

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

Phase2: enable DOME

- DOME = Disk Operations Management Engine
- This is the new core of DPM (since 2016-17)
 - <https://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