

DPM

Should be fine for RUN3

Sites should be ready to migrate to something else by RUN4

Regions and sites need to consider existing alternatives and elaborate plans on the regional levels

WLCG will help to facilitate the migration

Network

Related to the first point, following the regional discussions and plans regarding storage organization, network plans for the region should be discussed and developed in the same context

Protocol zoo for TPC

Looks like there is a consensus regarding http as a baseline protocol for TPC (ATLAS, CMS, OSG, StoRM).

Alice has its own scenario based on xrootd protocol which already works in production at the ALICE sites.

HTTP protocol is considered as a WLCG baseline protocol for TPC.

The effort aimed to make it work on the required scale across the WLCG infrastructure will be continued in the DOMA TPC task force and WLCG Ops.

Tape access divided in shorter and longer term goals: *) shorter term: SRM+HTTP transfers from other tape system followed in TPC; *) longer term: harmonisation of tape access through a REST API as a longer term solution to be discussed in DOMA general forum.

Harmonization of bulk staging from tape

Standardizing on the dCache bulk request REST API to replace SRM looks to be a way to go. Will be followed up in the DOMA project.

Revamp the archive storage WG to investigate further TCO of archive storage

QOS

The new DOMA subtask merging DOMA QOS and DOMA Access will be put in place. The goal is to prototype a data lake where QOS concepts will be prototyped and tested.

Erasure coding (EC)

During the WS, there was a growing interest of the community demonstrated towards EC. EC looks to be an interesting topic to be followed up in the HEPIX context. We recommend creating a dedicated HEPIX working group. Suggestions and volunteers are welcome, please, contact wlcg-storage-ws@cern.ch

A&A

Need to work on active transition to tokens for A&A. Though it is challenging, we should aim to accomplish by RUN4.

We need to test the full chain - from job submission up-to accessing data from the worker node. Otherwise we will stick to data movement between two storage systems only. We should try to avoid the mistakes that were made with SRM deployment.

ARC caches

ARC caches were demonstrated to be successfully used by some sites. Therefore, sites which are running ARC CE might consider using ARC caches.

Automation of data recovery

WLCG Ops will coordinate with the sites and experiments and review the data recovery procedures to investigate possible improvements, in particular considering the fact that two experiments are now using RUCIO.

Operations optimization

WLCG Ops will keep an eye on the site experience with operations optimization, collecting good examples, understanding which ones have a potential for common solutions. This is not limited to storage. Sites which would like to share their experience, please, contact wlcg-ops-coord-chairpeople@cern.ch.