



Enabling Grids for E-scienceE

gLite Test and Certification Effort

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- **Description of the testing process**
 - The testing stages
 - Who does what
 - Physical location of test beds
- **Organisation of the testing effort**
- **Goals, Priorities and Timelines**
- **Current status**

Description of the Testing Process (1)

JRA1 Development test bed
(a.k.a. gLite prototype)

- Unit testing
- ARDA testing

JRA1 Integration team
• Weekly releases

Release of integration build
(Friday)

+ 1 week

JRA1 Testing test bed

- Basic deployment testing
- Functional testing

Updates to release notes + bug fixes

Certification test bed

- Deployment testing (documentation, installation, configuration)
- *Functional testing*
- *Stress/Load testing*
- *Testing against "real" applications*

Pre-production service

- *Open to all registered users*
- *Not a formal test environment*

Production service

- The Testing Stages
- Who Does What

Description of the Testing Process (2)

JRA1 Development test bed
(a.k.a. gLite prototype)

- CERN

JRA1 Integration team
• Weekly releases

Release of integration build
(Friday)

+ 1 week

JRA1 Testing test bed

- CERN
- RAL
- NIKHEF

Certification test bed

- CERN
- *Looking into extending test bed to other sites.*

Pre-production service

- *12 sites distributed through the 10 EGEE federations.*

Production service

Physical Location of the Test Beds

- **Since mid February JRA1, SA1, NA4 and ARDA have been co-ordinated in their testing efforts.**
- **Daily morning meeting**
 - status briefings from each group
 - Discussions on “hot” topics
 - minutes at <http://egee-docs.web.cern.ch/egee-docs/list.php?dir=.\Testing\Meeting%20minutes\&>
- **Weekly status reports**
 - <http://egee-docs.web.cern.ch/egee-docs/list.php?dir=.\Testing\Testing%20Reports\&>

- **#1 Goal:**
 - To have a working version of gLite on the pre-production service by the end of March 2005!
 - The pre-production service will then be used to compare gLite to LCG-2 and identify any areas where improvements need to be made to the gLite middleware.
- **Priorities**
 - 1) To port the current LCG-2 certification test suite to gLite (by 23 March)
 - The test cases will be as close as possible to those in the LCG-2 certification test suite.
 - Some of the tests need to be re-written.
 - JRA1, SA1 and NA4 are all contributing to this effort.
 - 2) Create a working gLite cluster against which tests can be written and tested (by 11 March).
 - 3) To port the Site Functional Test suite to work with gLite (11 March).
 - SFT is a set of tests, run on a daily basis on the LCG production service, that are used to monitor the state of middleware services.

- In parallel, testing will continue on the JRA1 testing test bed and on the Certification test bed.
- Functional tests will continue to be written for VOMS and R-GMA *if* people are made available for this task.
 - There are currently no functional tests available to cover these areas on the JRA1 testing test bed.

- **gLite code is frozen except for File Transfer Service and File Placement Service.**
- **UI is not yet released to Certification**
 - This is expected in today's release.
 - Currently using afs based gLite UI.
- **FTS and FPS is expected to be stable within 1-2 weeks.**
- **Integration builds containing bug fixes are released weekly.**
- **Need to write 14 tests for Certification test suite.**
 - 5 of these need the FTS/FPS.
- **Need to review priority of bugs to escalate those which will cause the certification tests to fail.**
 - We would anyway expect these to be high priority bugs.

- **JRA1 testing team have a working gLite service (build I20050225).**
- **We need to understand the differences between JRA1 testing test bed and Certification test bed.**

- **Certification test team do **not** yet have working gLite service (build I20050228)**
 - As of Friday the jobs were failing in workload management (proxy not passed from WMS to WN). This is under investigation with JRA1.
- **There is currently no gLite User Guide (due end February)**
- **Site configuration model is good and meets SA1 requirements. However, drawbacks were introduced with build I20050218:**
 - Large file: flat file of about 2000 lines to configure 10 services (scales with the number of WNs)
 - Logical separation of User, Advanced, and System level parameters (strong point in the previous configuration model) has been broken.
 - Concurrent editing of the site configuration file is difficult.
 - File is published on an unprotected public web server.
 - These points are being discussed with the JRA1 Integration team.
- **Deployment testing (installation and configuration) of last release to Certification showed up **no** significant bugs in this area.**

- **NA4 have been writing tests for workload management.**
 - These were originally for JRA1 testing but can be re-used for the Certification test suite.
- **NA4 testers received 2 day informal “training” last week, with JRA1 and ARDA.**
 - Covered gLite
- **NA4 will now start writing some of the data management tests needed for the certification test suite.**

- **ARDA testers have raised questions about the relative performance of LCG File Catalogue and the Fireman file catalogue.**
 - Further testing is being undertaken to obtain data which will give a clear and fair comparison of the services.
- **ARDA testers have also seen a job failure rate of around 10% for “hello world” jobs which are submitted to empty queues (in push mode).**
 - This is on the JRA1 development test bed (gLite Prototype). Certification team will carry out similar testing.
- **In addition, ARDA team saw an average job start up time of 9 minutes for the above jobs.**