

Concerns about Run-3 operations with DPM

On behalf of French T2 sites

(GRIF, IN2P3-CPPM, IN2P3-IPNL, IN2P3-IRES, IN2P3-LAPP, IN2P3-LPC, IN2P3-LPSC,
IN2P3-SUBATECH)



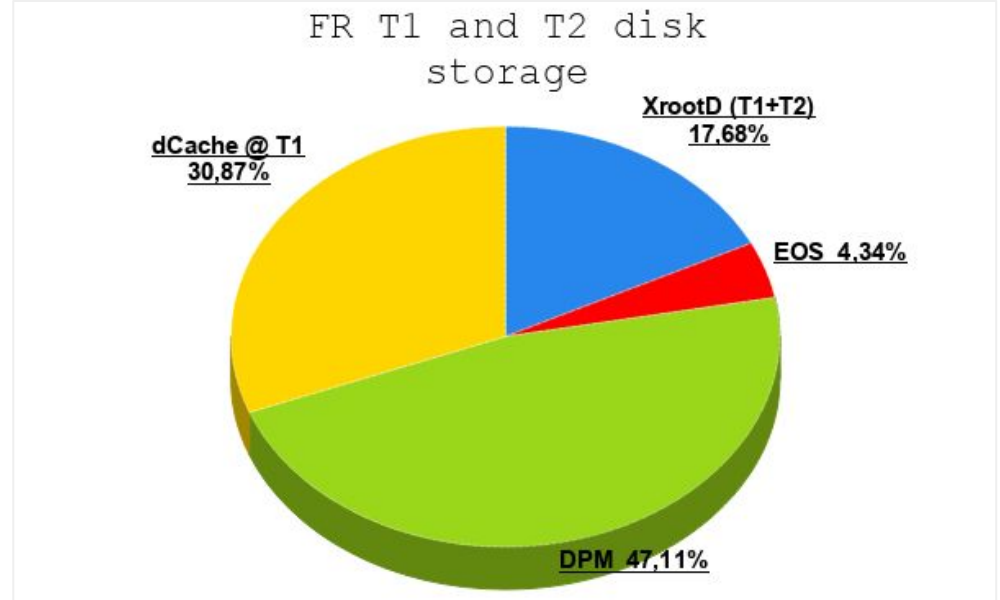
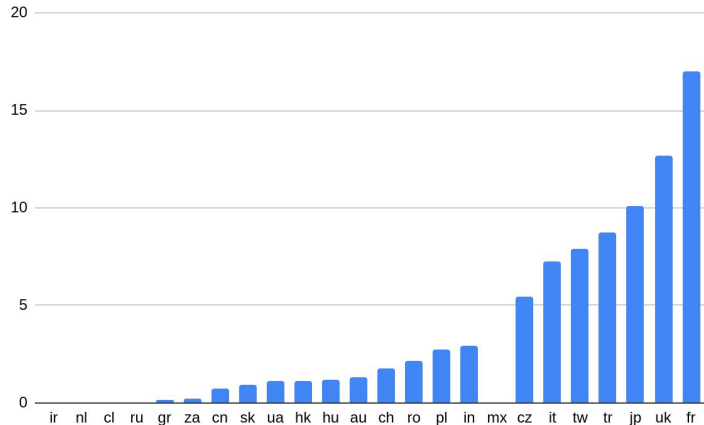
Disclaimer

- ❖ The “Concerns” in the title are only motivated by the recent CERN decision to drastically reduce (and eventually discontinue) its effort in developing and supporting DPM
- ❖ FR T2 community is historically DPM-based with very positive feedback over the years
 - for the quality of the software: which has also recently much improved with the new stack;
 - for the effectiveness of devs support (and community auto-support);
- ❖ CERN policy unchanged we would have had little or no concerns about the capability of DPM to carry us through Run 3 and would have started working with the developers on its evolution for Run 4
 - DOMA/DPM projects were already there (and are currently ongoing)



French DPM Community

- ❖ T2: 17PB of disk storage out of 20PB
- ❖ 13 instances out of 17
- ❖ all 4 LHC VOs supported
- ❖ largest DPM community



A smooth Run 3

- ❖ Our primary concern is to have smooth operations during the whole Run 3
- ❖ DPM recently underwent important evolution and should in principle make it through Run 3 w/o major development
- ❖ However some issues may appear and have to be readily addressed if they do
 - Security issues
 - Problem with the integration with the WLCG environment
 - Blocking bugs



An example

We recently had a perfect example of what can happen

- ❑ 1.14.0 upgrade - required to enable macaroons - had a security issue due to a bug in the ACL
- ❑ EGI pushes sites to upgrade to 1.14.2 to fix the security bug
- ❑ 1.14.2 comes with xrootd-5.0.2 which has a bug that breaks for dpm the CMS and Alice federations
- ❑ Fixed in 5.0.3 ... but there seems to be a bug that breaks dpm.
- ❑ DPM developers immediately proposed a patch that fixes the bug.

All issues were promptly addressed by the developers. But this case shows that in a complex environment as WLCG simply avoiding major developpements is not a guarantee to keep things working on the middle term.

Towards HL-LHC

- ❖ Fundings from EGI (EOSC-Future) to support and continue to develop DPM
 - In addition if CERN maintains a certain level of effort
 - Would it be possible and enough?
- ❖ Another point is to anticipate storage needs for Run 4
 - R&D implication (DOMA, Datalakes)
 - Avoid buying resources that will not fit
 - Minimise the impact on service delivery to experiments if migration to another storage technology is needed

Thank you for your attention

