



Deployment of HEPscore in production from the accounting perspective

GDB 13.09.2023

Migration to the new benchmark for the accounting workflow

What does it imply?

- *Possibility to report job consumption using either HS06 or HEPscore benchmarks and to process it correctly in the APEL repository (In progress)*
- *Show consumption in the EGI portal using HS06 units before the switch to HEPscore and in HEPscore units after the switch*
- *Show historical distribution in the EGI portal and WAU without disruption (DONE)*
- *Possibility to follow up on the gradual increase of the resources benchmarked with HEPscore at the sites. This means a possibility to demonstrate which part of the consumed resources has been benchmarked with HEPscore vs HS06 in the EGI portal and/or WAU (In progress)*
- *VO requirements and pledges in CRIC for 2023 should be in HEPscore and pledges and VO requirements for the previous years translated to HEPscore for the historical distributions (DONE)*
- *Starting from April accounting reports should show CPU consumption in HEPscore hours (DONE)*

Possibility to report job consumption using either HS06 or HEPscore benchmarks and to process it correctly in the APEL repository

- It has two aspects: server side and client side
- Server side
 - The server needs to handle both old and new accounting message formats with either benchmark
 - It will aggregate records based on the benchmark used so that the Portal can display it correctly
- Client side
 - Depends on client used by the site (see later slides)

Testing infrastructure

- New specifications of the accounting records which include the name of the benchmark are ready
- Documentation for the sites joining testing and validation can be found on the [twiki page](#)
- The testing infrastructure capable of receiving accounting records in old and new formats and recording information in the DB with a proper benchmark name tag is ready

Client side, usecases (1)

- Sites which send normalized records: CERN, several T1 (IN2P3-CC, INFN-T1, NDGF), couple of European T2s and OSG
- New specification is published. All sites have been informed about the change and kindly asked to join the tests. **So far the successful tests have been performed by INFN-T1 and CERN.**
- OSG is a special case. They do not need any changes at the sites. There should be some changes performed in their central repository. The required modifications have been discussed and agreed with GRACC developer. **Testing with OSG is ongoing.**

Client side, usecases (2)

- Sites which send summaries or individual job records relying on the generic clients: APEL client (HTCondor European sites) or ARC client
 - The next release of ARC should support the new record format
 - New APEL client
 - APEL client 1.9.2 released that adds basic HEPscore publishing using existing record format
 - To be added to UMD

Possibility to follow up on the gradual increase of the resources benchmarked with HEPscore at the sites. This means a possibility to demonstrate which part of the consumed resources has been benchmarked with HEPscore vs HS06 in the EGI portal and/or WAU

- APEL server release candidate in testing
 - Working with EGI Portal team to complete testing of end-to-end accounting data flow
 - Currently fixing some AMS issues with the EGI Messaging team
- EGI Accounting Portal being updated to allow switching between benchmark displays
 - Will at least be able to switch between the two benchmarks, but may also be able to show them side by side

Important note

- One of the frequently asked questions is how sites are supposed to introduce resources benchmarked with HEPscore
- In case, when the new resources are located behind a dedicated CE, the solution is simple, since benchmark info (benchmark name and benchmark factor) is defined per CE
- For the sites which prefer not to have a dedicated CE we have a following recommendation in the documentation:
 - In case CE provides access to a mixture of the resources benchmarked with two different benchmarks, the benchmarking factor should be calculated normalized by resource capacity of every resource set. In this case the accounting record should contain "HEPScore23" as a benchmark name, though technically resources are not homogeneous considering used benchmark. Example for calculation is included in the [draft of documentation](#)

Documentation

- Migration documentation for sites will be added to the TWiki
- It will cover what sites needs to do, depending on their accounting client

QUESTIONS?