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)

OAI-PMH
Data provider

NSDL Data Repository (NDR)
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

- Views and applications
- Public service APIs
- Repository system
- Ingest tools, services
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

**Ingest**
Ingest tools, services

**OAI-PMH**
Ingest from partners

**NCS**
Metadata editor tool

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

- Perform resource-centric search; retrieve metadata, annotations, and paradata for views
- Harvest resource metadata, annotations, and paradata
- Combines resource metadata, annotations, and paradata
- Ingests metadata, annotations, and paradata to file system
- Writes metadata, annotations, and paradata to file system
- Public service APIs
- Repository cache