Input to WLCG ws:
"Infrastructure models"

CMS

WLCG ws - Feb 2nd, 2016

Infrastructure models

"Tier-X" blurring into generic "**access points to resources**"

✦ somehow happening already

✦ transition from IaaS to PaaS approaches?

And, these "a.p.r." could be more "logically integrated"

✦ simplification of experiment CompOps, but transparency must be guaranteed

- transparency intended as two-fold: on one side, we need to be able to exploit more resources as a single logical entity, and on the other side we need to be able to see through a resource for debugging purposes (e.g. Meyrin/Wigner)

✦ funding model needs to change?

We may have fewer distinct archival centres than current T1s

✦ indeed, along the same lines as previous point, for tapes only

✦ step-1 could be at the regional level, step2 could be interregional archival points

✦ CMS disk/tape separation in distinct PhEDEx nodes is deployed already. As long as network bandwidth is adequately dimensioned for the tape-related workflows, any of this novel set-up may work already now

✦ implications on the pledging process? (e.g. disk/cpu vs tapes) -> involvement of regional representatives

Infrastructure models

Evolution of "federations"

✦ advantages in exploring this at the regional level? Impact on WLCG?

✦ protocol choices: a forum transversal to experiments to track progresses?

- be aware that a change here means years of work for a stable and robust infrastructure

✦ tests/tuning for performances, maintainance. Responsibility?

✦ lack of proper 'modelling and simulation' for these scenarios

Provisioning landscape through HPC/IaaS-clouds/..

✦ move from purely "flat" to combined "flat/time-dependent" requests for computing capacity