A horizontal banner image featuring a sequence of celestial bodies from left to right: Earth, Mars, and Jupiter. The text "Planetary Data System" is overlaid in white on the right side of the banner.

Planetary Data System

System Design and Deployment Status

PDS Management Council Face-to-Face
College Park, Maryland
March 27-28, 2012

Sean Hardman

Topics

- Build 2b Status
- Build 2c Status
- Report Service Population
- Design Activities for Build 2c and Beyond
- System Needs from PDS3 Migration
- Next Steps

Build 2b Status

- RFA Status
 - Majority were deferred to Build 2c.
 - One RFA concerning documentation errors was implemented and delivered.
- Delivered and underwent testing at the EN starting in January.
 - 8 new issues discovered and captured.
- Catalog migration continues as an iterative process.
 - There are still a couple of issues to resolve as well as addressing any upcoming data model changes.
- Deployment of software in EN Operations.
 - Plan is to replace current search index with one generated by the PDS4 infrastructure.

Build 2b Status

New and Modified Features

- Catalog Tool is new for this release supporting ingestion of PDS3 catalog files into the PDS4 registry.
- Validate Tool was modified to add support for XML Schema 1.1 and XML Catalogs.
- Harvest Tool was modified to keep pace with changes occurring in the PDS4 data model.
- Corrected issues discovered during Build 2a testing.

Build 2c Status

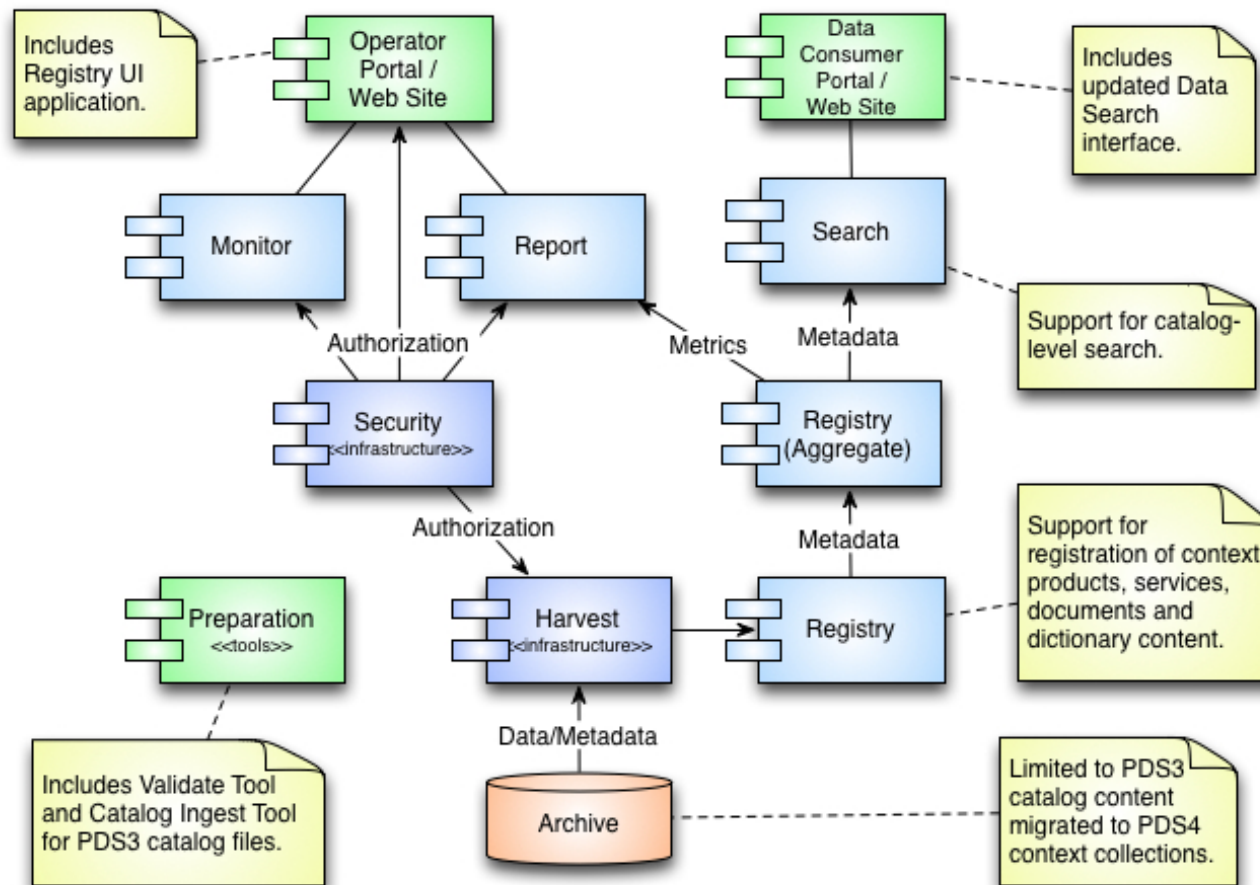
- New and modified features:
 - Upgrade the Data Search interface to remove the dependence on the PDS3 catalog database.
 - Documentation updates based on RFAs and Node Test exercises.
 - Correct issues discovered during Build 2b testing.
- RFA Status
 - 7 Implemented
 - 2 Pending (planned for delivery in Build 2c)
 - All RFAs concerned documentation and deployment issues encountered during the Node Test exercises.

Build 2c Status

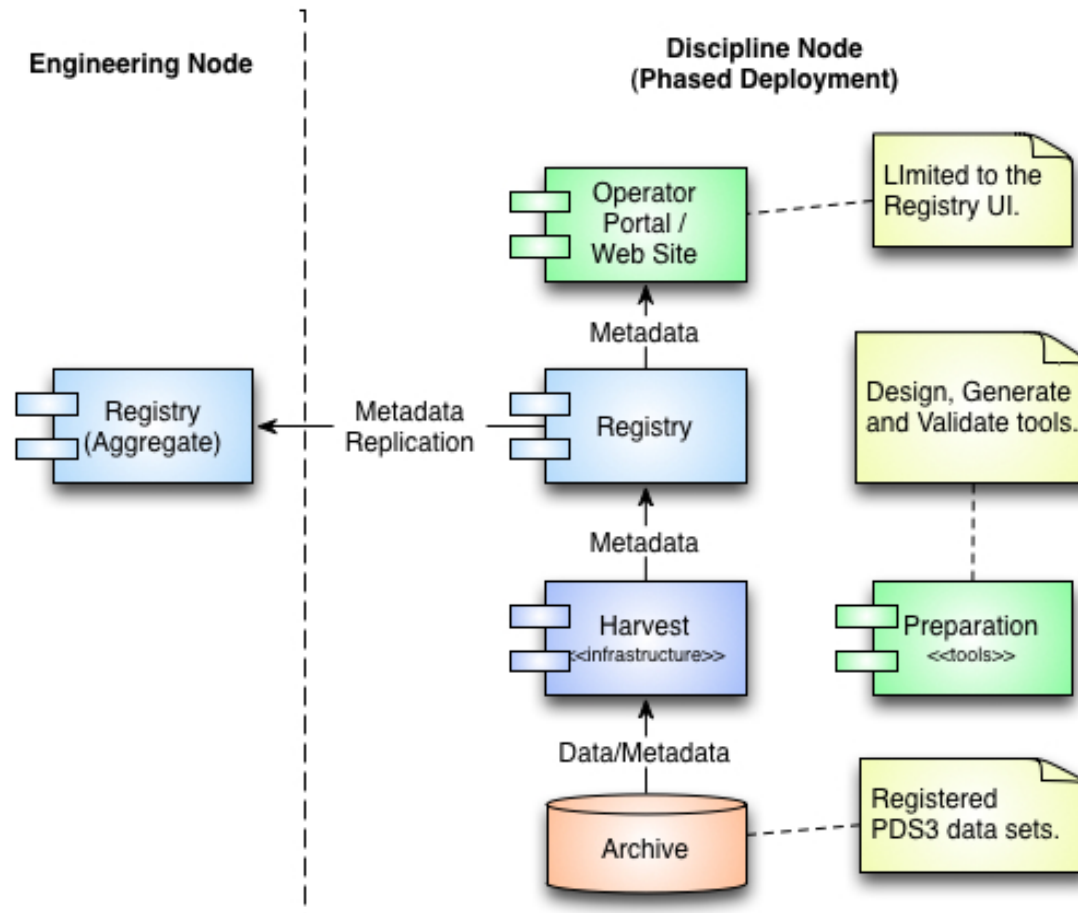
Deployment

- Engineering Node
 - Deployment of the core components replacing the central catalog.
 - Will run side-by-side for six months.
 - Existing search interfaces reworked to utilize the PDS4 infrastructure.
- Discipline Nodes
 - Deployment of the core components at the Nodes will be phased with this delivery.
 - Once deployment is complete, Nodes may begin local registration of PDS3 data sets/products with the Harvest Tool.

Build 2b/2c Deployment Engineering Node

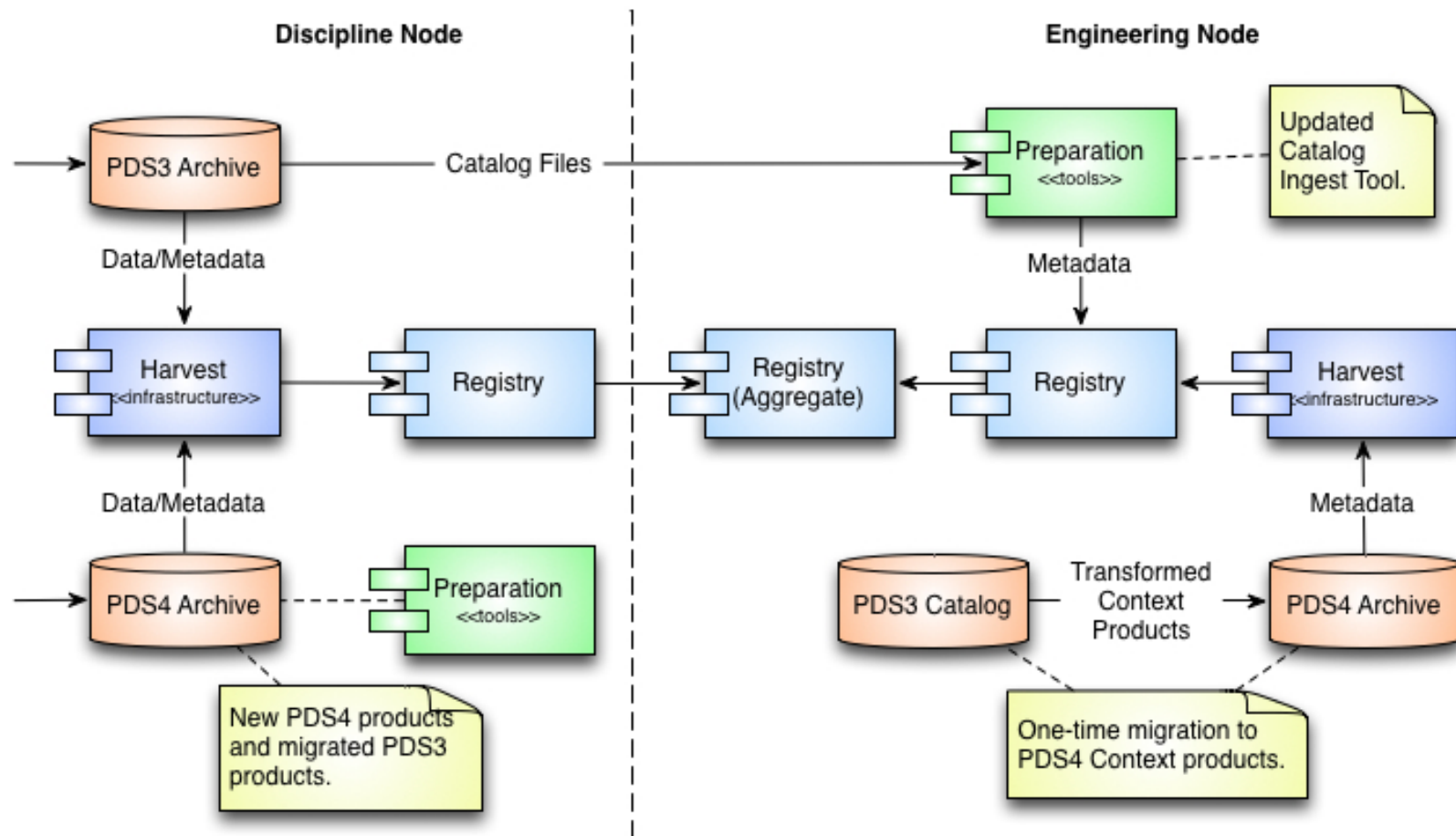


Build 2c Deployment Discipline Node



Build 2c Deployment

PDS3/PDS4 Product Registration



Report Service Population

- Currently working on putting together an inventory of metric sources from the Nodes.
 - This will help identify logs that may require transformation to the preferred format.
- Investigating methods for securely transferring logs from the Nodes to the EN.
 - Local IT Security requirements may dictate the preferred method.
- Also working out a couple of issues with the operational deployment.
- Targeting the end of April for full operation.

Design Activities

Build 2c and Beyond

- Finalization of Search Protocol for the Search Service
 - The initial protocol has been implemented.
 - Need to add support for PDAP and VOTable.
- Requirements and Design for Transform/Visualize Tools
 - The desire is to interface with existing functionality where possible (e.g., GDAL).
- Integration of PDS4 Infrastructure with Node Operations
 - Need to work with each Node individually for the best integration approach.

System Needs from PDS3 Migration

- So, I keep getting asked what I want from migration or what the priorities should be.
- My preference is to get a good cross-section of data products across the Nodes.
- The immediate interest is for PDS4 labels that describe products well enough to start implementation of reader/writer capabilities.
- Although just as important, the secondary interest is for search-related information (e.g., geometry).

Next Steps

- Deploy Search to Operations at the EN.
- Work with the Nodes on Report Service Population.
- Complete Build 2c Development
- Work with the Nodes to deploy Build 2c software locally.
- Design and Development for Build 3
 - Implement data-related tools for transformation and visualization.
 - Integrate above functionality into PDS search and distribution services.
 - Replace any remaining software (and its functionality) that is dependent on the PDS3 catalog database.

Questions / Comments