

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

Name of the component	<b>ige.security-integration.sl5.x86_64-2.2.1</b>		
Release	V2.2.1	RT Ticket	#4445
Software Provider	IGE		
Release Contact	Name:	E-Mail	
	Mattias Ellert	<a href="mailto:mattias.ellert@fysast.uu.se">mattias.ellert@fysast.uu.se</a>	
Validator	Name:	E-Mail	
	Esteban Freire	esfreire@cesga.es	
V. Hours Worked	2h		
Component status	<b>Accepted</b>	Date	18/01/13
Verification start date	18/01/13	Verification end date	21/01/13

**Summary of Quality Criteria verification:**

	Generic Quality Criteria Total (Critical/Non critical)			
	Passed	Not passed	Not Applicable	Total
<b>TP</b>				
<b>VLD</b>	14	0	2	16
	Specific Quality Criteria			
<b>TP</b>				
<b>VLD</b>	4	0	5	9

**Summary:**

No issues found during the verification process.

Criteria	Accepted (Y)	Tested (TF)	Comments
<b>Generic QC</b>			
GENERIC_DOC_1 (Functional Description)	Y	VLD	<a href="http://wiki.nikhef.nl/grid/Site_Access_Control">http://wiki.nikhef.nl/grid/Site_Access_Control</a>
GENERIC_DOC_2 (Release Notes)	Y	VLD	<a href="http://wiki.nikhef.nl/grid/Site_Access_Control">http://wiki.nikhef.nl/grid/Site_Access_Control</a>
GENERIC_DOC_5 (API Documentation)	Y	VLD	
GENERIC_DOC_6 (Administrator Document)	Y	VLD	<a href="http://wiki.nikhef.nl/grid/Site_Access_Control">http://wiki.nikhef.nl/grid/Site_Access_Control</a>
GENERIC_DOC_7 (Service Reference Card)	Y	VLD	
GENERIC_DOC_8 (Software License)	Y	VLD	GPL <a href="http://www.globus.org/toolkit/docs/4.2/4.2.1/licenses/license-v3.htm">http://www.globus.org/toolkit/docs/4.2/4.2.1/licenses/license-v3.htm</a>
GENERIC_DOC_9 (Release changes testing)	Y	VLD	
GENERIC_DIST_1 (Source Code Availability)	Y	VLD	
GENERIC_DIST_2 (Source Distribution)	Y	VLD	
GENERIC_DIST_3 (Binary Distribution)	Y	VLD	
GENERIC_SERVICE_1 (Service control and	NA		
GENERIC_SERVICE_2 (Log Files)	NA		
GENERIC_SERVICE_3 (Service Reliability)	Y	VLD	
GENERIC_SERVICE_4 (Service Robustness)	Y	VLD	
GENERIC_SERVICE_4 (Automatic Configur	Y	VLD	
GENERIC_SEC_1 (World Writable Files)	Y	VLD	
GENERIC_SEC_2 (Directory Traversal Attac	Optional		
GENERIC_MISC_2 (Bug Tracking System)	Y	VLD	GGUS
<b>Security Capabilities QC</b>			
AUTHN_IFACE_1 (X.509 Certificate support)	Y	VLD	
AUTHN_IFACE_2 (SAML authentication)	Optional		
AUTHZ_PCYDEF_3 (Ban UserFQAN)	Y	VLD	
AUTHZ_PCYDEF_4 (Allowed users definitio	Y	VLD	
AUTHZ_PEP_1 (Policy Enforcement)	Y	VLD	
CREDMGMT_IFACE_1 (Credential Storage)	NA	VLD	
CREDMGMT_IFACE_2 (Credential Retrieval)	NA	VLD	
CREDMGMT_IFACE_3 (Credential Renewal)	NA	VLD	

## Validator comments:

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<<TableOfContents>>

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== IGE.security-integration.sl5.x86\_64-2.2.1 ==  
=== Ticket assigned ===

\* [[https://rt.egi.eu/rt/Ticket/Display.html?id=4445]]

\* Open ticket:

\* [[]]

=== Repositories ===

== Installing the repository (OK) ==

{{{

```
[root@test26 yum.repos.d]# cat IGE.security-integration.sl5.x86_64.repo  
# EGI Software Repository - REPO META (releaseId,repositoryId,repofileId) - (4445,734,661)
```

```
[IGE.security-integration.sl5.x86_64]  
name=IGE.security-integration.sl5.x86_64  
baseurl=http://admin-repo.egi.eu/sw/unverified/umd-2.ige.security-integration.sl5.x86_64/2/2/1/  
enabled=1  
protect=1  
priority=1  
gpgcheck=1  
gpgkey=http://repo-rpm.ige-project.eu/RPM-GPG-KEY-IGE  
}}}
```

{{{

```
[root@test26 yum.repos.d]# yum install ige-meta-security-integration
```

[ .... ]

```
=====
```

Package	Arch	Version
Repository	Size	

```
=====
```

Installing:

ige-meta-security-integration noarch 3.0-1.el5

IGE.security-integration.sl5.x86\_64 2.5 k

Installing for dependencies:

e2fsprogs-devel x86\_64 1.39-23.el5

sl-base 633 k

globus-callout	x86_64	2.2-1.el5
UMD-2-updates	17 k	
globus-common	x86_64	14.7-1.el5
UMD-2-updates	132 k	
globus-gridmap-callout-error	x86_64	1.2-2.el5
UMD-2-updates	10 k	
globus-gsi-callback	x86_64	4.3-1.el5
UMD-2-updates	42 k	
globus-gsi-cert-utils	x86_64	8.3-1.el5
UMD-2-updates	20 k	
globus-gsi-credential	x86_64	5.3-1.el5
UMD-2-updates	36 k	
globus-gsi-openssl-error	x86_64	2.1-2.el5
UMD-2-updates	16 k	
globus-gsi-proxy-core	x86_64	6.2-1.el5
UMD-2-updates	37 k	
globus-gsi-proxy-ssl	x86_64	4.1-2.el5
UMD-2-updates	18 k	
globus-gsi-sysconfig	x86_64	5.3-1.el5
UMD-2-updates	31 k	
globus-gss-assist	x86_64	8.6-1.el5
UMD-2-updates	35 k	
globus-gssapi-error	x86_64	4.1-2.el5
UMD-2-updates	14 k	
globus-gssapi-gsi	x86_64	10.7-1.el5
UMD-2-updates	62 k	
globus-openssl-module	x86_64	3.2-1.el5
UMD-2-updates	14 k	
gsoap	x86_64	2.7.13-4.el5
epel	444 k	
keyutils-libs-devel	x86_64	1.2-1.el5
sl-base	27 k	
krb5-devel	x86_64	1.6.1-70.el5
sl-security	1.9 M	
lcas	x86_64	1.3.18-2.el5
UMD-2-base	25 k	
lcas-lcmapi-gt4-interface	x86_64	0.2.4-2.el5
UMD-2-updates	20 k	
lcmapi	x86_64	1.5.5-1.el5
UMD-2-base	86 k	
lcmapi-plugins-jobrep	x86_64	1.5.0-2.el5
IGE.security-integration.sl5.x86_64	74 k	
lcmapi-plugins-scas-client	x86_64	0.3.4-2.el5
UMD-2-updates	40 k	
libselinux-devel	x86_64	1.33.4-5.7.el5
sl-security	149 k	
libsepol-devel	x86_64	1.15.2-3.el5
sl-base	192 k	
libtool-ltdl	x86_64	1.5.22-7.el5_4
sl-base	38 k	
openssl-devel	x86_64	0.9.8e-22.el5_8.4
sl-security	1.9 M	
pkgconfig	x86_64	1:0.21-2.el5
sl-base	61 k	
unixODBC	x86_64	2.2.11-7.1
sl-base	834 k	

voms	x86_64	2.0.8-1.el5
UMD-2-base	163 k	
xacml	x86_64	1.1.2-1.el5
UMD-2-updates	498 k	
xacml-devel	x86_64	1.1.2-1.el5
UMD-2-updates	10 k	
zlib-devel	x86_64	1.2.3-3
sl-base	102 k	

### Transaction Summary

```
=====
=====
=====
```

}}

== Testing ==

```
{
{
# export X509_CERT_DIR=/etc/grid-security/certificates
```

```
[esfreire@test26 ~]$ /usr/bin/openssl x509 -hash -noout < /etc/grid-
security/certificates/pkIRISGrid.pem
9dd23746
```

```
[esfreire@test26 ~]$ /usr/bin/openssl x509 -hash -noout < /etc/grid-
security/certificates/pkIRISGrid.pem
9dd23746
```

```
[esfreire@test26 ~]$ grid-cert-diagnostics
```

[ ..... ]

Checking CA certificate name for 4220f3a5.0...ok (/DC=EDU/DC=UTEXAS/DC=TACC/O=UT-AUSTIN/CN=TACC Classic CA)

Checking if signing policy exists for 4220f3a5.0... ok

Verifying certificate chain for 4220f3a5.0... ok

Checking CA file /etc/grid-security/certificates/82c2b224.0... ok

Checking that certificate hash matches filename... ok

Checking CA certificate name for 82c2b224.0...ok (/DC=com/DC=DigiCert-Grid/O=DigiCert Grid/CN=DigiCert Grid CA-1)

Checking if signing policy exists for 82c2b224.0... ok

Verifying certificate chain for 82c2b224.0... ok

Checking CA file /etc/grid-security/certificates/ff430c7f.0... ok

Checking that certificate hash matches filename... ok

Checking CA certificate name for ff430c7f.0...ok (/C=CH/O=Switch - Teleinformatikdienste fuer Lehre und Forschung/CN=SWITCHgrid Root CA)

Checking if signing policy exists for ff430c7f.0... ok

Verifying certificate chain for ff430c7f.0... ok

Checking CA file /etc/grid-security/certificates/ee64a828.0... ok

Checking that certificate hash matches filename... ok

Checking CA certificate name for ee64a828.0...ok (/C=GB/ST=Greater

Manchester/L=Salford/O=Comodo CA Limited/CN=AAA Certificate Services)

```
Checking if signing policy exists for ee64a828.0... ok
Verifying certificate chain for ee64a828.0... ok
Checking CA file /etc/grid-security/certificates/03b260e0.0... ok
Checking that certificate hash matches filename... ok
Checking CA certificate name for 03b260e0.0...ok (/C=PL/O=GRID/CN=Polish Grid CA)
Checking if signing policy exists for 03b260e0.0... ok
Verifying certificate chain for 03b260e0.0... ok
Checking CA file /etc/grid-security/certificates/28a58577.0... ok
Checking that certificate hash matches filename... failed
    CA hash '524cae41.0' does not match CA filename
Checking CA file /etc/grid-security/certificates/dd51b42a.0... ok
Checking that certificate hash matches filename... ok
Checking CA certificate name for dd51b42a.0...ok (/DC=ORG/DC=SEE-GRID/CN=SEE-GRID
CA)
Checking if signing policy exists for dd51b42a.0... ok
Verifying certificate chain for dd51b42a.0... ok
Checking CA file /etc/grid-security/certificates/bfefd1bd.0... ok
Checking that certificate hash matches filename... ok
Checking CA certificate name for bfefd1bd.0...ok
(/C=IL/O=IUCC/CN=IUCC/emailAddress=ca@mail.iucc.ac.il)
Checking if signing policy exists for bfefd1bd.0... ok
Verifying certificate chain for bfefd1bd.0... ok
Checking CA file /etc/grid-security/certificates/d87163a8.0... ok
Checking that certificate hash matches filename... ok
Checking CA certificate name for d87163a8.0...ok (/C=US/O=National Center for Supercomputing
Applications/OU=Certificate Authorities/CN=GridShib CA)
Checking if signing policy exists for d87163a8.0... ok
Verifying certificate chain for d87163a8.0... ok
Checking CA file /etc/grid-security/certificates/1f3834d0.0... ok
Checking that certificate hash matches filename... failed
    CA hash '18bc5b05.0' does not match CA filename
Checking CA file /etc/grid-security/certificates/99f9f5a3.0... ok
Checking that certificate hash matches filename... failed
    CA hash 'f57f9e36.0' does not match CA filename
Checking CA file /etc/grid-security/certificates/0119347c.0... ok
Checking that certificate hash matches filename... ok
Checking CA certificate name for 0119347c.0...ok (/DC=net/DC=ES/O=ESnet/OU=Certificate
Authorities/CN=ESnet Root CA 1)
Checking if signing policy exists for 0119347c.0... ok
Verifying certificate chain for 0119347c.0... ok
}}}
```

```
{}{}
[esfreire@test26 ~]$ grid-cert-diagnostics -p
Checking Environment Variables
```

```
=====
Checking if HOME is set... /home/esfreire
Checking if GLOBUS_LOCATION is set... no
Checking for default GLOBUS_LOCATION... /usr
Checking if X509_CERT_DIR is set... no
Checking if X509_USER_CERT is set... no
Checking if X509_USER_KEY is set... no
Checking if X509_USER_PROXY is set... no
Checking if GRIDMAP is set... no
```

```
Checking Security Directories
=====
```

```
Determining trusted cert path... /etc/grid-security/certificates
Checking for cog.properties... not found
Checking for default gridmap location... /home/esfreire/.gridmap
Checking if default gridmap exists... failed
  globus_sysconfig: File does not exist: /home/esfreire/.gridmap is not a valid file
```

#### Checking Default Credentials

---

```
Determining certificate and key file names... ok
Certificate Path: "/home/esfreire/.globus/usercert.pem"
Key Path: "/home/esfreire/.globus/userkey.pem"
Reading certificate... ok
Reading private key...
ok
Checking Certificate Subject... "/DC=es/DC=irisgrid/O=cesga/CN=javier-lopez"
Checking cert... ok
Checking key... ok
Checking that certificate contains an RSA key... ok
Checking that private key is an RSA key... ok
Checking that public and private keys have the same modulus... ok
Checking certificate trust chain... ok
Checking if subject is in gridmap... error parsing gridmap /home/esfreire/.gridmap
```

#### Checking trusted certificates...

---

```
Getting trusted certificate list...
Checking CA file /etc/grid-security/certificates/d0b701c0.0... ok
Checking that certificate hash matches filename... failed
  CA hash 'ff430c7f.0' does not match CA filename
Checking CA file /etc/grid-security/certificates/56084620.0... ok
Checking that certificate hash matches filename... ok
Checking CA certificate name for 56084620.0...ok (/DC=me/DC=ac/DC=MREN/CN=MREN-CA)
Checking if signing policy exists for 56084620.0... ok
Verifying certificate chain for 56084620.0... ok
Checking CA file /etc/grid-security/certificates/fc1898ec.0... ok
Checking that certificate hash matches filename... failed
  CA hash '6cad3d39.0' does not match CA filename
Checking CA file /etc/grid-security/certificates/d33760ec.0... ok
Checking that certificate hash matches filename... failed
  CA hash '58b08cb5.0' does not match CA filename
Checking CA file /etc/grid-security/certificates/11b4a5a2.0... ok
}}}
```

```
{{{
[esfreire@test26 ~]$ grid-proxy-init
Your identity: /DC=es/DC=irisgrid/O=cesga/CN=javier-lopez
Enter GRID pass phrase for this identity:
Creating proxy ..... Done
Your proxy is valid until: Sat Jan 19 01:35:19 2013
```

```
[esfreire@test26 ~]$ grid-cert-info -sd -ed
Jan 4 12:26:21 2013 GMT
Jan 4 12:26:21 2014 GMT
```

```
[esfreire@test26 ~]$ grid-cert-info -subject
```

```
/DC=es/DC=irisgrid/O=cesga/CN=javier-lopez
```

```
[esfreire@test26 ~]$ grid-cert-info -subject -rfc2253  
CN=javier-lopez,O=cesga,DC=irisgrid,DC=e  
}}
```

```
== Testing ==
```

```
{{{
```

```
# export X509_CERT_DIR=/etc/grid-security/certificates
```

```
[esfreire@test26 ~]$ /usr/bin/openssl x509 -hash -noout < /etc/grid-  
security/certificates/pkIRISGrid.pem
```

```
9dd23746
```

```
[esfreire@test26 ~]$ grid-cert-diagnostics
```

```
[ ..... ]
```

```
Checking CA certificate name for 4220f3a5.0...ok (/DC=EDU/DC=UTEXAS/DC=TACC/O=UT-  
AUSTIN/CN=TACC Classic CA)
```

```
Checking if signing policy exists for 4220f3a5.0... ok
```

```
Verifying certificate chain for 4220f3a5.0... ok
```

```
Checking CA file /etc/grid-security/certificates/82c2b224.0... ok
```

```
Checking that certificate hash matches filename... ok
```

```
Checking CA certificate name for 82c2b224.0...ok (/DC=com/DC=DigiCert-Grid/O=DigiCert  
Grid/CN=DigiCert Grid CA-1)
```

```
Checking if signing policy exists for 82c2b224.0... ok
```

```
Verifying certificate chain for 82c2b224.0... ok
```

```
Checking CA file /etc/grid-security/certificates/ff430c7f.0... ok
```

```
Checking that certificate hash matches filename... ok
```

```
Checking CA certificate name for ff430c7f.0...ok (/C=CH/O=Switch - Teleinformatikdienste fuer  
Lehre und Forschung/CN=SWITCHgrid Root CA)
```



Checking if signing policy exists for ff430c7f.0... ok

Verifying certificate chain for ff430c7f.0... ok

Checking CA file /etc/grid-security/certificates/ee64a828.0... ok

Checking that certificate hash matches filename... ok

Checking CA certificate name for ee64a828.0...ok (/C=GB/ST=Greater Manchester/L=Salford/O=Comodo CA Limited/CN=AAA Certificate Services)

Checking if signing policy exists for ee64a828.0... ok

Verifying certificate chain for ee64a828.0... ok

Checking CA file /etc/grid-security/certificates/03b260e0.0... ok

Checking that certificate hash matches filename... ok

Checking CA certificate name for 03b260e0.0...ok (/C=PL/O=GRID/CN=Polish Grid CA)

Checking if signing policy exists for 03b260e0.0... ok

Verifying certificate chain for 03b260e0.0... ok

Checking CA file /etc/grid-security/certificates/28a58577.0... ok

Checking that certificate hash matches filename... failed

CA hash '524cae41.0' does not match CA filename

Checking CA file /etc/grid-security/certificates/dd51b42a.0... ok

Checking that certificate hash matches filename... ok

Checking CA certificate name for dd51b42a.0...ok (/DC=ORG/DC=SEE-GRID/CN=SEE-GRID CA)

Checking if signing policy exists for dd51b42a.0... ok

Verifying certificate chain for dd51b42a.0... ok

Checking CA file /etc/grid-security/certificates/bfafd1bd.0... ok

Checking that certificate hash matches filename... ok

Checking CA certificate name for bfafd1bd.0...ok (/C=IL/O=IUCC/CN=IUCC/emailAddress=ca@mail.iucc.ac.il)

Checking if signing policy exists for bfafd1bd.0... ok

Verifying certificate chain for bfafd1bd.0... ok

Checking CA file /etc/grid-security/certificates/d87163a8.0... ok

Checking that certificate hash matches filename... ok

Checking CA certificate name for d87163a8.0...ok (/C=US/O=National Center for Supercomputing Applications/OU=Certificate Authorities/CN=GridShib CA)

Checking if signing policy exists for d87163a8.0... ok

Verifying certificate chain for d87163a8.0... ok

Checking CA file /etc/grid-security/certificates/1f3834d0.0... ok

Checking that certificate hash matches filename... failed

CA hash '18bc5b05.0' does not match CA filename

Checking CA file /etc/grid-security/certificates/99f9f5a3.0... ok

Checking that certificate hash matches filename... failed

CA hash 'f57f9e36.0' does not match CA filename

Checking CA file /etc/grid-security/certificates/0119347c.0... ok

Checking that certificate hash matches filename... ok

Checking CA certificate name for 0119347c.0...ok (/DC=net/DC=ES/O=ESnet/OU=Certificate Authorities/CN=ESnet Root CA 1)

Checking if signing policy exists for 0119347c.0... ok

Verifying certificate chain for 0119347c.0... ok

}}}

{{{

[esfreire@test26 ~]\$ grid-cert-diagnostics -p

Checking Environment Variables

=====

Checking if HOME is set... /home/esfreire

Checking if GLOBUS\_LOCATION is set... no

Checking for default GLOBUS\_LOCATION... /usr

Checking if X509\_CERT\_DIR is set... no

Checking if X509\_USER\_CERT is set... no

Checking if X509\_USER\_KEY is set... no

Checking if X509\_USER\_PROXY is set... no

Checking if GRIDMAP is set... no

Checking Security Directories

=====

Determining trusted cert path... /etc/grid-security/certificates

Checking for cog.properties... not found

Checking for default gridmap location... /home/esfreire/.gridmap

Checking if default gridmap exists... failed

globus\_sysconfig: File does not exist: /home/esfreire/.gridmap is not a valid file

Checking Default Credentials

=====

Determining certificate and key file names... ok

Certificate Path: "/home/esfreire/.globus/usercert.pem"

Key Path: "/home/esfreire/.globus/userkey.pem"

Reading certificate... ok

Reading private key...

ok

Checking Certificate Subject... "/DC=es/DC=irisgrid/O=cesga/CN=javier-lopez"

Checking cert... ok

Checking key... ok

Checking that certificate contains an RSA key... ok

Checking that private key is an RSA key... ok

Checking that public and private keys have the same modulus... ok

Checking certificate trust chain... ok

Checking if subject is in gridmap... error parsing gridmap /home/esfreire/.gridmap

Checking trusted certificates...

=====

Getting trusted certificate list...

Checking CA file /etc/grid-security/certificates/d0b701c0.0... ok

Checking that certificate hash matches filename... failed

CA hash 'ff430c7f.0' does not match CA filename

Checking CA file /etc/grid-security/certificates/56084620.0... ok

Checking that certificate hash matches filename... ok

Checking CA certificate name for 56084620.0...ok (/DC=me/DC=ac/DC=MREN/CN=MREN-CA)

Checking if signing policy exists for 56084620.0... ok

Verifying certificate chain for 56084620.0... ok

Checking CA file /etc/grid-security/certificates/fc1898ec.0... ok

Checking that certificate hash matches filename... failed

CA hash '6cad3d39.0' does not match CA filename

Checking CA file /etc/grid-security/certificates/d33760ec.0... ok

Checking that certificate hash matches filename... failed

CA hash '58b08cb5.0' does not match CA filename

Checking CA file /etc/grid-security/certificates/11b4a5a2.0... ok

}}}

{{{

[esfreire@test26 ~]\$ grid-proxy-init

Your identity: /DC=es/DC=irisgrid/O=cesga/CN=javier-lopez

Enter GRID pass phrase for this identity:

Creating proxy ..... Done

Your proxy is valid until: Sat Jan 19 01:35:19 2013

[esfreire@test26 ~]\$ grid-cert-info -sd -ed

Jan 4 12:26:21 2013 GMT

Jan 4 12:26:21 2014 GMT

```
[esfreire@test26 ~]$ grid-cert-info -subject  
/DC=es/DC=irisgrid/O=cesga/CN=javier-lopez
```

```
[esfreire@test26 ~]$ grid-cert-info -subject -rfc2253  
CN=javier-lopez,O=cesga,DC=irisgrid,DC=e  
}}
```

**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):**

No issues found during the verification process.

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

**Comments for TP:**