EGI-InSPIRE

UMD QUALITY CRITERIA CLIENT CAPABILITIES V3

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Abstract

This document describes the Quality Criteria that all software of the UMD distribution must meet.

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Document Log

Issue	Date	Comment	Author/Partner
v0.1	02/11/2010	First draft	Enol Fernández
v1.0	03/11/2010	Changed Management, Traceability and Monitoring section	Enol Fernández
v1.1	03/11/2010	Added Probe description in GEN_MON_1	Enol Fernández
v1.2	11/11/2010	Some formatting update	Enol Fernández
v1.3	31/01/2011	Better test specification	Enol Fernández
1.4	09/02/2011	Review of criteria	Enol Fernández
2 DRAFT 1	24/06/2011	Preparation of new release	Enol Fernández
2	02/08/2011	Reorganisation, added new criteria.	Enol Fernández
3 DRAFT 1	13/10/2011	First draft of release 3	Enol Fernández
3 DRAFT 2	24/01/2012	Second draft of release 3	Enol Fernández

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1 CLIENT TOOLS

1.1 Generic client tools criteria

Command line options coherency	
ID	**CLIENT_TOOLS_1**
Description	Client commands for the same product should have a coherent set of options.
Mandatory	NO
Applicability	Client Tools

Input from Technology Provider	Client command tools for a given product with coherent options between them (e.g. configuration file is always specified with –c option, vo with –vo option) Ideally, coherency with other product command line clients.
Pass/Fail Criteria	All the command tools for a given product must have a coherent command line options. Semantically common options for two commands must have the same syntax.
Related Information	Requirement #1780
Revision Log	

Error Messages	
ID	**CLIENT_TOOLS_2**
Description	Error messages provided by the service should be clear and facilitate the solution of those errors by users or service administrators
Mandatory	NO
Applicability	Client tools.

Input from Technology Provider	Any error in the client tools must produce a clear error message. A possible solution/cause for it should be given.
Pass/Fail Criteria	Pass if the errors provided by the client tools always produce a descriptive message. Errors without any message (unless a quiet option is specified) will make the criterion to fail. Ideally the following info is also documented/shown for all errors: • Error code • Error source (internal module or remote resource (specify it explicitly)) • Cause of error (syntax error, module malfunctioning, configuration problem, network error, other (specify it explicit)) • Type (critical, informative) • Possible solution
Related Information	Requirements gathered in MS305 related to resubmission of jobs, and information provided in error messages.
Revision Log	

2 CLIENT API

SAGA API Support	
ID	**CLIENT_API_1**
Description	Client Appliances should be "SAGA compliant" implementations of the SAGA API
Mandatory	YES
Applicability	Client API Appliances

Input from Technology Provider	A Client API Capability implementations that follows the SAGA API specification, and the language binding(s) for its respective programming language(s), both syntactically and semantically.
Pass/Fail Criteria	The Client API Appliance provides "SAGA compliant" implementations or "partially SAGA compliant" implementations as defined in the SAGA API specification.
Related Information	SAGA API [R 18][R 19]
Revision Log	

Middleware Bindings	
ID	**CLIENT_API_2**
Description	Technology Providers provide middleware bindings for accessing their products through SAGA
Mandatory	NO
Applicability	Client API Appliances

Input from Technology Provider	SAGA-adaptor for accessing the middleware products provided by the TP. A test-suite that assures that the SAGA-adaptor works as expected should be provided.
Pass/Fail Criteria	The SAGA-adaptor allows the access to the TP middleware through the SAGA API.
Related Information	SAGA API [R 18][R 19]
Revision Log	

2.1 Specific SAGA Bindings

2.1.1 BES

BES Bindings	
ID	**CLIENT_API_BES_1**
Description	SAGA bindings should provide remote execution using BES.
Mandatory	YES
Applicability	Client API Appliances with BES bindings

Input from Technology Provider	SAGA-adaptor for accessing BES resources (various URL schemes) that provides job abstraction, using
Pass/Fail Criteria	The SAGA-adaptor allows: - Running and managing jobs at remote resources (via BES) using
Related Information	SAGA API [R 18][R 19]
Revision Log	

2.1.2 Globus

Globus GRAM Bindings	
ID	**CLIENT_API_GLOBUS_1**
Description	Globus bindings should provide remote files access using Globus.
Mandatory	YES
Applicability	Client API Appliances with Globus bindings

Input from Technology Provider	SAGA-adaptor for accessing Globus resources via gram (URL scheme gram://) that provides job abstraction.
Pass/Fail Criteria	The SAGA-adaptor allows: - Use of X.509 context - Running and managing jobs at remote resources (via gram)
Related Information	SAGA API [R 18][R 19]
Revision Log	

Globus GridFTP Bindings	
ID	**CLIENT_API_GLOBUS_2**
Description	Globus bindings should provide remote file access using GridFTP
Mandatory	YES
Applicability	Client API Appliances with Globus bindings

Input from Technology Provider	SAGA-adaptor for accessing files resources via GridFTP (URL scheme gsiftp://, gsiscp://) that provides file abstraction.
Pass/Fail Criteria	The SAGA-adaptor allows: - Use of X.509 context - File operations: reading, writing, copying and modifying remote files and directories using GridFTP.
Related Information	SAGA API [R 18][R 19]
Revision Log	

2.1.3 SSH

SSH Bindings	
ID	**CLIENT_API_SSH_1**
Description	SSH bindings should provide remote execution and file access using SSH.
Mandatory	YES
Applicability	Client API Appliances with SSH bindings

Input from Technology Provider	SAGA-adaptor for accessing SSH resources (URL scheme ssh://) that provides job and file abstraction.
Pass/Fail Criteria	The SAGA-adaptor allows: - Running jobs at remote resources (via ssh) - File operations: reading, writing, copying and modifying remote files and directories using ssh.
Related Information	SAGA API [R 18][R 19]
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3 REFERENCES

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R 2	Web Services Data Access and Integration – The Relational Realisation (WS-DAIR) Specification, Version 1.0
R 3	Web Services Data Access and Integration – The XML Realization (WS-DAIX) Specification, Version 1.0
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R 5	gLite LFC: https://twiki.cern.ch/twiki/bin/view/EGEE/GliteLFC
R 6	AMGA: http://amga.web.cern.ch/amga/
R 7	AMGA WSDL: http://amga.web.cern.ch/amga/soap_wsdair.html
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R 10	A. Konstantinov, ARC Computational Job Management Component – A-REX, NORDUGRID-TECH-14
R 11	CREAM: http://grid.pd.infn.it/cream/
R 12	EMI-ES: https://twiki.cern.ch/twiki/bin/view/EMI/EmiExecutionService
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R 14	OGF DRMAA: http://www.drmaa.org/
R 15	OGSA Basic Execution Service v1.0: http://www.ogf.org/documents/GFD.108.pdf
R 16	UNICORE UAS: http://www.unicore.eu/unicore/architecture/service-layer.php#anchor_uas
R 17	gLite WMS: http://web.infn.it/gLiteWMS/
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R 27	My EGI portal: https://tomtools.cern.ch/confluence/display/SAM/MyEGI
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R 30	GridSite Delegation Protocol: http://www.gridsite.org/wiki/Delegation_protocol
R 31	Globus Delegation Service: http://www.globus.org/toolkit/docs/4.0/security/delegation/
R 32	European Policy Management Authority for Grid Authentication (EuGridPMA): http://www.eugridpma.org/
R 33	ARGUS Authorization Service: https://twiki.cern.ch/twiki/bin/view/EGEE/AuthorizationFramework
R 34	XACML: http://docs.oasis-open.org/xacml/2.0/access_control-xacml-2.0-core-spec-os.pdf
R 35	Hydra encrypted file storage: https://twiki.cern.ch/twiki/bin/view/EGEE/DMEDS
R 36	gLite FTS: https://twiki.cern.ch/twiki/bin/view/EGEE/GLiteFTS
R 37	SRM v2.2: http://www.ggf.org/documents/GFD.129.pdf
R 38	S2 Test: http://s-2.sourceforge.net/
R 39	SRM-Tester: https://sdm.lbl.gov/twiki/bin/view/Software/SRMTester/WebHome
R 40	Lcg-utils: http://grid-deployment.web.cern.ch/grid-deployment/documentation/LFC_DPM/lcg_util/
R 41	Lcg-utils test suite: http://glite.cvs.cern.ch/cgi-bin/glite.cgi/org.glite.testsuites.ctb/UI/tests/test-lcg-utils.sh?view=markup
R 42	Open Cloud Computing Interface WG, OGF, http://www.ggf.org/gf/group_info/view.php?group=occi-wg
R 43	Virtualization Management (VMAN), DMTF http://www.dmtf.org/standards/vman
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