WLCG HEP-SCORE Deployment Task Force

Meeting on 18 May 2022 at 14:00 h UTC (teleconference)

Notes

Indico event page: https://indico.cern.ch/event/1104198/

Welcome, note-taking, notes from previous meeting, matters arising

The minutes from the previous meeting are approved; thanks to Bernd Panzer-Steindel for having provided them.

Status of workloads (Domenico Giordano)

Domenico: ALICE workload is working and validated on several machines. The new HEP-Score benchmark script with the letter "D" including IGWN and ALICE is ready and tested on a few sites. Currently, Gen-Sim-Digi does not include all digi processes. Digi part will be ignored or removed. That would need validation runs for the scores. Debugging for ALICE Reco workload is ongoing.

Stefano Piano is working on a problem with the CVMFS snapshot in the container for the Reco workload. According to Stefano Piano, ALICE Gen-Sim is validated and can be used. Stefano Piano also mentioned that Gen-Sim-Digi is what happens in the Grid. Therefore, he prefers not to split the workloads. Domenico would like to have scores for Gen, Sim, and Reco separately. Helge mentioned that each thread could log its runtime for each part (Gen, Sim, Digi).

Domenico is working on the ATLAS Reco with real data and got a DB snapshot from ATLAS, which is needed for reconstruction. Domenico thinks that this workload should be available this week. The validation of that workload should be possible in a short amount of time. Walter mentioned that the runtime of the ATLAS real Reco should be only a few minutes. Domenico mentioned that up to eight threads are possible to keep the runtime for all the events short. According to Walter, 1500 events are in the Reco file, and more than eight threads could cause internal bottlenecks. Helge is happy that these ATLAS and ALICE workloads (LHC experiments) will be available soon and understood. This is important to decide which workloads will be part of the HEP-Score 2022.

Benchmark run campaign (Gonzalo Menendez Borge)

Gonzalo: All sites have finished SPEC benchmarks, two sites running the HEP-Score B/C, and most sites finished up to HEP-Score C. D-Script is ready, and a mail was sent on Monday 16 May about that. The D-Script contains Alice Gen-Sim and Gravitational Waves. These workloads will take about 5-6 hours.

Gonzalo showed a table where not all benchmarks / or less than 10 times were run on some machines. Helge mentioned that the complete system is important, not only the CPU. Therefore, all machine configurations should be measured to get a full picture of the performance.

Domenico suggested to release a new version of script D, e.g. D+, without the ALICE Digi part of Gen-Sim-Digi. An alternative would be to ignore the Digi part in the result, but it has to be consistent. Randy prefers that the new script has to have another name not to confuse people. Helge suggested removing the current version of the script since only a few sites have run script D.

Randy would like to see benchmarks with Hyper-threading on Milan CPU systems.

Any other business

Helge suggests to plan a workshop to define HEP-SCORE 2022, maybe at CERN. September is a good time. Co-location (back-to-back) with the GDB meeting in Amsterdam could be considered. The idea was welcomed and supported by the group. Oxana mentioned some other co-located events in Amsterdam and other events relevant for HEP in the beginning of September such as the DUNE meeting, the LHCC week and the CernVM workshop. Domenico mentioned that CERN is better for some working group members than Amsterdam. A presentation at GDB about the current status of the HEP-Score would also be good. Helge will send a mail with two candidate dates (directly after the GDB Thursday afternoon and Friday) or the Mon Tuesday the week after. Tommaso mentioned that the computing coordinators should also be involved and present at that our workshop.

Next meeting

Already scheduled for 01 June 2022

Annex: Attendance

Present:

Miltiadis Alexis (CERN)
Tommaso Boccali (INFN Pisa)
Domenico Giordano (CERN)
Walter Lampl (U Arizona)
Helge Meinhard (CERN, chair)
Gonzalo Menendez Borge (CERN)
Stefano Piano (INFN Trieste)
Matthias Schnepf (KIT; notes)
Oxana Smirnova (U Lund)
Randall Sobie (U Victoria)
Andrea Valassi (CERN)
Tony Wong (BNL)

Apologies:

Michel Jouvin (IJCLab)