

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

Name of the component	StoRM		
Release	1.9.0	RT Ticket	3938
Software Provider			
Release Contact	Name: Cristina Aiftimiei	E-Mail cristina.aiftimiei@pd.infn.it	
Validator	Name: Mario David	E-Mail: david@lip.pt	
V. Hours Worked			
Component status		Date	
Verification start date	6 June 2012	Verification end date	

Summary:

Overall service is OK

Some improvements and small fixes are specified below

Further testing is the HTTP(S) protocol for transfer, and interaction with the argus PEP policies. Will be done later.

GGUS Tickets:

Summary of Quality Criteria verification:

	Generic Quality Criteria Total (Critical/Non critical)			
	Passed	Not passed	Not Applicable	Total
TP				
VLD	14		1	15
	Specific Quality Criteria			
TP				
VLD	5			5

Quality Criteria verification cheatsheet:

Criteria	Accepted (Y/N/NA)	Tested (TP/VLD)	Comments
DOCUMENTATION QC			
GENERIC_DOC_1 (Functional Description)	Y	VLD	
GENERIC_DOC_2 (Release Notes)	Y	VLD	
GENERIC_DOC_3 (User Documentation)	Y	VLD	
GENERIC_DOC_4 (Online help (man pages))	Optional		
GENERIC_DOC_5 (API Documentation)	Y	VLD	
GENERIC_DOC_6 (Administrator Documentation)	Y	VLD	
GENERIC_DOC_7 (Service Reference Card)	Y	VLD	
GENERIC_DOC_8 (Software License)	Y	VLD	
GENERIC_DOC_9 (Release changes testing)			not tested all changes
SOFTWARE DISTRIBUTION QC			
GENERIC_DIST_1 (Source Code Availability)	Y	VLD	
GENERIC_DIST_3 (Binary Distribution)	Y	VLD	
SOFTWARE FEATURES QC			
GENERIC_SOFT_1 (Backwards Compatibility)			N/A
GENERIC_SOFT_2 (New features testing)			
SERVICE CRITERIA QC			
GENERIC_SERVICE_1 (Service control and status)	Y	VLD	
GENERIC_SERVICE_2 (Log Files)	Y	VLD	
GENERIC_SERVICE_3 (Service Reliability)	Optional		
GENERIC_SERVICE_4 (Service Robustness)			not tested
GENERIC_SERVICE_5 (Automatic Configuration)	Y	VLD	YAIM
GENERIC_SERVICE_6 (Default Password Configuration)	Y	VLD	No default passwd
SECURITY QC			
GENERIC_SEC_1 (World Writable Files)			
GENERIC_SEC_3 (Passwords in world readable files)			
MISCELLANEOUS QC			
GENERIC_MISC_2 (Bug Tracking System)	Y	VLD	
AUTHENTICATION QC			
AUTHN_IFACE_1 (X.509 Certificate support)	Y	VLD	
AUTHN_DELEG_1 (Delegation Interface)			
AUTHORISATION QC			
AUTHZ_PCYDEF_3 (Ban User/FQAN)			not tested
AUTHZ_PCYDEF_4 (Allowed users definition)			not tested
AUTHZ_PEP_1 (Policy Enforcement)			not tested
AUTHZ_PEP_2 (User Mapping)			not tested
FILE ACCESS QC			
FILEACC_API_1 (POSIX Read file access)	Optional		
FILEACC_API_2 (POSIX Write file access)	Optional		
FILE TRANSFER QC			
FILETRANS_API_1 (GridFTP File Access)	Y	VLD	
FILETRANS_API_2 (HTTPS File Access)			not tested
FILETRANS_API_3 (WebDAV File Access)	Optional		
STORAGE MANAGEMENT QC			
STORAGE_API_1 (SRM API Support)	Y	VLD	
STORAGE_API_2 (LCG-UTILS test)	Y	VLD	
STORAGE_DEVICE_1 (Information retrieval)			not tested
STORAGE_DEVICE_2 (Fine grained authorization)	Optional		
STORAGE_DEVICE_3 (Space reservations)	Optional		
STORAGE_DEVICE_4 (Checksum)	Y	VLD	
MONITORING PROBES QC			

Validator comments:

Installation:

- Centos6 OS with EPEL repo enabled
- Installed the lcg-CAs and the host certificate
- Installed jdk-1.7.0

```
yum install emi-storm-backend-mp emi-storm-frontend-mp emi-storm-gridhttps-mp emi-storm-globus-gridftp-mp
```

OK -> Complete!

Also installed:

```
yum install tstorm-sanity
```

Configuration:

```
yaim -c -s site-info.def -n se_storm_backend -n se_storm_frontend -n se_storm_gridftp -n se_storm_gridhttps
```

```
INFO: Configuration Complete. [ OK ]  
INFO: YAIM terminated succesfully.
```

Some basic checks:

```
[root@srm02 NCG-yaim]# /etc/init.d/bdii status  
BDII Running [ OK ]  
[root@srm02 NCG-yaim]# /etc/init.d/storm-backend-server status  
storm-backend-server (pid 29167) is RUNNING [ OK ]  
[root@srm02 NCG-yaim]# /etc/init.d/storm-frontend-server status  
storm-frontend-server (pid 30590) is running..  
[root@srm02 NCG-yaim]# /etc/init.d/storm-globus-gridftp status  
globus-gridftp-server (pid 30786) is running..  
[root@srm02 NCG-yaim]# /etc/init.d/tomcat6 status  
tomcat6 (pid 31242) is running... [ OK ]
```

Query Glue1.3 and Glue2 OK

```
[david@ui03 srmtests]$ ./ping.sh
```

```
=====
```

Sending Ping request to: <http://srm02.ncg.ingrid.pt:8443>

Before execute:

execute Request with:Ping

started calling ns1__srmPing:

finished calling ns1__srmPing:

Afer execute:

Request Status Code 0

Poll Flag 0

=====

Request status:
statusCode="SRM_SUCCESS"(0)
explanation="SRM server successfully contacted"

=====

SRM Response:
versionInfo="v2.2"
otherInfo (size=3)
[0] key="backend_type"
[0] value="StoRM"
[1] key="backend_version"
[1] value="<FE:1.8.0-9><BE:1.9.0-2>"
[2] key="backend_os_distribution"
[2] value="CentOS release 6.2 (Final)"

=====

[david@ui03 srmtests]\$./srmDIR.sh
>>>>>>>>> MKDIR <<<<<<<<<<<<<<<<

=====

Sending Mkdir request to: http://srm02.ncg.ingrid.pt:8443
Before execute:
After execute:
Request Status Code 0
Poll Flag 0

=====

Request status:
statusCode="SRM_SUCCESS"(0)
explanation="Directory created with success"

=====

SRM Response:
>>>>>>>>> LS DIR <<<<<<<<<<<<<<<<

=====

Sending Ls request to: http://srm02.ncg.ingrid.pt:8443
Before execute:
After execute:
Request Status Code 0
Poll Flag 0

=====

Request status:
statusCode="SRM_SUCCESS"(0)
explanation="All requests successfully completed"

=====

SRM Response:
details (size=1)
[0] path="/dteam/trampaMD2"
[0] size=0
[0] lastModificationTime="2012-06-11T13:46:53"

```

[0] type=Directory
[0] ownerPermission (userID="3030078",mode=R-X)
[0] groupPermission (groupID="3030078",mode=R-X)
[0] otherPermission=R-X
[0] status: statusCode="SRM_SUCCESS"(0)
      explanation="Successful request completion"
=====
>>>>>>>>> RMDIR <<<<<<<<<<<<<<<<<

=====
Sending Rmdir request to: http://srm02.ncg.ingrid.pt:8443
Before execute:
After execute:
Request Status Code 0
Poll Flag 0
=====
Request status:
  statusCode="SRM_SUCCESS"(0)
  explanation="Directory removed with success!"
=====
SRM Response:
=====
>>>>>>>>> LS no DIR <<<<<<<<<<<<<<<<<

=====
Sending Ls request to: http://srm02.ncg.ingrid.pt:8443
Before execute:
After execute:
Request Status Code 1
Poll Flag 0
=====
Request status:
  statusCode="SRM_FAILURE"(1)
  explanation="All requests failed"
=====
SRM Response:
  details (size=1)
    [0] path="/dteam/trampaMD2"
    [0] status: statusCode="SRM_INVALID_PATH"(5)
      explanation="No such file or directory"
=====

[david@ui03 srmtests]$ ./srmPTP-local-srm.sh
>>>>>>>>> Start PTP <<<<<<<<<<<<<<<<<
>>>>>>>>> Status PTP <<<<<<<<<<<<<<<<<
>>>>>>>>> Start copy <<<<<<<<<<<<<<<<<
debug: starting to put gsift://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3
debug: connecting to gsift://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3
debug: response from gsift://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3:
220 srm02.ncg.ingrid.pt GridFTP Server 6.10 (gcc64, 1334324800-83) [Globus Toolkit
5.2.0] ready.

```

debug: authenticating with gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3
debug: response from gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3:
230 User dteam078 logged in.

debug: sending command to
gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3:
SITE HELP

debug: response from gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3:
214-The following commands are recognized:

ALLO APPE REST CWD CDUP DCAU EPSV FEAT
ERET MDTM STAT ESTO HELP LIST MODE NLST
MLSC MLSD PASV RNFR MLSR MLST NOOP OPTS
STOR PASS PBSZ PORT PROT SITE EPRT RETR
SPOR MFMT SCKS TREV PWD QUIT SBUF SIZE
SPAS STRU SYST RNT0 TYPE USER LANG MKD
RMD DELE CKSM DCSC

214 End

debug: sending command to
gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3:
FEAT

debug: response from gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3:
211-Extensions supported

DCSC P,D
MFMT
AUTHZ_ASSERT
MLSR
MLSC
UTF8
LANG EN
DCAU
PARALLEL
SIZE
MLST
Type*;Size*;Modify*;Perm*;Charset;UNIX.mode*;UNIX.owner*;UNIX.uid*;UNIX.group
;UNIX.gid;Unique*;UNIX.slink*;X.count;
ERET
ESTO
SPAS
SPOR
REST STREAM
MDTM
PASV AllowDelayed;
211 End.

debug: sending command to
gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3:

SITE CLIENTINFO scheme=gsiftp;appname="globus-url-copy";appver="8.2 (gcc64, 1323102900-1) [unknown]";
debug: response from gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3: 250 OK.

debug: sending command to
gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3:
TYPE I
debug: response from gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3: 200 Type set to I.

debug: sending command to
gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3:
PBSZ 1048576

debug: response from gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3: 200 PBSZ=1048576

debug: sending command to
gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3:
PASV

debug: response from gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3: 227 Entering Passive Mode (193,136,75,153,95,63)

debug: sending command to
gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3:
ALLO 98894

debug: response from gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3: 200 ALLO command successful.

debug: sending command to
gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3:
STOR //data/dteam/FILEtrampa3

debug: response from gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3: 150 Beginning transfer.

debug: writing buffer 0x2af866ed7010, length 98894, offset=0, eof=true
debug: data callback, no error, buffer 0x2af866ed7010, length 98894, offset=0, eof=true
debug: response from gsiftp://srm02.ncg.ingrid.pt:2811//data/dteam/FILEtrampa3: 226 Transfer Complete.

debug: operation complete
>>>>>>>>>> LS DIR <<<<<<<<<<<<<<<<<<<<<<<<<<<<

=====
Sending Ls request to: httpg://srm02.ncg.ingrid.pt:8443
Before execute:
Afer execute:

Request Status Code 0

Poll Flag 0

=====

Request status:

statusCode="SRM_SUCCESS"(0)
explanation="All requests successfully completed"

=====

SRM Response:

details (size=1)

[0] path="/dteam/FILEtrampa3"
[0] size=98894
[0] lastModificationTime="2012-06-11T14:41:23"
[0] fileStorageType=2
[0] retentionPolicyInfo=(0,0)
[0] fileLocality=0
[0] type=File
[0] lifetimeAssigned=-1
[0] lifetimeLeft=-1
[0] ownerPermission (userID="3030078",mode=RW-)
[0] groupPermission (groupID="3030078",mode=RW-)
[0] otherPermission=RW-
[0] checksumType="ADLER32"
[0] checksumValue="f114bf56"
[0] status: statusCode="SRM_FILE_BUSY"(30)
explanation="Successful request completion"

=====

>>>>>>>>> PutDone <<<<<<<<<<<<<<<<<<<<<<<<<<<

=====

Sending PutDone request to: <http://srm02.ncg.ingrid.pt:8443>

Before execute:

Afer execute:

Request Status Code 0

Poll Flag 0

=====

Request status:

statusCode="SRM_SUCCESS"(0)
explanation="All file requests are successfully completed"

=====

SRM Response:

arrayOfFileStatuses (size=1)

[0] SURL="srm://srm02.ncg.ingrid.pt/dteam/FILEtrampa3"
[0] status: statusCode="SRM_SUCCESS"(0)
explanation=""

=====

>>>>>>>>> Remove file <<<<<<<<<<<<<<<<<<<<<<<<<<<

=====

Sending Rm request to: <http://srm02.ncg.ingrid.pt:8443>

Before execute:

Afer execute:

Request Status Code 0

Poll Flag 0

=====

Request status:

statusCode="SRM_SUCCESS"(0)

explanation="All files removed"

=====

SRM Response:

arrayOfFileStatuses (size=1)

[0] SURL="srm://srm02.ncg.ingrid.pt/dteam/FILEtrampa3"

[0] status: statusCode="SRM_SUCCESS"(0)

explanation="File removed"

=====

Small issues for improvement:

- Take out: `se_storm_checksum` from `yaim-storm-4.2.1-3.sl6.noarch`
- Take out: `glite-bdii_site` `glite-bdii_top` from `glite-yaim-bdii-4.3.9-1.el6.noarch`
- Update header info in: `se_storm_backend`, `se_storm_frontend` and `se_storm_gridftp` – references `glite3.1` and `glite3.2`
- Take out `config_ntp` `yaim` function and `yaim` variable, the admin manual already states that `ntp` has to be configured before hand.
- Take out of the admin manual the `STORM_CKSUM_SERVICE` variables and also from `/opt/glite/yaim/examples/siteinfo/services/se_storm_backend`
- In the admin manual it says: “Optional variable. Default value: `$STORM_BACKEND_HOST`” but running `yaim`: “ ERROR: `STORM_FRONTEND_HOST_LIST` is not set”
- Same as above for “`STORM_FRONTEND_PUBLIC_HOST`”
- `storm-backend.stdout:Property storm.service.port : getServicePort() == 8444` – although I have configured
 - `STORM_PORT=8443`
 - `STORM_FRONTEND_PORT=$STORM_PORT`
 - `STORM_SERVICE_SURL_DEF_PORTS=$STORM_PORT`
 - Manual solution: in `/etc/storm/backend-server/storm.properties`
 - Put: `storm.service.port=8443`

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):

Comments for DMSU (TSA2.5):

Comments for TP: