**EGI-InSPIRE**

UMD Information Capabilities

Quality Criteria

v1

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| AbstractThis document describes the Quality Criteria for the Functional Capabilities identified in the UMD Roadmap.  |

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Document Log

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| **Issue** | **Date** | **Comment** | **Author/Partner** |
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# Information Model

## Information Model Schema

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| --- |
| GlueSchema Conformance |
| ID | INFOMODEL\_SCHEMA\_1 |
| Mandatory |
| Applicability | All components that publish Information |
| Deprecation | None |
| Related Requirements | None |
|  |
| DescriptionTest for the conformance to GlueSchema v1.3 of the information published |
| Input from TPTest for the GlueSchema 1.3 compliance. |
| Test 1 |
| **Pre-condition** | Service information is available. |
| **Test** | Test that the Service information conforms to the v1.3 GlueSchema. |
| **Expected Outcome** | Information follows GlueSchema 1.3 |
| Pass/Fail CriteriaPass if the test is provided and passes. |
| Related InformationSee GlueSchema definition [R 5] |
| History |

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| --- |
| GlueSchema Conformance |
| ID | INFOMODEL\_SCHEMA\_2 |
| Non Mandatory |
| Applicability | All components that publish Information |
| Deprecation | None |
| Related Requirements | None |
|  |
| DescriptionTest for the conformance to GlueSchema v2 of the information published |
| Input from TPTest for the GlueSchema 2 compliance. |
| Test 1 |
| **Pre-condition** | Service information is available. |
| **Test** | Test that the Service information conforms to the GlueSchema v2. |
| **Expected Outcome** | Information follows GlueSchema v2 |
| Pass/Fail CriteriaPass if the test is provided and passes. |
| Related InformationSee GlueSchema definition [R 5] |
| History |

# Messaging

## Messaging Interface

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| --- |
| AMPQ TestSuite |
| ID | MESSAGING\_API\_1 |
| Mandatory |
| Applicability | Implementations of Messaging capability. |
| Deprecation | None |
| Related Requirements | None |
|  |
| DescriptionMessaging capability implementations must comply with AMPQ specification [R 3]. |
| Input from TPTest suite for the AMPQ (e.g. http://www.amqp.org/confluence/display/AMQP/1-0+Testing+Suite)Check both correct and invalid input.  |
| Test Suite Description |
| **Pre-condition** | None |
| **Test** | Test all AMPQ functionality, with correct/incorrect input and with valid and invalid credentials. |
| **Expected Outcome** | Log of all the operations performed. All the documented functions work as documented. |
| Pass/Fail CriteriaPass if the testsuite is provided and passes. |
| Related InformationAMPQ testsuite: http://www.amqp.org/confluence/display/AMQP/1-0+Testing+Suite |
| History |

# Information Discovery

## Information Discovery Interface

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| Information Service Interface |
| ID | INFODISC\_IFACE\_1 |
| Mandatory |
| Applicability | All publishers of Information. |
| Deprecation | None |
| Related Requirements | None |
|  |
| DescriptionInformation published by the service must be available through LDAPv3 protocol |
| Input from TPTest for the LDAP interface. |
| Test 1 |
| **Pre-condition** | Information Service is Running |
| **Test** | Fetch information from LDAPv3 server |
| **Expected Outcome** | Information is retrieved correctly |
| Pass/Fail CriteriaPass if the test is provided and passes. |
| Related Information |
| History |

## Information Aggregation

The Information Discovery services aggregate information from lower level sources of information in a hierarchical way. Proper aggregation of information should be performed

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| Information Filtering Test |
| ID | INFODISC\_AGG\_1 |
| Mandatory |
| Applicability | Information Discovery Services |
| Deprecation | None |
| Related Requirements | None |
|  |
| DescriptionThe information discovery service must be able to filter some of the data coming from information sources (e.g. do not publish information a compute capability for a given VO) |
| Input from TPTest for the information filtering features. |
| Test 1 |
| **Pre-condition** | Valid sources of information are available. Valid filter. |
| **Test** | Filter sources according to filter. |
| **Expected Outcome** | Output filtered information  |
| Test 2 |
| **Pre-condition** | Valid sources of information are available. Invalid filter. |
| **Test** | Filter sources according to filter. |
| **Expected Outcome** | Error message stating that the information cannot be filtered. Output unfiltered information.  |
| Pass/Fail CriteriaPass if the test is provided and passes. |
| Related Information |
| History |

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| Aggregation Test |
| ID | INFODISC\_AGG\_2 |
| Mandatory |
| Applicability | Information Discovery Services |
| Deprecation | None |
| Related Requirements | None |
|  |
| DescriptionThe information discovery service must be able to collect data from different sources and aggregate them in a single source. |
| Input from TPTest for the information aggregation features. |
| Test 1 |
| **Pre-condition** | Set of valid information service sources available and correct. |
| **Test** | Aggregate information from sources |
| **Expected Outcome** | Output aggregated information  |
| Test 2 |
| **Pre-condition** | Set of valid information service sources available, at least one incorrect (e.g. not GlueSchema compliant) |
| **Test** | Aggregate information from sources |
| **Expected Outcome** | Output aggregated information without incorrect source. Show a warning message. |
| Test 3 |
| **Pre-condition** | Set of valid information service sources, at least one unreachable |
| **Test** | Aggregate information from sources |
| **Expected Outcome** | Output aggregated information without unreachable source. Show a warning message. |
| Pass/Fail CriteriaPass if the test is provided and passes. |
| Related Information |
| History |

## Availability/Scalability

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| --- |
| Size Test |
| ID | INFODISC\_AVAIL\_1 |
| Mandatory |
| Applicability | Information Discovery Services |
| Deprecation | None |
| Related Requirements | None |
|  |
| DescriptionThe information discovery service must be able to handle big amounts of data. Central services for the whole EGI.eu infrastructure may contain information from several hundred sites. |
| Input from TPTest for the limit of size of the data handled by the service. |
| Test 1 |
| **Pre-condition** | Correctly configured service. |
| **Test** | Add information to the service until it cannot handle it.  |
| **Expected Outcome** | Size limit of information  |
| Pass/Fail CriteriaPass if the test is provided and the limit is enough to handle the current information of the *whole* EGI.eu infrastructure. TBD: reasonable size limit. |
| Related Information |
| History |

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| Stress Test |
| ID | INFODISC\_AVAIL\_2 |
| Mandatory |
| Applicability | Information Discovery Services |
| Deprecation | None |
| Related Requirements | None |
|  |
| DescriptionThe information discovery service should be available under realistic conditions. |
| Input from TPStress test for the service that calculates the maximum throughput of the service. |
| Test 1 |
| **Pre-condition** | Correctly configured service. |
| **Test** | Stress test the service until is not available.  |
| **Expected Outcome** | Throughput of the service is enough to handle realistic load. TBD: reasonable throughput limit |
| Pass/Fail CriteriaPass if the test is provided and passes. |
| Related Information |
| History |

# References

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| 1.
 | UMD roadmap: <https://documents.egi.eu/public/ShowDocument?docid=100> |
| 1.
 | GlueSchema Specification v1.3: <http://glueschema.forge.cnaf.infn.it/Spec/V13> |
| 1.
 | AMQP Specification 1r0: <http://www.amqp.org/confluence/download/attachments/720900/amqp-master.1-0r0.pdf?version=1&modificationDate=1282119666000>  |