DPM upgrade task force

In the context of DOMA and SRR
DPM version

• The DPM system has evolved a lot towards the requirements for the upcoming computing challenges. Some of them are:
  • Scalability, performance, solidity, manageability
  • Directory-based space reporting (support for the DOMA SRR)
  • Making the historical components optional (e.g. dpns, srm, rfio, etc.)

• The last version available is 1.10.3. Minor bugfix release, Sept 2018
• The next one will be 1.11, maintenance release expected Nov 2018

• Enabling the new features (e.g. SRR) needs a reconfiguration after the simple package upgrade
• The work can be divided in two phases. What follows are just indications, not instructions.
Phase 1: packages upgrade

- An already working DPM can be upgraded just by upgrading the packages in the head node and all the disk servers
  - The source is the EPEL distribution

- In general, a working “normal” setup (SRM+gridftp+xrootd) with a recent version (1.8-1.9) should work also after a plain upgrade, without changing the configuration. In general, the downtime is short, or none.

- A recheck is anyway needed, and if anything is wrong a manual run of the puppet-based command-line configurator may be needed

- Sites that have a site-wide Puppet infrastructure should update their templates in this case
  - We tend to discourage the manual configuration, for its high cost and its difficulty
Phase 2: enable DOME

- DOME = Disk Operations Management Engine
- This is the new core of DPM (since 2016-17)
  - [http://indico.cern.ch/event/699602/contributions/2941768/](http://indico.cern.ch/event/699602/contributions/2941768/)

- This is a reconfiguration of the DPM cluster
- This enables all the recent features (e.g. HTTP and SRR) and runs much smoother for HTTP, xrootd, gridftp.

- The best option is to use the puppet-based manual configurator, enabling the new config in the manifest
- Sites with a puppet infrastructure must update the templates and review

- The admin will have to familiarise with the dmlite-shell powerful management shell, and plan the associations of the previous spacetokens to directory paths (quotatokens)
- This will kickstart the now modern installation and make it able to produce storage reports (SRR)
For more info

• Main page, news, announcements:
  • http://lcgdm.web.cern.ch/dpm

• TWiki information, documentation:
  • https://twiki.cern.ch/twiki/bin/view/DPM/WebHome
  • https://twiki.cern.ch/twiki/bin/view/DPM/DpmSetup1100

• Support forum:
  • dpm-users-forum@cern.ch