# 2015-09-11 - Fedora API Extensions Meeting

## Dial In Details

Date: Friday September 11, 2pm EDT (-4 UTC)

- U.S.A/Canada toll free: 866-740-1260, participant code: 2257295
- International toll free: http://www.readytalk.com/intl
- Use the above link and input 2257295 and the country you are calling from to get your country's toll-free dial-in number
- Once on the call, enter participant code 2257295

## Meeting Goals

Shared understanding of

- the discussion surrounding the validation use case
- interactions of API-X effort with other Fedora efforts (like Hydra, Islandora, Async storage)

Determine next steps

#### **Attendees**

### Agenda

- 1. Summarize, update this group on potential connections with other Fedora efforts
  - a. We were mentioned by William G. Cowan in a recent thread soliciting participation in the Asynchronous storage effort
  - b. Another thread discusses some integration patterns in the context of Hydra, Islandora, and Fedora. There seem to be some use cases that overlap nicely with API-X.
  - c. (If any of these groups attend the call, I'd encourage a free-flow exchange of how these efforts could work together)
- 2. Summarize the deep dive that has been occurring on the AIC validation use case (see the comment thread on the page)
  - a. Roles of the components in the architecture
- 3. Review (lightly!) the existing use cases and elicit the roles and brief descriptions
- 4. Next Steps
  - a. Propose more time (two more weeks) for use case evaluation and discussion
  - b. allows more use cases to surface
- 5. When do we think it makes sense to assign roles to people (Stakeholders, Designers, Developers)?
- 6. Any Other Business
  - a. Elliot away: 9/28 10/28
  - b. Andrew will be traveling for the next call (9/25) so he won't be participating.

### Related Resources

Design Page (with use cases outline)

Use Cases Parent Page

Previous meeting agenda, including minutes

#### Minutes

- Word around the community seems to be spreading
- · Elliot looked at Async Storage effort's wiki pages, REST API page. It looked very congruent with API-X use cases and intent
  - o It would be reasonable for members of this group to look at their use cases
  - Aaron C: Some use cases are a good fit, some may not be. Seems like the best fit are for interactions that are not expressed easily in LDP or Fedora's APIs
  - O Amherst has use cases related to putting objects into Glacier, completely external to Fedora
  - Andrew: There was a module (in fcrepo-labs?) that routed requests to external stores. Would that be useful?
    - This refers to Modeshape configuration for different binary stores, projection over filesystems
    - Modeshape can create separate buckets for binary content that can be routed to different binary stores
    - Fedora provides hints to Modeshape containing name of store to specify routing
  - o Is one possible pattern for an API-X extension to intercept request, perform storage steps, and ingest a Fedora resource containing pointer to persisted location?
    - Amherst has use case similar to this (e.g. with Batch ingest). It makes sense to write them down
- The approach of this API-X team to take the initiative to understand other efforts in the community, then perform outreach seems like it could be a successful pattern
  - Seems to be a high degree of awareness of current efforts within this team. Keep it up.

- Hydra, Islandora recently floated thoughts on the nature of their interaction with Fedora.
  - May be interesting to consider how these interactions would occur if API-X existed
  - Common example is complex ingest
    - Fair amount of work on both ends related to ingest workflows
  - Unknown User (daniel-dgi) and Unknown User (escowes@ucsd.edu) spoke of similar identifier/URI mapping problems on yesterday/s F
    edora tech meeting, where business objects in Hydra or Islandora have identifiers that need a lookup to correspond to Fedora
    resources, and there isn't always a 1:1 mapping
  - Where it make sense to consolidate functionality or define common APIs in those communities (as discussed in e-mail threads), could API-X be of value?
    - Don't want any project to feel like they're losing anything if functionality is contained in (or exposed by) an API-X extension, nor use API-X at all if it doesn't make sense
    - Ideally their needs could inform design of API-X to make it a useful tool to them
  - Should somebody be ambassadors to Islandora/Hydra communities, at least until the API-X effort has progressed to the point where it's ready for broader conversation?
- · Validation use case spontaneously evolved into a deep dive.
  - O Has tested the boundaries of what API-X needs to do
  - O Highlights from Validation comments:
    - There is a synchronous/filtering use case where all requests to Fedora resources are filtered through validation extension; deny or allow request based on validity
    - There is an asynchronous/service use case where Fedora resources expose a service (similar to fcr:fixity) for producing validation reports
    - Lots of discussion on how API-X knows when to invoke validation extension in synchronous case
      - Globally, for every request?
      - Wherever there is some marker
        - O Could this marker be an rdf:type (e.g. cma:validatable)?
    - Would validation extension or API-X need to be aware of hierarchical nature of Fedora resources?
    - Separation of concerns: What does API-X need to know what does validation extension need to know?
    - How would extension implementations interact with Fedora? HTTP+LDP? A client library?
      - fcrepo-kernel seems too closely tied to JCR, modeshape to allow completely external use cases (i.e. from a separate VM or host)
  - O Stefano: There seem to be three validation use cases really:
    - 1. Global validation across the board; do not even persist an object if invalid
    - 2. Persist invalid resources and do validation later
    - 3. Validation can be turned on/off for parts of the repository
- · We need to come up with a list of exactly what we want to distill from our ever growing list of use cases
  - Express/visualize interactions between clients, extensions, and services (Fedora, Indexes, Storage)?
  - Roles and responsibilities, e.g. what does API-X do vs extension?
  - What API-X requirements are implied by each use case?
  - What is the API-X value proposition for each use case? Why would it make sense to implement an API-X extension to implement a use case, rather than some other pattern?
- · Action item: Aaron Birkland: Create initial list of "what to distill from use cases". We'll debate and ratify over the next two weeks
- · Action item: Unknown User (acoburn): Write down some Amherst College use cases regarding async storage
- Action item: Stefano Cossu: Split validation use case into the three use cases mentioned above. The deep dive validation page would be too
  hard to read/understand going forward
- Let's wait a little while longer to define roles (e.g. Stakeholder, Developer, etc). Need to understand use cases more, see if there is more interest
  from community
- Next meeting 9/25, 2 PM EDT (-4 UTC). Andrew Woods will not be there due to travel conflict.