, minor release
JOBSCH_EXEC_3 (Remote Resource Information GlueSchema 2.0)	NA	VLD	Skipped, minor release
JOBSCH_JOB_1 (Simple Job)	NA	VLD	Skipped, minor release
JOBSCH_JOB_2 (Simple Job with inputoutput files)	NA	VLD	Skipped, minor release
JOBSCH_JOB_3 (Cancel Job)	NA	VLD	Skipped, minor release
JOBSCH_JOB_4 (Parallel Job)	NA	VLD	Skipped, minor release
JOBSCH_JOB_5 (Job List Match)	NA	VLD	Skipped, minor release
JOBSCH_JOB_6 (Parametric Job Submission)	NA	VLD	Skipped, minor release
JOBSCH_JOB_7 (Job Collection Submission)	NA	VLD	Skipped, minor release
JOBSCH_JOB_8 (DAG Submission)	NA	VLD	Skipped, minor release
JOBSCH_WMS_1 (Proxy Renewal)	NA	VLD	Skipped, minor release
JOBSCH_WMS_2 (Job Resubmission)	NA	VLD	Skipped, minor release
JOBSCH_WMS_3 (JDL Acceptance Limits)	NA	VLD	Skipped, minor release
JOBSCH_WMS_SEC_1 (Security Advisory 1502)	NA	VLD	Skipped, minor release
JOBSCH_WMS_BUG_1 (Long Proxy Chain Support)	NA	VLD	Skipped, minor release
JOBSCH_WMS_BUG_2 (Multiple RoleGroup Proxy Support)	NA	VLD	Skipped, minor release
JOBSCH_SERVICE_1 (Error Messages)	NA	VLD	Skipped, minor release
JOBSCH_SERVICE_2 (Service Information)	NA	VLD	Skipped, minor release
JOBSCH_SERVICE_3 (Self Disabling Mechanism)	NA	VLD	Skipped, minor release
JOBSCH_SERVICE_4 (Job Submission Peaks )	NA	VLD	Skipped, minor release
JOBSCH_SERVICE_5 (Timely Job Status Updates)	NA	VLD	Skipped, minor release

**INFORMATION MODEL QC**

INFOMODEL_SCHEMA_1 (GlueSchema Support)	NA	VLD	Skipped, minor release
INFOMODEL_SCHEMA_2 (Middleware Version Information)	NA	VLD	Skipped, minor release
INFOMODEL_SCHEMA_3 (GlueSchema 2.0 Support)	Y	VLD	View executive summary

**MONITORING PROBES QC**

MON_PROBE_GENERIC_1 (Certificate Lifetime Probe)	NA	VLD	Skipped, minor release
MON_PROBE_GENERIC_2 (Service Probe)	NA	VLD	Skipped, minor release
MON_PROBE_JOBSCH_1 (WMS Probes)	NA	VLD	Skipped, minor release

**CLIENT TOOLS QC**

CLIENT_TOOLS_1 (Command line options coherency)	NA	VLD	Skipped, minor release
CLIENT_TOOLS_2 (Error Messages)	NA	VLD	Skipped, minor release

## **Validator comments:**

\*Glue2 schema is supported in this release:

```
[root@cg08 config]# glue-validator -g glue2 -H localhost -p 2170 -b o=glue
```

Validating data types. ... ok

Verifying that attributes are not empty. ... ok

Verifying the existence of mandatory attributes. ... ok

Verifying the object class ... ok

Verifying single-valued attributes only have one value. ... ok

Validating data types. ... ok

Verifying that attributes are not empty. ... ok

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Verifying that attributes are not empty. ... ok  
Verifying the existence of mandatory attributes. ... ok  
Verifying the object class ... ok  
Verifying single-valued attributes only have one value. ... ok

-----  
Ran 50 tests in 0.005s

OK

\*Here is some extra information and logging about tested bugfixes:

**\*[WMS-92] : check the policies that keep ISBfiles in the WMS after sandbox creation**

I've submitted a job and verified that the zipped ISB is not in the job's ISB dir anymore after job start:

```
-bash-3.2$ cat wms_ISB.jdl
```

```
[
```

```
Executable = "/bin/sleep" ;
```

```
Arguments = "1";
```

```
InputSandbox = {"/afs/ific.uv.es/user/b/briongos/mysandbox_01",
                "/afs/ific.uv.es/user/b/briongos/mysandbox_02", "/afs/ific.uv.es/user/b/briongos/mysandbox_03", "/afs/ific.uv.es/user/b/briongos/mysandbox_04"};

AllowZippedISB = true;
requirements = RegExp("cream.*", other.GlueCEUniqueID);
RetryCount = 0;
ShallowRetryCount = 1;
MyProxyServer="";
rank = - other.GlueCEStateEstimatedResponseTime;
]
```

```
-bash-3.2$ glite-wms-job-submit -e https://cg08.ific.uv.es:7443/glite_wms_wmproxy_server -d $USER wms_ISB.jdl
```

Connecting to the service [https://cg08.ific.uv.es:7443/glite\\_wms\\_wmproxy\\_server](https://cg08.ific.uv.es:7443/glite_wms_wmproxy_server)

```
===== glite-wms-job-submit Success =====
```

The job has been successfully submitted to the WMPProxy

Your job identifier is:

<https://cg08.ific.uv.es:9000/E91G4ZeQoUvMJEjBywUfZg>

And we look into the sandbox dir in WMS:

```
[root@cg08 input]# ll /var/SandboxDir/H2/https_3a_2f_2fcg08.ific.uv.es_3a9000_2fH2oummtKi3NIQnG_5fJLI_5f4w/input
total 16
-rw-r--r--. 1 ifc033 ifc 3 ago 8 09:03 mysandbox_01
-rw-r--r--. 1 ifc033 ifc 5 ago 8 09:03 mysandbox_02
-rw-r--r--. 1 ifc033 ifc 11 ago 8 09:03 mysandbox_03
-rw-r--r--. 1 ifc033 ifc 29 ago 8 09:03 mysandbox_04
```

### **\*[WMS-93] glite-wms-check-daemon wrongly checks ICE status**

I executed the following commands on the WMS node (as root):

```
[root@cg08 config]# ps -ef|grep ice
glite 12504 1 0 09:15 ? 00:00:00 /usr/bin/glite-wms-ice-safe --conf glite_wms.conf --daemon /var/run/glite-wms-ice-safe.pid
glite 12509 12504 0 09:15 ? 00:00:00 sh -c /usr/bin/glite-wms-ice --conf glite_wms.conf /var/log/wms/ice_console.log 2>&1
glite 12510 12509 0 09:15 ? 00:00:00 /usr/bin/glite-wms-ice --conf glite_wms.conf /var/log/wms/ice_console.log
```

```

root 18569 25553 0 09:36 pts/1 00:00:00 grep ice
[root@cg08 config]# /etc/init.d/glite-wms-ice stop
stopping ICE... ok
[root@cg08 config]# ps -ef|grep ice
root 18605 25553 0 09:37 pts/1 00:00:00 grep ice
[root@cg08 config]# /usr/libexec/glite-wms-check-daemons.sh
[root@cg08 config]# ps -ef|grep ice
root 18700 25553 0 09:37 pts/1 00:00:00 grep ice

```

ICE has to remain OFF after the execution of `glite-wms-check-daemons.sh` (because the previous command `/etc/init.d/glite-wms-ice stop` is a clean shutdown of it).

### **\*[WMS-87] glite\_wms\_wmproxy\_load\_monitor needlessly installed with setuid privileges**

No bit "s" (or setuid) anymore:

```

[root@cg08 config]# ll /usr/sbin/glite_wms_wmproxy_load_monitor
-rwxr-xr-x. 1 root root 22916 jul 22 12:07 /usr/sbin/glite_wms_wmproxy_load_monitor

```

### **\*[WMS-94] Three major bugs in EMI2 glite-wms-wmproxy 3.4.1-0.sl6**

User/group "root" is the right owner:

```

[root@cg08 config]# ll /usr/libexec/glite_wms_wmproxy_dirmanager /usr/sbin/glite_wms_wmproxy_load_monitor
-rwsr-xr-x. 1 root root 19096 jul 22 12:07 /usr/libexec/glite_wms_wmproxy_dirmanager
-rwxr-xr-x. 1 root root 22916 jul 22 12:07 /usr/sbin/glite_wms_wmproxy_load_monitor

```

### **\*[WMS-104] Directory /var/condor/spool needs to be created when configuring WMS node**

Directory "/var/condor/spool" re-created after re-configuration with YAIM:

```

[root@cg08 config]# ls -l /var/condor/
total 84
-rw-r--r--. 1 root root 3912 ago 7 09:14 condor_config.local
-rw-r--r--. 1 glite glite 3912 may 2 11:23 condor_config.local.backup.1367486619
-rw-r--r--. 1 glite glite 3912 may 2 12:51 condor_config.local.backup.1367491913
-rw-r--r--. 1 glite glite 3912 jul 15 12:24 condor_config.local.backup.1373883843
-rw-r--r--. 1 glite glite 3912 ago 6 09:46 condor_config.local.backup.1375775171
-rw-r--r--. 1 glite glite 3912 ago 6 10:03 condor_config.local.backup.1375776184
-rw-r--r--. 1 glite glite 3912 ago 6 10:56 condor_config.local.backup.1375779365
-rw-r--r--. 1 glite glite 3912 ago 6 11:35 condor_config.local.backup.1375781730
-rw-r--r--. 1 glite glite 3912 ago 6 11:45 condor_config.local.backup.1375782301
-rw-r--r--. 1 glite glite 3912 ago 6 11:56 condor_config.local.backup.1375783019
-rw-r--r--. 1 glite glite 3912 ago 6 12:09 condor_config.local.backup.1375783759
-rw-r--r--. 1 glite glite 3912 ago 6 12:34 condor_config.local.backup.1375785299
-rw-r--r--. 1 glite glite 3912 ago 6 13:25 condor_config.local.backup.1375788350
-rw-r--r--. 1 root root 3912 ago 7 09:14 condor_config.local.backup.1375859689
drwxr-xr-x. 2 glite glite 4096 ago 6 09:43 config

drwxrwxrwt. 2 glite glite 4096 mar 12 13:19 execute
drwxr-xr-x. 3 glite glite 4096 mar 12 13:19 lib
drwxr-xr-x. 3 glite glite 4096 mar 12 13:19 lock
drwxr-xr-x. 3 glite glite 4096 ago 7 09:22 log
drwxr-xr-x. 3 glite glite 4096 mar 12 13:19 run
drwxr-xr-x. 3 glite glite 4096 ago 7 09:46 spool

```

**\*[WMS-85] Use yaim WMS\_PEP\_RESOURCEID to set the argus resource id**

**\*AND**

**\*[WMS-97] UMD Verification: EMI-3 WMS 3.5.0 Problem with Argus and WMS integration**

To test these two bugfixes, we first reconfigure WMS with next new variables in site-info.conf to enable Argus and set the resourceID:

```
USE_ARGUS=yes
ARGUS_PEPD_ENDPOINTS="https://test30.egi.cesga.es:8154/authz"
WMS_PEP_RESOURCEID="http://test30.egi.cesga.es/policy"
```

We can see here where the resourceID is defined after configuration:

```
[root@cg08 config]# grep -r "http://test30.egi.cesga.es/policy" /etc/
/etc/grid-security/gsi-pep-callout.conf:xacml_resourceid http://test30.egi.cesga.es/policy
/etc/glite-wms/glite_wms.conf: Wms_Pepc_ResourceId = "http://test30.egi.cesga.es/policy";
```

We have to define the policy for this resource ID in Argus server, in this case we allow all operations from *ops.vo.ibergrid.eu* VO. Then we submit a job to the WMS:

```
[briongos@test13 ~]$ glite-wms-job-submit -e https://cg08.ific.uv.es:7443/glite_wms_wmproxy_server -r
test06.egi.cesga.es:8443/cream-pbs-GRID_opsibeu -d $USER hello_world.jdl
```

Connecting to the service https://cg08.ific.uv.es:7443/glite\_wms\_wmproxy\_server

```
===== glite-wms-job-submit Success =====
```

The job has been successfully submitted to the WMPProxy  
Your job identifier is:

```
https://cg08.ific.uv.es:9000/hcm-nLNPxt0HxQTQC3x_JQ
```

```
[briongos@test13 ~]$ glite-wms-job-status https://cg08.ific.uv.es:9000/hcm-nLNPxt0HxQTQC3x_JQ
```

```
===== glite-wms-job-status Success =====
```

BOOKKEEPING INFORMATION:

```
Status info for the Job : https://cg08.ific.uv.es:9000/hcm-nLNPxt0HxQTQC3x_JQ
Current Status: Done(Success)
Logged Reason(s):
- job completed
- Job Terminated Successfully
Exit code: 0
Status Reason: Job Terminated Successfully
Destination: test06.egi.cesga.es:8443/cream-pbs-GRID_opsibeu
Submitted: Thu Aug 8 09:25:48 2013 CEST
```

It finishes successfully. We can see in *wmproxy.log* how it works and how the resourceID is authorized by Argus:

```
08 Aug, 10:01:34 -D- PID: 23391 - "WMPAuthorizer::authorize": Argus authZ and mapping
08 Aug, 10:01:34 -D- PID: 23391 - "WMPAuthorizer::authorize": Argus authZ using resourceID http://test30.egi.cesga.es/policy
08 Aug, 10:01:34 -D- PID: 23391 - "argus_authZ": PEP version: argus-pep-api-c/2.2.0 (libcurl/7.19.7 NSS/3.14.0.0 zlib/1.2.3
libidn/1.18 libssh2/1.4.2)
08 Aug, 10:01:34 -I- PID: 23391 - "argus_authZ": creating XACML request for argus
08 Aug, 10:01:34 -D- PID: 23391 - "argus_authZ::get_response": argus decision permit
```

08 Aug, 10:01:34 -D- PID: 23391 - "argus\_auth::get\_response": argus mapped user = ib-ops-u004  
08 Aug, 10:01:34 -D- PID: 23391 - "argus\_auth::get\_response": argus mapped group = ib-ops  
08 Aug, 10:01:34 -I- PID: 23391 - "WMPAuthorizer::authorize": Argus returned PERMIT with mapping uid: 170004, gid: 170000

So these two bugs related to Argus and WMS integration are fixed with this new WMS 3.6.0 release, but there is a restriction to make the integration works: you must include the same users mapping into users.conf for all your services (Argus+WMS+CREAM...). It seems a **big design issue**; Argus service could be maintained by a different site with different users and it's hard to maintain this in production.

It should be indicated in the release notes or something because it's not documented anywhere and we spent too much time in dig into this problem because we had different user mappings in both WMS and Argus.



**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:**

To the Argus developers, view next ticket: [https://ggus.eu/ws/ticket\\_info.php?ticket=96468](https://ggus.eu/ws/ticket_info.php?ticket=96468)