

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

Name of the component	GridWay		
Release	8.10.1	RT Ticket	#3672
Software Provider	EMI		
Release Contact	Name:	E-Mail	
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Validator	Name:	E-Mail	
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V. Hours Worked	8		
Component status	<b>Verified</b>	Date	07/02/12
Verification start date	02/04/12	Verification end date	07/02/12

**Summary:**

**GridWay 8.10.1 was installed and tested without problems. This GridWay release supports EMI UI and IGE Globus5 without problems. Only it was found an issue not related with GW middleware, sudo version provided by SL5 (1.7.2p1) has a race condition bug ([http://www.gratisoft.us/bugzilla/show\\_bug.cgi?id=447](http://www.gratisoft.us/bugzilla/show_bug.cgi?id=447)). This issue affects GW multi-user mode, sudo should be updated to 1.7.5 or later to use GW multi-user feature.**

**GGUS Tickets:**

- None

**Summary of Quality Criteria verification:**

	Generic Quality Criteria Total (Critical/Non critical)			
	Passed	Not passed	Not Applicable	Total
<b>TP</b>				
<b>VLD</b>	13	0/1	0	14
	Specific Quality Criteria			
<b>TP</b>				
<b>VLD</b>	16	0	0	16

## Quality Criteria verification cheatsheet:

Criteria	Accepted (Y/N/NA)	Tested (TP/VLD)	Comments
<b>Generic QC</b>			
GENERIC_DOC_1 (Functional Description)	Y	VLD	<a href="http://gridway.org/doku.php?id=start">http://gridway.org/doku.php?id=start</a>
GENERIC_DOC_4 (Online help (man pages))	Y	VLD	<a href="http://gridway.org/doku.php?id=documentation:release_5.8:cli">http://gridway.org/doku.php?id=documentation:release_5.8:cli</a>
GENERIC_DOC_5 (API Documentation)	Y	VLD	<a href="http://gridway.org/doku.php?id=documentation#programming_api">http://gridway.org/doku.php?id=documentation#programming_api</a>
GENERIC_DOC_6 (Administrator Documentation)	Y	VLD	<a href="http://gridway.org/doku.php?id=documentation">http://gridway.org/doku.php?id=documentation</a>
GENERIC_DOC_7 (Service Reference Card)	Y	VLD	
GENERIC_DOC_8 (Software License)	Y	VLD	<a href="http://gridway.org/doku.php?id=software#license">http://gridway.org/doku.php?id=software#license</a>
GENERIC_DOC_9 (Release changes testing)	Y	VLD	<a href="http://gridway.org/doku.php?id=software:release_notes:58">http://gridway.org/doku.php?id=software:release_notes:58</a>
GENERIC_DIST_1 (Source Code Availability)	Y	VLD	<a href="http://dev.gridway.org/">http://dev.gridway.org/</a>
GENERIC_DIST_2 (Source Distribution)	Y	VLD	<a href="http://dev.gridway.org/">http://dev.gridway.org/</a>
GENERIC_DIST_3 (Binary Distribution)	Y	VLD	<a href="http://www.dsa-research.org/cgi-bin/gridway/download.cgi?gw5.8">http://www.dsa-research.org/cgi-bin/gridway/download.cgi?gw5.8</a>
GENERIC_SERVICE_1 (Service control and status)	Y	VLD	
GENERIC_SERVICE_2 (Log Files)	Y	VLD	
GENERIC_SERVICE_3 (Service Reliability)	Y	VLD	
GENERIC_SERVICE_4 (Automatic Configuration)	N	VLD	GridWay does not have an automatic conf tool, but conf. Process is well documented.
GENERIC_SEC_1 (World Writable Files)	Optional		
GENERIC_SEC_2 (Directory Traversal Attacks testing)			
<b>Security Capabilities QC</b>			
GENERIC_MISC_2 (Bug Tracking System)	Y	VLD	
AUTHN_IFACE_1 (X.509 Certificate support)	Y	VLD	
AUTHN_IFACE_2 (SAML authentication)	TBD		
<b>Compute Capabilities QC</b>			
JOBSCH_IFACE_1 (Job Scheduling Interface)	Y	VLD	
JOBSCH_EXEC_1 (Remote Job Management )	Y	VLD	
JOBSCH_EXEC_2 (Remote Resource Information)	Y	VLD	
JOBSCH_JOB_1 (Simple Job)	Y	VLD	
JOBSCH_JOB_2 (Simple Job with input/output files)	Y	VLD	
JOBSCH_JOB_3 (Cancel Job)	Y	VLD	If sudo version is not updated (1.7.5 or later) gckill command hangs.

## Validator comments:

### Installation

#### Install repos from UMD for EMI-UI

```
:
[root@test28 yum.repos.d]# cat IGE.gridway.s15.x86_64.repo

{{{
# EGI Software Repository - REPO META (releaseId,repositoryId,repofileId) - (3672,448,374)

[IGE.gridway.s15.x86_64]
name=IGE.gridway.s15.x86_64
baseurl=http://admin-repo.egi.eu/sw/unverified/ige.gridway.s15.x86_64/5/10/1/
enabled=1
protect=1
priority=1
gpgcheck=1
gpgkey=http://repo-rpm.ige-project.eu/RPM-GPG-KEY-IGE
```

#### \* Install and configure EMI-UI and GridWay

```
# yum install emi-ui
# /opt/glite/yaim/bin/yaim -c -s site-info.def -n UI
```

\* Install and configure GW

```
# yum install ige-meta-gridway
```

```
{{{
```

```
Dependencies Resolved
```

```
=====
=====
Package                               Arch                               Version
Repository                             Size
=====
=====
```

```
Installing:
```

```

ige-meta-gridway                                noarch                                2.1-1.e15
IGE.gridway.s15.x86_64                          2.4 k

Installing for dependencies:

db4-devel                                       x86_64                                4.3.29-10.e15
s1-base                                        2.0 M

db4-utils                                       x86_64                                4.3.29-10.e15
s1-base                                        122 k

globus-common-progs                            x86_64                                14.5-4.e15
IGE.gridway.s15.x86_64                        34 k

globus-gass-server-ez                          x86_64                                4.1-2.e15
IGE.gridway.s15.x86_64                        14 k

globus-gass-server-ez-progs                    x86_64                                4.1-2.e15
IGE.gridway.s15.x86_64                        11 k

globus-gram-client                            x86_64                                12.3-2.e15
IGE.gridway.s15.x86_64                        22 k

globus-gram-protocol                           x86_64                                11.2-2.e15
IGE.gridway.s15.x86_64                        40 k

globus-gsi-cert-utils-progs                    x86_64                                8.1-2.e15
IGE.gridway.s15.x86_64                        26 k

gridway-BES                                    x86_64                                5.10-1.e15
IGE.gridway.s15.x86_64                        6.3 M

gridway-GT5                                    x86_64                                5.10-1.e15
IGE.gridway.s15.x86_64                        20 k

gridway-core                                    x86_64                                5.10-1.e15
IGE.gridway.s15.x86_64                        757 k

gridway-gLite                                   x86_64                                5.10-1.e15
IGE.gridway.s15.x86_64                        48 k

```

Transaction Summary

```

=====
=====

```

```

Install      13 Package(s)
Upgrade      0 Package(s)

```

Total download size: 9.4 M

```

}}}
```

## Configuring gridway, first edi gwd.conf file:

\*Config GW (gwd.conf) to use cream UI and VO dteam resources

```

# vi /usr/etc/gwd.conf

{{{
...
# MADs for gLite

IM_MAD = bdii:gw_im_mad_bdii:-s topbdii.core.ibergrid.eu -q (GlueCEAccessControlBaseRule=VO\:dteam)
(GlueCEImplementationName=CREAM):dummy:cream

EM_MAD = cream:gw_em_mad_cream::jdl

TM_MAD = dummy:gw_tm_mad_dummy:-g

...
}}}
```

## Configuring gridway daemon and gridway users:

for a multi-user environment we have to include each user to GW group

```
#usermod -G gwusers asimon

#cat /etc/sudoers
...
...
...
Defaults:gwadmin !requiretty

Runas_Alias    GWUSERS = %gwusers

gwadmin ALL=(GWUSERS)    NOPASSWD: /usr/bin/gw_em_mad_gram2 *
gwadmin ALL=(GWUSERS)    NOPASSWD: /usr/bin/gw_tm_mad_ftp *
gwadmin ALL=(GWUSERS)    NOPASSWD: /usr/bin/gw_im_mad_static *
gwadmin ALL=(GWUSERS)    NOPASSWD: /usr/bin/gw_im_mad_bdii *

gwadmin ALL=(GWUSERS)    NOPASSWD: /usr/bin/gw_em_mad_ws *
gwadmin ALL=(GWUSERS)    NOPASSWD: /usr/bin/gw_em_mad_cream *
gwadmin ALL=(GWUSERS)    NOPASSWD: /usr/bin/gw_em_mad_cream.bin *
gwadmin ALL=(GWUSERS)    NOPASSWD: /usr/bin/gw_em_mad_ssh *
gwadmin ALL=(GWUSERS)    NOPASSWD: /usr/bin/gw_tm_mad_ftp *
gwadmin ALL=(GWUSERS)    NOPASSWD: /usr/bin/gw_tm_mad_dummy *
gwadmin ALL=(GWUSERS)    NOPASSWD: /usr/bin/gw_tm_mad_dummy.bin *
gwadmin ALL=(GWUSERS)    NOPASSWD: /usr/bin/gw_tm_mad_ssh *

gwadmin ALL=(GWUSERS)    NOPASSWD: /usr/bin/grid-proxy-info *

Defaults>GWUSERS env_keep="GW_LOCATION GLOBUS_LOCATION GLOBUS_TCP_PORT_RANGE"
```

Create /etc/profile.d/gw.sh file:

```
for i in `groups`; do
if [ "$i" = 'gwusers' ]; then
    export GW_LOCATION=/usr
    export GLOBUS_LOCATION=/usr
    export PATH=$PATH:$GW_LOCATION/bin
    export JAVA_HOME=/usr/java/latest
fi
done
```

**WARNING: For a multi-user environment GW uses sudo command but the version 1.7.2p1 provided by SL5x has a race condition bug. ([http://www.gratisoft.us/bugzilla/show\\_bug.cgi?id=447](http://www.gratisoft.us/bugzilla/show_bug.cgi?id=447)) and gw commands hags waiting for sudo response. The workaround is to upgrade sudo version to 1.7.5 or later or use GW single-user environment.**

Start gwd daemon and check gwd logs (/usr/share/gridway/5.8.0/var/gwd.log):

```
# /etc/init.d/gwd start
```

## Testing

Create dteam proxy:

```
#voms-proxy-init --voms dteam
```

\* List available resources:

```
$ gwhost
```

HID	PRI	OS	ARCH	MHZ	%CPU	MEM(F/T)	DISK(F/T)	NODES(U/F/T)	LRMS	HOSTNAME
0	1	ScientificSLBor	x86_64	2500	0	16000/16000	0M/0M	0/0/4032	cream-pbs	ce07.pic.es
1	1	ScientificSLBor	x86_64	2500	0	16000/16000	0M/0M	0/36/4032	cream-pbs	ce10.pic.es
2	1	ScientificSLBor	x86_64	2500	0	16000/16000	0M/0M	0/20/4032	cream-pbs	ce08.pic.es
3	1	ScientificSLBor	x86_64	2500	0	16000/16000	0M/0M	0/0/4032	cream-pbs	ce09.pic.es
4	1	ScientificSLBor	x86_64	2800	0	4096/4096	0M/0M	0/0/12	cream-pbs	egice.polito.it
5	1	ScientificSLBor	x86_64	2530	0	18000/18000	0M/0M	0/84/84	cream-pbs	ce.basnet.by
6	1	ScientificCERNS	x86_64	1800	0	2048/2048	0M/0M	0/2/1944	cream-pbs	creamce.ijs.si
7	1	ScientificCERNS	x86_64	1800	0	2048/2048	0M/0M	0/1/1944	cream-pbs	glitece.ijs.si
8	1	ScientificSLBor	x86_64	2667	0	16000/16000	0M/0M	0/47/48	cream-pbs	ce.haii.or.th
9	1	ScientificSLBor	x86_64	2270	0	2048/2048	0M/0M	0/25/4800	cream-pbs	grid-cr4.desy.de
10	1	ScientificSLBor	x86_64	2270	0	2048/2048	0M/0M	0/36/4800	cream-pbs	grid-cr5.desy.de
11	1	ScientificSLBor	x86_64	2500	0	4096/4096	0M/0M	0/66/66	cream-pbs	gt2.pnpi.nw.ru
12	1	ScientificSLBor	x86_64	2500	0	4096/4096	0M/0M	0/0/232	cream-pbs	gt3.pnpi.nw.ru

```
}}}
```

\* Create a new job

```
$ cat sleep.jt
```

```
EXECUTABLE = script.sh
```

```
ARGUMENTS = 10 1
```

```
INPUT_FILES =
```

```
OUTPUT_FILES = env.txt env.txt.${JOB_ID} , outfile
```

```
RESTART_FILES = outfile
```

```
ENVIRONMENT = VAL1="example", VAL2="other" ,VAL4=234
```

```
STDOUT_FILE = oo${JOB_ID}
```

```
STDERR_FILE = ee${JOB_ID}
```

```
REQUIREMENTS =
```

```
RANK = CPU_MHZ
```

```
$ cat script.sh
```

```
#!/bin/sh
```

```
/usr/bin/env > env.txt
```

```
if [ -f outfile ]; then
```

```
    I=`tail -n 1 outfile | cut -f1 -d' '`
```

```
else
```

```
    I=0
```

```
fi
```

```
while [ $I -lt $1 ]; do
```

```
    sleep $2
```

```
    DATE=`date`
```

```
    HOST=`uname -n`
```

```
    echo "$I $DATE $HOST"
```

```
    echo "$I $DATE $HOST" >> outfile
```

```
    I=`expr $I + 1`
```

```
done
```

```
* Submit a job
```

```
[asimon@test28 sleep]$ gsubmmit -v -t sleep.jt
```

```
JOB ID: 4
```

```
[asimon@test28 sleep]$ gwps
```

USER	JID	DM	EM	START	END	EXEC	XFER	EXIT	NAME	HOST
asimon:0	0	done	----	16:23:36	16:26:11	0:02:35	0:00:00	0	sleep.jt	golp-ce.ist.utl.pt/cream-pbs
asimon:0	1	done	----	16:23:36	16:28:16	0:04:40	0:00:00	0	sleep.jt	golp-ce.ist.utl.pt/cream-pbs
asimon:0	2	done	----	16:23:36	16:27:21	0:03:45	0:00:00	0	sleep.jt	golp-ce.ist.utl.pt/cream-pbs
asimon:0	3	done	----	16:23:36	16:27:31	0:03:55	0:00:00	0	sleep.jt	golp-ce.ist.utl.pt/cream-pbs
asimon:0	4	wrap	pend	10:36:58	--:--:--	0:00:03	0:00:00	--	sleep.jt	golp-ce.ist.utl.pt/cream-pbs

```
[asimon@test28 sleep]$ gwps
```

USER	JID	DM	EM	START	END	EXEC	XFER	EXIT	NAME	HOST
asimon:0	0	done	----	16:23:36	16:26:11	0:02:35	0:00:00	0	sleep.jt	golp-ce.ist.utl.pt/cream-pbs
asimon:0	1	done	----	16:23:36	16:28:16	0:04:40	0:00:00	0	sleep.jt	golp-ce.ist.utl.pt/cream-pbs
asimon:0	2	done	----	16:23:36	16:27:21	0:03:45	0:00:00	0	sleep.jt	golp-ce.ist.utl.pt/cream-pbs
asimon:0	3	done	----	16:23:36	16:27:31	0:03:55	0:00:00	0	sleep.jt	golp-ce.ist.utl.pt/cream-pbs
asimon:0	4	done	----	10:36:58	10:44:28	0:07:27	0:00:00	0	sleep.jt	golp-ce.ist.utl.pt/cream-pbs

```
$ ls -ltr *4
```

```
-rw----- 1 asimon asimon 4401 May  7 10:37 env.txt.4  
-rw----- 1 asimon asimon  580 May  7 10:37 oo4  
-rw----- 1 asimon asimon    0 May  7 10:37 ee4
```





**Not applicable Quality Criteria**

**Specific Functional Tests to be repeated in SR:**

Test number	Description	Motivation

**Specific Non-functional tests (Scalability, etc...) to be repeated in SR:**

Test number	Description	Motivation

**Comments for UMD QC definition (TSA2.2):**

- Review criteria xxxx
- Add criteria xxxx

**Comments for SR (TSA1.3):**

**sudo issue that may affect SR sites:**

- [http://www.gratisoft.us/bugzilla/show\\_bug.cgi?id=447](http://www.gratisoft.us/bugzilla/show_bug.cgi?id=447)
  - Workaround: Upgrade sudo or use only single-user environment.

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

**Comments for TP:**