



Enabling Grids for  
E-science in Europe

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

LCG PEB, 1<sup>st</sup> June 2004

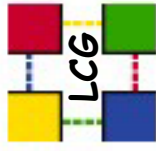
# Prototype Middleware Status Update

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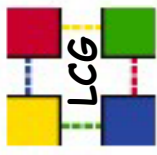
# Work done so far

- 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>



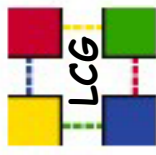
# Prototype Status

- 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



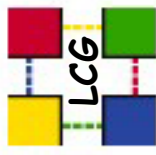
# Other work related to the prototype

- 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  
<http://jira1mw.cvs.cern.ch:8180/cgi-bin/jira1mw.cgi/org.egee.jra1.deliverables/DJRA1.1/>
- Defect Tracking System
  - Savannah: <https://savannah.cern.ch/bugs/?group=jra1mdw>
- CVS repository: <http://jira1mw.cvs.cern.ch:8180/cgi-bin/jira1mw.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
<b>CERN</b>	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
<b>CNRS</b>	Tools	1		1	2
	Resource Access/Brokering				
<b>IT</b>	Accounting	14	8	22	
<b>CZ</b>	Logging & Bookkeeping	4	0	4	
<i>Subtotal</i>				26	22
<b>UK</b>	Information Services	8	1	9	8
<b>US</b>		0	N/A	N/A	
<b>Nordic</b>	Security	5	6	11	11
<b>Total</b>				66	72



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

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

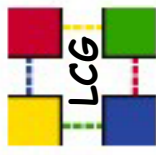
Note: testing & Integration work on the “prototype”, but not on the actual setup and day to day running

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

