

HNSciCloud CMS status-report

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Setup



- CMS integrates the HNSCi Cloud resources as two distinct sites that share the very same storage element (CERN).
 - As a matter of fact there are two distinct entries in the Glidein Factory
- This allows CMS to easily evaluate and compare the two providers
 - But this is not yet so meaningful cause we've not enough statistic on RHEA (see later)
- From technical perspective mapping everything under a single CMS_Site is possible

Workflow

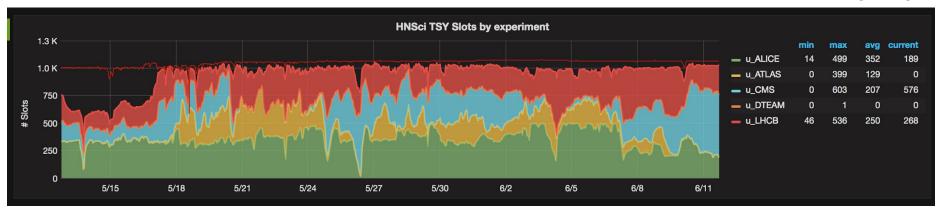


- Current configuration is based on CMS overflow mechanism
 - "Anything that can run at CERN can also run on HNSci Cloud" but we've added a filter on top of this
- For now, we pick the campaigns that do not require to high I/O
 - Main reason for this is to fully validate the setup and make everything working (rock solid)
 - Evaluate both success rate and cpu efficiency
- Now that everything is working we'll open to any type of workflow
 - To-do list

Resource Usage during past 30 days

- CMS integrated first TSystem and couple of week later RHEA.
 - We agreed to fully validate the whole setup with one of the two..
 - RHEA was off for a 1+ week, then only 4-Core VMs (CMS requires 8 cores)

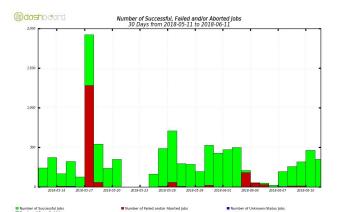
Ben's monitoring page



CMS way over 1/4 of the resources

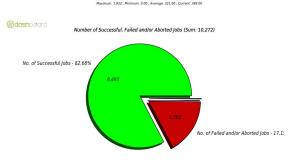
Performances: early analysis

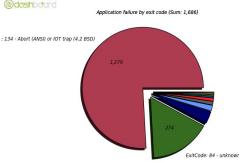


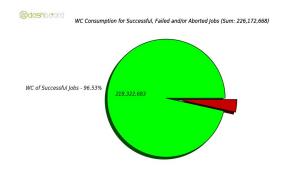


So most of these numbers refer just to TSystem

- 10k+ jobs completed
- 80%+ success rate
 - Most of the failure are not CMS related (network issues etc.)
- 70%+ CPU efficiency







essful jobs - 82.68% (8,493)

wwn.5tatus jobs - 0.09% (9,00)

No. of Cancelled Jobs - 0.08% (8,00)

■ ExtCode 114 - Abort (AHS) or 10T trap (4.2 8SS) (1.279)
■ ExtCode 3.5 - unknown (2.74.50)
■ ExtCode 3.5 - unknown (2.74.50)
■ ExtCode 3.5 - unknown (2.74.50)
■ ExtCode 3.5 - unknown (2.70.50)
■ ExtCode 3.5 - unknown (3.70.50)
■ ExtCode 3.7 - Segmentation violation (AMS) (4.50)
■ ExtCode 3.7 - Segmentation violation (AMS) (4.50)

WC of Successful lobs - 96 53% (218.322.683)

■ WC of Failed and/or Aborted Jobs - 3.47% (7,849,985)

Early comments ...



- From 10Km far "Everything worked out of the box"
- All the issues (very few) where due to misconfigurations (some of mine :))..
 As such everything was fixed easily
 - Many thanks to Ben and the batch team for the effective support and for all the provided feedbacks which helped to quickly spot mistakes
- CMS uses multicore.. In order to get proper share we need to keep constant pressure..
 - o If we lose the share it takes hours (even 12+ with RHEA) to get a slot.