



# Concept of Operations / R2A2s for Applications and Infrastructure at USDF

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Data Facilities F2F meeting

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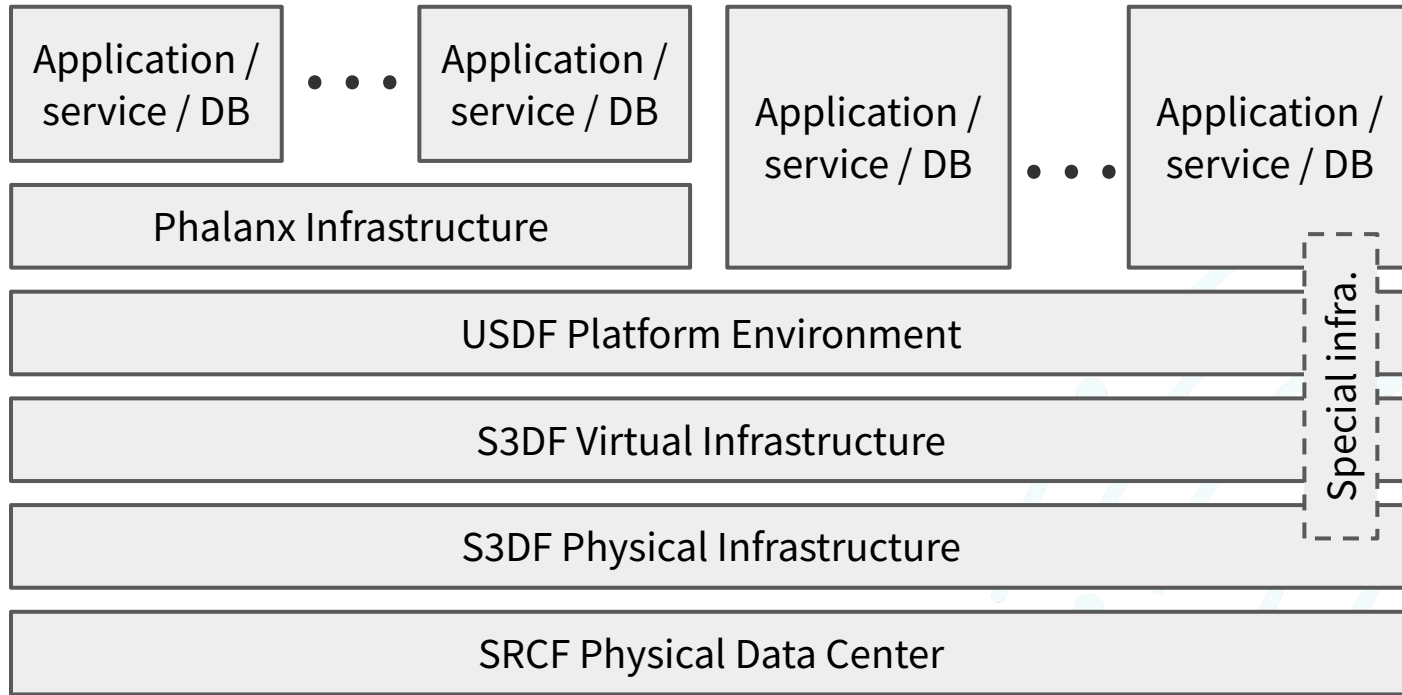
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# Context & motivation

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- USDF hosts a wide range of applications and databases for Rubin Operations
- Widely varying maturities, criticality, infrastructure and resource needs, stakeholders, use cases, deployment patterns, etc.
- USDF is not staffed for individualized support of all them
- Different people have different expectations about “how this should work”
- Need to standardize (and prioritize!)
- Build out [RTN-046](#) (Mgmt & Execution Plan for DM Ops)

# Infrastructure schematic



# Current inventory at USDF

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Consolidated Database (ConsDB)

Butler Databases (multiple)

Alert Production Database (APDB)

Prompt Products Database (PPDB)

Exposure/narrativelog replica

DP0.3 Postgres

Minor Planet Survey replica

InfluxDB Enterprise for the EFD

Qserv (Docker)

Qserv (k8s operator)

Postgres for CM-service

Postgres for PanDA

Postgres for Rucio

Alert database

Embargo Transfer

PanDA

Rucio + FTS3

Rucio-Butler integration

Jenkins Control

Embargo and LFA ingest

Plot navigator

Scheduler Pre-Night

RubinTV

Rapid Analysis

Alert Distribution

CM-service

Large File Annex (LFA) replication

OpenSearch

HTCondor workflow system

BPS (Batch Production Service)

Prompt Processing

Rubin Science Platform at USDF

Sasquatch

Shared stack maintenance

Shared datasets maintenance

ArgoCD

Phalanx

Sasquatch Kafka

Shared Butler repos

Sat db

Metrics Analysis Framework

s3proxy

Data Transfer Summit-USDF

sattle deployment (pending)

Exposure Checker

Scheduler snapshot dashboard

# For discussion...

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- Responsibilities of application owners/operators
  - Primary responsibility for operational state of deployed application
  - Runbooks / documentation
  - Respond to stakeholder queries via Slack
  - Alert USDF/S3DF infrastructure staff of issues, needs, etc.
- Responsibilities of USDF infrastructure staff
  - Document standard menu of services (k8s, storage, monitoring, databases, etc.)
  - Proactively monitor infrastructure status and investigate emergent issues
  - Respond to issues/needs of application owners/operators
- Standardizing infrastructure/application boundary
- Is there scope to expand adoption of Phalanx or is uptake already at max?
- Burwood proposal for short-term effort on this front
  - Pattern definition, gap analysis, support model development, targeted per-application work