LDPImplementationReport

Marmotta LDP Implementation Report

Relevant Documents

- LDP spec
- LDP Use Cases and Requirements
- LDP Best Practices
- LDP Test Cases (**not updated** yet with the latest changes)

Meetings

- Feb 10, 2014
- Feb 11, 2014

Implementation Report Revisions

- LDP Implementation Report (2014-09-16)
- LDP Implementation Report (2014-03-11)

Test Suite

- LDP Marmotta Test Suite

Implementation Restrictions

We agree on some restrictions:

- **Identifiers**
    - trailing slash is ignored (removed) for URI generation.
      thus http://example.com/foo and http://example.com/foo/ are treated as identical.
    - query part of an URL will never be used as part of a URI.
      query parameters might be used for some LDP operations such as non-membership triples (tbd)
    - resources with fragments can't be addressed directly, but can be accessed via their container (URL without fragment)
- **Storage**
    - internally every LDPR will be stored in its own (Sesame) context (as could be interpreted from sec 5.2.3.4)
    - that would allow us to extend the Resource concept beyond the common understanding in triplestores (just one level of outgoing triples)
- **Paging** and **Sorting** is not supported
  Anyway the WG has resolved (Feb 17, 2014) to move out paging and ordering into a separate spec: 2014-02-17#r5
- **ETags** for LDP-RS are *weak* and soley based on the `dcterms:modified` value, while ETags for LDP-NR are based on the md5sum of the file content.
- Both **LDP-NR** and **LDP-NR** are supported
    - Our interpretation of Sec. 5.2.3.12 implements that POST of content types not managed by the platform (i.e., not suitable Rio parser registered) adds a LDP-RS as member of the container, linking (`dct:hasFormat`/`dct:isFormatOf`) to the actual LDP-NR (URI is build by appending the file extension according the content type)
- **Only LDP-BC** is supported, since current use cases do not justify the inclusion of LDP-DC or LDP-IC
- Sec. 4.2.1.6 (**rel='ldp:constrainedBy'-Link**) is fulfilled by pointing to this page.
  `Link: <http://wiki.apache.org/marmotta/LDPImplementationReport/2014-09-16>; rel="http://www.w3.org/ns/ldp#constrainedBy"`
- **PATCH** accepts application/rdf-patch only (LD Patch support will be discussed)
  Patches with the predicate `ldp:contains` will result in a `HTTP 409 Conflict`

The compliance report for this version is available in the Implementation Conformance Report.

Instructions

For accessing this experimental feature you'd need to follow these instructions:

First install all artifacts:

```
mvn install
```

And launch the webapp (at `launchers/marmotta-webapp/`) with the experimental features enabled:

```
mvn clean tomcat7:run -Pexperimental,kiwi,cleanall
```

Usage

Although not strictly required, it would be good to have some background what's happening under the hood with these commands. For that, please refer to the relevant documents listed above.

Add a source resource to a container

```
curl -i -X POST -d @src/test/resources/test.ttl -H "Content-Type: text/turtle" -H "Slug: test" http://localhost:
8080/ldp/container1
curl -i -H "Accept: text/turtle" http://localhost:8080/ldp/container1/test
```

Add a binary resource to a container

```
curl -i -X POST --data-binary @src/test/resources/test.png -H "Content-Type: image/png" -H "Slug: test2"
http://localhost:8080/ldp/container2
curl -i http://localhost:8080/ldp/container2/test2
curl -i -H "Accept: text/turtle" http://localhost:8080/ldp/container2/test2.png
curl -i -H "Accept:  image/png" http://localhost:8080/ldp/container2/test2.png
```