



# Data.gov

## Geospatial Enablement and the migration of Geodata.gov

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National Ocean and Coastal Mapping Inventory  
Workshop – January 12, 2011*



## Outline

- **Open Government Objectives**
- **GOS Lessons Learned**
- **Integrating with Data.gov**
- **Planning for geospatial improvements to data.gov**
  - **Catalog**
  - **Data Management**
  - **Platform**

# Administration's Open Government Objectives

- ◆ *A government that is:*
  - ◆ **Transparent**
    - ◆ Promotes accountability
    - ◆ Provides information for citizens on what their government is doing
  - ◆ **Participatory**
    - ◆ Agencies encouraged to provide citizens opportunities to participate in policy making
    - ◆ Agencies encouraged to solicit ideas from citizens about how to improve those opportunities
  - ◆ **Collaborative**
    - ◆ Use innovative tools to enable collaboration across and at all levels of government

# Open Government Design Principles

- Share As Much Data As Possible
- Access to 'High Value' Source Data
- Access to Current Data
- Make Data Widely Accessible
- Ensure Data is Machine Readable
- Use Open Formats

How has the Geospatial Community worked at this goal?



# Geospatial One-Stop (GOS)

- Provide online discovery and access to geospatial resources (data, applications, web sites) across all levels of government
- Develop standards and models to support the exchange of data and facilitate web services
- Promote partnerships among Federal, state, and local agencies
- Reduce redundant investments and facilitate cost sharing

Make it easier, faster and less expensive to find and use geospatial data



# Challenges for the roles of metadata

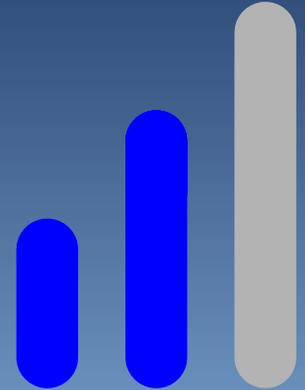
- From understanding the data to enabling consumption
  - **Information** about the data set (source, accuracy, intended use etc.)
  - Enable **search** and discovery
  - Support an **inventory** view
  - Enable access and **consumption**

# Obstacles encountered

- Agency commitment in a voluntary NSDI
- Priorities varied among partners
- Auto Classification of Data
- Open specifications – specific enough?
- Movement of data

# Lessons Learned

- **Quality** of Metadata Important
- **Easy tools** needed to encourage participation
- **Web Map Services** must be available for long periods of time
- **Maturity of Standards** vs. Operational Demands
- **Text + Geospatial Search** tricky



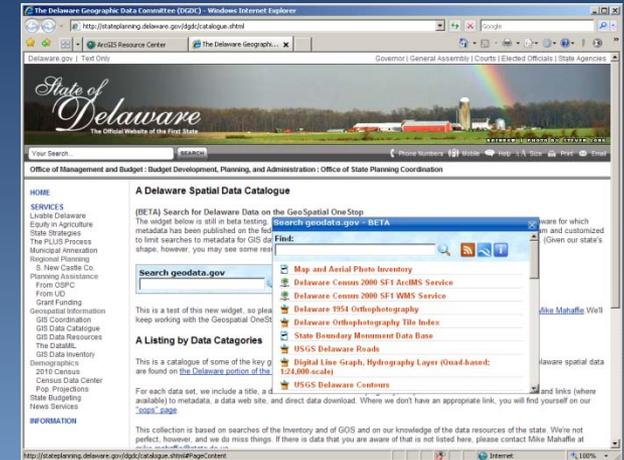
The screenshot shows a web browser window displaying the 'fgdc Service Status Checker' interface. The page title is 'Service Analysis Report for 12-30-08'. It contains several sections:

- Service Analysis Report for 12-30-08**: Includes buttons for 'Home', 'Print Report', and 'Help'.
- GDG Service Registration Information**: Lists service details such as 'Service Name: fgsat', 'Service URL: http://dysgeonetrv.gov', and 'Service Status: Available'. It includes a 'Service Details' section with 'View' and 'View XML (cached data)' buttons.
- Service Report Card**: Shows a green checkmark for 'Valid Registration' and a green arrow for 'GetImage Status' with a score of '100.000%'.
- Registration Validation**: States 'The following test determines if the registered service URL is valid or invalid.' and shows 'Registered Service: http://dysgeonetrv.gov' with a green checkmark.
- Usability Test Results**: A table summarizing test results for 'GetImage'.

TEST	STATUS	INTERACTIVE TEST	RESPONSE	SCORE (1-100)
GetImage	✓	Test Item	8.33 sec	100.00%
- Interactive Map Layer Viewer**: A small map thumbnail and a link to 'View all layers from this Service'.

# Lessons Learned

- It's not about the website
- Groups should be self-forming
- Facilitate access to National Federal Sources



# Other Good Concepts and Functions Implemented in GOS that have relevancy moving forward

# Search Results Visualization

Gos 2.2 search

### Search Results

Refine Search Download Results

1 2 3 4 5 6 7 8 9 10 >

[Selected Types](#) [Live Data and Maps](#) [Downloadable Data](#) [Offline Data](#) [Documents](#) [Applications](#) [Geographic Services](#) [Clearinghouses](#) [Geographic Activities](#)

Results 1 - 12 of more than 500 records (0.697 seconds)

- Tampa Bay CUES**  
Tampa Bay Comprehensive Urban Ecosystems Studies is a prototype implementation of The National Map for the Tampa Bay watershed to demonstrate the depth of scientific analysis and discovery that is possible when a fully-populated, multi-scale geograph...
- Hillsborough County (FL) GIS - Public Viewer**  
This system offers information covering more than 1,000 square miles that make up the County including: A graphical representation of land, water and infrastructure environments. Descriptive data about the information displayed. Contact addresses and...
- Critical Infrastructure (DEMO)**  
Critical Infrastructure in Tampa FL. This is for demonstration purposes only...
- Palm Beach County (FL) Geospatial viewer**  
epzmaps is a public GIS web mapping service for Palm Beach County, FL  
**Publishing Organization:** Palm Beach County GIS
- Framework Data from Southwest Florida Regional Planning Council (FRL)**  
This metadata describes basic information returned to the NSGIC in response to a 1998 Framework Data Survey. This collection represents a Regional organization response. Themes include: transportation features (roads, waterways, airports, ports) col...
- SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT LANDS**  
This dataset contains boundaries of Southwest Florida Water Management District acquired and proposed lands.  
**Publishing Organization:** Southwest Florida Water Management District (SWFWMD)
- USGS Tampa Bay Comprehensive Urban Ecosystem Studies (CUES)**  
The U.S. Geological Survey supports the Tampa Bay

### My Geography

Where: (Geographic Footprint, e.g. Harrison, NY)

Find More... Reset

0 87mi

Legend: Metadata boundaries, Data requests, Planned acquisitions

# Featured Map Mash-ups

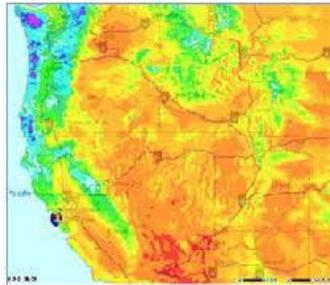
## Popular Maps

[US Maps](#) [US State Maps](#) [Regional Maps](#) [Local Maps](#) [Map Stores](#) [About](#) [Discussion](#) [Members](#) [Customize](#)

## US Maps



[Basic Base Map](#)



[Climate](#)



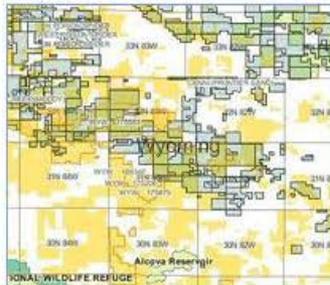
[Coasts](#)



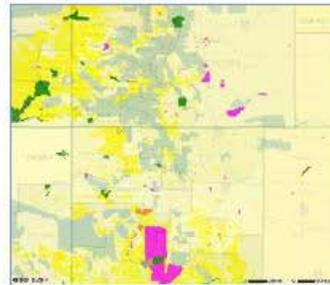
[Conservation](#)



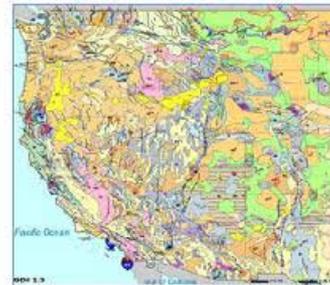
[Environment](#)



[Federal Energy Activities](#)



[Federal Lands](#)



[Geology](#)



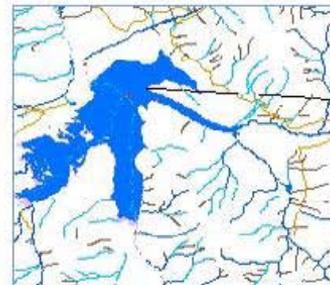
[Hazards](#)



[Human Geography](#)



[Hydrology](#)



[National Hydrography Dataset](#)

# Mashing-up Federal-State-Local

The screenshot shows a Microsoft Internet Explorer browser window displaying the geodata.gov Map Viewer. The browser's address bar shows the URL: <http://gos2.geodata.gov/arcexplorer/arcexplorer.jsp?origid=&isDefault=false>. The page title is "geodata.gov Map Viewer (Projection: GCS\_WGS\_1984) - Microsoft Internet Explorer provided by Westchester Co...".

The map viewer interface includes a toolbar with various navigation and tool icons. On the left side, there is a legend panel with the following items:

- kccproperty
- BLM\_MAP\_PLSS
- eimweb

The map itself displays a geographic area in Washington state, with labels for cities such as Shoreline, Redmond, Duvall, Carnation, Bellevue, Issaquah, Renton, Kent, Auburn, Black Diamond, and Enumclaw. The map is overlaid with a grid and various colored regions. At the bottom of the map viewer, there are buttons for "REFRESH MAP", "LEGEND", and "Overview", along with a scale bar showing 0, 5, and 10 miles and 0, 5, and 10 kilometers.

Below the map viewer, the browser window shows a search bar and a "Log in" button. On the right side of the page, there is a "Help" button and a "Sign up" button. Below these, there is a table with columns for "Name", "Description", and "Status".

At the bottom of the browser window, there is a status bar showing "Done" and "Internet" with a 100% zoom level. Below the browser window, there are two links: "Cultural, Society and Demographic" and "Elevation and Derived Products".

On the right side of the page, there is a text block that reads: "(GCDB) ... nicator.gov) ... is available ... al, state, and ... ator.gov, ... LSIS\_wms". Below this, there is another text block that reads: "0 TIGER data ... ries, as well".

# Facilitate Data Partnerships

The screenshot shows the geodata.gov website interface. At the top, there's a navigation bar with links for Home, Search, Maps, Marketplace, Communities, Statistics, and Help Center. Below this is a search bar with the text 'lidar' entered. To the right of the search bar are buttons for 'Search', 'Reset', and 'Download Results'. Below the search bar are several filter menus: 'Content Type', 'Publisher', 'Sort By', and 'My Geography'. The 'My Geography' section shows 'Florida' selected, with buttons for 'Find', 'More...', and 'Reset'. Below the filters is a map of Florida with various colored overlays representing metadata boundaries, data requests, and planned acquisitions. To the right of the map is a 'Search Results' section showing 'Results 1 - 12 of 48 records (0.469 seconds)'. The results list several datasets with brief descriptions and publishing organizations.

**Search Results**

Results 1 - 12 of 48 records (0.469 seconds)

- LIDAR Elevation Data (2007)**  
Laser beach mapping uses a pulsed laser ranging system mounted onboard an aircraft to measure ground elevation and coastal topography. The laser emits laser beams at high frequency and is directed downward at the earth's surface through a port openin...  
**Publishing Organization:** National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), NOAA Coastal Services Center (CSC)
- LIDAR or IF SAR elevation collection**  
Coverage area will include portions of the U.S. coastal zone (specific location is unknown at this time); Format will be raw elevation points (x, y, z) with ability to grid (binary raster, ASCII raster), according to user specifications; airborne lig...  
**Publishing Organization:** NOAA Coastal Services Center
- (NASA) CALIPSO - Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observations**  
The CALIPSO satellite was developed to help scientists answer significant questions and provide new information about the effects of clouds and aerosols (airborne particles) on changes in the Earth's climate. Understanding these components will provi...  
**Publishing Organization:** Global Change Master Directory
- DIGITAL FLOOD INSURANCE RATE MAP DATABASE, COLLIER COUNTY, FL**  
In order to support the National Flood Insurance Program (NFIP) Flood Hazard Mapping Program, FEMA has launched a Map Modernization program to update Flood Insurance Rate Maps (FIRMs) for every county in the nation over the next five years. This plan...  
**Publishing Organization:** Federal Emergency Management Agency
- DIGITAL FLOOD INSURANCE RATE MAP DATABASE, LAKE COUNTY, FL**  
In order to support the National Flood Insurance Program (NFIP) Flood Hazard Mapping Program, FEMA has launched a Map Modernization program to update Flood Insurance Rate Maps (FIRMs) for every county in the nation over the next five years. This plan...  
**Publishing Organization:** Federal Emergency Management Agency

- Discover New Data Acquisition Plans

- Post Data Requests

- Contact Owners – build partnerships and leverage investments

# Notifications About New Data

**Geospatial One-Stop GeoRSS**

- Most recently updated metadata documents:
- Arkome Topographic data of field activity A-3-98-EC in North East and Great Lakes from 12/01/1988 to 12/06/1998**
- National Oceanic and Atmospheric Administration LIDAR data of field activity BRACH93(A-3-08-GM) in Chandeleur Islands, LA, Santa Rosa Island, FL, and Dauphin Island, AL from 06/23/2008 to 06/30/2008
- United States Geological Survey, Saint Petersburg, LIDAR data collection data of field activity 08LTS02(A-2-08-LA) in Lower Atchafalaya Basin, LA from 12/08/2008 to 12/16/2008

**LIDAR data collection data of field activity 08LTS02(A-2-08-LA) in Lower Atchafalaya Basin, LA from 12/08/2008 to 12/16/2008**

United States Geological Survey, Saint Petersburg, Florida, Center for Coastal and Watershed Studies, Coastal and Marine Geology Program. LIDAR data collection data of field activity 08LTS02 (A-2-08-LA) in Lower Atchafalaya Basin, LA from 12/08/2008 to 12/16/2008

[Download Contact Details Metadata](#)

Pointer: 32°29'59.99" N 115°00'00.01" W elev. 728 ft

URL: [http://goss2.geodata.gov/E-FW/DiscoveryServlet?uuid=%7B0CEC6497-91FC-5C73-FC55-2F30835E296A%7D&xmltransform=metadata\\_to\\_html\\_full.xml](http://goss2.geodata.gov/E-FW/DiscoveryServlet?uuid=%7B0CEC6497-91FC-5C73-FC55-2F30835E296A%7D&xmltransform=metadata_to_html_full.xml)

**geodata.gov**  
U.S. MAPS & DATA

Your One Stop for Federal, State & Local Geographic Data

**LIDAR data collection data of field activity 08LTS02 (A-2-08-LA) in Lower Atchafalaya Basin, LA from 12/08/2008 to 12/16/2008**

**Content Citation**  
**Title:** LIDAR data collection data of field activity 08LTS02 (A-2-08-LA) in Lower Atchafalaya Basin, LA from 12/08/2008 to 12/16/2008  
**Content Type:** Downloadable Data  
**Publishing Organization:** U.S. Geological Survey (USGS), Coastal and Marine Geology (CMG)  
**Publication Date:** 2/10/001277

LIDAR data collection data of field activity 08LTS02(A-2-08-LA) in Lower Atchafalaya Basin, LA from 12/08/2008 to 12/16/2008

# Enable Web Map Services for a variety of viewers

The image shows a screenshot of the geodata.gov website on the left and a Google Earth globe on the right. The geodata.gov page displays search results for 'Atlas of the Cryosphere: Southern Hemisphere Web Coverage Service (WCS)'. A context menu is open over the first result, with the 'Add to Globe' option highlighted by a red arrow. The Google Earth globe shows a 3D view of Earth with a data overlay of colored points (yellow, green, blue, red) representing the cryosphere data. The globe includes navigation controls and a copyright notice for 2007.

geodata.gov  
U.S. MAPS & DATA  
Your One Stop  
State & Local

Home Search Maps Marketplace Communities Stat

Search geodata.gov

Search Results

Refine Search Reset Download Results

1 2

[Selected Types](#) [Live Data and Maps](#) [Downloadable Data](#) [Offline Data](#) [Documents](#) [Applications](#) [Geographic Services](#) [Clearinghouses](#) [Geographic Activities](#)

Results 13 - 23 of 23 records (0.526 seconds)

**Atlas of the Cryosphere: Southern Hemisphere Web Coverage Service (WCS)**

The National Snow and Ice Data Center (NSIDC) Atlas of the Cryosphere is a map server that provides data and information pertinent to the frozen regions of Earth, including monthly climatologies of sea ice extent and concentration, snow cover extent...

**Publishing Organization:** National Snow and Ice Data Center

**Atlas of the Cryosphere: Southern Hemisphere Web Map Service (WMS)**

View Summary  
View Full Metadata  
Go To Website  
Add to Map  
Add to Globe  
Contact Owner  
Zoom To  
Close Menu

data Center (NSIDC) Atlas of the that provides data and information ns of Earth, including monthly ant and concentration, snow cover tional Snow and Ice Data Center

AGS with satellite imagery that is above 1:2 million), EarthSat 150m scales (below 1:2 million), and U.S. so includes reference data, includ...

tem is a collection of private, state, rces associated with the geography of on (1803-1806). Data has been compiled from key partners including NASA - John C. Stennis S...

**WaterWetlands\_NWI**

VCGI downloaded NWI quads from the US FWS web site and reprojected to VCS NAD83. NWI digital data files are records of wetlands location and classification as developed by the U.S. Fish &

Image NASA  
© 2007 Europa Technologies  
© 2007 Tele Atlas  
Image © 2007 TerraMetrics  
Streaming 100%

© 2007 Google™

Eye alt 9372.30 mi

# Integrating with Data.gov

## A GLOBAL MOVEMENT TO DEMOCRATIZE DATA

[VIEW MORE ▶](#)

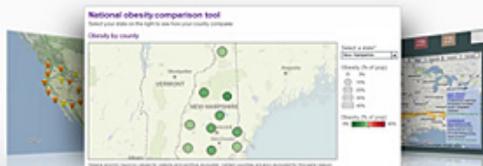
### Most Popular Datasets

1. Worldwide M<sub>1</sub>+ Earthquakes, Past 7 Days
2. U.S. Overseas Loans and Grants (Greenbook)
3. Latest Volumes of Foreign Relations of the...
4. Cooperative Research and Development...
5. Active Duty Marital Status

### SEARCH OUR CATALOGS

[SEARCH ▶](#)

### APPS



With so much government data to work with, developers are creating a wide variety of applications, mashups, and visualizations. From crime statistics by neighborhood to the best towns to find a job to seeing the environmental health of your community—these applications arm citizens with the information they need to make decisions every day. Enjoy these highlights of the hundreds of applications available.

### COMMUNITY

Data.gov is leading the way in democratizing public sector data and driving innovation. The data is being surfaced from many locations making the Government data stores available to researchers to perform their own analysis. Developers are finding good uses for the datasets, providing interesting and useful applications that allow for new views and public analysis. This is a work in progress, but this movement is spreading to cities, states, and other countries. After just one year a community is born around open government data.

#### Just look at the numbers:

- 6 Other nations establishing open data
- 8 States now offering data sites
- 8 Cities in America with open data
- 236 New applications from Data.gov datasets
- 253 Data contacts in Federal Agencies

### SEMANTIC WEB

As the Web of linked documents evolves to include the Web of linked data, we're working to maximize the potential of Semantic Web technologies to realize the promise of Linked Open Government Data.



Thanks to our collaboration with the **Tetherless World Constellation** at the **Rensselaer Polytechnic Institute**, Data.gov is now hosting one of the largest open collections of RDF datasets in the world! Check out some of their semantic mashups **we're featuring** and read our blog entry to learn more about where we are, where we're going, and why we think this platform will add tremendous value to democratized data.



- HOME
- DATA ▾
- TOOLS
- COMMUNITY
- METRICS
- DIALOGUE

mineral operations

Search

Advanced Search

Results 1-10 of about 16 for 'mineral operations'

Web results by **bing**

### Construction Minerals Operations - Direct Download

Abstract: This map layer includes construction minerals operations in the United States. The data represent commodities covered by the Minerals Information Team (MIT) of the U.S ...

<http://www.data.gov/.../g602049> - Cached

### Mineral Operations of Latin America and Canada

Attributes of over 900 mineral facilities ... Agency: Department of the Interior: Sub-Agency: US Geological Survey:

Category Geography and Environment

<http://www.data.gov/.../18> - Cached

### Agricultural Minerals Operations - Direct Download

Abstract: This map layer includes agricultural minerals operations in the United States. The data represent commodities covered by the Minerals Information Team (MIT) of the U.S ...

<http://www.data.gov/.../g602050> - Cached

### Refractory, Abrasive, and Other Industrial Minerals Operations ...

Abstract: This map layer includes refractory, abrasive, and other industrial minerals operations in the United States.

The data represent commodities covered by the Minerals ...

<http://www.data.gov/.../g602043> - Cached



Search our catalogs..

SEARCH

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## Mineral Operations of Africa and the Middle East

### DATASET SUMMARY

Agency	Department of the Interior
Sub-Agency	US Geological Survey
Category	Geography and Environment
Date Released	2006
Date Updated	2006
Time Period	current as of 2006
Frequency	as needed
Description	Attributes of over 1,500 mineral facilities

### DOWNLOAD INFORMATION

<a href="#">XML</a>	<a href="#">CSV/TXT</a>
<a href="#">XLS</a>	<a href="#">KML/KMZ</a>
<a href="#">Shapefile</a>	<a href="#">Maps</a>
<a href="#">SHP</a> 91KB	
<a href="#">RDF</a>	<a href="#">PDF</a>

### DATASET RATINGS

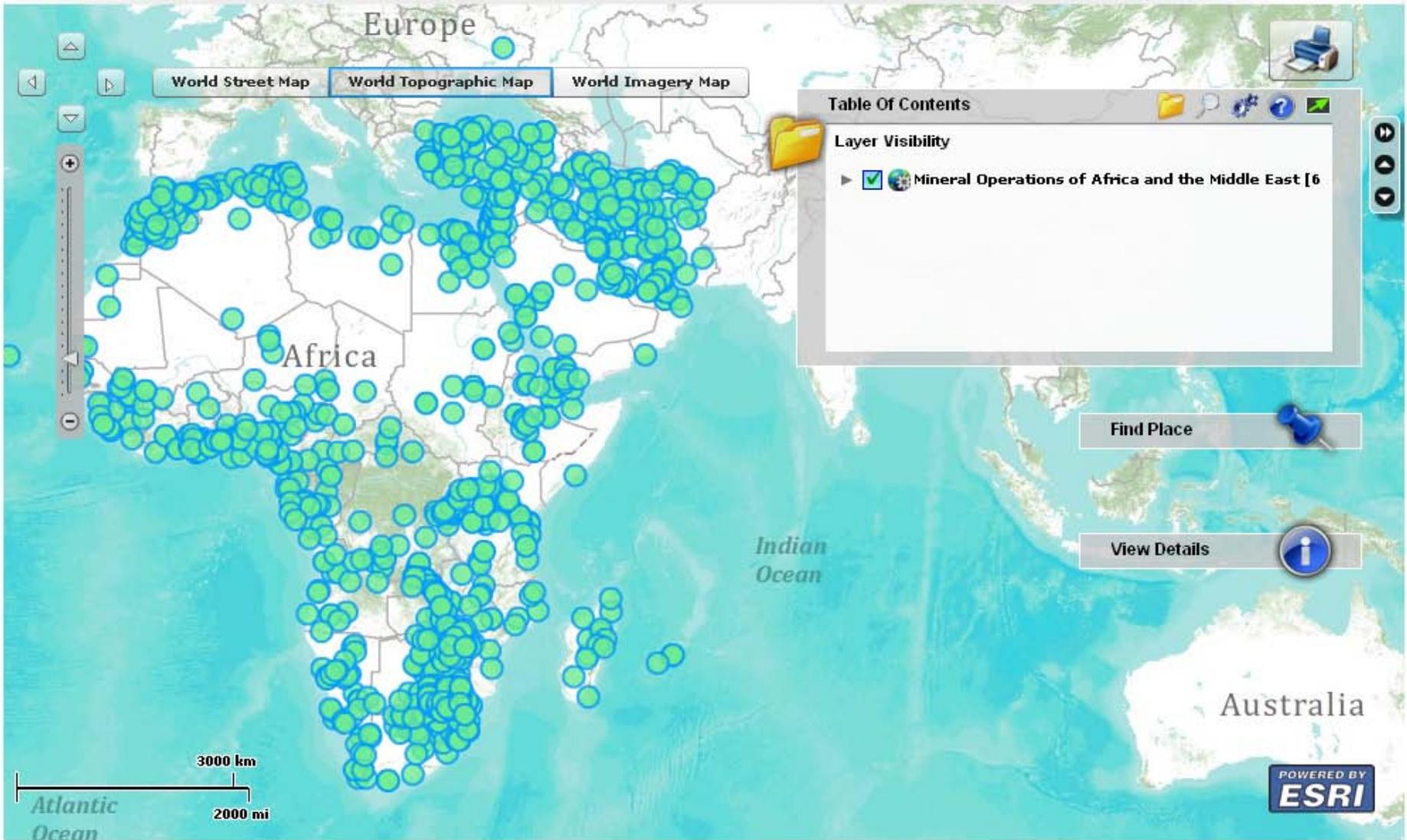
	Current	Your Rating [?]
Overall	★★★★★ (2 votes)	★★★★★
Data Utility	★★★★★ (2 votes)	★★★★★
Usefulness	★★★★★ (2 votes)	★★★★★
Ease of Access	★★★★★ (2 votes)	★★★★★

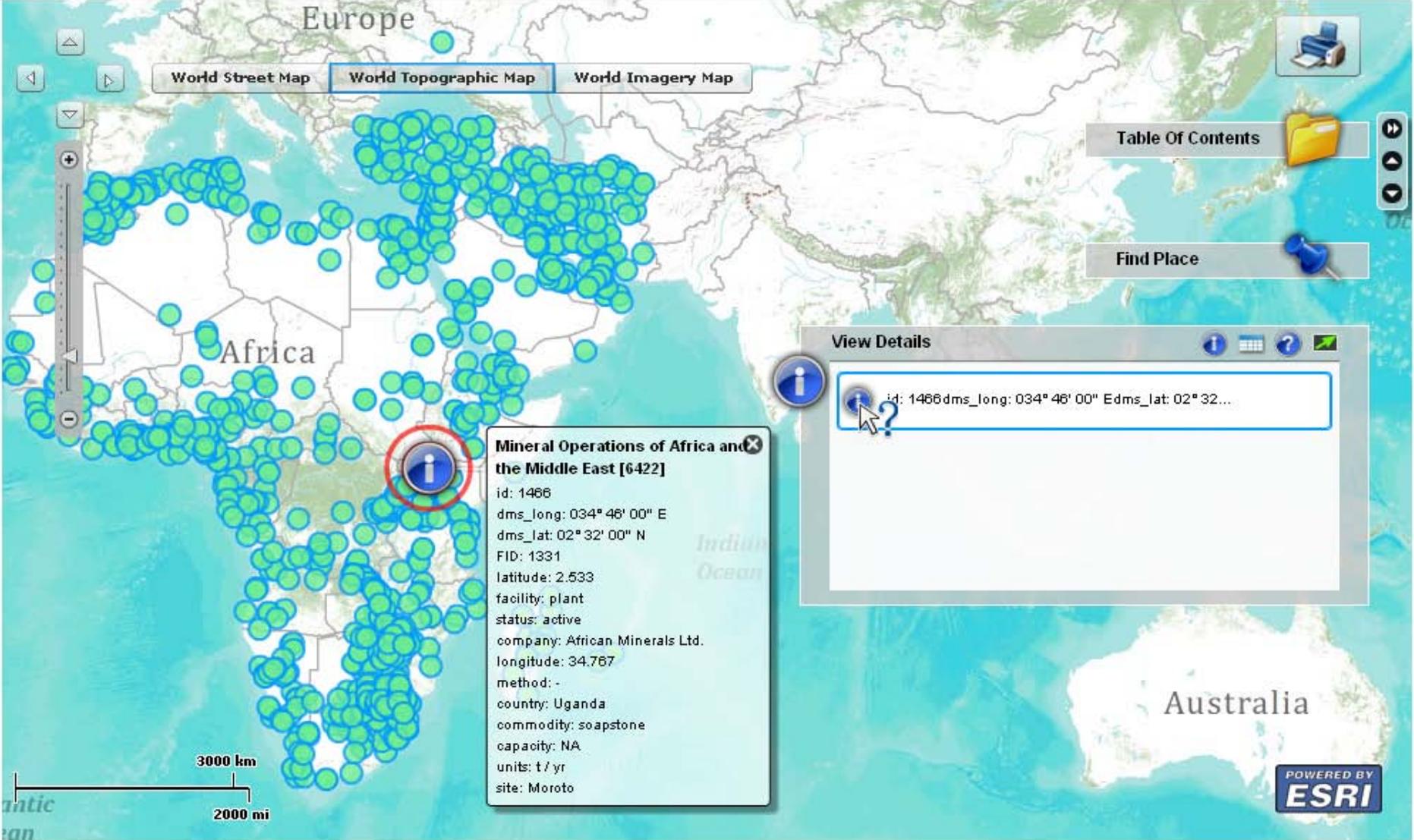
Comments (optional)

SUBMIT

(Privacy Policy)

Cannot find data you are looking for? Suggest other datasets!





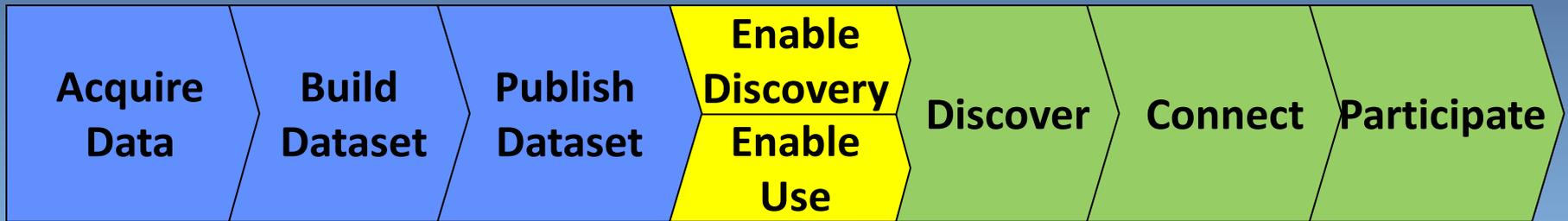


# Data.gov - Information Value Chain

*Community of Suppliers*

*Data.gov*

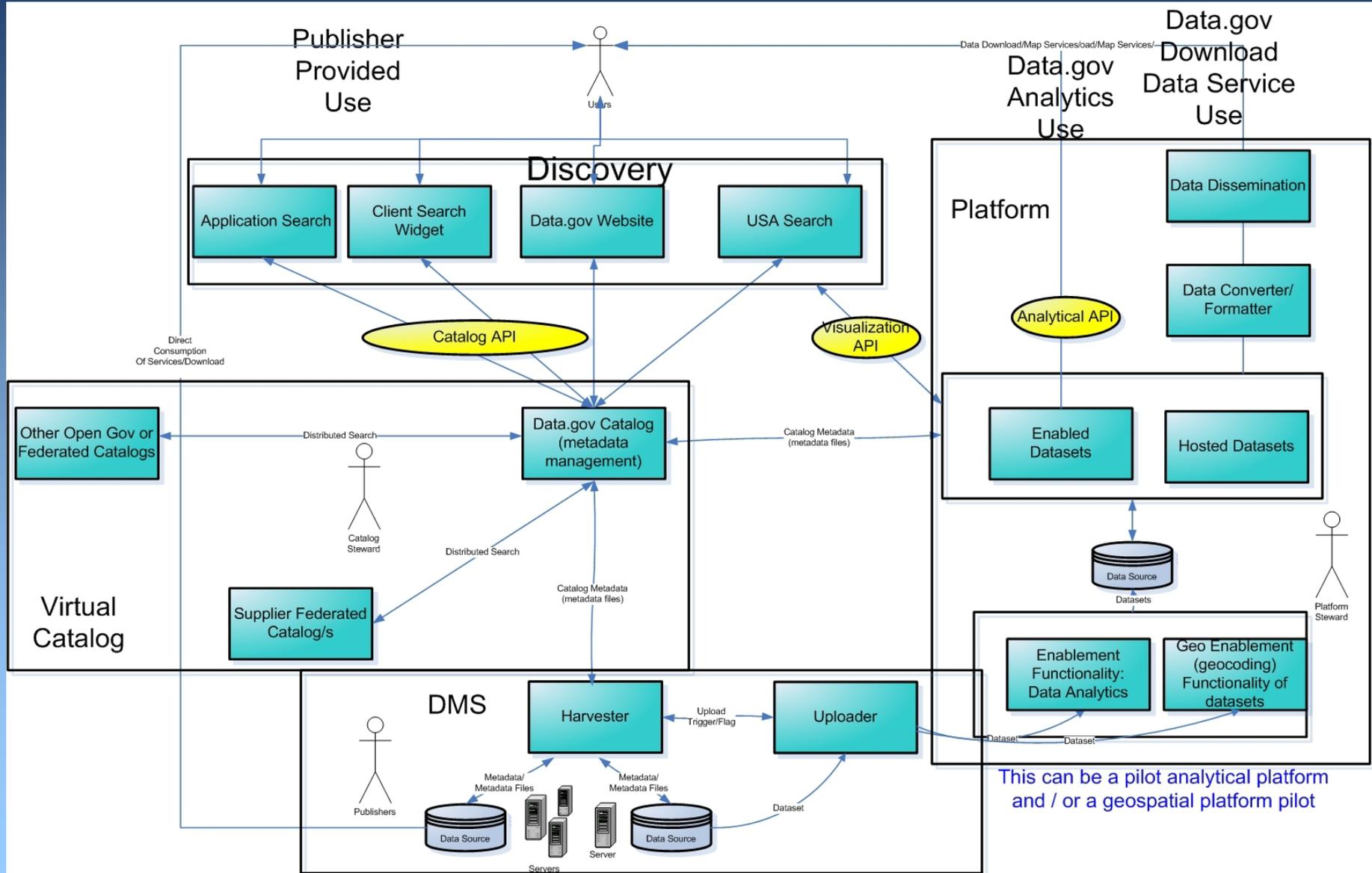
*Community of Users*



*Efficiency Measures*

*Effectiveness Measures*

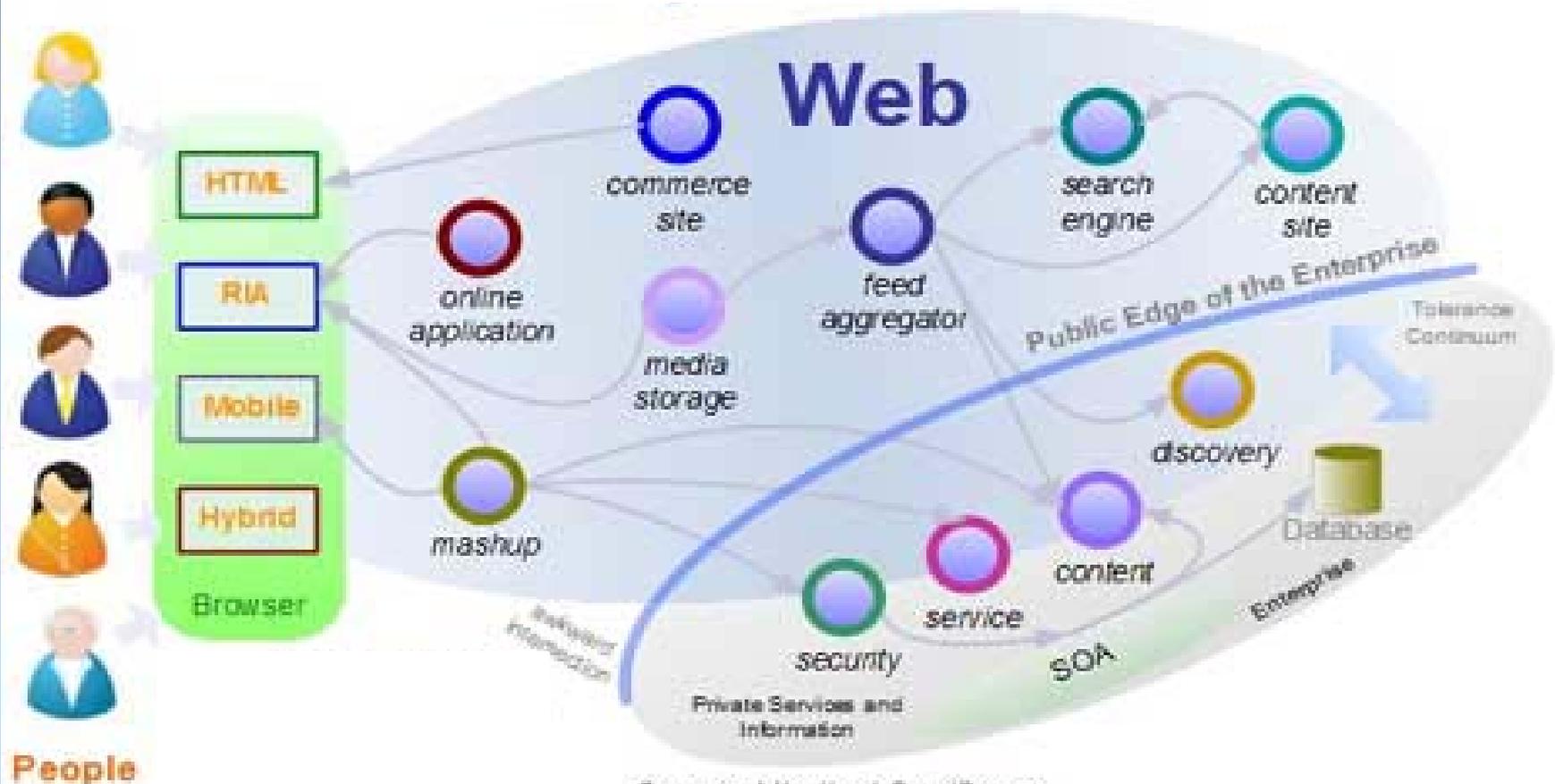
# Concepts in discussion





# Why? Web Ecosystem – Geo

## The Mashup Ecosystem:



Source: <http://web2.wsj2.com>



## Next Steps

- **Catalog migration**
  - Geodata.gov – hosting through July 2011
  - SOW
- **Integration with Data Mgmt. System (DMS)**
- **Supporting Geoserach and search widget**
- **Visualization and GeoPlatform discussions**

# Questions?