

Facilities session conclusions

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HEPScore - Session

Key agreements:

1. The first production version of HEPscore will be x86 only.
 - This will allow VOs to properly work on ARM benchmark.
2. In April 2023 we will switch from HS06 to HEPscore with a 1:1 conversion.
3. Sites will be expected to only benchmark new hardware with HEPscore. Old hardware does not need to be re-benchmarked.
4. While it is not needed initially, in future the APEL accounting system should evolve to handle multiple benchmarks.
 - Need to track the mix of benchmarks being used

Energy Crisis

It is likely that this winter at least some sites will be asked to limit their power usage.

Easiest option for both Sites and Experiments is to turn off some old hardware however this may not be sufficient.

Rod's work to limit clock speeds looks the most promising way forward that doesn't involve switching on / off hardware.

Urgently seeking other sites to further investigation.

Hardware Costs

- Presentations from UK and US perspectives.
 - Costs in recent years have been flat or going up!
 - Not obvious what new normal will be.
- Energy costs have always made up a significant fraction of the total cost of ownership and this fractions looks to be increasing.
 - Running hardware for longer isn't necessarily an option.
- Possible solutions involve making use of ARM or HPC resources.

Other Topics

- Analysis Facilities
 - Lots of ongoing development - use the technology as building blocks, without locking ourselves into a predefined architecture, and engage users to adapt the technology to their needs
- Networking Topics
 - Lots of work to do and decisions to be taken in advance of DC24. We do *not* want sites purchasing equipment earlier than necessary to meet the defined goals.
- Tier-2 as Cloud
 - New tools and continuing development has been making the idea of a “cloud-like” k8s-based Tier 2 increasingly viable