Fermilab Federated Identity Project

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- To refresh our memory, let’s revisit where we left off last year.
- In my last talk:
  - Presented our architecture diagram.
  - Finished all our software development.
  - Were just getting prepared to move our software products into production.
  - Were getting ready to build Token Issuer instances for our 5 international VOs.
  - Just created a task force with our experiment members to get the testing going.
  - Very basic tests of obtaining a token with correct privileges were working.
Current Status

- We moved all our software services into production.
  - CILogon, Ferry, Vault are in production mode.
- All of our international VOs along with Fermilab VO have their own Token Issuer.
- DUNE and Mu2e are among our first testers. DUNE was able to submit jobs with tokens successfully.
- Mu2e was able to run jobs, but had some problems with accessing storage. This issue is very close to being resolved.
- Another Fermilab experiment Annie was able to run tests with success, but ran into some storage issues, which are being addressed.
- In general, our user community is actively testing tokens by submitting jobs and trying to access storage.
Transition Status

● Our job submission system, jobsub-lite, is undergoing some changes and in the middle of some tests. Once those complete successfully, we will invite more experiments to submit their workflow jobs.

● Another important test we will have in near future is to submit jobs with both tokens and certificate proxies.
  ○ Because of our accelerated schedule, we expect that WLCG sites will not be fully transitioned to tokens by the time we make the switch.
  ○ To make our systems compatible, we will first test thoroughly if our systems can handle sending both tokens and proxies at the same time.
  ○ During these tests, we will also attempt to access storage in WLCG sites.
Transition Status

- We are well aware of the schedule differences between us and the WLCG and work actively to ensure there are no problems arising from this.
  - FTS and Rucio are two services we consider carefully. According to WLCG timeline, these services will not switch until 2024.
  - Some of our VOs such as DUNE uses these services and may be impacted by the schedule differences.
  - We will test these services during our transition period to demonstrate that we could send both tokens and proxies together and access these services with proxies when needed.

- Our current focus is very slowly shifting from testing to transition planning.
  - Documentation for both users and site admins.
  - Contingency planning (such as our tests fails), and risk assessment of our infrastructure slowly starting to take more of our focus.