



SAM tests and Site Availability reports

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Site availability, SAM tests, ETF

- Site availability based on SAM tests are used for estimation of the level of service provided by the WLCG sites in accordance with WLCG MoU
- Over last years a lot of improvements performed
 - in test submission framework (ETF). Credits to Marian Babik
 - Test results collection , processing and visualization (SAM). Credits to Pablo Saiz and Edward Karavakis from the WLCG monitoring team. One of the major improvements are possibility to easily introduce new profiles and to correct the historical availability
- ETF and SAM are supported by CERN IT, while experiments are in charge of the development of SAM tests and definitions of experiment profiles

Why did we decide to handle this discussion recently?

- WLCG infrastructure matured a lot. It is constantly heavily loaded with real computing tasks. The problems are quickly being detected following real workflows and the quality of the sites can be assessed based on real workflows. There was some indication of the fact that SAM tests are not necessary used any more for operations both by sites and VOs.
- As a result several questions has been raised:
 - Are VOs and sites checking availability reports?
 - Whether we still need to keep availability reports, can other metrics be considered instead (accounting reports for example)?
 - Instead of calculating availability based on very basic tests, can we rather consider real production activity for site availability assessment, or some other more complex but more realistic tests?
 - Whether VO operations teams and sites are looking in the same metrics (same tests). If not, can it be improved?

Questions to VOs and T1s

- Collected input from LHC VOs and T1
 - Whether they rely on SAM tests for operations
 - Whether they think SAM tests can evolve to be closer to production workflows or even success rate of production workflows can be considered as a result of SAM tests
 - Whether they rely on availability reports
 - Whether other metrics rather than availability reports can be considered to assess the quality of the sites
- Input and minutes of the discussion can be found [here](#)

Outcome of the discussion

- The majority of T1 sites and VOs confirmed that they do use SAM tests from the critical profiles and regularly check A/R reports.
- Suggestions for improvements:
 - Propose policy for accepting A/R recalculation requests. The draft should be reviewed at the next WLCG Operations Coordination meeting.
 - VO should have flexibility in the definition of the critical profile. Though the impact of the changes in the critical profile should be carefully tested by the VO and should be announced in advance to the sites, **no approval of the MB is required.**
 - Make tests as close as possible to the real production flow. ATLAS is planning some work in this direction.
 - The proposal to include real production flows in the critical profile was not supported.
 - Sites which do have local fabric monitoring like Nagios for example, are recommended to use an API to import test results into the local fabric monitoring. This would help to avoid test failures staying unnoticed for months. T1s which did not do it so far, enabled import after the meeting
 - Transparent navigation from the SAM UI to the log files is required to facilitate test failure debugging. This feature has to be preserved in the new SAM UI being developed by the monitoring team.

Backup slide. Site summary

Short summary table

Site	Use tests	How often	Access	Use reports	How often	Continue to rely on reports
ASGC	Yes	Daily	WLCG Dashboard	Yes	Monthly	Yes
BNL	Yes	Daily	WLCG Dashboard	Yes	Monthly	Yes
KIT	Rather not, only if something goes wrong	-	WLCG Dashboard	Not regularly	Just casually	Rather not
NL-T1	Rather not	-	-	Rather not	-	Yes, if there is no false 'down'
NRC-KI	Yes	Daily	ETF Nagios UI, WLCG Dashboard	Yes	Monthly	Yes
RAL	Yes	Daily	Everything what available	Yes	Monthly	Yes
TRIUMF	Yes	Daily	API,ETF Nagios UI,the WLCG Dashboard	Yes	Monthly	Yes
CERN	Yes	Daily	ETF UI, Dashboard, soon API	Yes	When they come out	Yes
IN2P3	Yes	Twice per day	ETF UI, Dashboard, API	Yes	When they come out	Yes
JINR	Yes	Several times per day	ETF UI, Dashboard, Experiment-specific tools	No	Never	No
KISTI	Yes	Daily	ETF Nagios UI and WLCG Dashboard + ALICE specific monitoring	Yes	Monthly, as they come out	Yes
NDGF	Yes	Constantly as it is integrated into local Nagios	API	Yes	Monthly, as they come out	Yes
PIC	Yes	Constantly as it is integrated into local Nagios	API,CMS SSB, WLCG Dashboard	Yes	Monthly, as they come out	Yes