



Enabling Grids for
E-science in Europe

<http://cern.ch/egee-ira1>

LCG PEB, 7th June 2004

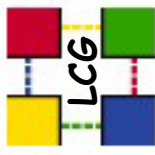
Prototype Middleware Status Update

Frédéric Hemmer



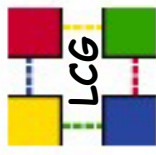
Work done so far

- Design team
 - Middleware providers from
 - AliEn, EDG, VDT, ...
 - Discusses components and how they need to be adapted to fit in the prototype
 - Meetings so far
 - December 3-4, 2003
 - Workload Management System, CE
 - ARDA Workshop January 21-22, 2004
 - Setting up ARDA project
 - February 24-27, 2004
 - File catalogs, replica management, SE
 - March 24-April 1, 2004
 - Information system, Security, Interfacing with Ganga
 - April 19-22
 - EGEE kickoff conference
 - May 12-14
 - Service discovery, Security in Data Management, Job submission
 - June 15-17
 - *Installation & configuration, Catalogs & security*
- Early version of prototype delivered on May 18, 2004
 - Regular meetings on prototype status
- Planning available at <https://edms.cern.ch/document/457150/>
- Testbed status available at <http://cern.ch/egee-ira1/Prototype/testbed.htm>



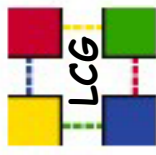
Prototype Status

- A Prototype Middleware on a testbed consisting of
 - AliEn “shell”
 - Job submission:
 - Alien CE->Condor-G->blaph->PBS/Condor
 - Globus Gatekeeper
 - Data Management
 - AliEn File catalog
 - Soapification of the FC
 - Castor & D-Cache SE with SRM
 - gridFTP for transfers
 - AliEn FTD
 - Aiiod/GFal investigations
 - RLS (EDG)
 - Perl RLS Soap interface for File Catalog integration
 - Not used yet
 - Security
 - VOMS for certificate handling/SE gridmap files (NIKHEF)
 - MyProxy for certificate delegation in GAS
 - GAS (Grid Access Service)
 - Prototype with a few file cataloging functions
 - R-GMA
 - With new API; not integrated yet



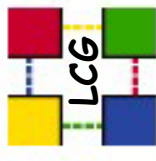
Other work related to the prototype

- Working Middleware document
<https://edms.cern.ch/document/458972>
- Draft Software Configuration & Management Plan
<https://edms.cern.ch/document/446241>
- Draft Software Release Plan
<https://edms.cern.ch/document/468699>
- Draft Architecture Document
<https://edms.cern.ch/document/476451/>
- Defect Tracking System
 - Savannah: <https://savannah.cern.ch/bugs/?group=jra1mdw>
- CVS repository: <http://jra1mw.cvs.cern.ch:8180/cgi-bin/jra1mw.cgi/>



Next Steps

- **Exercise interface with ARDA**
 - Introduction organized on May 18, 2004
 - Mailing list at project-egEE-middleware-integration-support [AT] cern [DOT] ch
 - Workshop on June 21-23, 2004
 - EGEE Applications/Middleware meeting on July 14-16, 2004
- **Integration of EDG WMS**
 - Allowing push, pull or a mixture
- **Integration of R-GMA**
 - To be used for Service Discovery
- **Data Management Security**
 - ACL's
 - Investigations of Stork
 - As a data scheduling Service
 - Replacement for FTD ?
- **“Componentize”**
- **Discussions going on with ANL & ISI**
 - GRAM with “setuid” services
 - ISI RLS with GUID's
- **Prototype to use Integration & Testing processes**
 - Nightly builds; Savannah Portal/CVS repositories
 - Software Configuration Management plans; SPI tools
- **Continue Software Process**
 - Design Team->Prototype->ARDA (& others)->Design Team
 - Document API, Interfaces (WDSL), semantics, etc..



Resources (JRA1 Overall)

Partner	Activity	Funded	Unfunded	Total	TA
CERN	Testing	3	1	4	7
	Integration	4		4	9
	Data management	5	1	6	10
	Prototype	2		2	0
	Management	1	2	3	3
<i>Subtotal</i>		15	4	19	29
CNRS	Tools	1		1	2
	Resource Access/Brokering				
IT	Accounting	14	8	22	
CZ	Logging & Bookkeeping	4	0	4	
<i>Subtotal</i>				26	22
UK	Information Services	8	1	9	8
US		0	N/A	N/A	
Nordic	Security	5	6	11	11
Total				66	72



Resources (Prototype/Design) Estimates (April/May)

Partner	Activity	Total
CERN	Testing	0
	Integration	0
	Data management	2
	Prototype	2
	Management/Coordination	1
<i>Subtotal</i>		5
CNRS	Tools	0
	Resource Access/Brokering	
	Accounting	1
IT	Logging & Bookkeeping	0
<i>Subtotal</i>		1
UK	Information Services	1
US		1
Nordic	Security	2
Total		9

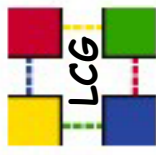
Note: testing & Integration work on the “prototype”, but not on the actual setup and day to day running

Note: As components are added, these numbers will increase



Open Issues

- Some services were not foreseen in the TA, and therefore do not fit well with the current organization
 - E.g. GAS; asynchronous communication
 - Prototype testbed system administration
 - People really stretched in providing promised formal deliverables as well as the prototype
- IT/CZ cluster does not seem to have enough effort available to provide prototype components early enough
 - Current draft release plan only foresees components in September and November



Summary

- Although some issues exist, a first version of the Middleware prototype is available
 - As a starting point and a vehicle to define the EGEE Middleware
 - Composed of existing software/components (as far as possible)
 - To be used to agree on components and priorities with Applications (HEP, Bio) and Operations
 - To be used to try out components provided by the different partners
 - Some components will come, some other will go.
 - With rapid release cycles (1-2 months)
- Now expecting to get feedback from ARDA within next weeks
 - Closing the loop with the Design Team

