

FIFE and FI Status Report

T. Levshina

DUNE Storage Proposal(I)

We have discussed the path forward with R. Illingworth, S. Timm, M.Kirby and K.Herner. We came out with the following proposal for DUNE:

- There should be a clear separation between users with Production role and general users (Analysis role).
- Production users should be able to read and write everywhere.
 - a. So the capabilities for production users will be expressed as `<voname>/*` for reading and writing.
 - b. This could be easily achieved by pulling information from FERRY (all users with `/dune/Role=Production FQAN`) and populating Token Issuer via OpenLdap.
- Analysis users will have ability to read anything under `<voname>/*` but write only under `<voname>/scratch/users/identifier/*` directory
 - a. This could be easily achieved by pulling information from FERRY (all users with `/dune/Role=Analysis FQAN`) and populating Token Issuer via OpenLdap.
 - b. This has the consequence that users could create this directory tree if it does not exist at any DUNE storage element in the world, outside of Rucio, presuming that the storage element takes capability tokens.
- Analysis users will not be able to write directly to tape from a job.

DUNE Storage Proposal (II)

We have identified the following steps for moving forward:

- Disable NFS v4.1 access to file on interactive nodes
Having dCache files accessible both by remote access via tokens and also via NFSv4.1 mounts on interactive nodes will inevitably create conflicts in how they are accessed and likely will lead to situations where files may not be readable/deletable one way or the other.
- Investigate the possibility to move user-generated files out of the production dCache setup entirely. There's no candidate replacement system however—this has been the role of Bluearc but can't continue with that technology. Whatever replacement system eventually comes forward will also need some way to access it via capability-based tokens.
- Understand how Rucio is managing non production users.
It appears currently that if Rucio is managing user scopes it will be using its own credentials to do it with and so we do not necessarily have to give individual users capabilities under the Rucio directory tree.
- Discuss the proposal with the DUNE community and DUNE storage providers.

JobSub Lite

- It was decided (FIFE team - Joe Boyd) that tokens would not be implemented in JobSub client/server.
- A new JobSub-Lite script will deal with tokens. It will submit jobs directly to HTCondor.
- Marc Mengel is in charge.
- There is no design yet, and it is unclear how the mapping from Access Token to unix user will be done without the central server.
- Marc has now HTCondor configured so he could start figuring out how to do that.
- We still are waiting from Mine Altunay to provide the list of capabilities relevant to job management.

FERRY - LDAP

- Got the access info for OpenLdap
- Need to identify information that should to be pushed from FERRY to the Token Issuer
- Need to decide where additional information (e.g storage path) should be located:
 - Logically it belongs to Ferry but we would need to extend database schema and create additional APIs to populate and extract this info.
 - The “quick and dirty” solution is to have it hard coded in a script that pulls information from Ferry and populates OpenLdap. This approach has the obvious problems.
- Steve White (Ferry lead) requested additional efforts from Bruno Coimbra to help with Ldap integration. We are waiting for Joe Boyd/Kevin Retzke decision.

OnLine Computing and Ferry

- Made the SNOW forms design proposal
- Met with Jim Fromm and Felix Sotres. They agreed to work on the implementation but didn't promise that the forms would be ready before 2021.
- Continuing discussion with Bonnie King and Pat Riehecky about the appropriate types and names for all their clusters. As soon as it is finalized we could ingest current data. After that they could automate maintenance of passwd/group/.k5login files and use Ferry API to add new users/clusters (without SNOW forms for now).