



Enabling Grids for E-science

SA3 IFIC – report 12/12/2007

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- **12 PM**
 - Gabriel Amoros (6PM)
 - Alvaro Fernandez (6PM)
- **Officially**
 - Task 3.2.3
- **Tasks**
 - Test Configuration and Exploitation of Job Priorities (finished)
 - Testing: WMS C++ API (finished)
 - Testing: **WMPROXY API**
 - Cpp
 - Python
 - Patch certification

- Web-services based Wmproxy api
- Deprecates ns-based RB interface (not available in Glite 3.1)
- CPP, JAVA, PYTHON bindings
- started moving implementation to the WMPROXY interface, which will be the one supported in the future.
 - *in completed [task #4592](#)*: test plan for WMPProxy API.
 - *Test Plan was already defined: [testplan_wmproxy_api.pdf](#)*
- *Currently working on [task #4799](#)*: write WMproxy API tests
 - **Focused in cpp and python testsuites**

- **Test approach:**
 - Tests for mandatory methods and general auxiliar methods: getContext, putProxy, listCE,... (Tests for key wmpoxy methods: needed to work with the API. If the test fails the API doesn't work).
 - JDL oriented tests (second level test for wmpoxy API)
 - Simple jobs. *Completed!*
 - Dag. *Completed!*
 - Collection *partially done!*
 - Interactive.
 - MPICH.
 - Parametric.
 - Available at module Org.glite.testsuites.wmpoxy-api-cpp

- **Summary of tests:**
 - Checks of general and auxiliary methods of the API:
 - **delegateWMPProxy:** configContext and version.
 - **testServiceInformation:** Free and Total Quota and MaxInputSandboxSize
 - **testConfigContext:** getProxyFile, getEndPoint, getTrustedCert
 - **testGetProxyReq:** grstGetProxyReq, putProxy
 - Checks of methods with different behaviour depending the JDL:
 - **testJobSubmit:** general entrance for any jobs. This test calls the following:
 - **testJobSubmitSimple:** *Type="job" with/out ISB; submit and check the status for few seconds (TO BE MODIFIED)*
 - **testJobSubmitCompound:** *Type ="dag" or "collection".*
 - **testGetTransferProtocols**
 - **testGetSandboxDestURI:** *used in testJobSubmitSimple to transfer ISB files. Test for getSandboxDestURI.*
 - **testGetSandboxBulkDestURI:** *used in testJobSubmitCompound to transfer ISB files for dags and collections. Test for getSandboxBulkDestURI.*

- **Comments:.**
 - The tests does not tell you whether the job fails. ***It only checks the API.*** It does not checks whether you did well.
 - The API test ***depends on several packages*** and extra effort must be done to automate the test (transfer files and check for the status for later transfer the OSB).
 - The ***CPP API is being developed:*** need for update to the last API version to use important methods. *(e-mails with DATAMAT).*
 - First impression: **missing some methods** : e.g. mapping id nodes –nodes names (for collection). (Dag case: mapNodId()). Could be important in the future. *(e-mails with DATAMAT).* - (CPP API not used too much?)
 - expect same kind of problems for other JDL types as for the DAG.

- **ETICS and WMPProxy API C++:**
 - etics-checkout –c org.glite.testsuites.wmproxy-api-cpp.TEST
org.glite.testsuites.wmproxy-api-cpp
 - The build uses the previous build with ant. To be adapted completely to ETICS.
- **Experience with ETICS:**
 - much better experience than before
 - Updates are not immediate: configuration files, dependencies, could not work at first, second or third time.
 - CLI speed improved in last version
 - Web application slow.
 - Currently problems on definition of dependencies. Temporary solution: use CVS+ETICS.

- **Configuration:**
 - HOME, DEF_ENDPOINT, DEF_VO.
 - Pool of test jdl files. JDL_FILES = <JDL file1> ...<JDL file n> (files for tests)
- **Test Results**
 - (cppunit) XMLfiles will be generated with fail/success of the test.
 - CLI output stating correct or wrong execution.
- **TODO:**
 - Parametric, Interactive and MPICH. (*Partitionable and checkpointable deprecated*).

- **Bugs:**
 - All the found issues have been solved by email with DATAMAT:
 - Also solved Updating to the last version of WMPProxy API because some methods are only implemented in it.
- **Open issues:**
 - Usage of api: Use of legacy python job-status commands
 - moving files UI<->WMS not included in the api
 - Stand alone testing: Not yet included in testing framework

- Available at CVS module [Org.glite.testsuites.wmproxy-api-python](#)
- After comments on [task #4799](#) to provide python tests (CMS reported problems). Python actively used by experiments CMS, ATLAS,...
- One Test to check all the process:
 - Contact WMPProxy server
 - Get server parameters (version, available operations, free quota, max input sandbox size)
 - Get JDL template (method defined but not implemented yet in api) or get JDL from file
 - Test delegation process
 - 1)native method to delegate credentials (not yet implemented in python)
 - 2)delegate credentials based on glite-proxy-cert
 - 3)delegate credentials using already available UI-client:glite-wms-job-delegate-proxy
 - jobListMatch
 - Submit job
- Not yet using etics to provide packages

- **bug #29509**: *WMPProxy API Python JobIdStruct.toString code error. (Solved by datamat)*
- **bug #32052**: *wmproxy python apy - jobListMatch returns no results – (duplicate of bug #26953). Solved by Datamat but has to check if present (was detected in last installed glite-UI 3.1)*
- **API: Changing implementation of soap python implementation from SOAPpy to ZSI (see Patch#843).** Currently still using SOAPpy, will move to ZSI based tests when available
- **Issue on credential delegation solved by Datamat with the related delegation helper CLI command (glite-proxy-cert).** NATIVE python bindings still not available

- Currently working on [patch #1515](#): patch for bugs 28483 and 30143 (slc4)
 - [bug #28483](#): FuzzyRank attribute is not propagate from dag/collection parent to its nodes
 - [bug #30143](#): [Shallow]RetryCount attributes are not propagated from dag/collection parent to its nodes
 - ([bug #16681](#): requirements repeated several times by UI while submitting)
- Approach is to test it from the CLI, and include test for it as well in the cpp and python testsuites.
- We can review more patches in the future.