Overview of technical systems transition
September 8, 2011
NSDL Technical Systems Transition

- Technical systems are being moved from Cornell to a combination of Cloud and UCAR based hosting services

- Goals:
  - Position the library for a sustainable future
  - Streamline technical operations for efficiency
  - Maintain operations during the transition with minimal impact on users
  - Complete by late fall, 2011
What’s Staying the Same

- NSDL.org site presence will remain the same
- Search API will remain the primary access point to the NSDL repository and index
- OAI and the NSDL Catalog System (NCS) will continue as the primary mechanisms to get collections into NSDL (metadata, paradata, annotations, etc.)
- Handle Service will continue for unique IDs
What’s Changing

- The NDR system will be decommissioned
  - Significantly simplifies our operational overhead
  - Removes duplicate functionality
- ExpertVoices, NSDL Wiki, and OnRamp will be decommissioned
  - All blogs and content will be moved to other places, archived, or deleted.
  - We are working with content creators on this migration. Target date end of Sept.
Impacts for Pathways and Users

- NSDL.org Web site (search, browse, info pages, etc.) should see very little or no downtime for the final 'flipping of the switch'
- Short downtime in OAI harvesting may be necessary
  - NSDL will operate with a static version of the repository during this period, if necessary
- All content on ExpertVoices, NSDL Wiki, and OnRamp must be moved to alternatives
- NSDL technical staff will be busy during the transition period and unavailable for other work
Current NSDL Technical Platform

**NSDL.org**
Library search and browse UI

**Learning Apps**
Science Literacy Maps, CCS, etc.

**Partner 1, n**
Portals, learning apps, mobile apps, etc.

**Search**
REST API (DDS)
Performs resource-centric search; retrieve metadata, annotations, and paradata for views

**OAI-PMH**
Data provider
Harvests resource metadata, annotations, and paradata

**NSDL Data Repository (NDR)**
Contains resources, resource metadata, annotations, and paradata for all NSDL collections

**OAI-PMH**
Ingest from partners
Ingests metadata, annotations, and paradata into NSDL

**NCS**
Metadata editor tool
Writes metadata, annotations, and paradata into NSDL

**Key**
- Views and learning applications
- Repository services and APIs
- Ingest tools and services

**Ingest tools and services**
- Ingests metadata, annotations, and paradata into NSDL
- OAI-PMH
- NCS
New NSDL Technical Platform

NSDL.org
Library search and browse UI

Learning Apps
Science Literacy Maps, CCS, etc.

Partner 1, n
Portals, learning apps, mobile apps, etc.

Search
REST API, Repository Index (DDS)

OAI-PMH
Data provider (DDS)

File System
Contains resources, resource metadata, annotations, and paradata for all NSDL collections

OAI-PMH
Ingest from partners

NCS
Metadata editor tool

Key
- Views and learning applications
- Repository services and APIs
- Ingest tools and services

Ingests metadata, annotations, and paradata to file system

Combines resource metadata, annotations, and paradata

Performs resource-centric search; retrieve metadata, annotations, and paradata for views

Harvests resource metadata, annotations, and paradata

File System
Contains resources, resource metadata, annotations, and paradata for all NSDL collections

Ingests metadata, annotations, and paradata to file system

Writes metadata, annotations, and paradata to file system

Public service APIs

Repository cache

Ingest tools, services