**EGI-InSPIRE**

UMD Information Capabilities

Quality Criteria

v1

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| Abstract  This 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** |
| 1.0 | 19/01/2011 | Reorganisation of criteria into UMD roadmap 2 groups. | Enol Fernández |

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# Information Model

## Information Model Schema

|  |  |  |
| --- | --- | --- |
| GlueSchema Conformance | | |
| ID | | INFOMODEL\_SCHEMA\_1 |
| Mandatory | | |
| Applicability | | All components that publish Information |
| Deprecation | | None |
| Related Requirements | | None |
|  | | |
| Description  Test for the conformance to GlueSchema v1.3 of the information published | | |
| Input from TP  Test 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 Criteria  Pass if the test is provided and passes. | | |
| Related Information  See GlueSchema definition [R 5] | | |
| History | | |

|  |  |  |
| --- | --- | --- |
| GlueSchema Conformance | | |
| ID | | INFOMODEL\_SCHEMA\_2 |
| Non Mandatory | | |
| Applicability | | All components that publish Information |
| Deprecation | | None |
| Related Requirements | | None |
|  | | |
| Description  Test for the conformance to GlueSchema v2 of the information published | | |
| Input from TP  Test 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 Criteria  Pass if the test is provided and passes. | | |
| Related Information  See GlueSchema definition [R 5] | | |
| History | | |

# Messaging

## Messaging Interface

|  |  |  |
| --- | --- | --- |
| AMPQ TestSuite | | |
| ID | | MESSAGING\_API\_1 |
| Mandatory | | |
| Applicability | | Implementations of Messaging capability. |
| Deprecation | | None |
| Related Requirements | | None |
|  | | |
| Description  Messaging capability implementations must comply with AMPQ specification [R 3]. | | |
| Input from TP  Test 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 Criteria  Pass if the testsuite is provided and passes. | | |
| Related Information  AMPQ testsuite: http://www.amqp.org/confluence/display/AMQP/1-0+Testing+Suite | | |
| History | | |

# Information Discovery

## Information Discovery Interface

|  |  |  |
| --- | --- | --- |
| Information Service Interface | | |
| ID | | INFODISC\_IFACE\_1 |
| Mandatory | | |
| Applicability | | All publishers of Information. |
| Deprecation | | None |
| Related Requirements | | None |
|  | | |
| Description  Information published by the service must be available through LDAPv3 protocol | | |
| Input from TP  Test 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 Criteria  Pass 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

|  |  |  |
| --- | --- | --- |
| Information Filtering Test | | |
| ID | | INFODISC\_AGG\_1 |
| Mandatory | | |
| Applicability | | Information Discovery Services |
| Deprecation | | None |
| Related Requirements | | None |
|  | | |
| Description  The 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 TP  Test 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 Criteria  Pass 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 |
|  | | |
| Description  The information discovery service must be able to collect data from different sources and aggregate them in a single source. | | |
| Input from TP  Test 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 Criteria  Pass if the test is provided and passes. | | |
| Related Information | | |
| History | | |

## Availability/Scalability

|  |  |  |
| --- | --- | --- |
| Size Test | | |
| ID | | INFODISC\_AVAIL\_1 |
| Mandatory | | |
| Applicability | | Information Discovery Services |
| Deprecation | | None |
| Related Requirements | | None |
|  | | |
| Description  The 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 TP  Test 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 Criteria  Pass 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 | | |

|  |  |  |
| --- | --- | --- |
| Stress Test | | |
| ID | | INFODISC\_AVAIL\_2 |
| Mandatory | | |
| Applicability | | Information Discovery Services |
| Deprecation | | None |
| Related Requirements | | None |
|  | | |
| Description  The information discovery service should be available under realistic conditions. | | |
| Input from TP  Stress 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 Criteria  Pass if the test is provided and passes. | | |
| Related Information | | |
| History | | |

# References

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