Valkyrizing the Duke Digital Repository

Samvera Virtual Connect
May 14, 2020

Will Sexton
Head, Software Services
Duke University Libraries

will.sexton@duke.edu
Here Are Some Bullet Points About The Project

- Named “DDR Evolution” or DDREvo
- Concluded with release of DDR 2.0.0 replacing DDR 1.X (DDR-C)
- No new functionality was developed for the repository
- Kicked off in November 2018, shortly after completing our Hyrax-based Duke Research Data Repository
- Sprint 0 ended in January 2019, followed by 16 two-week sprints by a four-person team (Hugh Cayless, David Chandek-Stark, Jim Coble, Ayse Durmaz)
- Final steps completed outside of sprint cycles, and a fifth developer (Cory Lown) joining the team
- Also separately did a new DDR home page
The next five slides were used for a lightning talk explaining why we were using all of one developer’s time for more than a year, as well as parts of four others’.
Fedora 3 & ActiveFedora

- Fedora 3 nearing end of life
  - Last release December 2014
  - DUL tried to migrate away (to F4) in 2016

- Version of ActiveFedora that works with Fedora 3 no longer supported

Samvera logo by Samvera (CC BY 4.0)
Valkyrie

- Software “for enabling multiple backends for storage of files and metadata in Samvera”

- Released from Samvera Labs as full Samvera community project March 11, 2019

- Currently in use (production) at Princeton, Penn State, UCSD, UCSB, Northeastern, and soon Emory

- Planned middleware component for Hyrax (basis of DUL’s Research Data Repository)

Valkyrie logo: https://github.com/samvera/valkyrie
We considered three alternatives:

A. Upgrade Existing Code to Latest Fedora/ActiveFedora Version
B. Reimplement Existing Functionality in Hyrax-Based Application
C. Replace ActiveFedora with Valkyrie

Quoting from Jim’s analysis (Jan. ‘19):

“While Fedora 3 has proven to be a relatively stable, reliable platform for the DDR, subsequent versions of Fedora (4 and now 5) are completely different products....”

“...I imagine it is nearly as much work as the Valkyrie option...”

“There are a number of factors that I think make Fedora 4/5 a less attractive platform than Fedora 3 (e.g., in Fedora 4, data is stored in a largely opaque manner and I don't think this has changed in Fedora 5).”
But …

Valkyrie

… Why?

We considered three alternatives:

A. Upgrade Existing Code to Latest Fedora/ActiveFedora Version

B. Reimplement Existing Functionality in Hyrax-Based Application

C. Replace ActiveFedora with Valkyrie

Quoting from Jim’s analysis (Jan. ‘19):

“The Hyrax option (B) is the one that would move us most squarely back into mainstream Samvera community code but is, I believe, a significantly bigger project than the Valkyrie option (C)”

“To be successful, I think it would require active participation of DDR stakeholders to negotiate where native Hyrax functionality can replace that of the current DDR, even if it is different, and where Hyrax functionality would have to be customized to meet stakeholder needs.”
But ... Valkyrie ... Why?

We considered three alternatives:

A. Upgrade Existing Code to Latest Fedora/ActiveFedora Version

B. Reimplement Existing Functionality in Hyrax-Based Application

C. Replace ActiveFedora with Valkyrie

Quoting from Jim’s analysis (Jan. 19):

“The Valkyrie option (C) is the one that I believe would provide the simplest, most direct path out of our dependence on unsupported software (Fedora 3, ActiveFedora 7).”

“There is perhaps some level of risk in the Valkyrie option since it is a new project and, as noted above, still a ‘labs’ project but there seems to be a good bit of community interest and energy in it and I would expect it to become officially supported soon”
As a developer, I want a pre-configured workstation.

Make ddr-admin resource show page more or less look and behave like dul-hydra model show page.

As a developer, I want the models to be Valkyrie::Resources.

The ddr-batch engine is integrated into ddr-admin rather than being a separate gem.
Resource Migration

Created by Jim Coble (Unlicensed)
Last updated Nov 05, 2019 • let Analytics

IMPORTANT: These steps are to be run FOR EACH LIST OF COLLECTIONS that is being migrated.

Migrating a list of collections from DDR-C to DDRevo involves the following steps:

1. Become user hydra on the DDR-C server and change into the dul_hydra project directory.

   ```
   $ sudo -u hydra -i
   $ cd /srv/perkins/hydra/dul-hydra
   ```

2. As a migrator, I can create DDRevo resources based on the contents of a DDR-C metadata export.
New repository home page at repository.duke.edu

These are in the Duke Digital Repository

Separate Hyrax-based repository for research data

DSpace open access repository
Thank You!

Questions?

Samvera logo by Samvera (CC BY 4.0)

Valkyrie logo: https://github.com/samvera/valkyrie