

Testing and Deployment

PDS 2010 System Review March 22-24, 2010

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Agenda

- Approach
- V & V Process
- Phased Builds
- Phases

Approach

Deployment

- align with incremental development and transition
- increasing levels of capability will be put in place over time

Testing

- perform against requirements
- test software under CM before deployment
- automate wherever possible
- Perform regression test over time

Documentation

- Deployment and Test Plans
- Test reports, Release Descriptions

V&V Process

- System Tests
 - Unit Test
 - Perform by developers (EN, DNs)
 - Integration Test
 - Perform by integration and test team (EN, DNs)
 - Beta Test
 - Perform by selective users (EN, DNs, data providers, science community)
- Product Prototypes
- Organized build structure to verify PDS 2010 as a system (software and PDS3/PDS4 Standards) early on
- Metrics
 - E.g. # of defects, test cases, # of catalog migration, etc

Planned System Builds

Phase	Purpose	Release	Date
I Prototype Build 1 Ingestion	 Release a prototype Ingest Subsystem Baseline PDS4 model, standards reference Enable PDS3 to PDS4 catalog migration Support testing of Node interfaces Support PDS4 product prototypes 	 PDS4 info model, standards reference, data dictionary, schemas baseline PDS 2010 Ingestion subsystem including Harvest, Registry (Inventory, Document, Dictionary, Service), Report and Security services Initial data provider tool suite First set of process, documentation and tutorial 	October 2010
II Operational Build 2 Distribution	 Initial operational PDS 2010 system and PDS4 Standards Allow acceptance of PDS4 data into operational archive Enable data migration from PDS3 to PDS4 Allow user to search and access both PDS3 and PDS4 data 	 E2E PDS 2010 system, Distribution subsystem including Search and Monitor services, revised web site, general portal applications Complete tool suite 1st release of PDS4 standards reference, data dictionary Enhanced process, documentation and tutorial 	October 2011
III Operational Build 3 User Capabilities	 Incremental release of operational PDS 2010 system to enhance user capabilities Support data transformation Support science services 	 Integration of DN applications and science services Order and Subscription services 	June 2012

Current PDS3 System Diagram

Operation

pdsweb1 & pdsweb2 (PDS Web Sites, Blog, Ingest)

pdsarch1 & pdsarch2 (Profile & Product Services)

pdsdb1 & pdsdb2 (Data Bases)

pdscm (Configuration Management)

pdsarch2 (Storage RAID)

Development

pdsbeta (PDS Web Sites, Blog)

starmro
(Profile & Product
Services)

starlite (Ingest, Metrics)

pdsdev1 & pdsdev2 (Development)

odsraiddev (Dev Storage, Backup)

Mirror Site

mirpds (PDS Web Sites, Blog, Ingest)

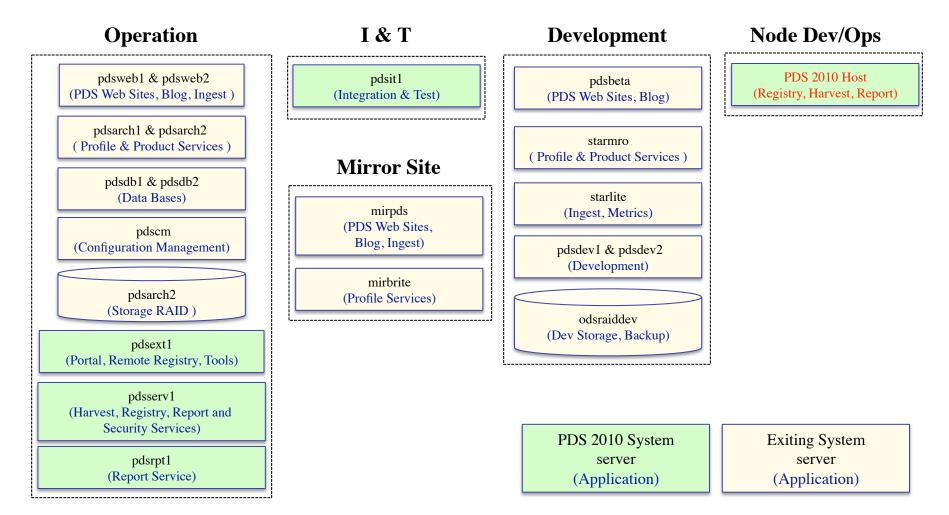
mirbrite (Profile Services)

Exiting System server (Application)

Phase I

- Prototype Software deploy at EN
 - PDS Ingest subsystem (Harvest, Registry (Inventory, Document, Dictionary services), Report and Security services
 - Tools suite (Label design and validation, Label and Schema generation)
 - Internal administrative portal
- Prototype Software deploy at one or two DNs
 - Registry, Harvest services, and Report client
- Baseline PDS4 Model Specification, Standards Reference, Data Dictionary, Schemas, Data Provider's Handbook, Tutorials
- Testing resource
 - EN (unit, I&T), DNs (I&T)
- Documents
 - Release Description, Test plan, Test Report

Phase I – System Diagram



Phase II

- Operational Software deploy at EN
 - Initial PDS 2010 System with Search and Distribution, Monitor services in addition to Ingest subsystem
 - Tool suite with additional Product Validation Tool
 - Revised web site
- Operational Software deploy at all DNs
 - Registry, Harvest, Search services, Report Client
 - DN Integration with PDS 2010 System
- Initial release of PDS4 Model Specification, Standards Reference, Data Dictionary, Schemas, Data Provider's Handbook, Tutorials
- Testing resource
 - EN (unit, I&T), Nodes (I&T, beta), selected data providers (beta)
- Documents
 - Release Description, Test plan, Test Report

Phase II – System Diagram

Operation

pdsweb1 & pdsweb2 (PDS 2010 Site, Blog, Ingest)

pdsarch1 & pdsarch2 (Profile & Product Services)

pdsdb1 & pdsdb2 (Data Bases)

pdscm (Configuration Management)

pdsarch2 (Storage RAID)

pdsext1 & pdsext2
(Portal, Remote Registry, Tools)

Pdsserv1 & pdsserv2
(Harvest, Registry, Report, Security,
Monitor and Distribution Services)

Pdsrpt1 & pdsrpt2 (Report Service)

I & T

Pdsit1 & pdsit2
(Integration & Test)

Mirror Site

mirpds (PDS Web Sites, Blog, Ingest)

mirbrite (Profile Services)

Development

pdsbeta (PDS 2010 Site, Blog)

starmro
(Profile & Product Services)

starlite (Ingest, Metrics)

pdsdev1 & pdsdev2 (Development)

odsraiddev (Dev Storage, Backup)

Node Operation

PDS 2010 Host (Registry, Harvest, Report, Search)

PDS 2010 System
Phase II Server
(Phase II Application)

Exiting System
Server
(Application)

Phase III

- Operational Software deploy at EN
 - 2nd release of PDS 2010 System with additional Order and Subscription service and science services
 - New portal with content management capabilities
- Operational Software deploy at Nodes
 - Science services
 - DN Integration with PDS 2010 System
- Operational mirror site deploy at UMD
- Testing resource
 - EN (unit, I&T), Nodes (I&T, beta), data providers and users (beta)
- Documents
 - Release Description, Test plan, Test Report

Phase III – System Diagram

Operation

pdsweb1 & pdsweb2 (PDS 2010 Site, Blog, Ingest)

pdsarch1 & pdsarch2 (Profile & Product Services)

pdsdb1 & pdsdb2 (Data Bases)

pdscm (Configuration Management)

pdsarch2 (Storage RAID)

pdsext1 & pdsext2
(Portal, Remote Registry, Tools,
Science Services)

Pdsserv1 & pdsserv2
(Harvest, Registry, Report, Security,
Monitor, Distribution, Order &
Subscription Services)

Pdsrpt1 & pdsrpt2 (Report Service)

I & T

Pdsit1 & pdsit2 (Integration & Test)

Mirror Site

mirpds (PDS Web Sites, Blog, Ingest)

mir2010 (Admin portal, Registry, Tools,system and report services)

Development

pdsbeta (PDS 2010 Site, Blog)

starmro (Profile & Product Services)

starlite (Ingest, Metrics)

pdsdev1 & pdsdev2 (Development)

odsraiddev (Dev Storage, Backup)

Node Operation

PDS 2010 host (Registry, Harvest, Report Serach, Science Services)

PDS 2010 System
Phase III Server
(Phase III Application)

Exiting System
Server
(Application)

Summary

- Well defined plans and processes, with participation from Nodes and users to ensure
 - Successful phased deployments
 - Deployed system meets requirements and purpose
 - Deployed system meets stakeholders expectation
 - Test and deployment activities will be documented