

# **Certification tests for LCG/gLite. Sensors VOMS and LFC.**

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The works presented in the report are executed in conformity by plans of JINR participation in project **SA3/EGEE**.

All works were carried out in CERN and partially in JINR, in a various degree with together with employees of CERN (co-authors of the given report)

Preparation of test programs and their testing was carried out in CTB environment (Certification Testbed).

The core of the requirement to program modules of certification tests is an opportunity of their integration in automated testing system SAM.

System **SAM** (Service Availability Monitoring) is an environment for planning and start of certification tests, the analysis of their results.

Functioning SAM is constructed on application of technology of **Web services** and databases Oracle for storage of results of testing.

Access to results of testing is carried out through the **Web interface**.

**Sensor** – form structures for preparation given (input parameters) carried out tests, the analysis of results of testing and their publication (record in a database) and actually a collection (container) of test programs.

A task of the author was preparation of sensor **VOMS** and **LFC**, accordingly for component LCG/gLite:  
Virtual Organization Membership Service (**VOMS**)  
and LCG File Catalog (**LFC**)

Essential part of preparation of tests is development of their **scenarios** which include check of a correctness of performance of the set operations, and also proper response (diagnostics) at impossibility to execute operation, for example: removal of nonexistent users (groups, roles, attributes) from the virtual organization

For sensor **VOMS** certification tests of two types are prepared:

- operations of **administration** by the virtual organizations (a command **voms-admin**),
- and for work with **proxy** certificates – the user commands

**voms-proxy-init, voms-proxy-info**

For sensor **LFC** also have been performed works of two types:

- integration of developer's tests in structure SAM
- and development of tests for operations with catalogue LFC  
(lfc-mkdir, lfc-rm, lfc-chmod, lfc-rename),  
separately for files and directories

According to requirements of preparation of certification tests all the developed materials (programs and their descriptions) are presented to corresponding archives **TWIKI** and **CVS**.

Links:

- Piotr Niczyc. SAM: past, present and the future.  
<https://twiki.cern.ch/twiki/pub/LCG/WhiteAreas/SAM-WhiteAreas-2008-03-07.ppt>
- <https://lxb0714.cern.ch/easysam/perl/easysam.cgi>
- [https://twiki.cern.ch/twiki/bin/view/LCG/SAMTests#Virtual\\_Organization\\_Membership](https://twiki.cern.ch/twiki/bin/view/LCG/SAMTests#Virtual_Organization_Membership)
- [https://twiki.cern.ch/twiki/bin/view/LCG/SAMTests#LCG\\_File\\_Catalog\\_LFC](https://twiki.cern.ch/twiki/bin/view/LCG/SAMTests#LCG_File_Catalog_LFC)
- <http://glite.cvs.cern.ch/cgi-bin/glite.cgi/org.glite.testsuites.ctb/VOMS/>
- <http://glite.cvs.cern.ch/cgi-bin/glite.cgi/org.glite.testsuites.ctb>