Expanding the CDL Digital Preservation Repository for New Projects

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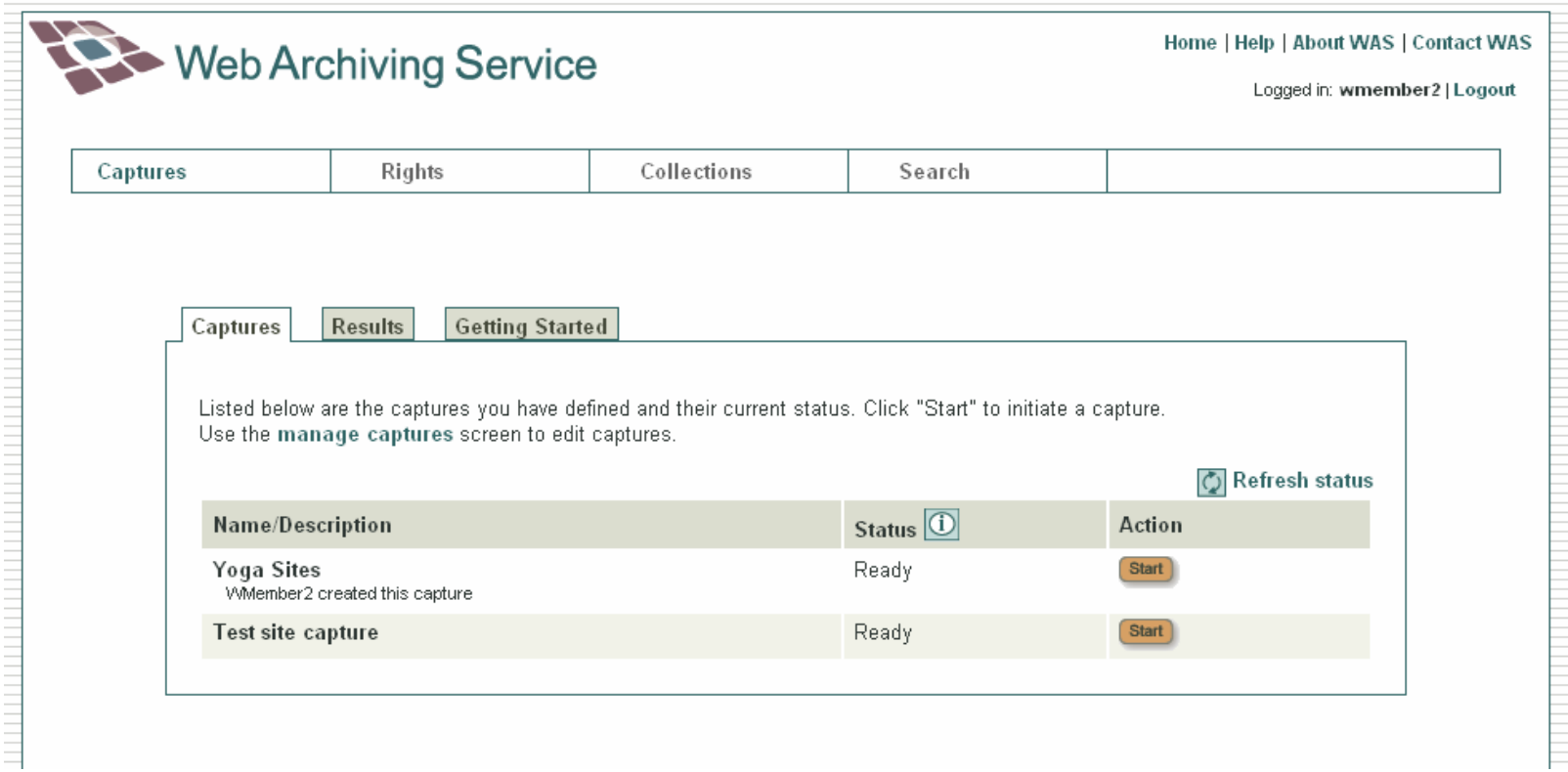
Outline

- Brief look at Web Archiving Service
- Digital Preservation Repository architecture
- Open Content Alliance project:
  Tracker and Feeder Services
- Web Archiving Service project
- Longer demo of Web Archiving Service

Web Archiving Service



Digital Preservation Repository

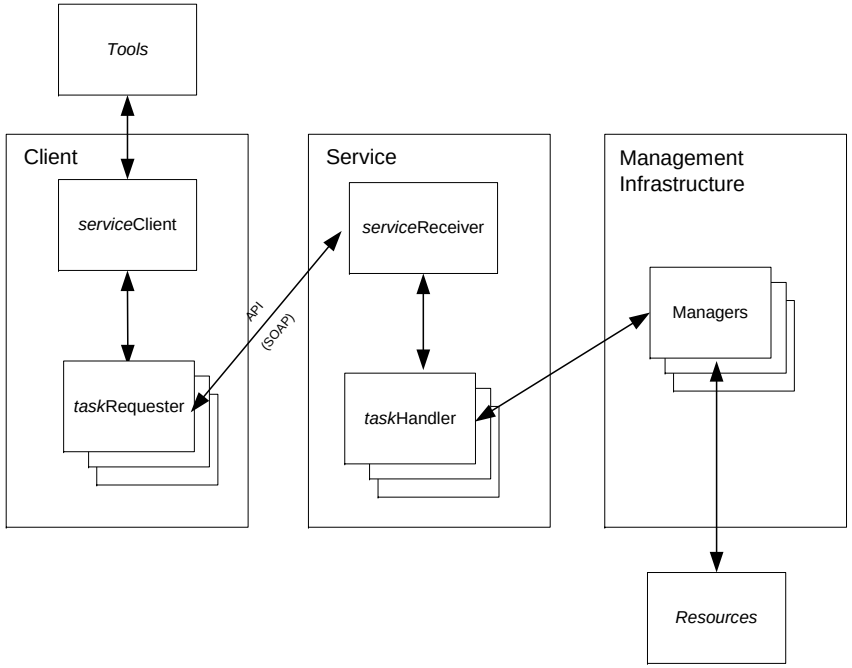
- A secure service for the 10 UC libraries to store their digital collections
- Went into production July 2005
- About 120,000 objects, about 500 GB
- Growing to about 60 TB quite soon
- Web interface; java toolkit, http://www.cdlib.org/inside/projects/preservation/dpr/toolkit/

DPR: Flexible and Extensible

- Service-oriented
- Loosely coupled pieces
- Based on OAIS Model
- J2EE Java
- Configurable – pattern of project structure and deployment
- Jhove, NOID (ARK) -- easy to incorporate

Adding a New Service

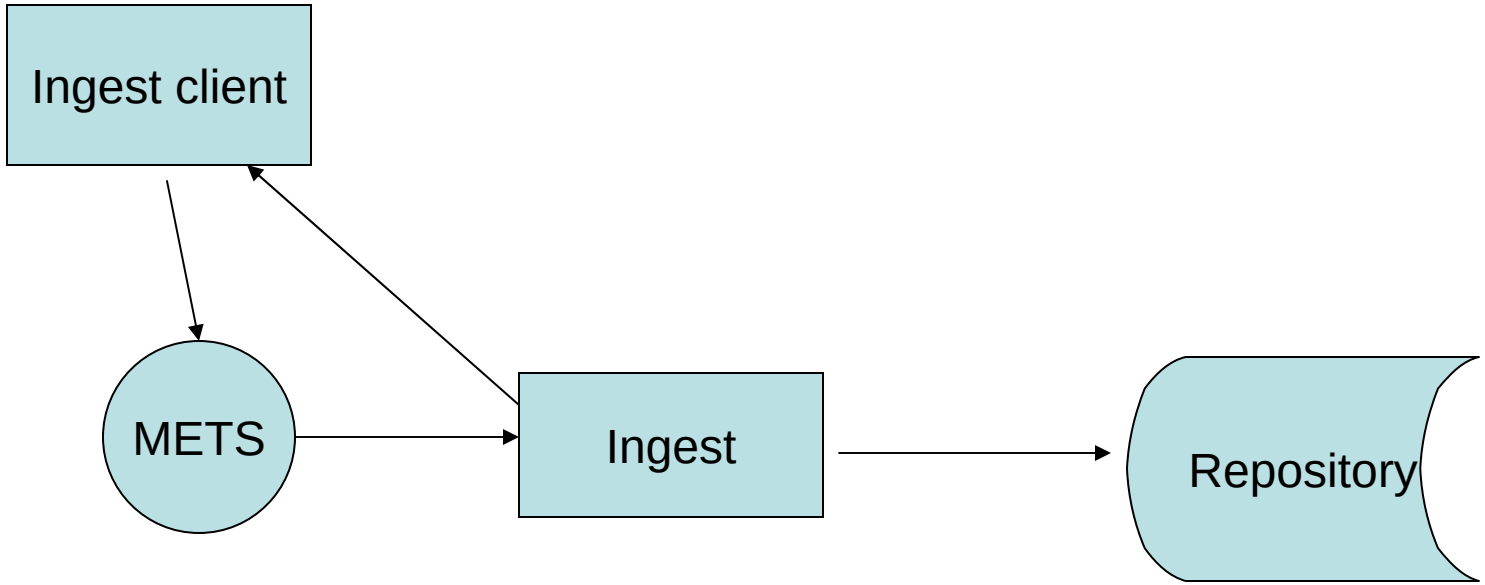
- Client layer(s)
  - Base client classes
  - Requester for each task
- Service layer(s)
  - Receiver
  - Handler class for each task



- Management layer(s): controllers, database managers, tool interfaces
- Configuration of properties, including for deployment

Open Content Alliance
Tracker and Feeder Services

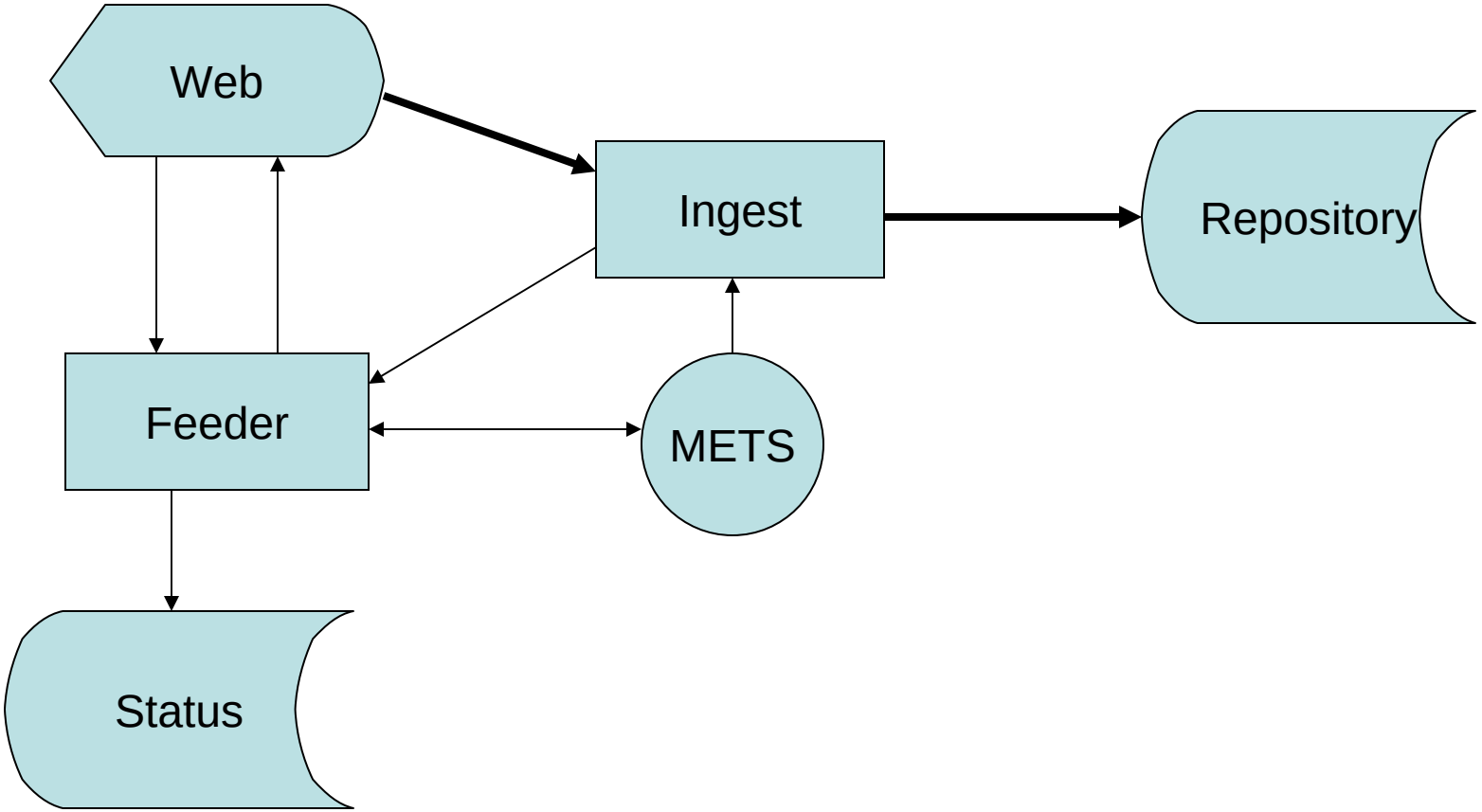
Ingest



Ingest

- User creates METS record
- User submits METS record to Ingest Service using SOAP
- Ingest copies digital data to repository
- Ingest returns SOAP response to user

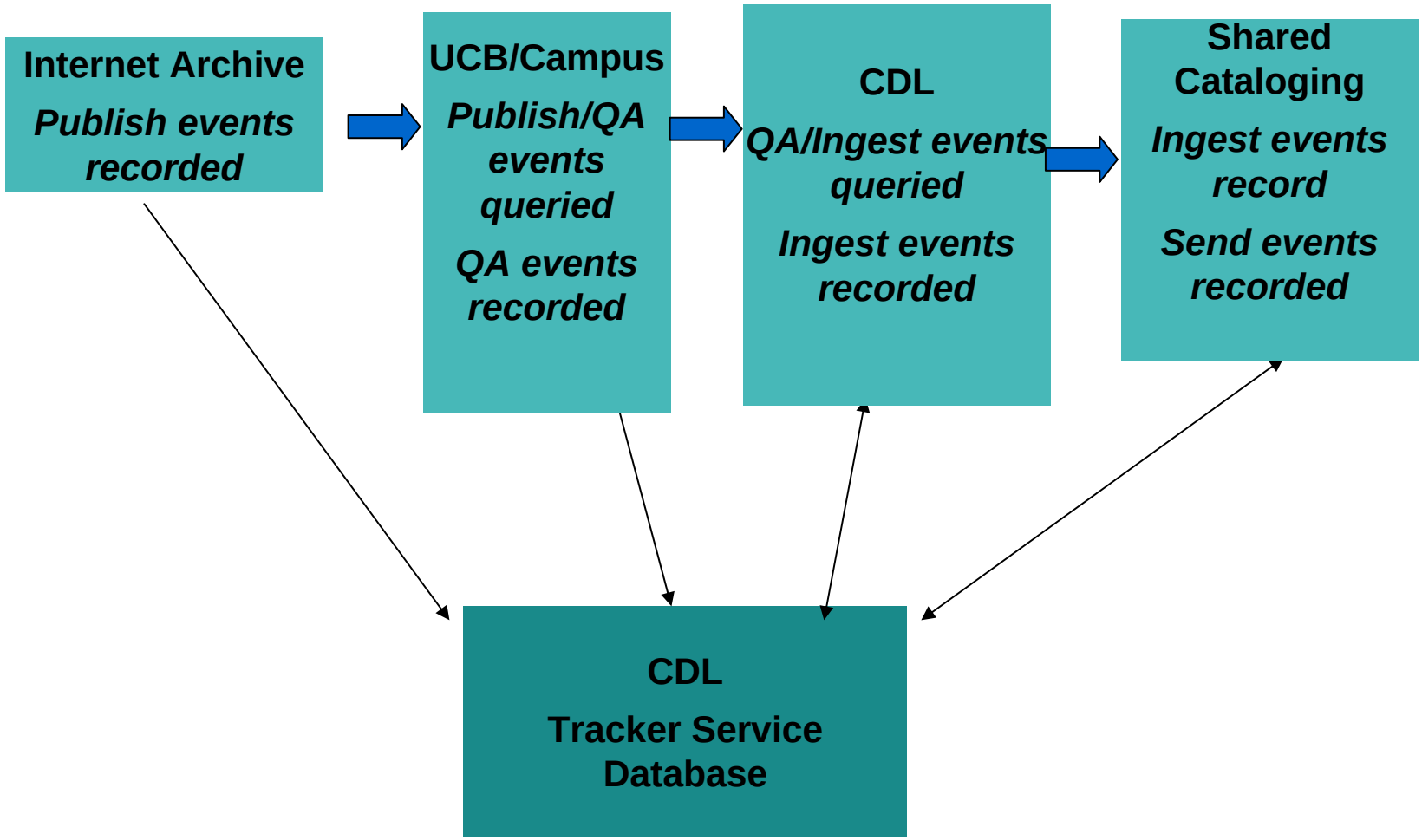
Feeder



Why Feeder

- Need for batch handling of multiple ingests
- Ability to customize “feeding” process to a specific project:
  - OCA
  - WAS
  - OAI
  - Google
- Customized and Automated METS generation based on project
- Need to monitor results for long running loads with multiple ingests

Tracker


Internet Archive
Publish events recorded
UCB/Campus
Publish/QA events queried
QA events recorded
CDL
QA/Ingest events queried
Ingest events recorded
Shared Cataloging
Ingest events record
Send events recorded
CDL
Tracker Service Database

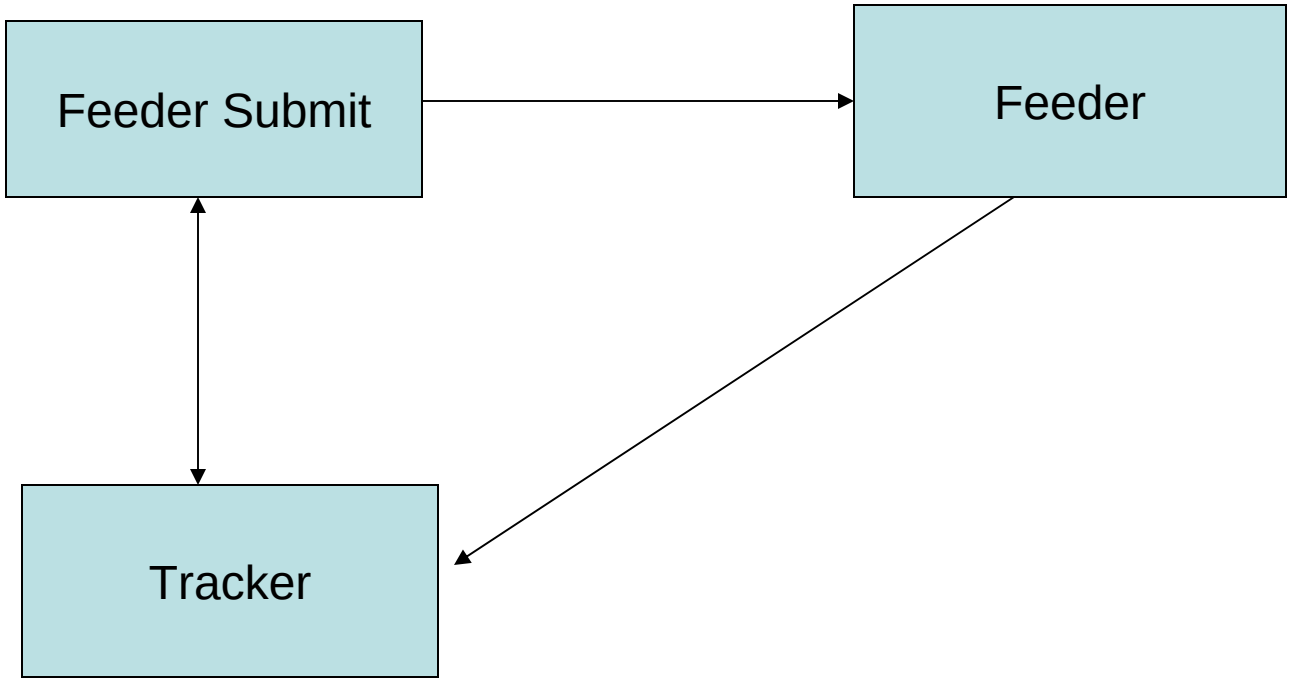
Tracker

- Logging the manual processes involved in the QA and preservation of digital objects
- Event types: publish, validate, qa, ingest, send_scp
- Preserve: eventid, eventtype, eventdate, objectid, userid, altobjectid, collectionlibrary, eventagent, eventstatus, eventnote, batchid

Tracker

- Event types: publish, validate, qa, ingest, send_scp
- Logging the manual processes involved in the QA and preservation of digital objects:
  - Receiving notice that item is available at IA
  - QA of the Digital Object
  - Identification of loading problems
- Logging of automated processes:
  - Feeder validation of data format
  - Feeder submission to ingest

Tracker and Feeder Development



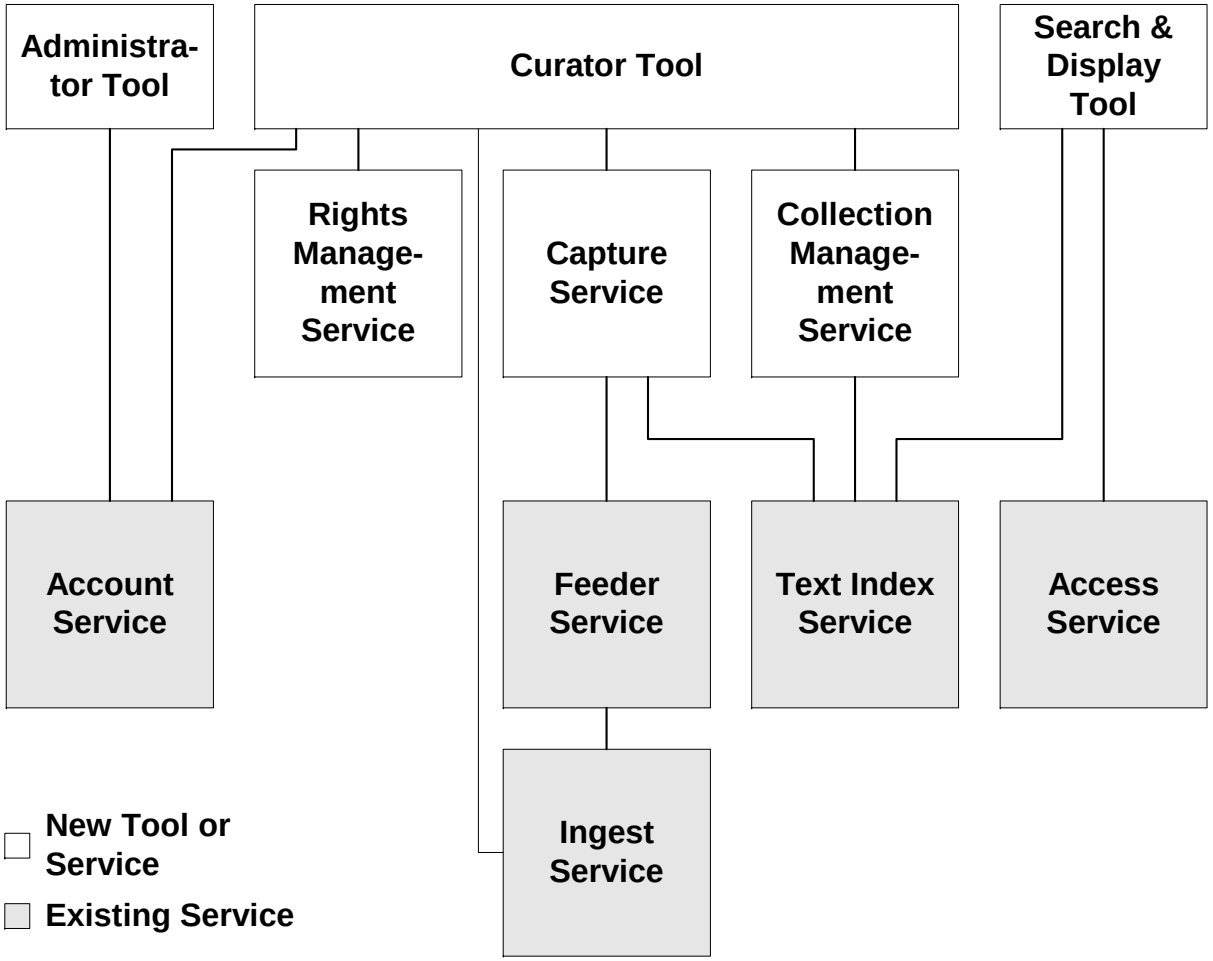
Web Archiving Service
Capture Today's Web; Build Tomorrow's Archives

•3-year NDIIPP project, "The Web at Risk: Preserving our Nation's Political and Cultural Heritage", with NYU, UNT and other partners

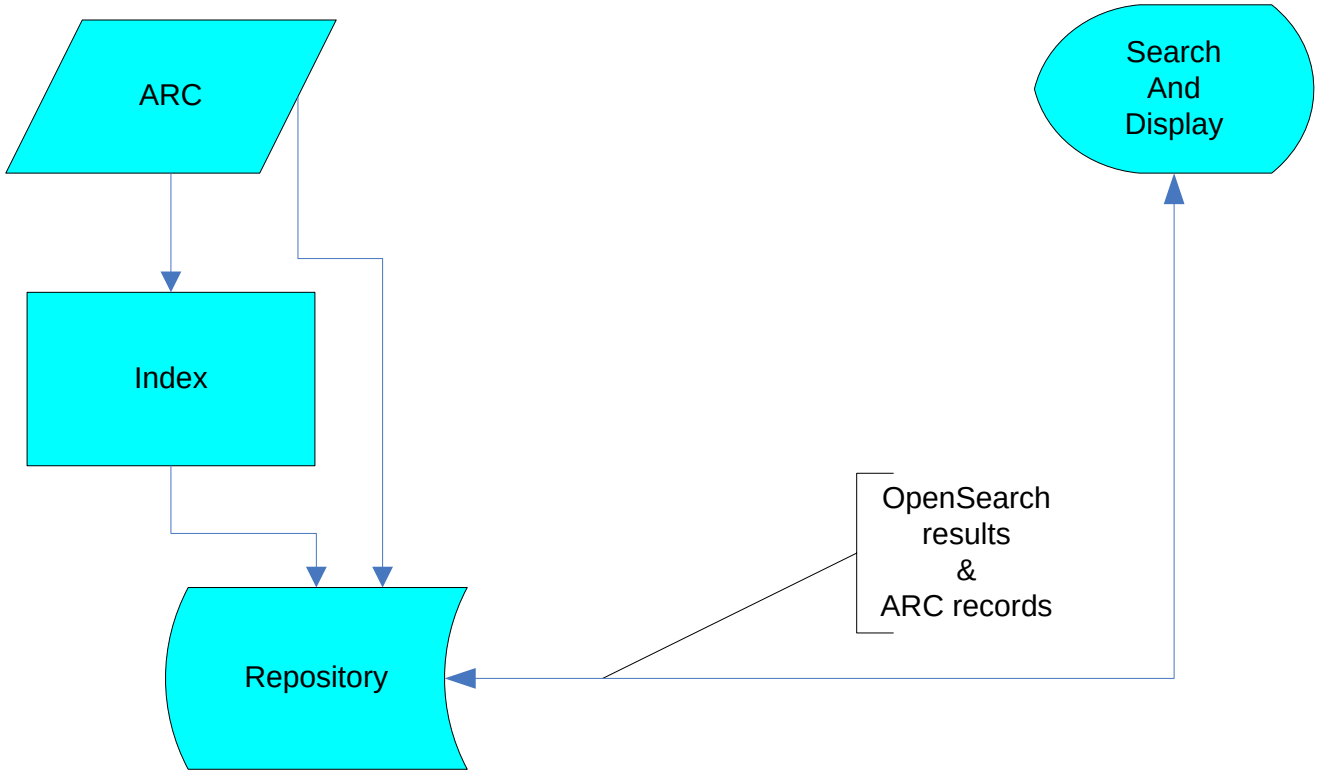
- http://wiki.cdlib.org/WebAtRisk/tiki-index.php
  http://cdlib.org/inside/projects/preservation/webatrisk/
- Uses feeder, building on OCA work
- Internet Archive's Heritrix crawler

Web Archiving Service

Capture Today's Web; Build Tomorrow's Archives



WAS Indexing and Extraction



WAS Indexing and Extraction

- Index during ingest (NutchWAX)
  - Store Nutch index in AIP
- Extract index on demand (Search)
  - Keyword and URL search
  - Cache index to local disk
- Extract ARCs on demand (Display)
  - Cache ARCs to local disk

Questions?