



New benchmark and accounting workflow

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Migration to the new benchmark. Some considerations (1)

- We need to support transition from HEP-SPEC 06 to HEP-SCORE 2x
- Transition to HEP-SPEC 06 was more straightforward since a single conversion factor could be applied for all sites. Therefore from the accounting point of view the transition could be done in one go
- While planning transition to a new benchmark we should also keep in mind future support for non-x86 CPUs, GPUs,...

Migration to the new benchmark. Some considerations (2)

- Transition from HEP-SPEC 06 to HEP-SCORE 2x will be a gradual process. Might take few months.
- During these months sites which have introduced a new benchmark and those which have not will coexist on the WLCG infrastructure.
- Need to follow up the migration progress and be able to account CPU consumption using both benchmarks in parallel without mixing them
- EGI and WLCG will do the transition to the new benchmark at the same time and will coordinate this transition together

Components which will require modifications

- APEL client and APEL repository. (More details in the presentation of Adrian Coveney)
- ARC and HTCondor
 - have to support consumption reporting using both benchmarks
- EGI accounting portal.
 - Changes will be required to show consumption with both benchmarks. Changes required in the DB schema and in the UI, but not too complicated and should not take long.
- WLCG Accounting Utility (WAU).
 - WAU will provide a possibility to show which sites enabled new benchmark and compare consumption using two different benchmarks.

Practical steps and issues

- Meetings with all parties involved have been held and required changes agreed with the development teams
- Though changes required in the EGI accounting portal have been agreed with the portal developer in early spring, the developer has resigned a month later.
 - CESGA did not yet hire a replacement and a new hire will likely not be in place before Q4 2022. This puts in risk the implementations of the changes in the portal.
 - Backup solution to provide UI which would allow to show consumption in both benchmarks during transition period just in WAU without touching the portal is being discussed with APEL team. Currently WAU imports data form the EGI portal. Most probably we would need to bypass the portal and import data from the APEL repository

Timeline

- Accounting record specification finalised over August and passed to ARC and HTCondor development teams so that could start to implement required changes.
- APEL team works on design of potential Repository-WAU interface.
- APEL Repository development to support change in record format over September.
- Prototype Repository ready for testing at the start of October – check message flows, record loading and aggregation with test site(s).
- October/November make changes as necessary following testing and start on Repository-WAU interface if that is required.