

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

Name of the component	Globus-gsissh		
Release	5.3.5	RT Ticket	4431
Software Provider	IGE		
	Mattias Ellert	mattias.ellert@fysast.uu.se	
Validator	Name:	E-Mail	
	Enol Fernández	<a href="mailto:enolfc@ifca.unican.es">enolfc@ifca.unican.es</a>	
V. Hours Worked	0:30		
Component status	<b>Accepted</b>	Date	24/10/2012
Verification start date	24/10/2012	Verification end date	24/10/2012

**Summary:**

Globus gsissh includes both server and client packages for ssh using gsi security. This is the first release for sl6. The most prominent change is the update of the underlying OpenSSH version. No other significant changes to test included.

Documentation links are incorrect, they should point to:

<http://globus.org.eu/toolkit/docs/5.2/5.2.2/gsiopenssh>

and

<http://globus.org.eu/toolkit/docs/5.2/5.2.2/gsiopenssh/admin>

**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>	15		3	18
	Specific Quality Criteria			
<b>TP</b>				
<b>VLD</b>	6		2	8

<b>RELEASE:</b>	ige.globus-gsissh.sl	<b>VALIDATOR:</b>	Enol Fernandez
<b>RT TICKET:</b>	4431		
<b>Criteria</b>	<b>Accepted (Y/N/NA)</b>	<b>Tested (TP/VLD)</b>	<b>Comments</b>
<b>Generic QC</b>			
GENERIC_DOC_1 (Functional Description)	Y	VLD	Available at <a href="http://globus.org.eu/toolkit/docs/5.2/5.2.2/gsiopenssh">http://globus.org.eu/toolkit/docs/5.2/5.2.2/gsiopenssh</a>
GENERIC_DOC_2 (Release Notes)	Y	VLD	Release notes available at: <a href="http://globus.org.eu/toolkit/docs/5.0/5.0.3/security/openssh/rn/#opensshRN">http://globus.org.eu/toolkit/docs/5.0/5.0.3/security/openssh/rn/#opensshRN</a>
GENERIC_DOC_3 (User Documentation)	Y	VLD	Available at: <a href="http://globus.org.eu/toolkit/docs/5.0/5.0.3/security/openssh/user/#opensshUser">http://globus.org.eu/toolkit/docs/5.0/5.0.3/security/openssh/user/#opensshUser</a>
GENERIC_DOC_4 (Online help (man pages))	Y	VLD	Commands have man and -h options.
GENERIC_DOC_6 (Administrator Documentation)	Y	VLD	Available at <a href="http://globus.org.eu/toolkit/docs/5.0/5.0.3/security/openssh/admin/#opensshAdmin">http://globus.org.eu/toolkit/docs/5.0/5.0.3/security/openssh/admin/#opensshAdmin</a>
GENERIC_DOC_7 (Service Reference Card)	Y	VLD	Data needed for the reference card is available but not in a single document!
GENERIC_DOC_8 (Software License)	Y	VLD	Apache License
GENERIC_DOC_9 (Release changes testing)	Y	VLD	Document available, but no tests (no bugs or new features in the release)
GENERIC_DIST_1 (Source Code Availability)	Y	VLD	Source rpms available, source also available
GENERIC_DIST_3 (Binary Distribution)	Y	VLD	Binary packages installed without any issues
GENERIC_SERVICE_1 (Service control and status)	Y	VLD	Service control scripts working fine
GENERIC_SERVICE_2 (Log Files)	Y	VLD	Logs go to standard place (/var/log/secure)
GENERIC_SERVICE_3 (Service Reliability)	NA	VLD	
GENERIC_SERVICE_4 (Service Robustness)	NA	VLD	
GENERIC_SEC_1 (World Writable Files)	Y	VLD	No world writable files found
GENERIC_SEC_2 (Directory Traversal Attacks)	NA	VLD	No known directory traversal vulnerability
GENERIC_MISC_2 (Bug Tracking System)	Y	VLD	IGE enroled as 3 <sup>rd</sup> support in GGUS
<b>Security Capabilities QC</b>			
AUTHN_IFACE_1 (X.509 Certificate support)	Y	VLD	Tested both wth voms and without voms proxies
AUTHN_IFACE_2 (SAML authentication)	NA	VLD	Only X509 support
AUTHZ_PCYDEF_3 (Ban UserFQAN)	Y	VLD	Policies define accepted users only
AUTHZ_PCYDEF_4 (Allowed users definition)	Y	VLD	Tested with a user DN
AUTHZ_PEP_1 (Policy Enforcement)	Y	VLD	Tested with a user DN
AUTHZ_PEP_2 (User Mapping)	Y	VLD	Tested with a user DN
<b>Compute Capabilities QC</b>			
INTERACTIVE_JOB_1 (Interactive login)	Y	VLD	See tests in verification summary
<b>Operations Capabilities QC</b>			
MON_PROBE_GENERIC_2 (Service Probe)	NA	VLD	No monitoring probe available.

## Validator comments:

### Installation:

#### 1. Get repo file

```
[root@test05 ~]# wget http://admin-repo.egi.eu/sw/unverified/umd-2.ige.globus-gsissh.sl5.x86_64/4/3/5/repofiles/IGE.globus-gsissh.sl5.x86_64.repo -O /etc/yum.repos.d/verification.repo
--2012-10-24 17:05:27-- http://admin-repo.egi.eu/sw/unverified/umd-2.ige.globus-gsissh.sl5.x86_64/4/3/5/repofiles/IGE.globus-gsissh.sl5.x86_64.repo
Resolving admin-repo.egi.eu... 195.251.54.94
Connecting to admin-repo.egi.eu|195.251.54.94|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 344 [text/plain]
Saving to: `'/etc/yum.repos.d/verification.repo'

100%[=====>] 344
--.-K/s   in 0s

2012-10-24 17:05:27 (29.8 MB/s) - `'/etc/yum.repos.d/verification.repo' saved
[344/344]
```

#### 2. Installation

```
[root@test05 ~]# yum install ige-meta-globus-gsissh
Loaded plugins: kernel-module, priorities, protectbase
189 packages excluded due to repository priority protections
0 packages excluded due to repository protections
Setting up Install Process
[...]
Installed:
  ige-meta-globus-gsissh.noarch 0:3.0-1.e15

Dependency Installed:
  globus-callout.x86_64 0:2.2-1.e15          globus-common.x86_64 0:14.7-1.e15
  globus-common-progs.x86_64 0:14.7-1.e15     globus-gsi-callback.x86_64
  0:4.3-1.e15
  globus-gsi-cert-utils.x86_64 0:8.3-1.e15     globus-gsi-cert-utils-
  progs.x86_64 0:8.3-1.e15
  globus-gsi-credential.x86_64 0:5.3-1.e15     globus-gsi-openssl-
  error.x86_64 0:2.1-2.e15
  globus-gsi-proxy-core.x86_64 0:6.2-1.e15     globus-gsi-proxy-ssl.x86_64
  0:4.1-2.e15
  globus-gsi-sysconfig.x86_64 0:5.3-1.e15     globus-gss-assist.x86_64
  0:8.6-1.e15
  globus-gssapi-gsi.x86_64 0:10.7-1.e15     globus-openssl-module.x86_64
  0:3.2-1.e15
  globus-proxy-utils.x86_64 0:5.0-2.e15     gsi-openssh.x86_64 0:4.3p2-5.e15
  5.e15
  gsi-openssh-clients.x86_64 0:4.3p2-5.e15     gsi-openssh-server.x86_64
  0:4.3p2-5.e15
  libtool-ltdl.x86_64 0:1.5.22-7.e15_4

Complete!
```

## Configuration:

1. Removed password authentication from /etc/gsissh/ssh\_configd
2. Changed port to 22000 in /etc/gsissh/ssh\_configd (ssh running in port 22 in the same machine)
3. Test init scripts:

```
[root@test05 gsissh]# service gsisshd status
gsissh-daemon is stopped
[root@test05 gsissh]# service gsisshd start
Generating SSH2 RSA host key:          [ OK ]
Generating SSH1 RSA host key:          [ OK ]
Generating SSH2 DSA host key:          [ OK ]
Starting gsisshd:                       [ OK ]
[root@test05 gsissh]# service gsisshd status
gsissh-daemon (pid 3585) is running...
[root@test05 gsissh]# ps aux | grep gsissh
root      3585  0.0  0.1 94576 1308 ?        Ss   17:09   0:00
/usr/sbin/gsisshd
root      3600  0.0  0.0  61220  768 pts/0    R+   17:09   0:00 grep gsissh
[root@test05 gsissh]# service gsisshd stop
Stopping gsisshd:                       [ OK ]
[root@test05 gsissh]# service gsisshd status
gsissh-daemon is stopped
[root@test05 gsissh]# ps aux | grep gsissh
root      3628  0.0  0.0  61220  768 pts/0    R+   17:09   0:00 grep gsissh
[root@test05 gsissh]# service gsisshd start
Starting gsisshd:                       [ OK ]
```

## Tests:

1. Created test accounts: enol & test
2. Created grid-mapfile mapping "/DC=es/DC=irisgrid/O=ifca/CN=Enol-Fernandez-delCastillo" to test
3. Copied valid proxy to enol account
4. Execute a command with gsissh:

```
[enol@test05 ~]$ id && gsissh -p 22000 test05.egi.cesga.es id
uid=500(enol) gid=500(enol) groups=500(enol)
uid=501(test) gid=501(test) groups=501(test)
```

## Log file:

```
Oct 24 17:11:30 localhost gsisshd[3696]: GSI user
/DC=es/DC=irisgrid/O=ifca/CN=Enol-Fernandez-delCastillo mapped to target user
test
Oct 24 17:11:30 localhost gsisshd[3696]: GSI user
/DC=es/DC=irisgrid/O=ifca/CN=Enol-Fernandez-delCastillo is authorized as
target user test
Oct 24 17:11:30 localhost gsisshd[3696]: Accepted gssapi-with-mic for test
from 193.144.35.43 port 37124 ssh2
```

5. Remote shell with gsissh:

```
[enol@test05 ~]$ gsissh -p 22000 test05.egi.cesga.es
Last login: Wed Oct 24 17:12:41 2012 from test05.egi.cesga.es
[test@test05 ~]$ pwd
/home/test
[test@test05 ~]$ whoami
test
[test@test05 ~]$ w
17:13:08 up 4:41, 2 users, load average: 0.01, 0.18, 0.47
```

USER	TTY	FROM	LOGIN@	IDLE	JCPU	PCPU	WHAT
root	pts/0	gaepc14.ifca.uni	16:45	0.00s	0.07s	0.01s	gsissh -p
22000	test05.egi.cesga.es						
test	pts/1	test05.egi.cesga	17:12	0.00s	0.01s	0.00s	w
[test@test05 ~]\$ exit							
logout							

## 6. gsiscp

```
[enol@test05 ~]$ seq $RANDOM > testfile
[enol@test05 ~]$ ls -l testfile
-rw-rw-r-- 1 enol enol 60144 Oct 24 17:13 testfile
[enol@test05 ~]$ md5sum testfile
4f1cb16b890b90f9e83c035e8ec70978 testfile
[enol@test05 ~]$ gsiscp -P 22000 testfile test05.egi.cesga.es:remote
testfile
100% 59KB 58.7KB/s 00:00
[enol@test05 ~]$ gsissh -p 22000 test05.egi.cesga.es "ls -l && md5sum remote"
total 64
-rw-rw-r-- 1 test test 60144 Oct 24 17:14 remote
4f1cb16b890b90f9e83c035e8ec70978 remote
```

**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:**