

# Tools Improvements for COD

COD-14 Working Group Update

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CYFRONET

- **Work done**
  - New SAM tests
- **Planned work and ongoing activities**
  - SAM tests
  - Testing RB on demand
  - Central Service failures
  - CE ROC 1<sup>st</sup> line support integration

- **New SAM RB tests**
  - Status: **Ready for Release**
  - What it does:
    - **RB-submit** (edg-job-submit, edg-job-status, edg-job-get-output, edg-job-logginginfo)
    - **RB-cancel** (edg-job-submit, edg-job-cancel)
    - **RB-listmatch** (edg-job-listmatch)
  - ... but lcg-RB went into “**no maintenance mode**”
  - New WMS test will be rewritten on a base of RB tests
- **ENOC test**
  - Status: **Cancelled**
  - What it does:
    - **Checks network connectivity**
  - ENOC would have preferred a unique network test point and aggregation, i.e. having SAM using the result of their tests instead of doing some testing again

- **Apel tests**
  - Status: **Results available in production SAM**
  - What it does:
    - APEL Last Published Test (CE-apel-pub)
      - Displays the last time the site published accounting data to the GOC.
        - ✓ *A warning is raised if the site has not published accounting data for 7 days*
        - ✓ *An error is raised if the site has not published accounting data for 31 days*
    - APEL Synchronisation Test (CE-apel-sync)
      - A comparison of the number of jobs in local APEL database to the number published to the GOC.
      - Major differences in event numbers indicate a problem

- **MyProxy**
  - Test written by Fred – **DONE**
  - Current version of MyProxy client makes impossible to run several tests in parallel:
    - We're waiting for upgrade of MyProxy in grid to newer version coming with glite 3.1 which doesn't have this bug
  
- **CE-sft-caver**
  - Outcome of COD-13 was to modify the test, so it checks the repository for the latest version it should expect at sites
  - Outcome of discussion at CERN: „it would not be a good idea to put there an external dependency on the middleware repository“
  - Seems as need *to be discussed face-to-face*
  - *Not discussed yet*

- **Make possible to submit RB tests on demand**
  - New RB tests will be a part of SAM-client, so there won't be any problem with integration into SAMAP
  - Dave's RB test (RB-time-to-match)
    - We are still waiting for RB sensor code from Dave Kant to see how to integrate it into SAMAP
    - There was urgent need for Apel test so we didn't press Dave to send us the code
- **LFC test**
  - Problem:
    - While running LFC test on a SAM client side lfc-mkdir processes are hanging infinitely if the service port is dropped in site firewall
    - Overloads SAM client machine
  - Improvement:
    - Testing port reachability before running lfc-mkdir command

- Idea
  - Implement changes into SAM tests to **catch error messages** indicating problem with Central Service i.e. “BDII connection timeout” in lcg-cr test
  - Implement **new SAM test status** e.g. CS\_FAILURE apart of OK, FAIL, WARN
  - Do not blame sites of such failures
- Status
  - Analysis from SAM test failures reported as ***non-relevant in site weekly reports is ready***
  - WIKI  
[http://goc.grid.sinica.edu.tw/gocwiki/Tools\\_Improvements\\_for\\_COD/FailuresDueToCoreServices](http://goc.grid.sinica.edu.tw/gocwiki/Tools_Improvements_for_COD/FailuresDueToCoreServices)

- TODO
  - Implement new SAM status – SAM Team
  - Implement changes in identified tests – TIC & volunteers
- Concerns
  - Solution may not be **time-resistant** i.e. changes in error messages generated by middleware require changes in SAM tests code
  - **Reliability**. In some cases error messages do not indicate CS problem **at 100% certainty** – but some additional checks in SAM test code could improve confidence level
  - SAM service is a **sensitive thing** – changes due to Central Services are rather **large scale** (changes can be introduced incrementally, tested in test instance)
  - **Can be validated on SAM validation instance. Developed and tested at instance at CYFRONET.**
  - **“Green light” from SAM team**



- **1st line support ROC teams cooperation with COD teams**
  - Idea
    - Avoid overlapping of 1<sup>st</sup> line support in CE and COD
    - Avoid tickets on already solved problems
    - Take advantage of 1<sup>st</sup> line expertise: quicker solution at site & less work for COD
  - Proposal
    - 1<sup>st</sup> line support use COD-like dashboard to detect site problems
    - 1<sup>st</sup> line notifies site and assists site to find solution within *grace period (one day)*
    - 1<sup>st</sup> line use *alarm annotations to elaborate problem status*
    - *After grace period COD team introduces and close alarm or raise a GGUS ticket*
    - *This does not apply to Critical Failures*
    - *[http://goc.grid.sinica.edu.tw/gocwiki/TIC\\_1st\\_line\\_support\\_integration](http://goc.grid.sinica.edu.tw/gocwiki/TIC_1st_line_support_integration)*

- **TIC to assist SAM in**
  - Writing new tests according to Grid Monitoring WG probe specification (VOMS)
  - Try to use nagios to schedule new probe, gms-publish to publish data to AMQ and later on to SAM DB (contact Emir)
  - Modify SAM framework to execute new types of probes (optionally)
  - **Nagios and ENOC issues and 1<sup>st</sup> line support should be communicated to COD through TIC**

- Internal: Adding new tests – agreed with SAM team
  - **TIC analyses what test could be done on a given service**
  - **New test written according to Monitoring WG specification**
  - **SAM team accepts improvements**