Fedora Futures

http://bit.ly/15gig7z

Overview

Fedora (Flexible Extensible Digital Object Repository Architecture), the data management system, has released three platforms since its inception in 1997. The most recent platform, Fedora 3, was released in 2008. The Fedora Futures (or Fedora 4) initiative was launched at the December 12, 2012 meeting of the Coalition for Networked Information in Washington, D.C., and is a significant overhaul of the previous system's code base that also incorporates several "next generation" functional enhancements.

Objectives/Problem To Be Solved

Fedora Futures' main goal is to preserve our academic and cultural heritage while simplifying deployment, use, and availability. The initiative will update the previous Fedora code to appeal to an expanded developer community, improve linked data capabilities, increase flexibility of storage options, and enhance vertical and horizontal scalability. Fedora 4 will be engineered to work for institutions ranging in size from small to large, and for traditional repository use cases to emerging research data management needs.
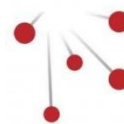
Recent Activities

Fedora Futures has many recent accomplishments, including (but not limited to)

- Clustering for high availability and improved scalability
- Built in metrics and health checks
- Projection, aka "Instant ingest", supports "projecting" over external data sources yet having those resources appear as part of the repository with full support for reading and writing
- Transaction support with full commit and rollback

Governance

A Steering Group of founding stakeholders oversees the operations of the Fedora Futures project. In addition to DuraSpace, which continues to steward the open source project, the Steering Group includes representatives from Columbia University, FIZ Karlsruhe, MediaShelf, Oxford University, the Smithsonian Institution, Stanford University, University of Prince Edward Island, and University of Virginia. In addition, a Project Advisory Committee of sponsoring organizations votes on strategic priorities and reviews the progress of the project.

Fedora Sponsors

As of Aug 2013, the following institutions sponsor the Fedora project:

- Arizona State University
- Brown University
- Case Western Reserve University
- Colorado Alliance of Research Libraries
- Columbia University
- Cornell University
- FIZ Karlsruhe
- Indiana University
- ICPSR
- Media Shelf
- National Library of Medicine
- Northeastern University
- Northwestern University
- Oregon State University
- Oxford University
- Penn State
- Rutgers University
- Smithsonian Institution
- Stanford University
- State and University Library, Aarhus, Denmark
- Tufts University
- University of Cambridge
- University of Connecticut
- University of Delaware
- University of New South Wales
- University of North Carolina at Chapel Hill
- University of Pittsburgh

The community's pooled financial contributions fund a full-time technical lead to coordinate open source development, and will also support an ongoing product manager to coordinate the development roadmap, community outreach and more.

Next Steps / Planned Future Work

In the upcoming months, Fedora Futures' goals include

- Policy-driven storage and asynchronous storage systems
- Performance for large-scale ingest
- Near-final REST API
- Auditing
- On-the-fly configuration
- Candidate upgrade path from Fedora 3

- University of Prince Edward Island
- University of Virginia
- University of York
- Yale University

Funders/Funding Model

Fedora Futures has set a project budget of $500,000 a year over three years to catalyze the redevelopment of Fedora and support the community's migration to the new platform. As of August 2013, the project has hit ⅔ of its fundraising target for the financial year. Fedora Futures is seeking sponsors willing to commit to supporting the 2½-year project.