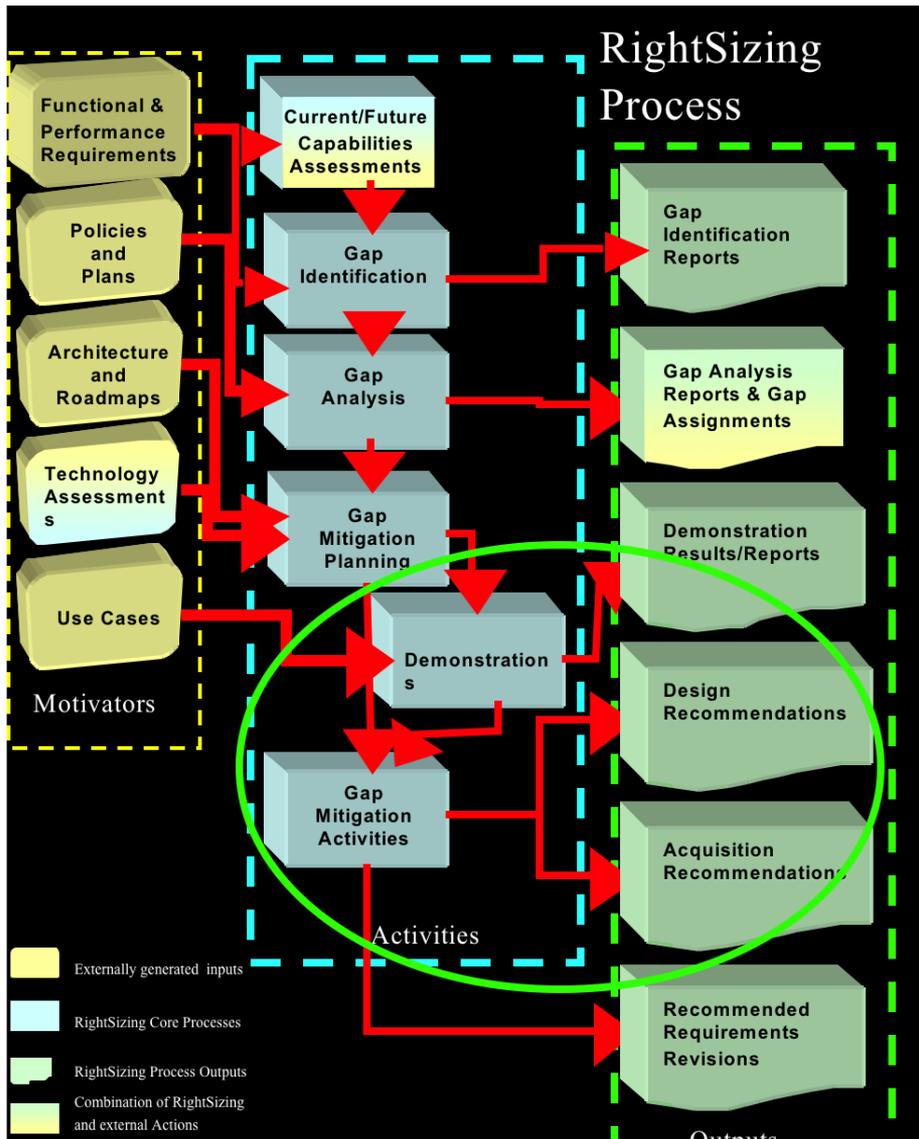


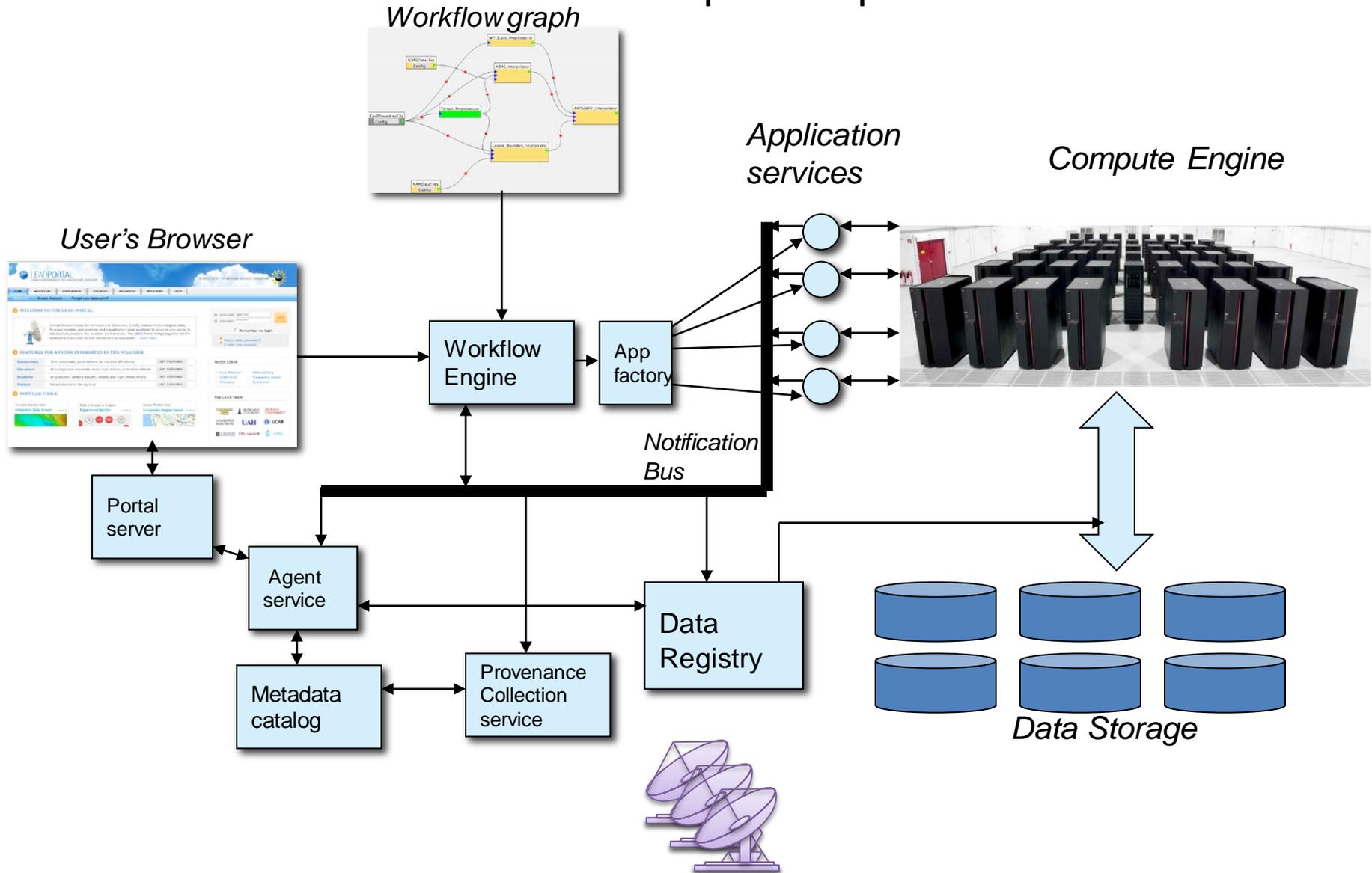
# Right sizing metadata activities in the service oriented architecture

Beth Plale

# Where we are at in RightSizing Process as far as the demos



# Linked Environments for Atmospheric Discovery; distributed SOA: 50 services, continuous operational, big model runs on supercomputers

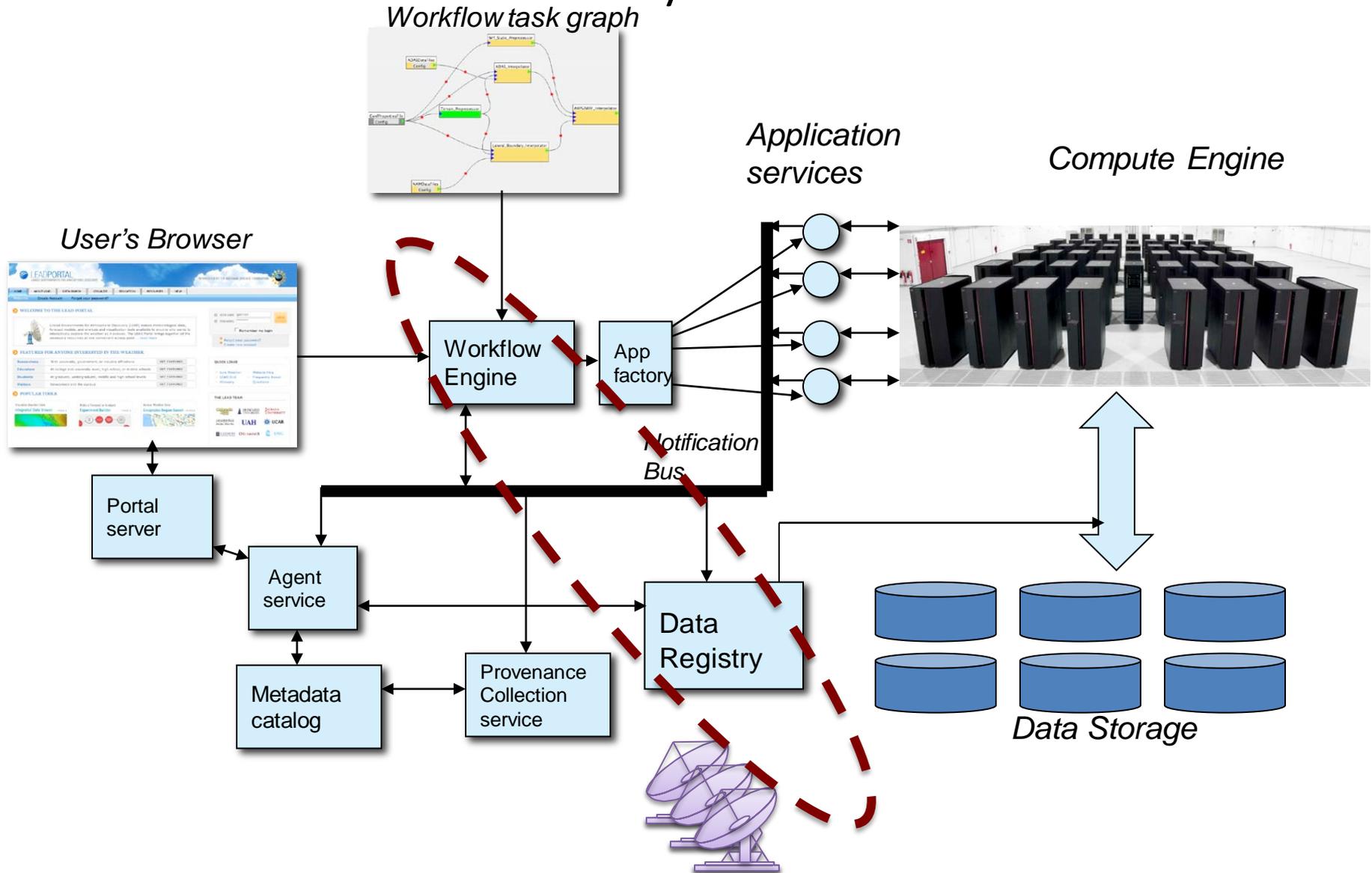


# Adapting to NNEW standards for Aug demos

- NetCDF 4/CF
- WCS RI
- WFS RI
- Registry/Repository

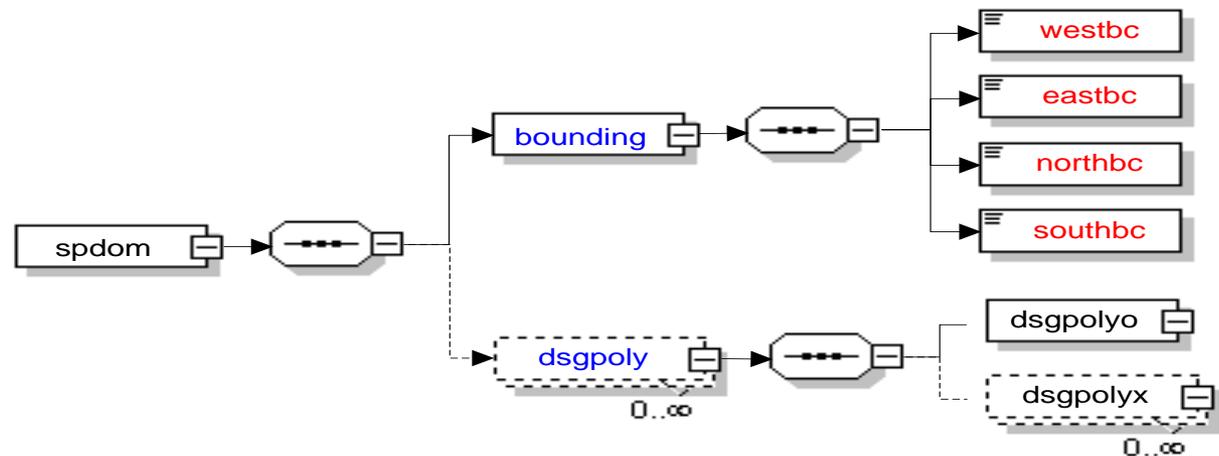


Capability: Retrieving data in real time – get right data sets right away : “need hours 6-12 of a 36 hour forecast of 12 May 2009”



# Capability: Elements of Demonstration

- Verifying and developing metadata XML
- Developing WSDL-compliant Registry entries
- Loading data into Reference Implementations
- Real-time data ingest
- Data distribution (request/response)



# Technical Approach: categorize metadata

## I. Attribution:

- I. contact information for person or organization responsible for providing data

## II. Content:

- I. type of data provided, parameters measured, **Unique ID**

## III. Instrument:

- I. instrument type (e.g., radar wind profiler, satellite radiometer)
- II. instrument manufacturer, part numbers, date of installation

## IV. Temporal and spatial grounding of data:

- I. location of instruments (latitude, longitude, elevation); height above ground
- II. site description (e.g., open, grassy field; roof of school; under a tree) or observation platform (e.g., satellite, balloon, aircraft)

# Metadata categorization

## V. Transmission and Format:

- I. any on-site data processing (e.g. averaging, smoothing, data thinning)
- II. frequency of data transmission
- III. data format (units and order of magnitude information)

## VI. Metadata Lifecycle:

- I. Ease of ingest of data and metadata to WFS 2.0 or WCS
- II. Storage of diverse metadata in WFS and WCS
- III. Response to detection of data of questionable quality; recourse, actions

Approach: weight impact of omissions; distribute between WCS/WFS and registry-repository

# Candidate Data Sets

- NMQ
  - Super high density
  - Complex meta data
  - Demonstrates real-time geospatial radar coverages
  - Demonstrates near real-time performance measures for certain NextGen products
- MADIS
  - Wide flexible array of additional surface measurements
  - Complex Metadata (non OGC/WXXM)
  - Guide to developing systems level requirements for surface systems