



Enabling Grids for E-science

Future Test Activities

SA3 All Hands Meeting Dublin

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Information Society
and Media



- 1. Regression tests**
- 2. SAM tests**
- 3. Usage of virtualisation for testing**

- **Test can be done on one isolated node**
 - **Case 1:** installation of rpms, configuration with yaim, valid proxy available if needed
- **Test needs more nodes**
 - **Case 2a:** a server (also included: BDII) is set up and needs to be tested via a client API/CLI from another machine (more realistic)
 - **Case 2b:** an API needs to be tested and needs a server
 - **Case 2b-1:** server needs special setup (version etc.)
 - **Case 2b-2:** server can be standard
 - **Case 2c:** several nodes are involved (FTS)
- **Test is difficult**
 - **Case 3:** web interface tests, security bugs (no info available), complicated workflow, problems that only occur after running the service for a long time etc.

- Looked at all bugs fixed in gLite 3.1 updates 01 – 10:

Test type	Number of bugs	
Case 1	42	55%
Case 2a	11	14%
Case 2b-1	1	1%
Case 2b-2	5	7%
Case 2c	3	4%
Case 3	14	18%
Total	76	

Easy to test categories (1, 2b-2) accord for 62% (but gLite 3.1 at the moment only contains a subset of all services, thus this number is not representative for a full release)

- One regression test is one shell script
- Tests should be all in CVS and executable on the command line after check out
- Proposal:

```
regtest/
```

```
./regTest.sh --testList Wntests.txt --pretest <pretest  
function> --posttest <posttest function>
```

```
Wntests.txt - list of bugs for WN
```

```
regtest/tests: bug34562 - contains function bug34562()
```

```
regtest/common: contains pretest/posttest scripts, common  
variables
```

- **Simple structure allows for integration into ETICS or SAM**
- **For every patch certified regression tests must be written (if possible according to bug classification).**
- **Partners will also write regression tests for older gLite 3.1 bugs.**
- **We set up the framework initially with a few regression tests to get some initial experience.**

- **Several new tests were written and integrated into SAM without big problems.**
- **It is currently not possible to easily add/remove machines or services to/from SAM. This needs manual intervention in the SAM database. A more dynamic approach would be useful as we now often use virtual machines for certification.**

- **Ideal world: for every patch to certify a dedicated testbed is brought up with one click. Is this achievable ?**
- **How are the partners using virtualisation ?**
- **How can we coordinate usage of virtualisation ?**
 - Images
 - VM management frameworks
 - Automatic attachment/removal of virtual testbeds to the certification testbed.
 - Automatic attachment/removal of virtual testbeds to SAM.

- **Vgrid:** <https://twiki.cern.ch/twiki//bin/view/Virtualization/VirtualMachinesManagementSystem>
- **Gridbuilder:** <http://sourceforge.net/projects/gridbuilder>
- **Usher:** <http://usher.ucsd.edu/trac/wiki/UCSDDocumentation>
- **openQRM:** <http://www.openqrm.org/>
- **Enomalism:** <http://www.enomalism.com/>
- **SmartDomains:** <https://sourceforge.net/projects/smartdomains>
- **OSFarm (image generation):** <http://cern.ch/osfarm>