CentOS7 status & configuration discussion

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CentOS7 in WLCG

- The experiments will not push for migration until LS2.
  - Sites that want to move can do that
- Few sites have actually moved
  - In the BDII ~ 13/130 of the CEs in WLCG are CentOS7 (C7)
  - Of these 7 are in the UK and they are about to increase
- UK started in 2016 with ECDF
  - Now C7 nodes also at IC, Lancaster, Liverpool, Manchester and Oxford

Middleware status

- EGI ready in UMD4 since Aug/2017
  - More info MWREADY-135
- Tarball version of the UMD rpm available in CVMFS
  - /cvmfs/grid.cern.ch/centos7-wn-preview-v01
- Things to note
  - YAIM configuration has been dropped for several services in UMD4/CentOS7 in particular for the WNs.
    - It was reintroduced in the repositories but it is not automatically installed
  - lcg_utils is deprecated. GFAL2 replaces it.
  - For sites still on torque configuration for this has also been dropped.

ATLAS on CentOS7

- Release status
  - All SL6 applications have been validated
  - SL5 releases instead will not be supported on C7
    - Check with your users, some might still be using them
  - C7 native not there yet.
- Ways to migrate
  - Big bang
  - Rolling transition
  - Containers
- Rolling transition
  - Sites favourite
- Atlas cannot mix SL6/C7 nodes
  - Needs new Panda Queues
- Whatever you do let the cloud squad know
  - For Rolling Transition it's a MUST.

Experiments on C7

- LHCb can run on bare metal
  - Needs to know the OS from the BDII.
- CMS needs singularity to run
  - More info #Singularity
- Others: smaller VOs might not be able to run.
  - If you are particularly keen on any of them you need to ask them.
    - SKA works and is moving towards containers (singularity)
    - icecube works
    - microboone

WN/Services configuration

- Many sites moved to puppet or did they?
  - They did, but the run YAIM underneath for MW
- UMD4/C7 yaim has been dropped
  - rpms are back in the repo but they are not installed anymore and some don't work anymore either.
- Lost any centralized maintenance
- Product Teams often don't offer alternatives

HEP-puppet

- Puppet 'community' effort started several years ago there are working modules
  - https://github.com/HEP-Puppet
  - 34 modules ✓
  - Community maintenance → not guaranteed ~
  - Not clear what should be used because there is no central revision x
    - Gave some of my module to the WLCG MW manager
      - Puppet-wn module in HEP-Puppet is the result
- Some other people in WLCG talking about starting something similar at CERN
  - WLCG Lightweight Sites
- Not all sites use puppet....

Containers

- Can we solve this problem with containers?
- For the WN LHC experiments going towards it
  - There is no common image that can work for everyone.
  - Even if there was an image produced by WLCG it would only be only for the WNs
- What about the other services can produce images for gridpp with mostly already configured (VOs, pool users, ...) and let more local changes to the sites with their tools?
  - This may mean to support all gridpp VOs at all sites

Everyone on their own

- This is not only a WN problem
- Each site now writing their own configuration for each service with their favourite tool or mixture of tools.
  - It was foreseeable few years ago and still baffling
- Every tool has pros and cons once you know them it is question of personal taste and how people are used to.
- The question is do we want to do something about it?
  - If yes what? More organised puppet/ansible repositories? Support CERN effort for LW sites? Request images with predefined VOs? Only WNs? Other services?
    - Discuss