

2015-10-28 - Asynchronous Storage Meeting

Dial In Details

Date: Wednesday, October 28 2015 at 3PM EDT (-4 UTC)

Dial-in Number: (712) 775-7035

- Participant Code: 479307#

- Web Access: <https://www.freeconferencecallhd.com/wp-content/themes/responsive/flashphone/flash-phone.php>

Meeting Goals

- Participant's roles and commitments
- Development process
- Define scope
- Review of collected use cases and requirements
- Define timeline and milestones (what can be accomplished and when)

Attendees

- [Randall Floyd](#)
- [William G. Cowan](#)
- [Andrew Woods](#)
- [Bethany Seeger](#)
- [Brad Spry](#)
- [John Rees](#)
- [Aaron Birkland](#)
- [Yinlin Chen](#)
- [Don Brower](#)
- [Nick Ruest](#)

Agenda

1. Introduction and review of meeting goals
2. Roles and commitments
 - a. Identify Stakeholders, Designers, Developers
3. Development processes
 - a. Sprint cycles and duration
 - b. Communication modes
 - c. Process for consensus on use cases, scope, and requirements
4. High-level design and implementation discussion
 - a. [Review of existing design discussions](#)
 - b. Likely use of API Extension Architecture
 - c. Mediated asynchronous services vs. pluggable storage
5. Review [existing use cases](#)
 - a. Are they adequately described?
 - b. Do we have all the use cases we need or want? Are there more?
6. Discussion of scope
7. Timelines and milestones

Related Resources

- [Design - Asynchronous and Pluggable Storage](#)
- [Meeting notes: 2015-08-17 - Indiana - Amherst F4 Storage](#)
- [Design - API Extension Architecture](#)

Meeting Notes

1. Round table of intros
2. Roles and commitments
 - a. IU (Randall and William) committed to lead and provide significant developer time
 - b. UNC-Charlotte (Brad) stakeholder, QA over AWS testing
 - c. Duraspace (Andrew) wrangler/encourager, feedback offeror
 - d. NLM (Rees) stakeholder/lurker, contribute case studies
 - e. Notre dame (Don) stakeholder, contribute use cases, perhaps some developer time
 - f. Va Tech (Yinlin) stakeholder, cold storage use case, AWS testing
 - g. Nick R. (role with Ontario cloud service) –stakeholder, tester, perhaps some development
 - h. Amherst (Bethany/Aaron) stakeholder, Aaron has a Glacier cold storage interest, not sure about commitment level

General agreement that we'd all like to better understand ties with the API-X effort/group. We should try to cross-pollinate, communicate, understand/identify synergies where they exist, but at a distance, too.

3. Process
 - a. Assume work will progress under an Agile framework, with development sprints
 - b. still need significant time to gain a shared understanding before scheduling any work
 - c. expect user stories/context and development work will progress asynchronously
4. High-level design
 - a. Existing use cases/design discussions -- are old but still hold relevance and resonate for many at a high level
 - b. API extension architecture -- relationship with API-X/F4 extension architecture could be strengthened, but agree it is a suitable framework to start but will likely evolve as requirements emerge
 - i. Woods emphasizes F4's slim code core philosophy
 - ii. Why asynch storage not core? Aaron B. some interactions with specific storage options may need more direct integration with F4 core, but other pieces of a plugable API may not; requirement details should start to reveal these divergences
 - c. Mediated services vs. plugable storage -- related to API-X. Randall making a distinction between the heavy lifting needed by any storage solution vs. F4 REST services/messaging interactions
5. Use cases
 - a. Aaron-API-X experience demonstrated that use cases generally need some common structure and better task/outcome definitions to properly generate evaluation criteria
 - b. Action items:
 - i. Randall will look at API-X templates as inspiration to create some for this group
 - ii. Attendees will look at current use cases with a fresh eye to ensure their needs are being met; Woods encourages use of the wiki's 'like' feature for lurkers or the uncommitted so at least your voice is recorded--it matters

Sidebar: Randy asks if perhaps [Brad Spry](#) has already done some of this plumbing with S3?

[Brad Spry](#): Yes, in F3 for datastreamStore, by mounting S3 to Linux filesystem using [YAS3FS](#). datastreamStore's I/O characteristics are asynch friendly. I/O transactions/characteristics are too fast for F3 objectStore and resourceIndex. Performance gains could be had if Fedora's read/write block sizes could be fine tuned, for example from 4k to 128k for datastreamStore. Matter--issue is how to fine tune Fedora in this regard.

More Info: UNC Charlotte's [Islandora Deployment](#) and [System Schematic](#)

7. Timelines and milestones

- Expectation is no development sprints until 2016
- Also have potential dependency on API-X development schedule

Meeting schedule: every two weeks, same day/time, to keep the ball rolling

Complete action items from #5 by next meeting.