

Non gridftp 3rd party copy deployment plan

Given the end of general support of the Globus Toolkit in 2017, we believe there is significant risk in having GridFTP as the primary third-party-copy transfer protocol for the WLCG. To mitigate this risk, a strategy of encouraging the development of alternate third-party-copy tools should be executed. In addition to mitigating this risk, this proposal would hopefully build collaboration with up-and-coming experiments such as DUNE and SKA. Sites, experiments, and storage implementor should be strongly encouraged to further develop existing prototypes and previous work - particularly with HTTP- and Xrootd-based third-party-copy - into production. We believe all commonly-used storage elements on the WLCG currently provide one non-GridFTP alternate (but often not enabled in production or requiring the very latest code).

We propose a three-phase strategy that would result in all sites having at least one non-GridFTP alternative by 1 January 2020:

- **Phase 1 (deadline 31 December 2018):** Survey available replacement protocols. Common storage implementations (EOS, DPM, dCache, standalone Xrootd, StoRM) aim to have at least one production site enable a non-GridFTP third-party-copy. Compatibility and performance tests are performed.
- **Phase 2 (deadline 30 June 2019):** All pledged sites providing more than 3PB of storage to WLCG experiments are required to have one non-GridFTP endpoint in production.
- **Phase 3 (deadline 31 December 2019):** All pledged sites providing storage to WLCG experiments must provide a non-GridFTP endpoint.

After the end of the Phase 2 and 3 deadlines, SAM tests for this functionality will become part of the corresponding critical profiles.

By the end of Phase 3, GridFTP will still be required in some cases, such as for transfers from a site supporting only GridFTP & HTTP to a site supporting only GridFTP & Xrootd. However, if the proposal is successful, we believe the risk as mitigated and turning off GridFTP can be left as future work.

The necessary surveying, development coordination, integration, and testing work will be carried out by the WLCG DOMA working group and the production deployments will be coordinated by WLCG Operations Coordination.