Fedora Forward: Current Developments and Future Plans
Hello!

I’m David Wilcox

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Neil Jefferies
Fedora Leadership Group
@NeilSJJefferies
Our community is part of an interconnected, worldwide, scholarly ecosystem.
DuraSpace open source projects
The **Value** of Fedora

- Fedora is **flexible**: it can handle both simple and complex use cases
- Content in Fedora is **durable**: Fedora supports long-term preservation
- Fedora powers **successful** digital repositories
- Fedora is **standards-based**
- Fedora is backed by a thriving **community**
The Value of **Community**

- Software is difficult to support and maintain
- Even large institutions can’t go it alone
- No single point of failure or control

Fedora is supported by a distributed, global community of stakeholders and contributors
An Eye Toward The Future

- Fedora is linked data infrastructure
- Built on modern web standards
- Focused on interoperability

Fedora stays true to its roots while planning for a future of linked data and interoperability
Guiding Principles

- Durability
- Data portability
- Standardization
- Interoperability
Understanding The Ecosystem

- Fedora is just one technology amongst many
- Institutions want interoperability
- Data should move freely between applications

Institutions use many different technologies that need to work together
Component of Ecosystem

Sources: https://www.w3.org/RDF/icons/
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Fedora

Triple store

Web Site

IIIF Server

Import/Export

FS

DDP

Research Data

Profiles

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Component of Ecosystem

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The Year Ahead
Fedora API Specification

http://fedora.info/spec/

- Resource Management (Linked Data Platform)
- Resource Versioning (Memento)
- Resource Authorization (Web Access Control)
- Notifications (Activity Streams)
- Binary Resource Fixity (HTTP headers)
Fedora API Specification - **Timeline**

- Candidate Recommendation
  - Open for comment
- Recommendation
  - Spring 2018
Specification Release Requirements

- At least two implementations
  - Ideally, three or more
- At least two client frameworks
- Test compatibility suite
- No critical, unresolved discussions
Let a thousand flowers bloom

Source: Andrew Woods, Summit County, Colorado
Fedora API Implementations

- Fedora-on-Modeshape (current)
- Cavendish: Fedora on a triplestore
- Derby: Fedora in Ruby on Rails
- Lambdora: Fedora in Amazon Web Services
- Trilpy: Fedora in Python
Community **Initiatives**

- API Extension Framework (API-X)
- Import / Export Utility
  - Moving data through time
  - Transparent formats
  - Easy in -- Easy out
- Oxford Common Filesystem Layout
Oxford Common Filesystem Layout

- A common approach to file-and-folder hierarchies within file storage systems
- A community of practice around which to discuss issues of filesystem storage
- An ecosystem of software tools that encapsulate shared practices

The OCFL emerged from the Fedora community but it is much broader in scope.
Semantic Versioning

Example: 8.1.3

Given a version number MAJOR.MINOR.PATCH, increment the:

1. MAJOR version = incompatible API changes
2. MINOR version = new, backwards-compatible features
3. PATCH version = backwards-compatible bug fixes

http://semver.org/
Fedora 4: The Branding Dilemma

4.6.0 - Aug 2016 (features & API updates)
  4.6.1 - Nov 2016 (bugfix)
  4.6.2 - Mar 2017 (security patch)

4.7.0 - Nov 2016 (features & storage upgrade)
  4.7.1 - Jan 2017 (features)
  4.7.2 - Mar 2017 (security patch)
  4.7.3 - Jun 2017 (bugfix)
  4.7.4 - Aug 2017 (features)
Release Policy

1. No more than one MAJOR per year
2. MINOR and PATCH as needed
3. Backport security and critical bugfixes:
   ▶ previous MAJOR*
Fedora 5.0

- Next major release based on SemVer
- Equivalent in scope to 4.8
- Not like the jump from 3 to 4

Fedora 5.0 will represent the alignment of the ModeShape implementation with the API spec
In Summary

- API Specification
  - Emergent implementations
  - Limit major releases
- Ecosystem interoperability
- Preservation-centric persistence
How to Get Involved

Fedora website
http://fedorarepository.org/

Mailing lists
https://wiki.duraspace.org/display/FF/Mailing+Lists+etc
THANKS!

Any questions?

You can find David at @d_wilcox & dwilcoxDuraspace.org