

*Technical Introduction To and
Initial Use Of* the
**Lightweight Network
Interface (LNI)** (—to DSpace!)

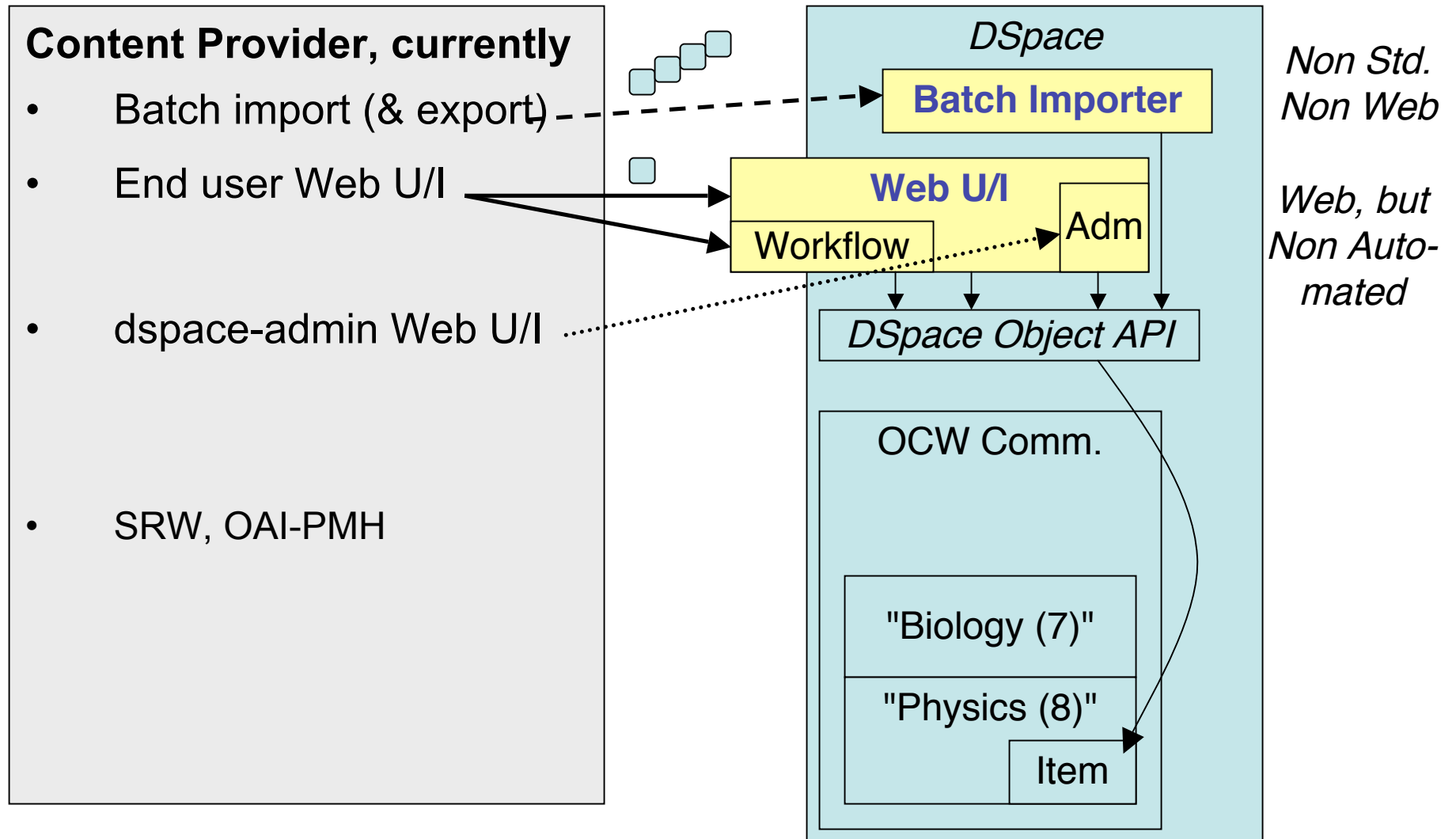


William Reilly, Larry Stone — MIT Libraries

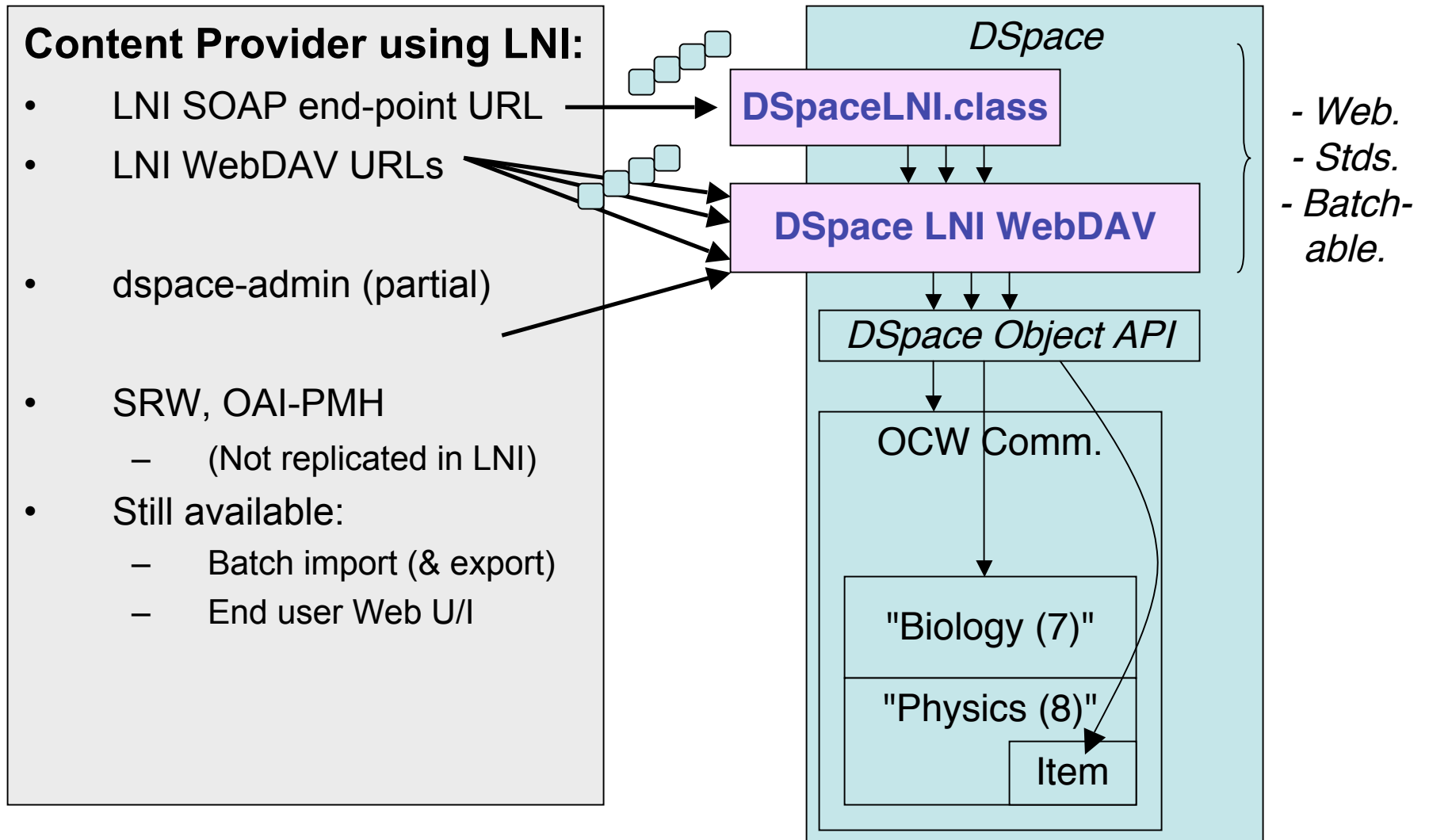
DSpace User Group Meeting
April 21, 2006 — Bergen, Norway



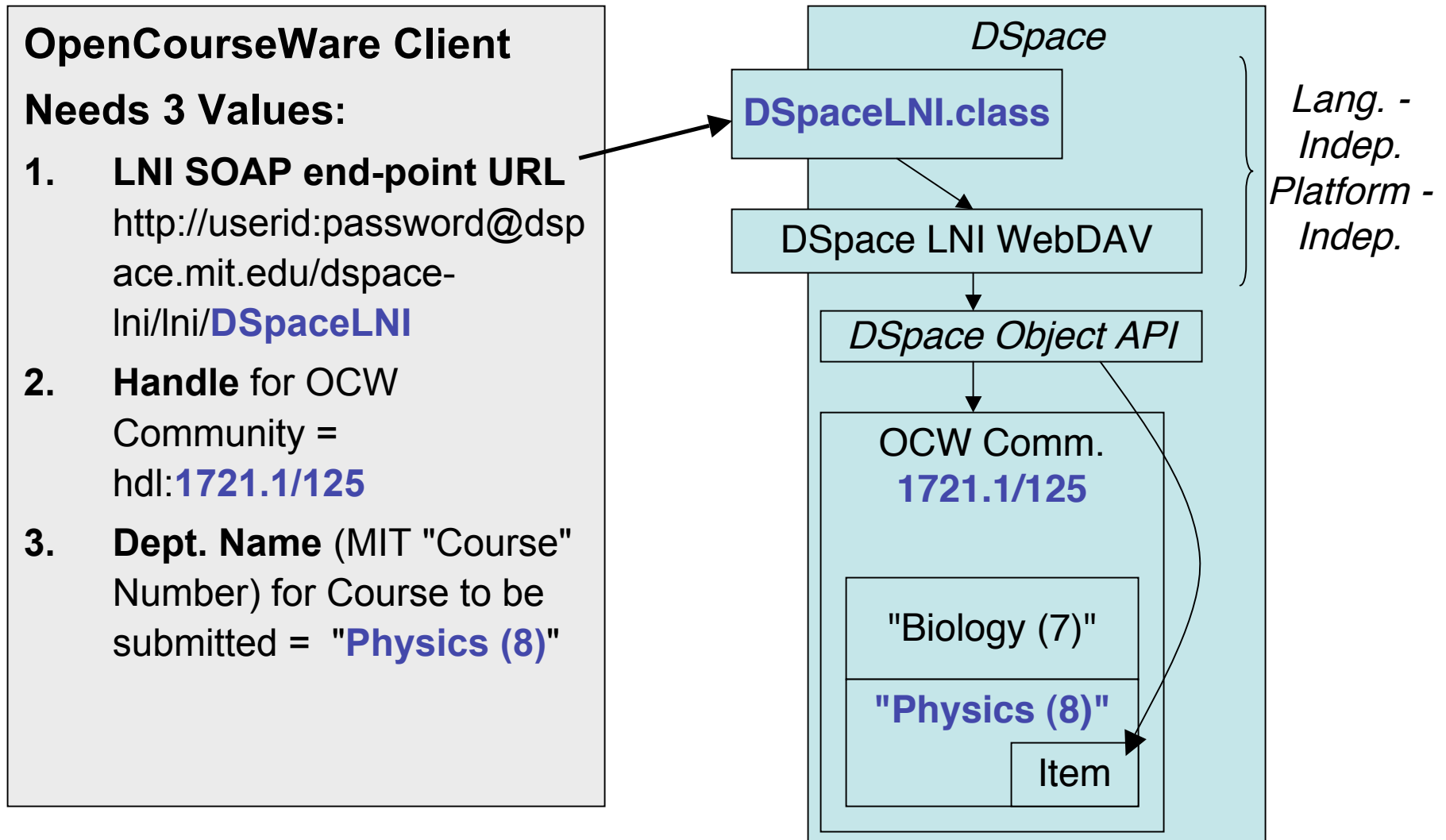
Current DSpace (pre-LNI)



DSpace with LNI



Submission: Overview



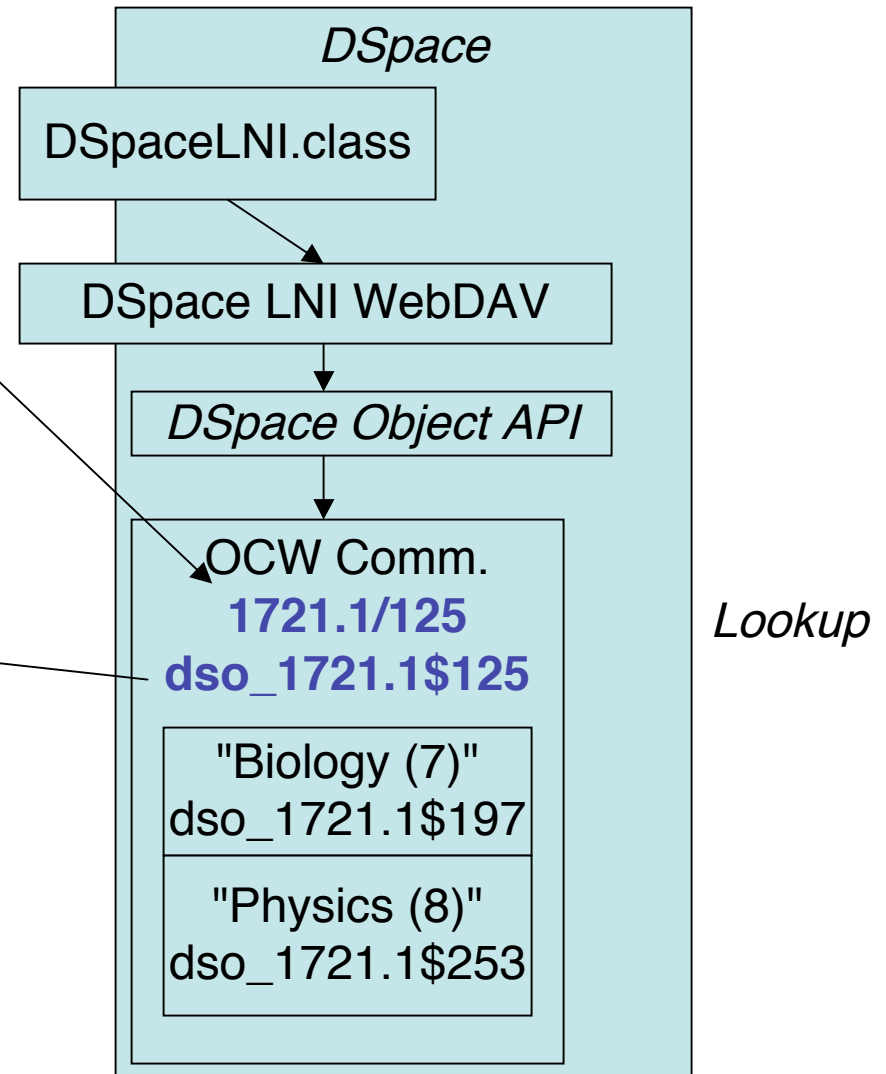
Submission: 1. Lookup

Request: OCW Comm. HANDLE

LNI lookup() =
<http://dspace.mit.edu/dspace-lni/dav/lookup/handle/1721.1/125>

Response: OCW Comm. LNI URL

[http://dspace.mit.edu/dav/dso_1721.1\\$125](http://dspace.mit.edu/dav/dso_1721.1$125)



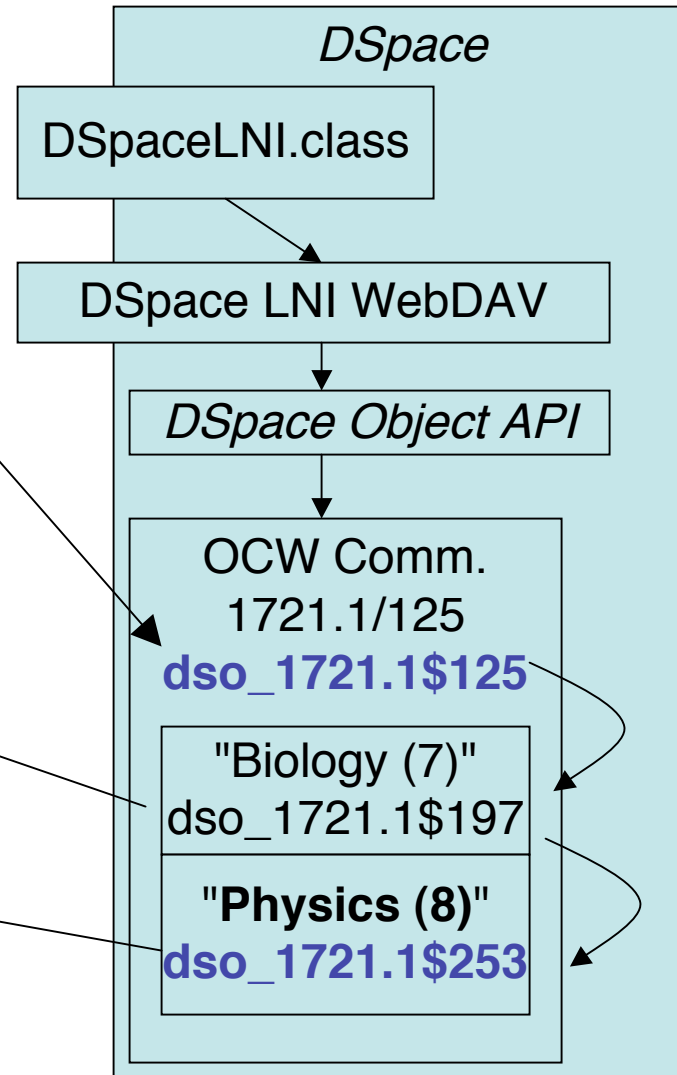
Submission: 2. Collections

Request: PROPFIND on LNI URL for children
DSpace Collections' "displaynames":

```
<propfind>
  <prop>
    <DAV:displayname/>
  </prop>
</propfind>
```

Response: MULTISTATUS

```
<multiStatus>
  <resource>
    <href URI="dso_1721.1$197"/>
    <displayname>Biology (7)</displayname>
  </resource>
  <resource>
    <href URI="dso_1721.1$253"/>
    <displayname>Physics (8)</displayname>
  </resource>...
```



Submission: 3. Submit (PUT)

Request: PUT to DSpace Collection LNI

URL, including specification of
Packager Type (IMS-CP):

PUT

`/dspace/dav/dso_1721.1$253?packa
ge=OCW-IMSCP`

....package contents in body...

Response: LNI URL for DSpace Item in

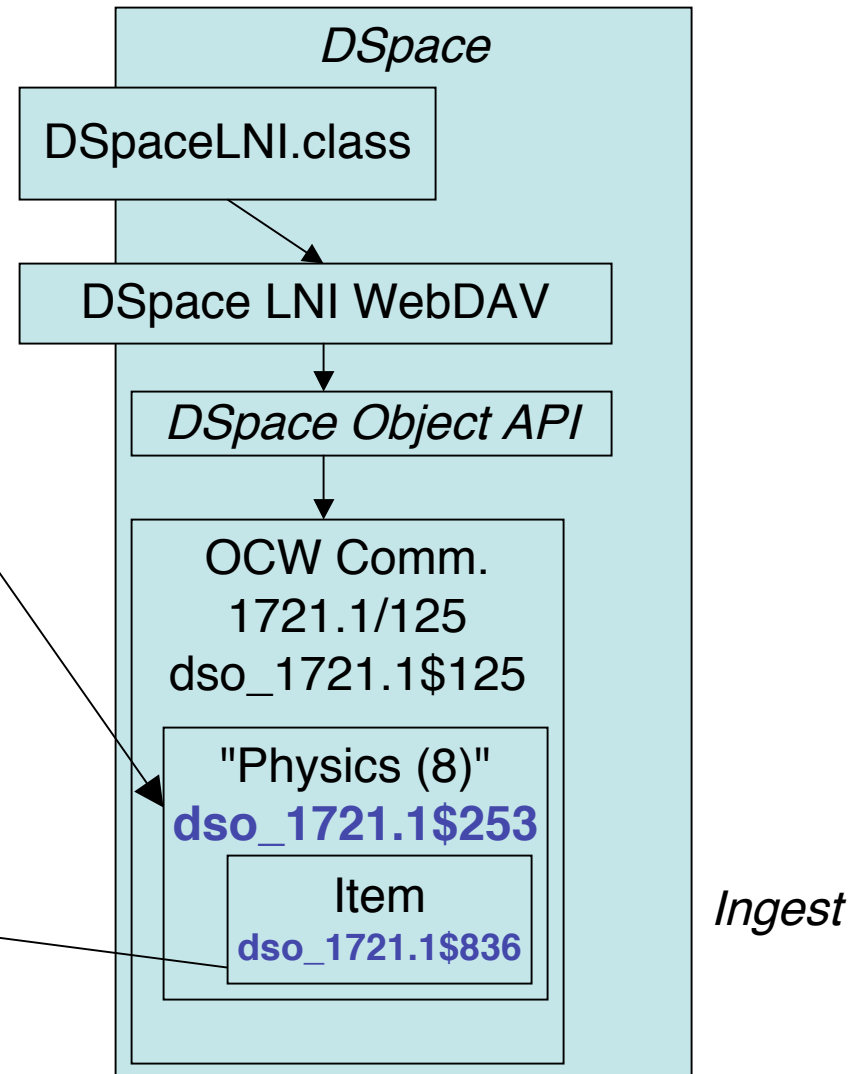
"Location" Header:

HTTP/1.1 201 OK

Location:

`http://dspace.mit.edu/dspace/dav/dso
_1721.1$836`

....other headers....



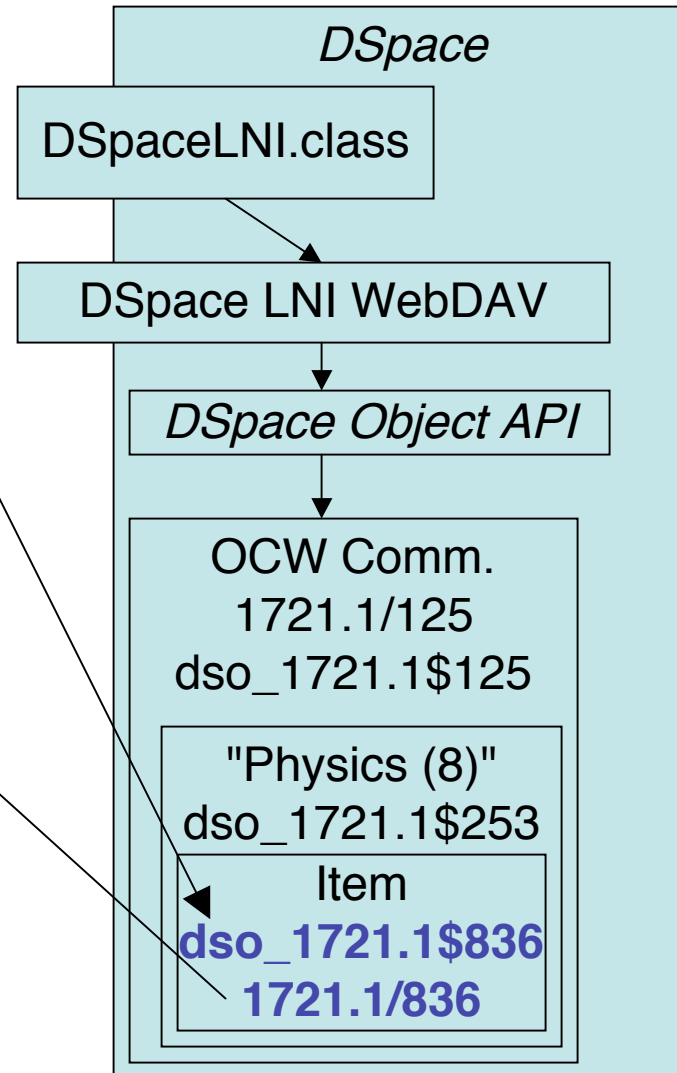
Submission: 4. Item Handle

Request: PROPFIND on DSpace Item LNI
 URL for the DSpace Handle:

```
<propfind>
  <prop>
    <dspace:handle/>
  </prop>
</propfind>
```

Response: Properties Requested
 === PROPERTIES Successfully returned:
 dspace:handle = "hdl:1721.1/836"

OCW Content Mgt. System
 Stores DSpace Handle
 SQL Server Table: **hdl:1721.1/836**



*Reverse
 Lookup*

Submission: Summary

In this 4-step OpenCourseWare submission example, we've seen:

- SOAP endpoint URL
- DSpace Handles
- DSpace LNI URLs
- LNI Lookup() function
- WebDAV Properties
- WebDAV Methods
- PROPFIND (LNI request)
- MULTISTATUS (LNI response)
- LNI "Reverse Lookup"
- WebDAV Headers (Location; Success/Fail)

