Testbed Software Test Group work status for 1.2 release

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Outline

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Motivation and Goals

- DataGRID middleware is rapidly evolving
  - Complex software
  - Rich in functionality
- Stringent schedule of software release plan
  - Minor releases every two months
  - Next major release in October, 2002
- Need for continuous test activity
  - Check for bug-fixes
  - Validate added new capabilities
  - Identify eventual « unexpected features »

A well-defined systematic approach is necessary

TSTG place in EDG release lifecycle

- Integration phase of a new release
  - Some TSTG members work at CERN in contact with IT
  - Get experience on test-bed at CERN prior to local site installation
- Test phase on tagged release
  - TSTG members install and configure EDG packages on local sites
  - Test functionality, scalability, robustness…
  - Provide feedback through bugzilla and interact directly with WPs
- Presentation of results
  - Produce a detailed report for each service tested
    http://marianne.in2p3.fr/datagrid/TestPlan/index.html
  - Judge on quality of the new release

Test Strategy: Scope

- Installation, configuration
  - Appreciate required effort, evaluate code portability
- Functionality and performance
  - Check conformance with the documentation
  - Derive performance figures, identify eventual bottlenecks
- Security
  - Trace for security holes in deployed external packages
  - Check for non-authenticated and unauthorized accesses, …
- Scalability, robustness, fault tolerance, error detection
  - Operate in distributed multi-user multi-site GRID environment
  - Operate at high loads, with malfunctioning services, …

Provide feedback to WPs

Test Group Organization

- Test Strategy and Plan have been elaborated
  - Draft on EDMS repository will be upgraded with the feedback provided by WP people
- Test Group people
  - Up to now the following sites are contributing to TSTG: IN2P3/LPC, IN2P3/CPPM, CS-SI, CEA/Saclay, IFAE
  - Precious contribution of R. Tordeux (CERN)
- Test Group activity for release 1.2 (not yet tagged)
  - Review from every site

Responsibilities splitted among the test sites

Test Group Sites

- IN2P3/LPC
  - 18 PCs : 700-1000 MHz, 128-512 MB memory, 200 GB disks
  - SE, RC
- CPPM/CNRS and CS-SI
  - 4 PCs: 700-1000 MHz, 128-512 MB memory, 20-40 GB disks
  - AAA and Information services, UI
- CEA/Saclay
  - 6 PCs: 200-1000 MHz, 128-512 MB memory, 10-40 GB disks
  - CE, Workload Management, Myproxy
- IFAE
  - 5 PCs: 800-2200 MHz, 256-1000 MB memory, ~1TB HD
  - LCFG, SE (GDMP + SpitFire)

Site : IN2P3/LPC

- Site configuration
  - 2 SE
  - 1 RC
- Status
  - Deployment of SE and RC started but not completed
  - No functional test performed on local site
  - Site resources are available for deployment and tests only ~15days/2months
- Problems encountered
  - No stable release: RPM lists not ready
  - Non-accurate documentation
  - Problems in configuration of SE

Site : CEA/Saclay

- Site configuration
  - CE: fork gatekeeper + pbs gatekeeper with 4 Worker Nodes
  - WMS: RB+JSS+LB with 2 UI
  - Myproxy
- Status
  - Myproxy services deployed and tested: report submitted
  - WMS is under deployment: reports in progress
- Problems encountered
  - No stable release: RPM lists not ready
  - Myproxy: poor documentation, security problems
  - WMS: so far some unexpected behaviour observed
- Scripts for automatic deployment in progress

Site : CPPM/CNRS

- Site
  - Security management packages
  - MDS, Ftree (Globus)
- Status
  - Security and Authentication functionality work fine
  - Information Services deployed: GIIS and GRIS configured Functional tests performed and reported
- Problems encountered
  - No stable release: RPM lists not ready
  - No time to test all functionality, the frequency of package upgrade is faster than their installation!
  - Non-accurate documentation
  - IS: so far some unexpected behaviour observed

Site : IFAE

- Site
  - LCFG server
  - GDMP + 2 SEs
- Status
  - LCFG deployment completed: functional test in progress
  - GDMP stucked on configuration issues
- Problems encountered
  - GDMP configuration for SE not stable
- Plug-in for test framework in progress
- Replica Manager and SpitFire deployment will start soon

Summary

- Status of TSTG work on EDG release 1.2
  - The release is not yet tagged
  - Nevertheless its deployment on test sites has already started
  - Functional tests were performed when possible
  - First reports are available on *marianne* web page
- Status of TSTG test framework and software tools
  - R. Tordeux has delivered a first version of test framework
  - Flexible framework to plug service specific tests
  - IFAE and CS sites provided plug-in tests
  - Tools for downloading and deployment under development
- Future
  - Complete deployment and functional test on release 1.2
  - Automate test if possible