Summary of the input of the LHC experiments and WLCG project office regarding WLCG requirements and use cases for the Accounting Portal and Accounting Reports

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Questions asked

- Feedback on the EGI accounting portal and whether/how it is used

- Feedback on the accounting reports and whether/how they are used

- Multi-core accounting, is it required? Feedback on the implementation in the accounting portal

- Whether accounting of the opportunistic resources should be covered by the accounting portal

- Space accounting. How it is done. Whether it should be a part of the EGI accounting portal? What is foreseen for the SRM-less world.

- REBUS. How it is used and feedback

Summary table

LHC VO	Use of the accounting portal (CPU)	Use of the accounting reports (CPU)	Multicore accounting	Opportunistic resources	Space accounting
ALICE	No	Yes for CRSG	No	Have them in experiment-specific accounting, but might consider useful for a global WLCG view	No
ATLAS	Yes, mainly for CRSG	No	Yes	Have them in experiment-specific accounting, but might consider useful for a global WLCG view	No
CMS	YES, mainly For CRSG	No	Yes, very much needed	Yes, want all kind of CMS resources there	No
LHCb	Yes, mainly For CRSG	No	Not now, but might need in the future	No	No

CMS input as summarized by Maria Alandes from the discussion at the CMS workshop

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Some highlights regarding accounting portal (1)

- All experiments rely either on the EGI accounting portal, or on the reports for preparation for CRSG (twice a year). None of them apparently rely on the portal or reports for operations, rather use their internal accounting systems.

- All experiments expressed their concern about the current state of the portal in terms of simplicity of navigation and finding necessary information as well as in terms of data trustworthiness.

- Implementation of new features and bug fixes takes too long, terms of many months

- In particular it concerns multi-core accounting which looks still buggy and not yet deployed in production

Some highlights regarding accounting portal (2)

- All experiments keep track of the usage of the opportunistic resources in their own accounting systems. None of them apart of CMS require that those resources are covered by the central accounting. CMS would like to be able to see ALL kind of resources used by CMS in the EGI accounting.

- However experiments think that if possible it would be nice to have a complete picture for both pledged and opportunistic resources in the central accounting portal.

- Non-opportunistic resources provided through cloud interfaces should be correctly tracked in the central accounting

- Snapshot and historical data should be available through a well documented API

Suggestions

- We need to be able to validate data in the accounting portal. There are experiment-specific accounting systems which we can use for crosschecking. In order to do so, the simple metric as 'Elapsed time multiplied by number of cores' has to be available.

- Summary view by country with split by tier/site would be useful (LHCb).

- In order to provide a complete view covering also opportunistic resources, accounting data from the experiment-specific systems can be injected on regular basis in the central accounting system. Similar of what is currently done for GRATIA.

Some highlights regarding accounting reports

- Accounting reports are based on the accounting portal for accounting information and on REBUS for pledges.

- Modifications to the accounting reports were discussed at the WLCG Management Board on the 16th of February

- First proposal (from Pepe Flix) is to use a consistent metric with the one in which pledges are expressed wallclock HS06 instead of CPU HS06. And to use the same unit HEPSPEC06 days both for T1 and T2 reports.

How we account for jobs with high memory requirements (locked resources)

- Another proposal (from Pepe Flix) discussed at the MB board was that in case of high memory job requires blocking of several cores , then all those cores should be accounted as used.

- Some of the experiments (LHCb) agree with this proposal. However, looks like we do not have common agreement and need more follow up on this issue.

Input from the WLCG project office regarding accounting portal (1)

- EGI accounting portal is confusing, not easy to navigate, not clear what data to use and how. It is true not only for the WLCG management but also for the members of the scrutiny group trying to get and understand data.

Input from the WLCG project office regarding accounting portal (2)

- Historical data not represented for decommissioned sites. If a site is decommissioned, it disappears entirely from the T2 list no matter what year/date is selected. Consequently, it is impossible to know what sites were contributing when, and creates a false picture of the past.

  History of the topology changes should be preserved in order to create accurate historical reports

- Thanks a lot for all people collecting and presenting input from the experiments and WLCG project office: Maria Alandes Pradillo, Alessandro Di Girolamo, Stefan Roiser, Maarten Litmaath, Alessandra Forti, Catherine Noble, Ian Bird

- More details regarding discussion at the WLCG Operations Coordination meeting can be found here:

  https://indico.cern.ch/event/514077/