Proposed changes in the accounting portal and reports.
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Main changes foreseen in the accounting portal and reports

Following the outcome of the February MB, WLCG accounting review and WLCG Accounting Task force agreed to:

- Provide a dedicated entry point for the WLCG accounting views
- Add possibility to choose time granularity (hours/days) to all WLCG views
- Drop from the accounting reports installed capacity for CPU. Installed capacity for CPU will be still available in REBUS. Installed capacity for storage (disk and tape) will be exposed in the reports for the time being. Can be reviewed later when we have WLCG space accounting in place.
- Modify accounting reports for what concerns comparison to the CPU pledge (more details slide #3)
- Drop some metrics which are confusing (more details slide #4)
- Propose coherent naming and definitions for metrics which will be exposed in the portal and in the reports (more details slides #5,6)

Comparison to the CPU pledge

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Removing the efficiency factors

Pepe's presentation at the MB in February

- All of the efficiency factors were removed from the accounting reports since Apr. 2015. For CPU:

  - **Before Apr. 2015:** the CPU pledge for a site was scaled (down) by applying the CPU efficiency factor (0.85 for T1s, 0.7 for T2s); then, the consumed CPUtime in the year was compared to this scaled down CPU pledge

    - *Either we were scaling down the pledge, or scaling up the CPUtime usage, to account for the inefficiency of the jobs...*

  - **After Apr. 2015:** the CPU pledge for a site is not scaled down anymore; then, the consumed CPUtime in the year is compared to the CPU pledge...

    - But, as jobs are not 100% efficient, the jobs used WALLtime should indeed be compared to the CPU pledge **[see next slides]**

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Replace metric which in the current reports is called 'CPU used' and represents

CPU time (as it is reported to APEL by the batch system) multiplied by power of the CPU resource

by

wallclock or elapsed time (as it is reported to APEL by the batch system) multiplied by number of processors and power of the CPU resource.

Metrics which will be dropped from the reports

- Drop from the reports and from the WLCG views of the portal wallclock (or elapsed) time which does not take into account number of processors. In the current portal this metric is called 'Sum elapsed'. Became confusing with introduction of multicore jobs (efficiency>100%)

- Drop from the reports and from the WLCG views of the portal wallclock or elapsed time multiplied by power of the CPU resource which does not take into account number of processors. In the current portal this metric is called 'Normalized sum elapsed'.

New metric names and definitions (1)

MANCHESTER 1824

GridPP UK Computing for Particle Physics

Is it really "normalised"?

- Benchmark value is a measure of power
  - HS06 = power/processor (in other contexts core/logical cpu/slot)
    - Total/Pledged HS06 = Total/Pledged power
  - Power*time is a measure of work
  - What we call "Normalized CPU time" is really CPU work
    - Power*CPU time
  - Though not really work for symmetry "Normalised Elapsed time" becomes Wall clock work
    - Power*Wall clock time
      - Wall clock time: scaled in apel, raw in exp dashboards
  - Wall clock work/time interval = Delivered power
    - In experiments reports, dashboards now also in WLCG reports
      - To be compared with pledged power

New metric names and definitions (2)

- SUM CPU → SUM CPU time
- SUM Normalized CPU → CPU work
- SUM Elapsed → Dropped
- SUM Normalised Elapsed → Dropped
- SUM Elapsed*processors → SUM wall clock time
- SUM Normalised Elapsed*processors → SUM wall
- clock work
- Total/Pledged HS06 → Total/Pledged Power
- Wall clock work/time interval → Delivered Power

From Alessandra's presentation for UK sys admins

What do we do next

- Present the proposed changes at the MB next week
- By the end of November implement changes in the portal and the reports and validate changes by the Task Force members
- In December send around two sets of reports : current ones and new ones. Current ones still stay official.
- If no particular problems are found, switch to the new reports in January 2017. Announce a new entry point to the WLCG accounting views to become an official WLCG accounting portal.
- Some additional functionality which is foreseen for WLCG dedicated accounting portal might not be in place by the beginning of the next year. Will be added later following the specification document developed by the task force.