

Repository Interoperability with the Hub and Spoke

Abstract

Technical architecture for packaging, submitting, and disseminating digital object for archiving in multiple repositories. Part of ECHO DEpository Project, a 3-year NDIIPP-partner digital preservation project at the University of Illinois Urbana-Champaign in partnership with OCLC, the Library of Congress & others.

1 METS Profiles Development

Modular approach with a top-level generic profile focused on preservation with sub-ordinate profiles for specific genres or media types

- Attempts to generalize METS requirements into interoperable modules, instead of profiles that address only particular environment or toolset
- Common Hub requirements apply to all objects; allows interoperability of Hub scripts and processes

- <http://www.loc.gov/standards/mets/profiles/00000015.xml>
- <http://www.loc.gov/standards/mets/profiles/00000016.xml>

2 Hub-and-Spoke Architecture

An archival interoperability architecture in proof-of-concept implementation

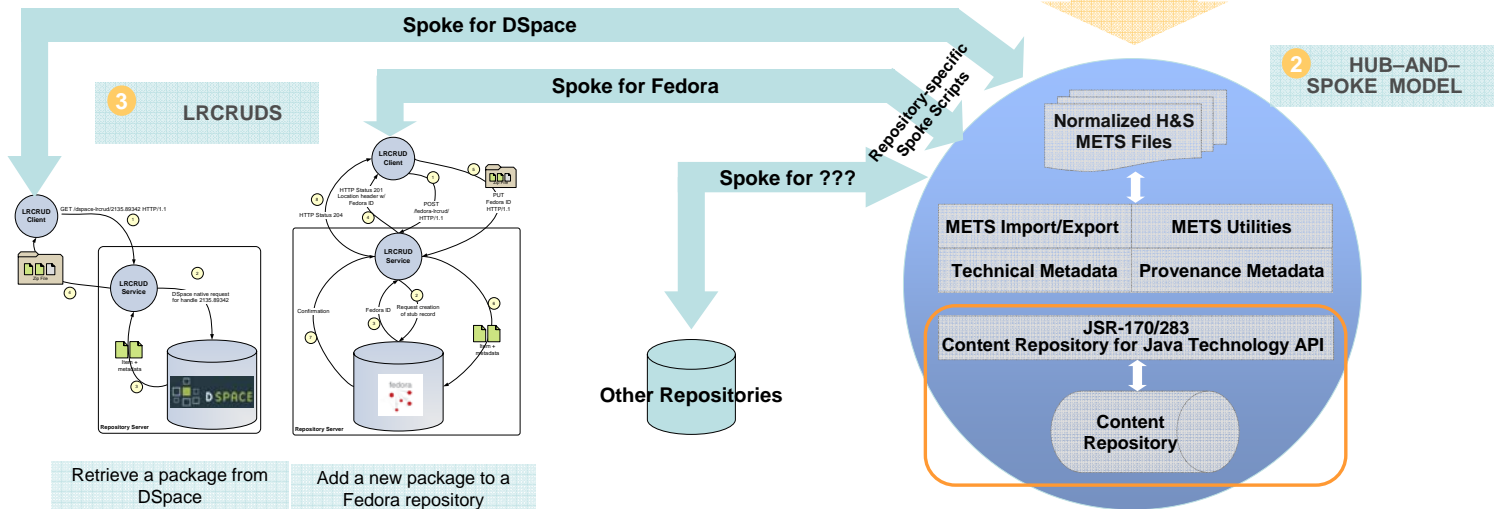
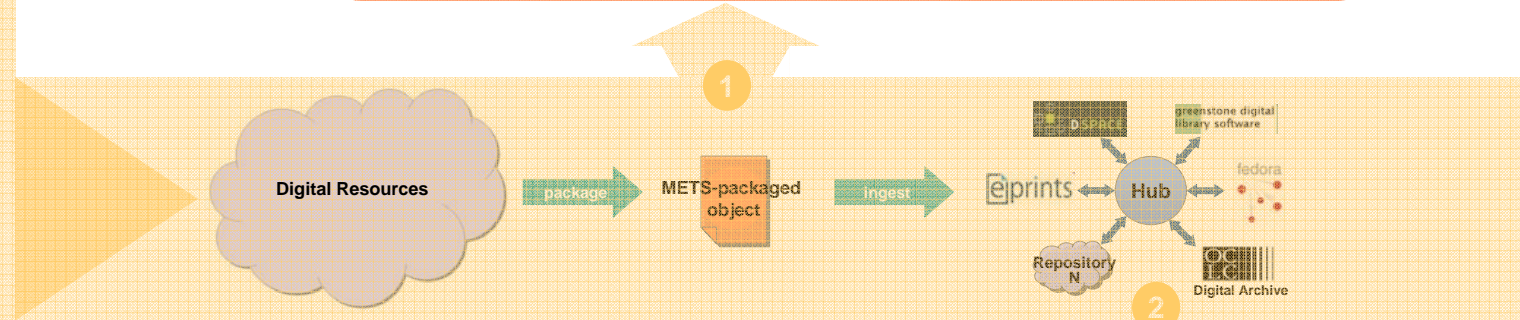
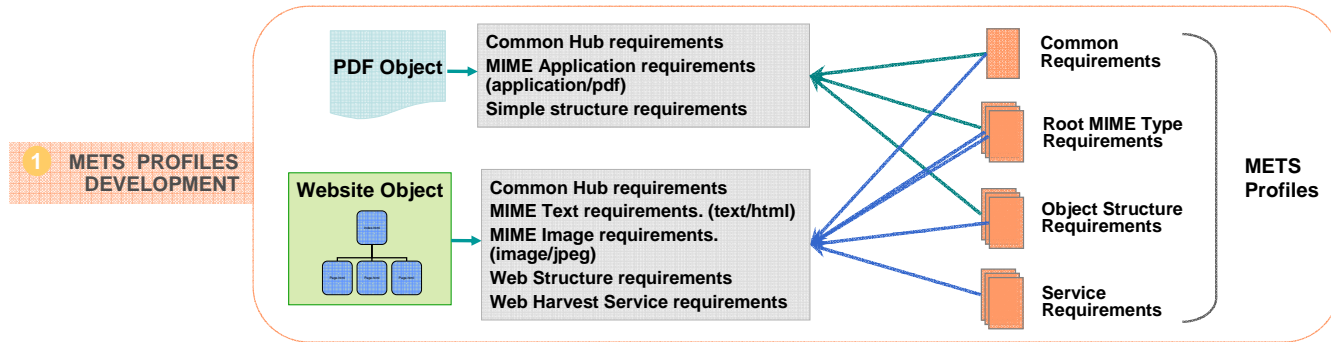
- 'Hub' = family of SIP/DIP/AIP METS profiles, METS import/export and utility programs & JSR-170/283 compliant content repository
 - content repository = temporary staging area for data as moved between repositories -- & may be used for long-term preservation store
- 'Spokes' = programs that translate repository-specific formats to and from hub METS profiles
 - support archival & preservation metadata formats (i.e., PREMIS), including changes to metadata & digital objects themselves as moved between repositories

3 LRCRUD Service

Lightweight Repository CRUD Service based on the REST Architecture utilizing URIs and HTTP Methods and Status Codes

- <http://dli.grainger.uiuc.edu/echodep/HnS/LRCRUDS.htm>

- **Create** POST
- **Retrieve** GET
- **Update** PUT
- **Delete** DELETE



Open source available from <http://sourceforge.net/projects/echodep/>