

2010-09-28 - Special Topic - Moving Forward on High Level Storage

Time/Place

This meeting is a hybrid teleconference and IRC chat. Anyone is welcome to join...here's the info:

- Time: [11 am Eastern Daylight Time US \(GMT-4\)](#)
- Voice
 - Via Skype+: Dial from anywhere: \+9900827047086940 (callto://+9900827047086940)
 - Via Phone+: US Number: +1 (201) 793-9022, Room **#7086940**
- IRC:
 - [Join the #duraspace chat room via Freenode Web IRC](#) (enter a unique nick)
 - Or point your IRC client to #duraspace on irc.freenode.net

Agenda

Quick review of [High Level Storage](#)

- Rationale
- Status

Roadmap (create in JIRA?) for HLStorage. Potential major topic areas:

- Review fedora object model, propose revised DigitalObject interface
 - Versioning
- Design and comment on HLStorage APIs
 - Return values
 - Transaction support?: What can or need we do now, and how can/will/must it influence our APIs?
 - Alternatives: Compensation, Reliable Designs, Idempotent Operations, Eventual Consistency
 - Cross Cutting Topics: ACID, Synchronous vs Asynchronous operations
 - Defining what "storage" means and deriving a common nomenclature
- HLStorage internal architecture
 - Layering/chaining
 - Data-oriented messaging
 - Indexing

How to proceed

- Special topic meetings or special interest groups with periodic report-back?
- Use fcrepo-dev list, or would that generate too much traffic? Different people may be interested in different aspects.

Audio/Chat Log

- [Download mp3](#) (40mb, 1hr 44min)

[11:10] <cwilper> Meeting now: <https://wiki.duraspace.org/display/FCREPO/2010-09-28+++Special+Topic++Moving+Forward+on+High+Level+Storage>

[11:11] <cwilper> Aaron giving an update on HLStorage status

[11:11] <cwilper> "Time to kick off concrete design activities"

[11:11] <cwilper> "Next few months = heavily design/theory oriented"

[11:12] <cwilper> Dan: "forward-looking roadmap but breaking into pieces"

[11:13] <cwilper> Aaron: "Scoping for Fedora 4.0, can be less conservative about changes"

[11:15] <cwilper> Aaron: "3 major threads of discussion moving forward: 1) Fedora Object model itself (what changes need to be made in order to facilitate this? DS Versioning?"

[11:17] <cwilper> "2) API itself. Have initial proposals. First from Aaron was simple, Asger introduced idea of separating into R/W interfaces. Have discussed return values (ticket id for reflecting on status on async storage)."

[11:17] <cwilper> "3) Architecture. Do we go with layering/chaining? Data-oriented messaging, caching, what other activities can happen in the HLStorage layer"

[11:20] <cwilper> "Suggest representing the HLStorage roadmap into components"

[11:21] <cwilper> Chris: "Could use Components in JIRA, not sure about sub-components, but we could fake them"

[11:28] <cwilper> Aaron: "Should we have a Component for changes to Fedora that may be necessary"

[11:28] <cwilper> Chris: "Important to identify when that's the case"

[11:29] <cwilper> Dan: "Design needs to be informed by things like, how Fedora is used as a storage resource itself"

[11:30] <cwilper> Chris: "Does that mean 'effect on Fedora' category makes sense"

[11:30] <cwilper> Dan: "Yes."

[11:31] <cwilper> Chris: "Effect on Fedora? as category name"

[11:33] <cwilper> Dan: "Suggest using Wiki for design-oriented tasks prior to getting to rigid with JIRA"

[11:33] <cwilper> Aaron: "Let's switch to -How to proceed-"

[11:34] <cwilper> "Use Future Special Topics mtgs for this, or Special interest groups for this"?

[11:34] * mdiggory wants to toss out a tangent.... <https://wiki.duraspace.org/display/FCREPO/High+Level+Storage?focusedCommentId=22024650#comment-22024650>

[11:36] <cwilper> Thanks Mark...interesting to consider.

[11:37] <cwilper> Chris: "I like the idea of splitting off into interest groups for reasons Aaron mentioned"

[11:38] <cwilper> "(Timing and the fact that it might dominate the committer mtgs)"

[11:39] <cwilper> Aaron: "Communication on dev list? Concern: too much traffic"

[11:39] <cwilper> Chris: "Traffic=good"

[11:41] <cwilper> Dan: "+1 on keeping discussion on the list. People could filter"

[11:41] <cwilper> Steve: "+1 on dev list"

[11:42] <cwilper> Asger: "Lots of opinions on design and not a lot on how we carry out the design"

[11:42] <eddies> (afk)

[11:42] <cwilper> s/carry out the design/carry out the discussion/g

[11:43] <cwilper> Aaron: "Fedora Object Model is a good area to start with. Let's identify the sub-issues."

[11:44] <cwilper> "In general, make sure we have the items listed under each topic"

[12:01] <cwilper> (brainstorming sub-areas under "Fedora Object Model")

[12:02] <cwilper> So far:

[12:02] <cwilper> * Versioning

[12:02] <cwilper> * Audit Trail

[12:02] <cwilper> * Separating the kind of Content (XML vs non-XML) from where you store it ("Inline XML?")

[12:03] <cwilper> * Extensibility of Object Properties vs just using RELS-EXT/INT

[12:04] <cwilper> * What convenience methods, if any, should be in the new DigitalObject interface for things we normally categorize as "semantic" (e.g. the hasModel relation?)

[12:04] <Asger> Suggestion: Content Model Semantics

[12:05] <Asger> ie. semantics that allows applications to reflect on there stuff goes in the object

[12:13] <cwilper> Aaron: "Reading mdiggory's post...let's step back and see the thinking and see what's applicable. Want to understand conclusions."

[12:14] <mdiggory> I wish I could be in the call, but I'm stuck on the phone now... will need to followup afterward... sorry...

[12:16] <cwilper> Ok, Mark, it sounds like it'd be useful to have you in on (at least) a future discussion where we talk about the DigitalObject interface.

[12:19] <cwilper> Aaron: "Who's interested in this particular sub-topic. (Chris, Asger, probably more)..I'm inclined to put this as an item under the Fedora Object Model thread of interest"

[12:19] <cwilper> (continuing with list):

[12:20] <sbayliss> I have to leave right now unfortunately, looking forward to discussing further on the list etc

[12:20] <cwilper> * Understand DSpace2 modeling decisions and how they apply to the new Fedora DigitalObject thinking (see if mdiggory can be on a call sometime soon to help us understand this a bit better)

[12:22] <sbayliss> (I have posted to the committers list re the up-coming release status)

[12:25] <cwilper> Eddie: "caught tail end of discussion re:diggory's post. i'm interested in whole-object versioning and required relationships in a content model"

[12:26] <Asger> My summary of Eddie: Regarding a set of Fedora Objects as a Fedora Record, or some sort of combined resource

[12:27] <Asger> We have actually worked on that issue

[12:28] <Asger> In Enhanced Content Model

[12:42] <eddies> (must run)