

Introduction to pre-GDB on Batch Systems

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Current Situation...

- Most sites, including T1s, use Torque+MAUI
 - > Torque reasonably maintained but we are still running very old (unmaintained) versions
 - Still used for Moab, the commercial replacement for MAUI
 - > MAUI is a requirement and has been unmaintained for years
 - Torque has very basic scheduling capabilities
 - MAUI doesn't use efficiently multi-core machines (single threaded)
- LSF used mainly at CERN and CNAF
- Several big sites (T1s + large T2s) migrated to (UNIVA) Grid Engine
 - > Good feedback so far
 - > Well integrated with the MW

... Current Situation

● SLURM

- › A big hype a few years ago
- › Used at several places in NorduGrid
- › No complete/official support in EGI MW
- › Potential scalability issues reported at very large scale
 - Scalability with very large number of jobs

● HTCCondor hype

- › Recent move from Torque+MAUI to HTCCondor at RAL
 - Coupled with ARC CE
- › A few sites looking at it
- › The main (only?) solution in the US
- › No complete/official support in EGI MW

New Challenges

- ⦿ Multi-core job support
 - > A high priority for LHC experiments
 - > Need for an efficient coexistence of multi-core and single-core jobs
 - > Need for flexible requirements wrt. to multi-core jobs
 - Not requirement by core
- ⦿ Cloud resources: support for dynamic WNs
 - > Ability to add/remove nodes from the cluster seamlessly
 - No long reconfiguration time
 - No preconfiguration of “potential WNs”

Meeting Goals

- Share experience about the different batch systems
 - > First part of the meeting is short batch system reviews by sites with a concrete experience
- Identify strengths and weaknesses
 - > Proposal: build a summary table (Twiki page)
- Review missing bits for MW integration
 - > Job submission and management
 - > Accounting
 - > Monitoring

Meeting Details

- Lunch in the restaurant around
 - > Try to break “early” (~12:30) to avoid the busy hours
- Wifi
 - > Preferred SSID: Eduroam
 - > If you cannot use it, contact local people to get your MAC address registered