



Testbed Software Test Plan Status

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Outline

- Motivation and Goals
- Proposed Test Strategy
 - Scope
 - Organization
- Test Group sites
 - Participating sites and their resources
 - Domain of interest for every site
- Summary



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



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, give "green light" to Validation Team



Test Group Organization

- Test Strategy and Plan have been elaborated
 - See draft on EDMS repository
- Test Group people and resources
 - Small number of sites (5/6 in total?)
 - Resources should be decoupled from production Testbed
 - Close contact with IT and WP people
- Test Group activity
 - Follow layered structure of the DataGRID architecture
 - **Identify interdependency of services**
 - **Determine validation tests for every service**
 - **Develop test suites (automated if possible)**
 - Deployment of every middleware release “tagged” by IT
 - Perform Tests on multi-site base

Split responsibilities among the test sites



Pre-requisites for test activity

- Documentation (Administration and User Guide)
 - Download, installation, configuration, maintenance and tests
 - Detailed description of system-level commands
 - User environment set-up and test
 - Detailed description of user-level commands
 - Detailed description of available APIs
- Per-release updates
 - Clear definition of new functionality and services supported
- Test Group priorities
 - Functional tests and performance assessments

Accurate documentation and definition of new supported functionality needs to be provided by WPs



Test Group Sites

① Up to now this list includes only the sites that participated to the elaboration of the test plan

- IN2P3/LPC
 - 18 PCs : 700-1000 MHz, 128-512 MB memory, 200 GB disks
- IN2P3/CPPM and CS-SI
 - 4 PCs: 700-1000 MHz, 128-512 MB memory, 20-40 GB disks
- CEA/Saclay
 - 6 PCs: 200-1000 MHz, 128-512 MB memory, 10-40 GB disks

New sites are invited to join the Test Group



Responsibilities

Site Name	Domain of Interest
IN2P3/LPC	Storage and Replica Catalog (Underlying Grid Services) BrokerInfo, RFIO, Replica Catalog APIs, Globus
IN2P3/CPPM CS-SI	Job Management, Authorization, Authentication and Accounting, Information and Monitoring UI, CA, GSI, VO, MDS
CEA/Saclay	Job Management, Grid Scheduler (spanning Application, Collective and Underlying Grid Services) RB, JSS, LB, JDL

Test Group should cover all functionality of Testbed software



Conclusions

- **Testbed Software Test Plan**
 - A draft proposal for the Test Group organisation and activity is available on the WEB
- **Observations and comments**
 - Feedback from DataGrid collaboration is expected on the test strategy and on Test Group activities
- **Any volunteers ?**
 - Three participating sites up to now
 - Contribution from other interested sites is welcome
 - Test Group must cover all delivered services according to priorities that are being established
 - Some overlap in responsibilities is desirable