Technical Deployment Task Team (TDTT) Recommendations

Steven Jackson

FGDC Coordination Group

08 MAR 2011

Agenda

◆ Background

◆ Notional Technical Architecture

- Candidate Components

- Candidate Interfaces

◆ Contributing Data and Services

Bottom Line Up Front

- The TDTT's work is only the beginning
  - The proposed implementation uses borrowed capabilities on borrowed systems
    - Can it be scaled and at what cost?
    - Is the mission of providing the capabilities within the scope of the agencies who run the systems now?
    - What new systems are under development?
  - Marketing the capability will be essential
    - How is the capability proposed here better than anything now?
    - Who are the target users and how does it specifically meet their needs?
    - How will you reach the target audience?
  - Proper funding will be essential to success

Background

◈ Origin:
- Assembled December 2010, as a functional team comprised of representatives nominated by FGDC partner agencies and the Geospatial Platform Core Team

◈ Purpose:
- Recommend a path forward for implementation of Geospatial Platform common services and shared infrastructure
- Lead efforts to deploy "mature" capabilities identified in the Modernization Roadmap for the Geospatial Platform that provide a useful service, can be built upon, and can be undertaken quickly

Background

◆ Approach:

- Develop a set of requirements by evaluating existing Federal geospatial capabilities to determine their potential to meet the needs of the Geospatial Platform

◆ Outcome:

- Generate a Technical Deployment recommendation for the Geospatial Platform Core Team and FGDC Executive Committee which will include:
  - ◆ Notional technical architecture
  - ◆ Candidate solutions architecture(s)

Background

◆ Dates

- December 15, 2010 – Kick-Off Meeting

- January 4 , 2011 – USGS's Geospatial One Stop (GOS), Data.gov capability demos

- January 5, 2011 – ESRI's Geoportal Server (used by several federal organizations), Intelligence Community's (IC) Enterprise Repository and Registry (ER2) capability demos

- January 13, 2011 – NOAA's Environmental Response Management Application® (ERMA), NASA's Spatial Web Portal (SWP) capability demos

- January 20, 2011 – Use Case development/review

- February 4, 2011 – Initial Architecture produced

- February 17, 2011 - USGS's Global Earth Observation System of Systems (GEOSS) Clearinghouse, NASA's Spatial Web Portal (SWP) capability demos

- February 23, 2011 – Prototype Architecture produced

- **March 7, 2011 – Recommendations to Core Team**

Background

◆ Team Members:
- Chair: Steven Jackson, NGA - Steven.P.Jackson@nga.mil
- Myra Bambacus, NASA - myra.j.bambacus@nasa.gov
- Jeff Booth, DHS - Jeffrey.Booth@dhs.gov
- Paul Fukuhara, USDA - paul.fukuhara@ftw.usda.gov
- Travis Hardy, DHS - Travis.Hardy@associates.dhs.gov
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- Kari Sheets, NOAA - Kari.Sheets@noaa.gov
- Michelle Torreano, EPA - Torreano.Michelle@epamail.epa.gov
- Alex Hume (FGDC Support)- Alex.Hume@us.gt.com

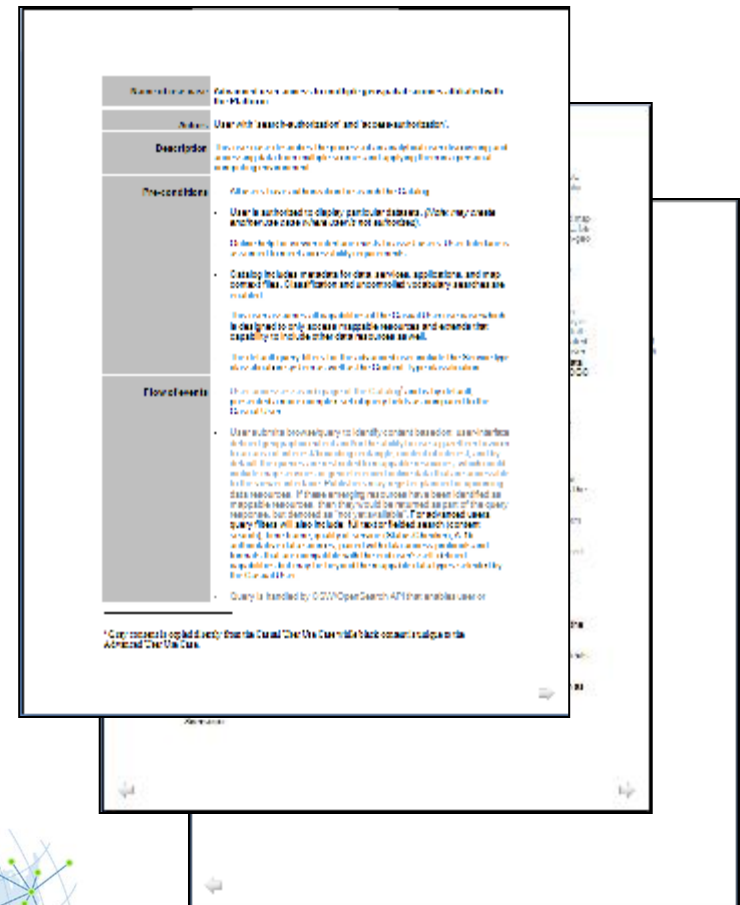# Notional Technical Architecture – Use Case

◈ Casual User

- ■ This use-case describes the process of a casual user discovering and accessing data from multiple sources and displaying them together in a map for visual or print usage.
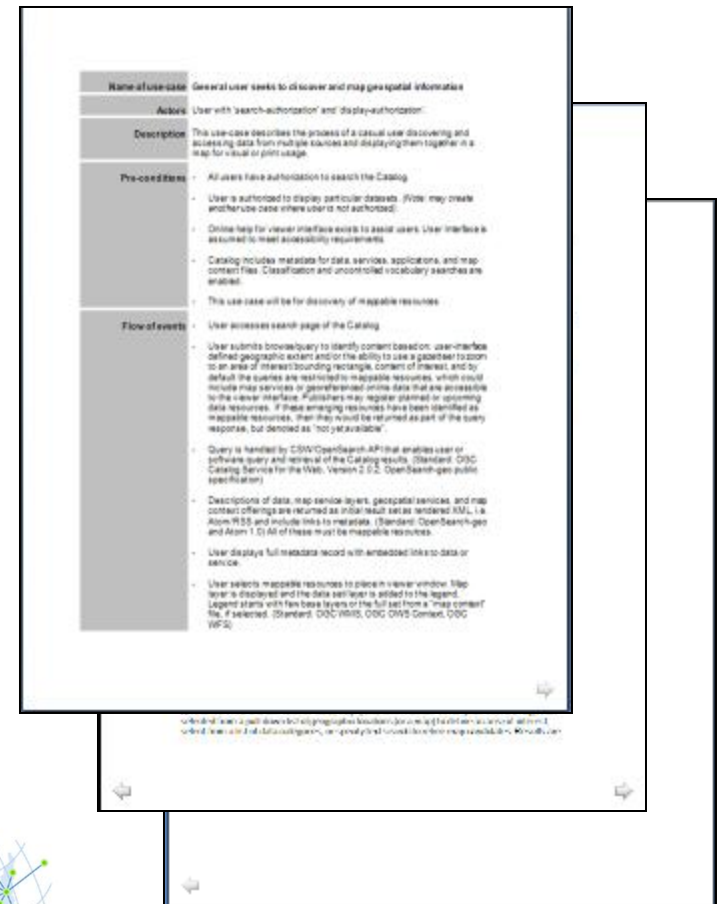
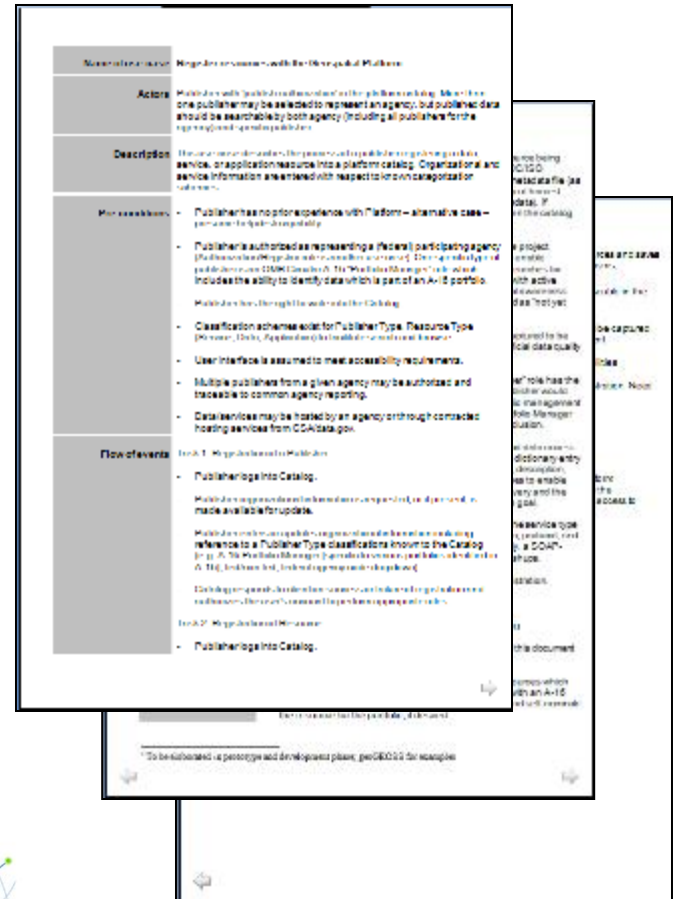# Notional Technical Architecture – Use Case

◆ **Advanced User**

- ■ This use-case describes the process of an advanced user discovering and accessing data from multiple sources and applying them in a personal computing environment.
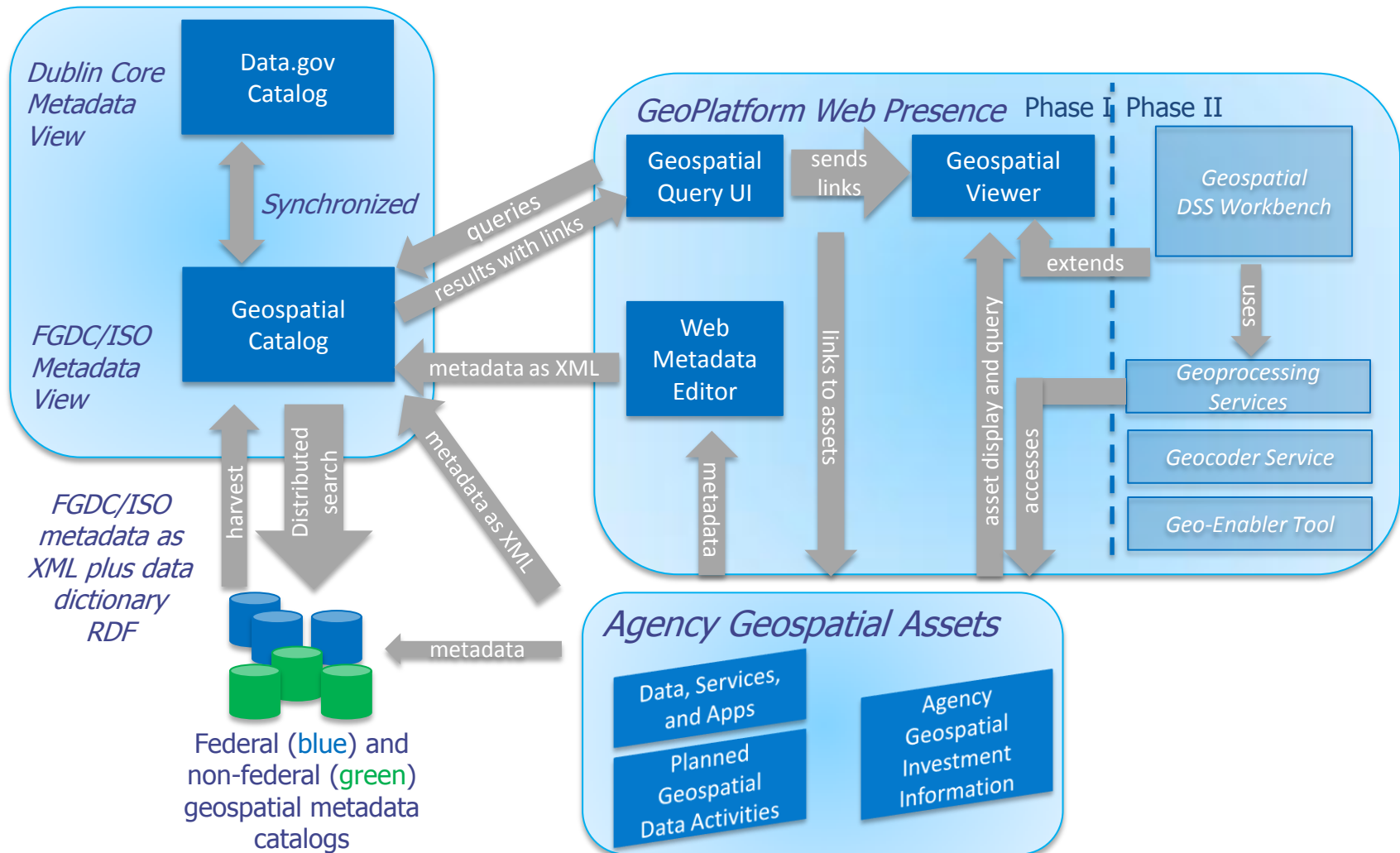
Notional Technical Architecture – Use Case

◆ Publisher

- This use-case describes the process of a publisher registering a data, service, or application resource into a platform catalog. A-16 Portfolio Designation is also handled within this use case.

Notional Technical Architecture

Dublin Core Metadata View

Data.gov Catalog

Synchronized

FGDC/ISO Metadata View

Geospatial Catalog

queries
results with links

metadata as XML

harvest

Distributed search

metadata as XML

FGDC/ISO metadata as XML plus data dictionary RDF

Federal (blue) and non-federal (green) geospatial metadata catalogs

GeoPlatform Web Presence Phase I | Phase II

Geospatial Query UI

sends links

Geospatial Viewer

Geospatial DSS Workbench

extends

Geoprocessing Services

uses

Web Metadata Editor

links to assets

metadata

asset display and query

accesses

Geocoder Service

Geo-Enabler Tool

Agency Geospatial Assets

metadata

Data, Services, and Apps

Planned Geospatial Data Activities

Agency Geospatial Investment Information

GEOSPATIAL PLATFORM

fgdc
FederalGeographicDataCommittee

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Contributing Data and Services

- The Notional Technical Architecture is component-based
  - Open-standards-based components can be changed
- Publishers register content in the Geospatial Catalog using the Web Metadata Editor
  - Content is discovered by Users through the Geospatial Query UI
  - Mappable data is passed to the Geospatial Viewer
  - Publishers can register their catalog to support content search/harvest
- Content is discoverable and usable within the Geospatial Platform or other partner capabilities

Contributing Data and Services

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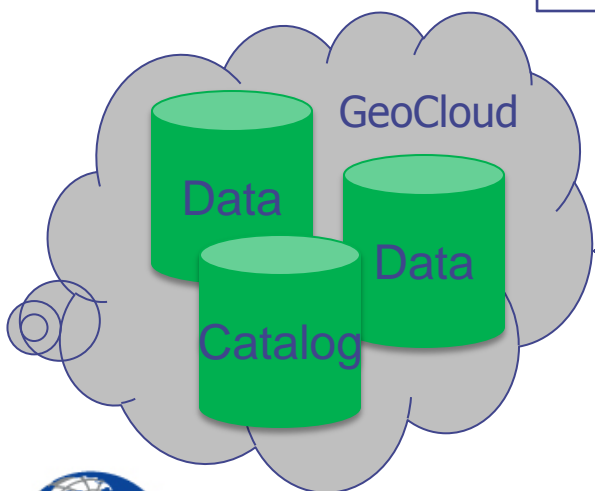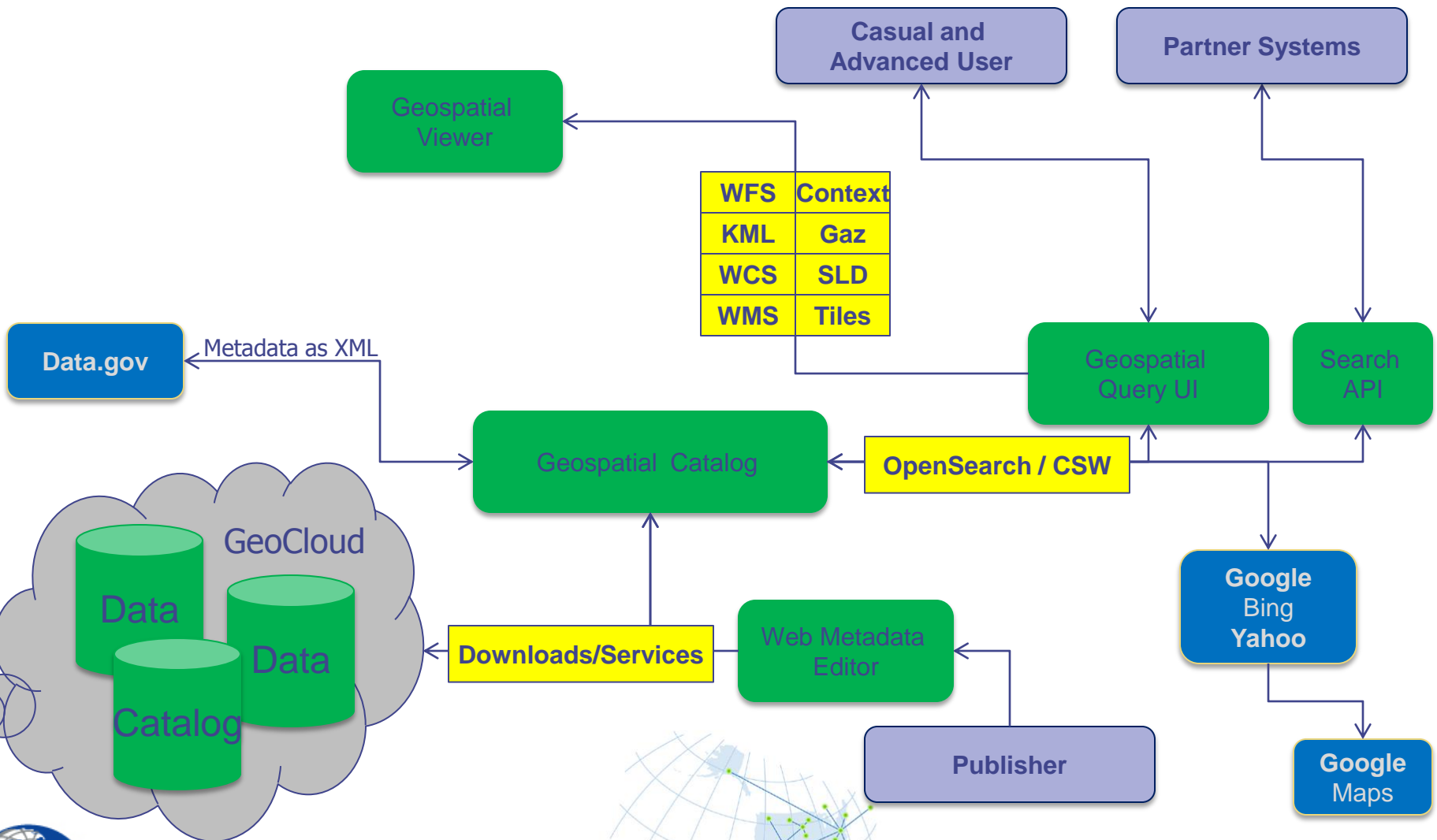
Summary

◆ TDTT's work should be used
  - As base material for subsequent Task Teams
  - To communicate the desired end-state to partners of the Geospatial Platform
  - To communicate the desired end-state to developers and publishers
  - As the foundation for the Geospatial Platform

Summary

- Lots of work still remains to move forward the vision of the Geospatial Platform
- Being on a Task Team is fun! All of you should do it too!

- Questions?