

# CE Extensions for OSG

Brian Bockelman

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# A Warning

- This talk is more devoid of content than usual.
- OSG is in the middle of the decision-making process for our long-term CE plans.
  - In fact, the discussion is occurring this week!
  - Hard to discuss future extensions if I can't tell you what CE we'll be using in the future!
- So, I'll focus on what I do know!

# Multicore on the OSG

- Have had some dedicated effort for the last 2 years called “HTPC”
  - High Throughput Parallel Computing.
  - Focused on running multicore jobs on the OSG
  - Able to get whole machine and n-core jobs on all the supported OSG batch systems.
    - Exposed via the Globus RSL interface. Of course, no one uses direct submissions, so who cares?
  - Relevant info recorded in the accounting system.

# Pilot Factories

- glideinWMS has the ability to define queues with:
  - Whole-machine slots.
  - N pilots for a N-core job.
  - Request N cores for one job.
- Much of the expressiveness was initially done for Teragrid/XSEDE sites, which may limit a user to <100 jobs in the queue.

# If it isn't used in anger...

- If a system hasn't been used "in anger", assume it's broken.
  - While these capabilities exist in OSG, I don't believe they've been used in anger yet!
  - So, there's still quite a bit of remaining work remaining to make it production quality!
    - And, we assume this means round trips with the developers.
  - But the initial work has been done!  $O(1M)$  hours used; small amount, considering efforts expended.
    - I think onus is on the stakeholders to start using it to help us grow past this plateau.

# Other Extensions

- We are concerned about these:
  - Streamed submissions.
  - IO/CPU tagging.
  - Variable multicore requests (asking for 4-8 cores).
- Are the costs worth the benefits?
  - Our stakeholders indicate “no”, so maybe a reality check should be done at the WLCG MB level?