Cloud pre-GDB Introduction

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WG Goals

- WG is about exploring the possibility to use private/community clouds as a replacement for grid CEs
  - No intention to cover all the aspects of cloud usage by experiments
  - Focus on shared clouds rather than dedicated resources to one experiment
    - But many lessons can be learnt from private clouds…
  - This perspective is part of the WLCG future directions presented at last WLCG workshop in Copenhagen

- Build on existing work in experiments: do not start a new huge R&D project
  - No manpower available to do it
  - Tackle all foreseen operational issues: scheduling, accounting, security…

Last Meeting Focus (July)

- Review progress/work about cloud usage in each experiment
  - Most of the work done with HLT farms… which are not shared clouds
  - An important milestone for integrating cloud backends in pilot factories

- Review concrete work about implementing graceful VM termination as discussed in March

- Continue discussions on possible models for non static sharing of resources
  - Target share approach vs. economic models
  - Vac approach: resource provider decides the next VM to run rather than waiting for submission
    - Volunteer computing model rather than cloud approach

Current Meeting Goals…

- Follow-up discussion for target share implementation
  - Almost a consensus that implementing an economic model without real money is far too complicated…
  - Almost a consensus that without it it is impossible to replace a CE/batch system
    - Batch systems provide target share through the fair share mechanism

- Security: identify potential issues while going (pre-)production
  - Ensure traceability requirements are met… or revisit them
  - Credentials used to run VM? To access data?
  - Root access to VMs: against the current policies but also a cloud feature…

... **Current Meeting Goals**

- ◉ Accounting
  - › Identify issues if any with APEL-based accounting
    - • APEL use will ease integration with exisiting WLCG accounting
  - › WC time vs. CPU time
  - › How to normalize a VM CPU power?
    - • How to measure or publish VM HS06?