

WLCG HEP-SCORE Deployment Task Force

Meeting on 05 May 2021 at 14:00 h UTC (teleconference)

Notes

Indico event page: <https://indico.cern.ch/event/1030672/>

Welcome, note-taking, notes from previous meeting

The minutes from the previous meeting are approved. Thanks to Josh Willis for preparing them.

Workload updates (all)

Andrea Valassi (CERN, LHCb): Still using MC Simulation (80-90% of LHCb Grid CPU usage), will provide new container running single-threaded MC Simulation (Gauss), goal is to keep this stable during Run3

Josh Willis (GW): Planning to have a gravitational-wave analysis test ready by early June (barring unforeseen problems). We have had it containerized for a while but to integrate it into the HEP-Score benchmark workflow will require similar changes to what DUNE was describing on the previous call (for example, our container is not hosted from gitlab.cern.ch, and is based off of CentOS 7, not SL6).

Stefano Piano (INFN Trieste / ALICE): Updates on ALICE workloads, with improvements in the O2 framework (BTW, can run also on GPU); ALICE will provide a container with all the software in the next months

Xiaofei Yan (IHEP / JUNO): Container for JUNO test jobs available in CVMFS; Domenico G. will send instructions how to integrate with HEP benchmark suite

Tommaso Boccali (INFN Pisa, CMS): *CMS does not expect significant changes (== which can affect a benchmark) in the next few months, wrt what was presented earlier this year. So the workflow we have proposed is still a valid one, and is reasonably close to what we will run in production during Run3. Clearly, our software evolves continuously, and for sure if there is a later window of opportunity we will update to the state-of-the-art of that moment (most probably just release version, DB conditions and PU settings); but there is no phase-change expected.*

Helge Meinhard: Proposing deadline for final workloads: 16 June – no objections by TF members

Benchmark configurations (all)

Alastair Dewhurst (STFC-RAL): Will provide dual AMD Epyc 7452 (32 Core, 2.35 GHz), 512 GB RAM, SSD, CentOS 7; student available to help if problems occur

Oxana Smirnova (U Lund): Dual AMD Epyc 7302 (32 cores + 32 threads, with or without SMT enabled), 256 GB RAM, CentOS 7

Michel Jouvin (IJCLab): Dual AMD Epyc 7702 (128 cores / 256 threads), 512 GB RAM, CentOS 7; plus more traditional HW with various Intel processors from the last years, if useful; 1 person with benchmark expertise ready to help

Jeff Templon (NIKHEF): Can provide several worker nodes from batch farm

Domenico Giordano (CERN): Several machines with Intel Haswell / Broadwell / Silver / Gold, SMT on, can include AMD Rome/Milano as well; systems under NDA?

Josh Willis (Caltech): Will provide system, e.g. 128 logical processors

Tony Wong (BNL): Will offer some hardware configurations

Domenico G.: Will collect benchmarking data, and compile analysis plots

Manfred Alef (KIT): Several machines (wide range from old (Sandy Bridge) to latest host models (Rome)) that are already used by the benchmarking working group

Xiaofei Yan: Dual Chengdu Hygon C86 7291 32-core, 256 GB RAM, SSD, CentOS 7

Gonzalo Merino (PIC): AMD Epyc machines, will be installed at PIC soon

Helge Meinhard: Please upload summary slide if not already done ASAP! Will provide a worksheet

Any other business

Alastair Dewhurst: Planning a pre-GDB about worker node configurations, see separate email to GDB list

Next meeting

No meeting on 19 May because of conflict with vCHEP21. Next meeting on 02 June. (Envisaged topics: vectorisation, discussions about compiler flags)

Annex: Attendance

Present:

Manfred Aef (KIT, notes)
Tommaso Boccali (INFN Pisa)
Ian Collier (STFC-RAL)
Alastair Dewhurst (STFC-RAL)
Domenico Giordano (CERN)
Walter Lampl (U Arizona)
Helge Meinhard (CERN, chair)
Andrew Melo (Vanderbilt U)
Gonzalo Merino (PIC)
Stefano Piano (INFN Trieste)
Oxana Smirnova (U Lund)
Randall Sobie (U Victoria)
Andrea Valassi (CERN)
Josh Willis (Caltech)
Tony Wong (BNL)
Xiaofei Yan (IHEP)

Apologies:

Jeff Templon (Nikhef)