WLCG Accounting Task Force Update

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Main objectives of the task force

- **The highest priority task for the Task Force is to address current issues with CPU/Wall clock accounting.**

- For the CPU accounting to have by the end of August :
    - EGI accounting portal with a dedicated WLCG view which contains all necessary information in a table and/or graph form available also through APIs. Should be bug-free and user-friendly
    - Data exposed through the portal should be correct. We should have in place an automatic data validation procedure, which would allow us to detect eventual problems with data publishing or/and processing
    - The accounting reports with an agreed content should be generated by the EGI portal. This might be possible to do on demand for any given time range with monthly granularity.

- For space accounting
    - agree with the experiments and sites on the functionality which is required for the WLCG storage space accounting system considering the use case of the high level overview of the total and available space

Status. Data validation.

- Data in the accounting portal was validated by comparison with data in the experiment-specific accounting systems for all 4 experiments. 100% consistency is not expected due to pilot overhead. For ALICE, ATLAS and LHCb the checks showed good consistency (difference ~5%). For CMS the difference is considerably higher. After investigation with the CMS experts this difference was explained by higher pilot overhead. More details about data validation can be found here:

  https://twiki.cern.ch/twiki/bin/view/LCG/AccountingDataValidation

- The fact that data in the experiment-specific accounting systems well agrees with the data provided by the EGI accounting portal allowed to make a conclusion that data provided by the EGI portal is trustworthy.

- However, validation allowed to detect problematic sites, which do not publish correctly accounting data to Apel, these sites are being followed up and fixed

- In order to facilitate detecting and debugging of the corner cases, an automatic validation procedure has been put in place using Site Status Board (credits to CERN openlab summer student Dimitrios Christidis). More details about automation of data validation can be found here:

  https://twiki.cern.ch/twiki/bin/view/LCG/AutomationOfDataValidation

- Due to complexity of the heterogeneous T0 cluster, up to now, manual updates of the T0 accounting data is required.

- This issue has been addressed by setting up of the new T0-Apel report generation procedure (summary records) which takes into account all types of T0 resources (credits to Miguel Coelho dos Santos)

- Validation of data generated by the new T0 accounting procedure is ongoing in collaboration with the experiment experts.

Status. Validation of the new EGI accounting portal

- New EGI accounting portal has been deployed for validation in the beginning of summer:

  https://accounting-next.egi.eu

- Validation of the WLCG view in the portal has been performed. Very good collaboration with portal developer Ivan Diaz Alvarez. Quick bug fixes.

- After validation, the new portal has been publicized to the sites and experiments via the WLCG operations coordination meetings. Asked for feedback. So far feedback is positive

- Following the decisions of the WLCG accounting review at the GDB where it has been agreed that the WLCG-dedicated portal with WLCG feature requests will be provided, task force collected requirements from the user community. Following the requirements, the draft of the specification for the WLCG-dedicated portal was created . By the end of October, after final approval of the task force members the specification will be passed for implementation to the EGI portal developers.

- More details regarding portal validation can be found here:

  https://twiki.cern.ch/twiki/bin/view/LCG/NewAccountingPortalTesting

Status. New accounting reports

- Currently accounting reports are generated by two different systems: REBUS (T1) and EGI portal(T2)

- Generation of the T1 accounting reports moved to EGI portal. REBUS code has been re-used

- Following the decisions of the MB and of the WLCG accounting review at the GDB some changes were implemented in the new reports (use work derived from walltime consumption to compare with pledges, drop installed capacity for CPU)

- New reports are available under "Reports->WLCG" view in the new portal. Now it is be possible to generate reports on demand for any given time range with monthly granularity.

- First level of validation has been performed. Most of bugs were fixed. A bit of polishing of the headers, labels and notes is still required.

- The plan of migration to the new set of reports is agreed. Staring from end of October, current official reports will be sent together with the new set of reports. This will give people an opportunity to validate new reports and provide their feedback. We plan to make new reports official starting from January 2017.