



# **Current status of gLite Testing**

Frédéric Hemmer, CERN

Meeting with LHCC Referees
March 7, 2005

www.eu-egee.org









- SA1
  - Operations = Grid Deployment
- JRA1
  - Middleware reengineering
- NA4
  - Applicatins
    - HEP
    - Biomed
    - Others



# **Status**

**Enabling Grids for E-sciencE** 

<u>Modules</u>	Availability for ARDA	Availability for SA1
		February 7, 2005 (1.0.6)
		February 21, 2005 (1.0.8)
Complete WMS with Task	February 2, 2005	February 18, 2005
Queue, Pull mode and	February 2, but problems. Fixed on	WMS problems in 1.0.6
Interface to Data Management	February 11. CE only in pull mode.	Functional and basic stress tests available.
	February 2, 2005.	February 7, 2005
Single File Catalog (FiReMan)	February 2, 2005. Weekly upgrades	Functional tests available.
	needed.	
1.11.119		Available.
gLite I/O	Available.	Functional tests and basic stress tests available. 19 bugs reported, 4 open.
	5-1	available. 13 bugs reported, 4 open.
File Transfer/Placement	February 2, 2005.	February 7, 2005
Service	February 2. Frozen version. New version being finalized for Service	Testing has stopped.
	Challenges.	rooming has stopped.
	February 2, 2005 for WMS and RGMA.	February 25, 2005
User Interfaces	Lcg_utils needs to be ported.	Will be in 1.0.9 (March 7, 2005)
	February 17 (WMS, Data Management,	No formal testing. Bugs reported through
	R-GMA, VOMS) in AFS.	daily usage.
	Available.	Available.
R-GMA	Tests cases being defined and	Deployment problems also observed by
	implemented by UK.	RAI/NIKHEF.
VOMS	Available.	February 7, 2005
VOIVIS	Testing will be carried by INFN.	Problems using old server



## WMS with Data Management

**Enabling Grids for E-sciencE** 

JDL

```
Executable = "/bin/sh":
 Arguments = "job4.sh";
 StdOutput = "stdout.log":
 StdError = "stderr.log";
 StorageIndex = "http://lxb2028.cern.ch:8080/EGEE/glite-data-catalog-service-fr/services/SEIndex";
 InputData = { "Ifn:/tmp/hemmer/test/InputFile" };
 DataAccessProtocol= "gridftp";
 InputSandBox = {"job4.sh", "sqrt" };
 OutputSandbox = {"stdout.log", "stderr.log"};
WMS Matching
 [lxplus.cern.ch] glite-job-list-match job4.jdl
 Selected Virtual Organisation name (from proxy certificate extension): EGEE
 Connecting to host gundam.cnaf.infn.it, port 7772
                COMPUTING ELEMENT IDs LIST
  The following CE(s) matching your job requirements have been found:
            *CEId*
  lxb2022.cern.ch:2119/blah-lsf-jra1 high
  lxb2022.cern.ch:2119/blah-lsf-jra1 low
 ***********************************
```



## **Command Line Tools**

**Enabling Grids for E-sciencE** 

### **Workload Management**

- glite-job-attach
- glite-job-cancel
- glite-job-get-chkpt
- glite-job-list-match
- glite-job-logging-info
- glite-job-output
- glite-job-status
- glite-job-submit
- glite-lb-dump
- glite-lb-load
- glite-lb-logevent
- glite-lb-purge

#### **R-GMA**

rgma (interpreter)

#### **VOMS**

- voms-proxy-destroy
- voms-proxy-info
- voms-proxy-init

#### **Catalog**

- glite-catalog-chkperm
- glite-catalog-chmod
- glite-catalog-create
- glite-catalog-getacl
- glite-catalog-getattr
- glite-catalog-getdefacl
- glite-catalog-getguid
- glite-catalog-getreplica
- glite-catalog-ls
- glite-catalog-mkdir
- glite-catalog-mv
- glite-catalog-rm
- glite-catalog-rmdir
- glite-catalog-setacl
- glite-catalog-setattr
- glite-catalog-setdefacl
- glite-catalog-setdefperm
- glite-catalog-setreplica
- glite-catalog-setschema
- glite-catalog-stat
- glite-catalog-symlink
- glite-catalog-touch

#### gLite I/O (Catalog & SRM)

- glite-get
- glite-put
- glite-rm



## **Summary**

**Enabling Grids for E-sciencE** 

#### WMS

- Task Queue, Pull mode, Data management interface
  - Available in the prototype
  - Used in the testing testbed
    - Basic functionality and stress test available
  - Delivered to SA1
    - But not working on the certification testbed yet

### Catalog

- MySQL and Oracle
  - Available in the prototype
  - Used in the testing testbed
    - Basic test available
  - Delivered to SA1
    - But not used yet

### gLite I/O

- Available in the prototype
- Used in the testing testbed
  - Basic functionality and stress test available
- Delivered to SA1
  - But not used yet

#### FTS

- Available in the prototype
  - But should not be used anymore
- JRA1 testing has stopped
- FTS is being evolved with LCG
  - Milestone on March 15, 2005

#### • UI

- Available in the prototype
  - Incudes data management
  - Not yet delivered to SA1
  - Not yet formally tested

#### R-GMA

- Available in the prototype
- Testing has shown deployment problems

#### VOMS

- Available in the prototype
- No tests available
- Delivered to SA1
  - Interoperability problems



## Open Issues (high level)

**Enabling Grids for E-sciencE** 

- Condor-C Proxy renewal
  - Promised for a long time
  - Only received yesterday (part of Condor 6.7.6 to be released March 11, 2005)
  - A workaround is possible on the worker nodes
- File Transfer Service
  - The version in Release 1 is *not* the one that is going to be used for service Challenges
  - FTS is being evolved as required by SA1 service Challenges
  - Weekly monitoring
  - Status at:
    - http://egee-jra1-dm.web.cern.ch/egee-jra1-dm/transfer/index.htm
  - Milestone to have a stable "demo" running by March 15, 2005
- VOMS
  - Seems to be incompatible with previous version (Tbc)
  - Only discovered when deployed by SA1
- RGMA
  - Difficult to install and make it work
- Service Discovery API
  - Changes requested by developers
  - Will not be in Release 1



# Testing reports

### JRA1

- WMS: <a href="http://egee-jra1.web.cern.ch/egee-jra1/gLite/l20050218/WMSTesting.htm">http://egee-jra1.web.cern.ch/egee-jra1/gLite/l20050218/WMSTesting.htm</a>
- Catalog: <a href="https://edms.cern.ch/file/568048/1/Fireman-test-050225.doc">https://edms.cern.ch/file/568048/1/Fireman-test-050225.doc</a>
- gLite I/O: <a href="https://edms.cern.ch/document/571060">https://edms.cern.ch/document/571060</a>

### SA1

- Weekly reports: <a href="http://egee-docs.web.cern.ch/egee-docs/list.php?dir=.\Testing\Testing\20Reports\&">http://egee-docs.web.cern.ch/egee-docs/list.php?dir=.\Testing\Testing\20Reports\&</a>
- Daily reports: <a href="http://egee-docs.web.cern.ch/egee-docs/list.php?dir=.\Testing\Meeting%20minutes\&">http://egee-docs.web.cern.ch/egee-docs/list.php?dir=.\Testing\Meeting%20minutes\&"</a>

### NA4

- ARDA: <a href="http://lcg.web.cern.ch/lcg/PEB/arda/LCG">http://lcg.web.cern.ch/lcg/PEB/arda/LCG</a> ARDA Glite.htm
- gLite Progress
  - http://cern.ch/egee-jra1/gLite/Status.htm



## Documentation<sup>1</sup>

**Enabling Grids for E-sciencE** 

## Workload Management

- LB: <a href="http://egee-jra1-wm.mi.infn.it/egee-jra1-wm/documents/LB-guide.pdf">http://egee-jra1-wm.mi.infn.it/egee-jra1-wm/documents/LB-guide.pdf</a>
- JDL: <a href="https://edms.cern.ch/document/555796/">https://edms.cern.ch/document/555796/</a>

### Data Management

- Overview: <a href="https://edms.cern.ch/file/570643/1/EGEE-TECH-570643-v1.0.pdf">https://edms.cern.ch/file/570643/1/EGEE-TECH-570643-v1.0.pdf</a>
- Glite I/O: <a href="https://edms.cern.ch/file/570771/1/EGEE-TECH-570771-v1.0.pdf">https://edms.cern.ch/file/570771/1/EGEE-TECH-570771-v1.0.pdf</a>
- FiReMan: <a href="https://edms.cern.ch/file/570780/1/EGEE-TECH-570780-v1.0.pdf">https://edms.cern.ch/file/570780/1/EGEE-TECH-570780-v1.0.pdf</a>
- Cli:
- Lcg-utils comparison: <a href="http://egee-jra1-dm.web.cern.ch/egee-jra1-dm/lcg-utils-glite.htm">http://egee-jra1-dm.web.cern.ch/egee-jra1-dm/lcg-utils-glite.htm</a>

### R-GMA

 User Guides (Java, C, C++, Python), API's, Service Discovery: <a href="http://hepunx.rl.ac.uk/egee/jra1-uk/glite/doc/index.html">http://hepunx.rl.ac.uk/egee/jra1-uk/glite/doc/index.html</a>

### VOMS

<sup>1</sup> Links may be temporary; documentation has not been reviewed yet



# Other points

- Before February 18, 2005, SA1 received weekly integration releases at the same time than JRA1 Testing team
  - Addressing the wish of SA1 to see the code as early as possible
  - Caused confusion and/or duplication of efforts, as the same bugs were discovered by the two teams
  - It was decided to release weekly integration builds one week after the have been used by JRA1 testing
  - Naming changed
    - Example: I20050225\_RC vs. I20050225
- Weekly releases are too frequent for SA1 testing
  - No decision yet
  - JRA1 will for now still produce a weekly release
- Testing efforts have been merged between JRA1/SA1 and NA4
  - High priority goal to port LCG-2 Test Suite to gLite
  - Coordinated by a daily meeting





- All modules are available in the prototype
- gLite distribution has been cleanup containing only modules as defined at last meeting
- We are in the middle of the testing
  - There is an agreement between JRA1/SA1 and NA4 on how to proceed with testing
  - Additional efforts have been requested from RAL and INFN
- Developers are
- Too early to say that the middleware will be ready for end users at the end of the month
  - But certification has started
- Documentation is on the critical path
  - For deployment
  - For end users