

**Task**

**Description**

**Due EMI-1 EMI-2 EMI-3**

*GLUE 2.0 migration*

- 1.0 All SE's publishing initial GLUE 2.0 storage information.
- 2.0 A storage client is capable of consuming GLUE 2.0 information published by SE's
- 3.0 All SE's publishing full GLUE 2.0 and the EMI client is capable of consuming that.

M12	█								
M16		█							
M22	█	█	█						

*Unicore access to gLite/ARC components*

- 4.0 Providing UNICORE access to the gLite file catalogue (LFC)
- 5.0 Providing UNICORE access to Grid SE's via the SRM protocol.
- 6.0 Providing UNICORE access to the EMI AMGA meta data service.
  - 6.1 Evaluating the possibility of integrating the AMGA client into UNICORE
  - 6.2 Implementation depending on results of 6.1

M18	█	█							
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M28	█	█	█	█					
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*Applying established standards to EMI components*

- 7.0 All EMI SE's offering at least prototype level support for the file:// access protocol
- 8.0 All SRM-capable EMI Data clients and services should add file:// to the already supported transfer protocols
- 9.0 All EMI SE's offering production level support for the file:// access protocol.
- 10.0 Using https instead of httpg for the SRM protocol as a prototype on SE's and on one client.
- 11.0 Using https instead of httpg for the SRM protocol by all SE's and clients, utilizing the EMI delegation mechanism.
- 12.0 All SE's offering support for the http(s) protocol for reading files.
- 13.0 All SE's offering support for the WebDAV protocol.
- 14.0 Investigating support of 'http' or WebDAV for the LFC.

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*Consolidating and improving interoperability of EMI components*

- 15.0 Developing a common set of data access libraries (merging gLite and ARC))
  - 15.1 Finding the most viable solution on how to merge data access libraries
  - 15.2 Implementing decided solution
- 16.0 Migrating to the EMI Data Access Libraries.
  - 16.1 Internal testing of implementation
  - 16.2 Testing of EMI components depending on data access libraries
- 17.0 Consistent synchronization between EMI SE's and Data Location Catalogues.
  - 17.1 Providing the infrastructure to allow SE's and catalogues to communicate (with prototype DPM, LFC)
  - 17.2 Integrating a LHC experiment catalogue into the synchronization infrastructure as a prove of concept.
  - 17.3 Adding producers and consumer pluggins for the other EMI Storage Elements
  - 17.4 Implementing support for a more comprehensive set of notifications
- 18.0 Next generation FTS using the agreed messaging system.

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- 18.1 High level design, new configuration methods (remote, and stored in DB)
- 18.2 New Language C++, Channels removed, load feedback from SE's and Network; new transfer prot : http(s); test
- 18.3 Providing a prototype FTS service for EMI-2
- 18.4 Job queues moved to messaging. SE and Network interaction with FTS finalized; pilot service
- 19.0 Agreement over a common storage accounting record,
- 20.0 Add support for storage space usage accounting to SEs and FTS, based on the agreed record.
- 20.1 SE's and FTS provide a design for creating the agreed Data Accounting record.
- 20.2 Implementing the necessary sensors in FTS and the SE's to make the record available to e.g. messaging.
- 20.3 Finishing the deployment
- 21.0 Integration ARGUS blacklisting

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M20		■	■				
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M18	■	■					
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M32	■	■	■	■	■	■	■
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***Evaluating new technologies and methodologies***

- 22.0 Implement the EMI cloud strategy within the data area.
- 23.0 Investigate solutions to work with EMI data services in the context of persistent data Id's

M32	■	■	■	■	■	■	■
M24	■	■	■	■			

***Improving usability and interoperability of EMI components.***

- 24.0 Adhere to operating system standards for service operation and control regarding configuration
- 25.0 Provide and support monitoring probes for EMI services (e.g. Nagios)
- 26.0 Improve usability of client tools based on customer feedback by ensuring a) error messages b)command line paramet
- 27.0 Port, release and support EMI components on identified platforms
- 28.0 Introduce minimal DOS protection for EMI services via configurable resource limits
- 28.1 Identifying areas where high level DOS may become relevant for EMI Data components.
- 28.2 Apply solutions for the identified DOS centarios
- 29.0 Provide optimized semi-automated configuration of service backends (e.g. databases) for standard deployment.

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