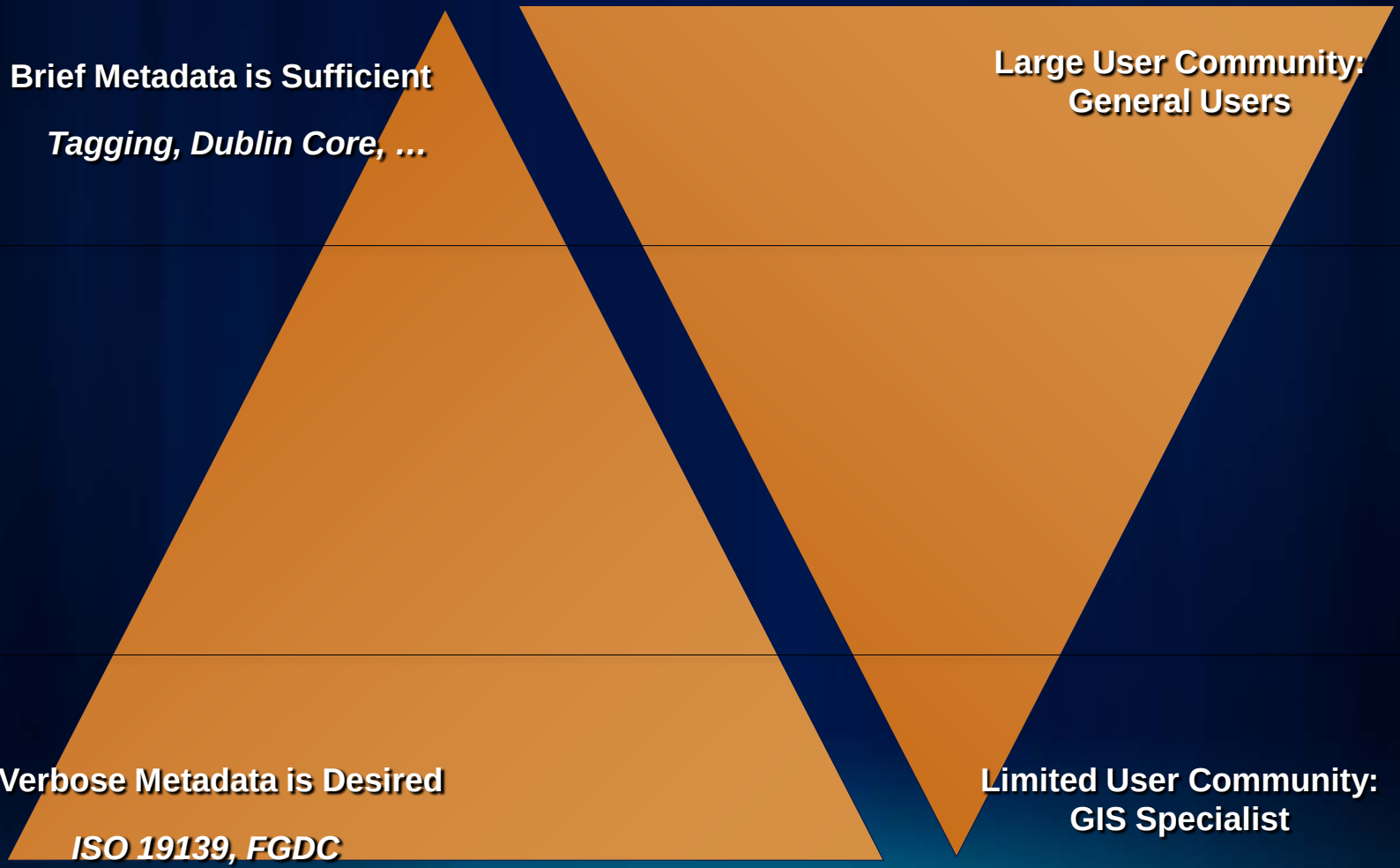
Esri Geoportal Server

@martenhogeweg

The BIG Picture

Resources Need to be Findable

Supporting different user communities



Moving from Data Sharing to Services Sharing

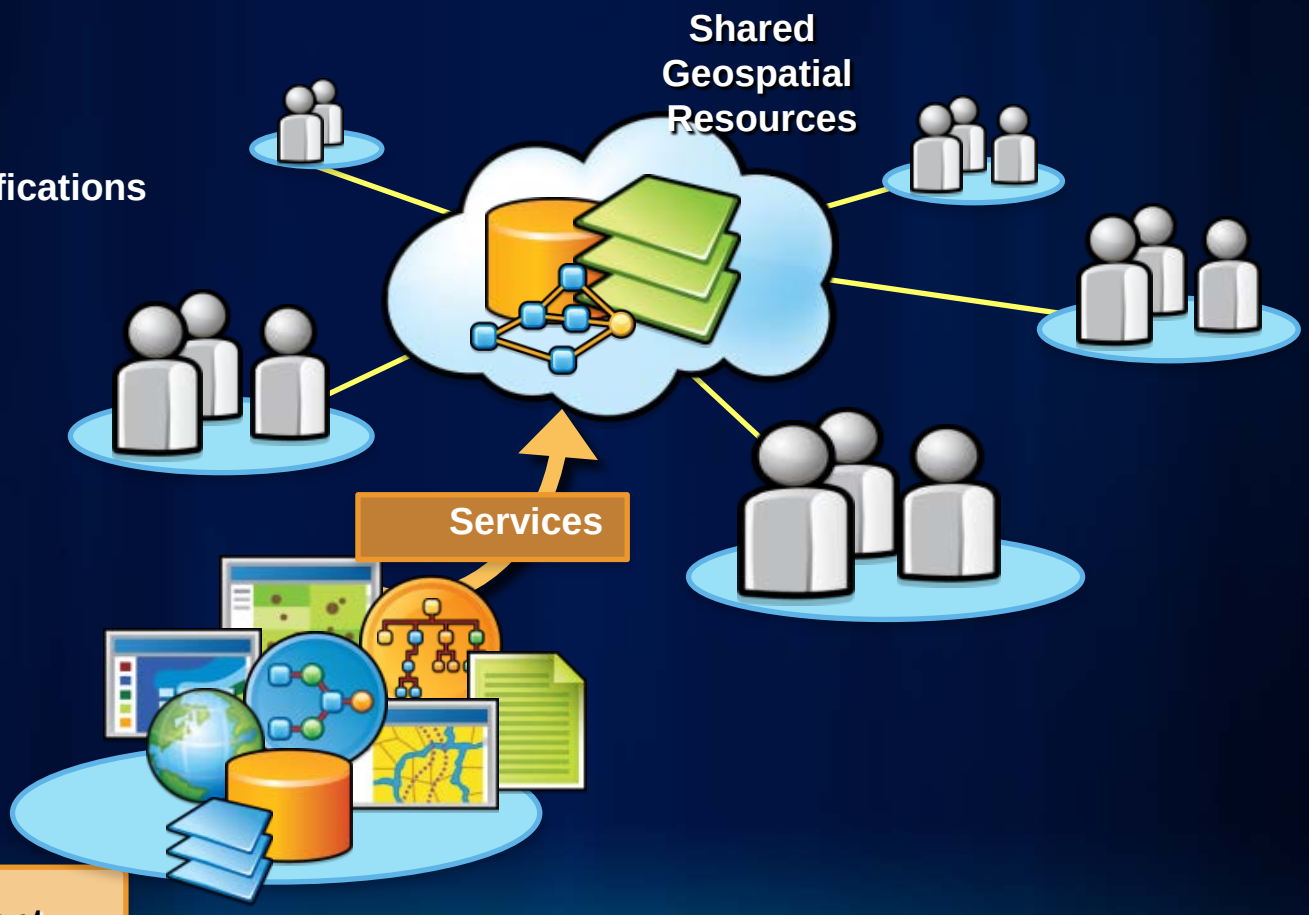
Standards Support

Open Service Specifications

Free API's

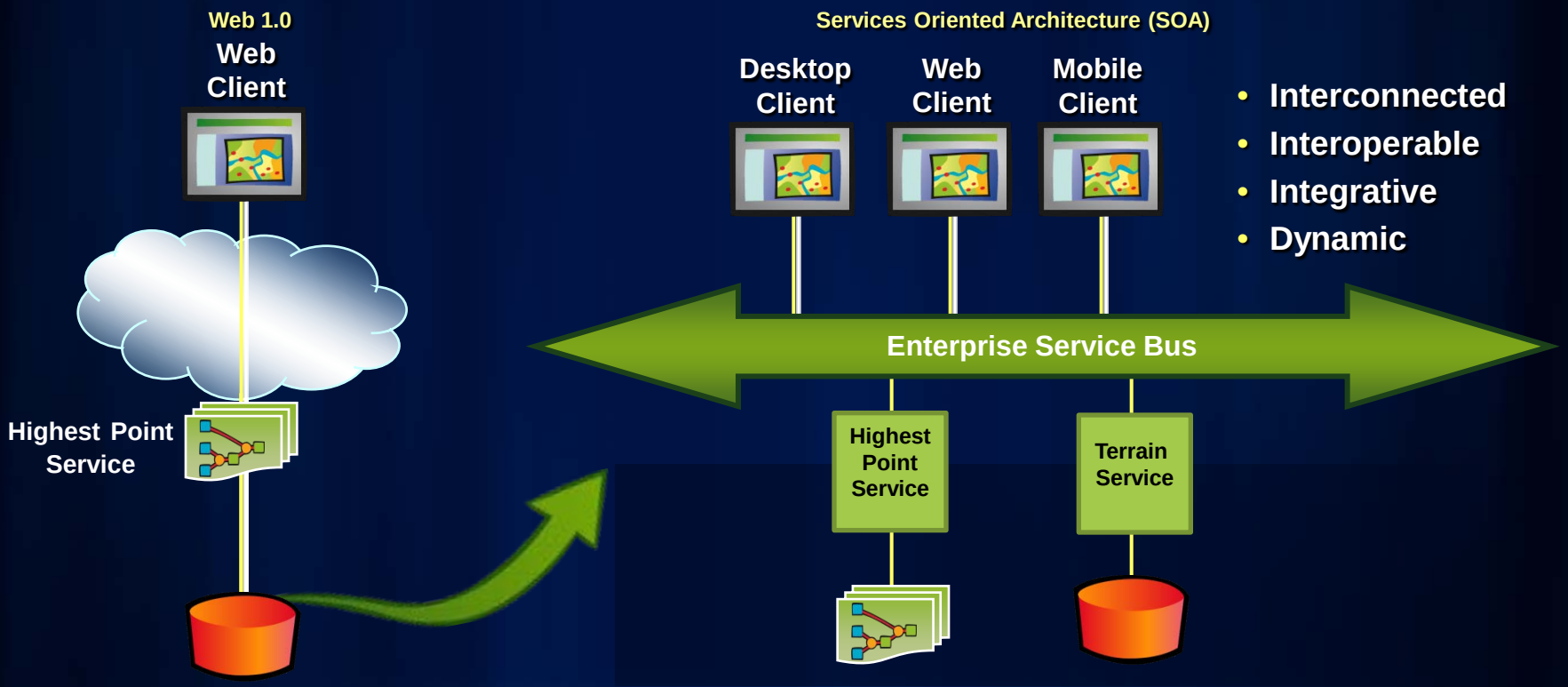
Easily Discovered

Easy to Use Clients

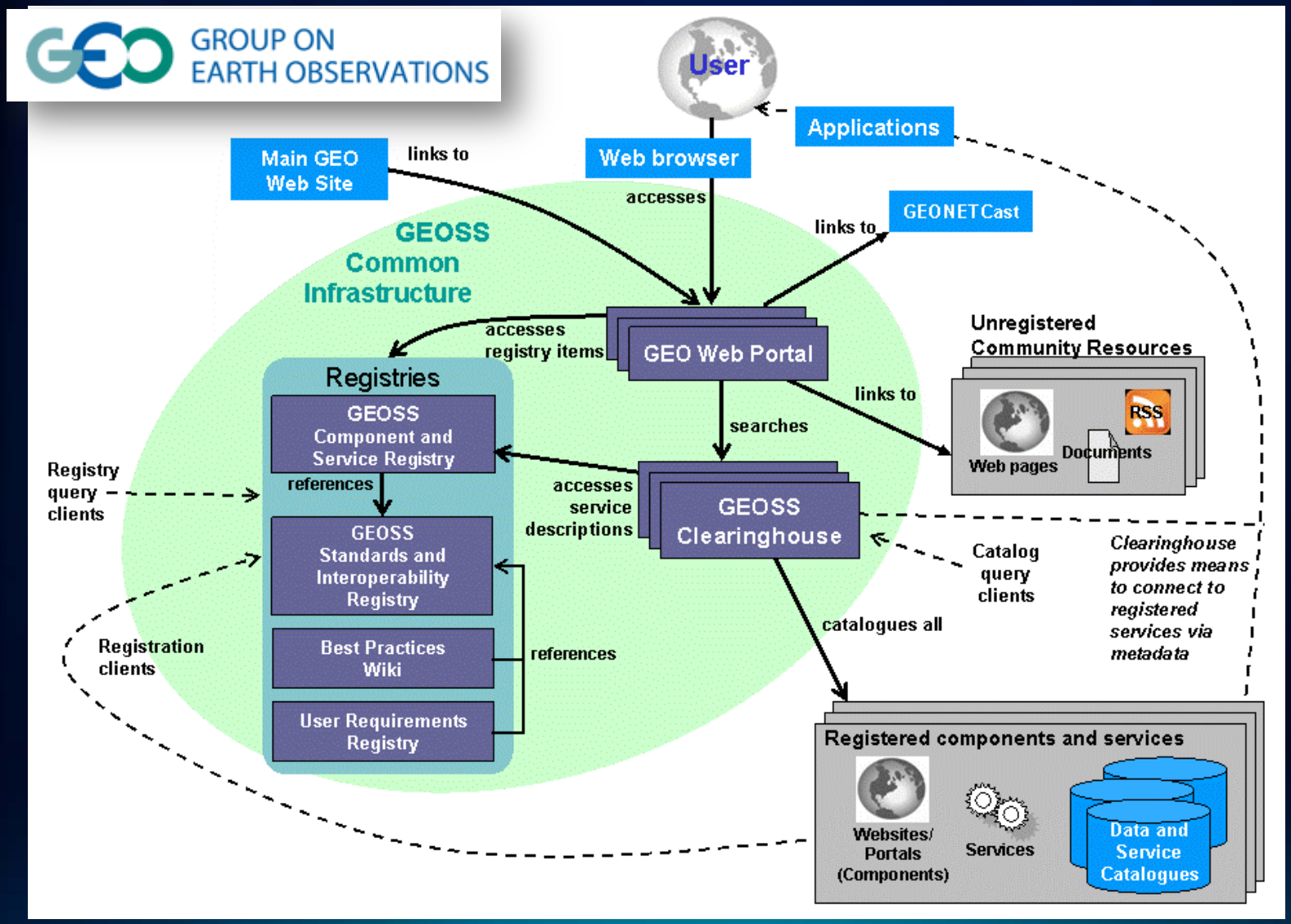


Open Access to Many New Users & Applications

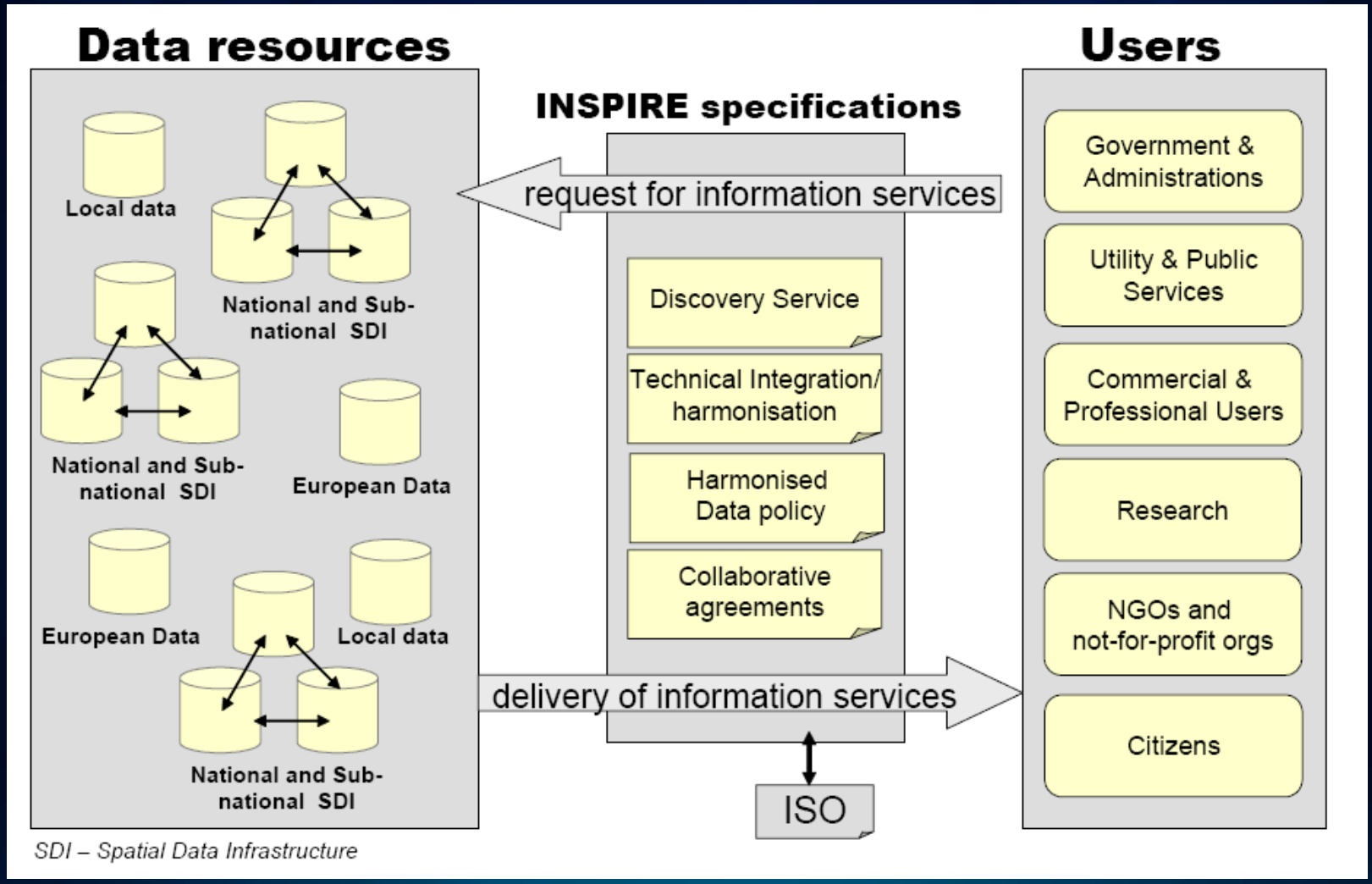
Moving From Application Silos to Platforms



GEOSS Common Infrastructure



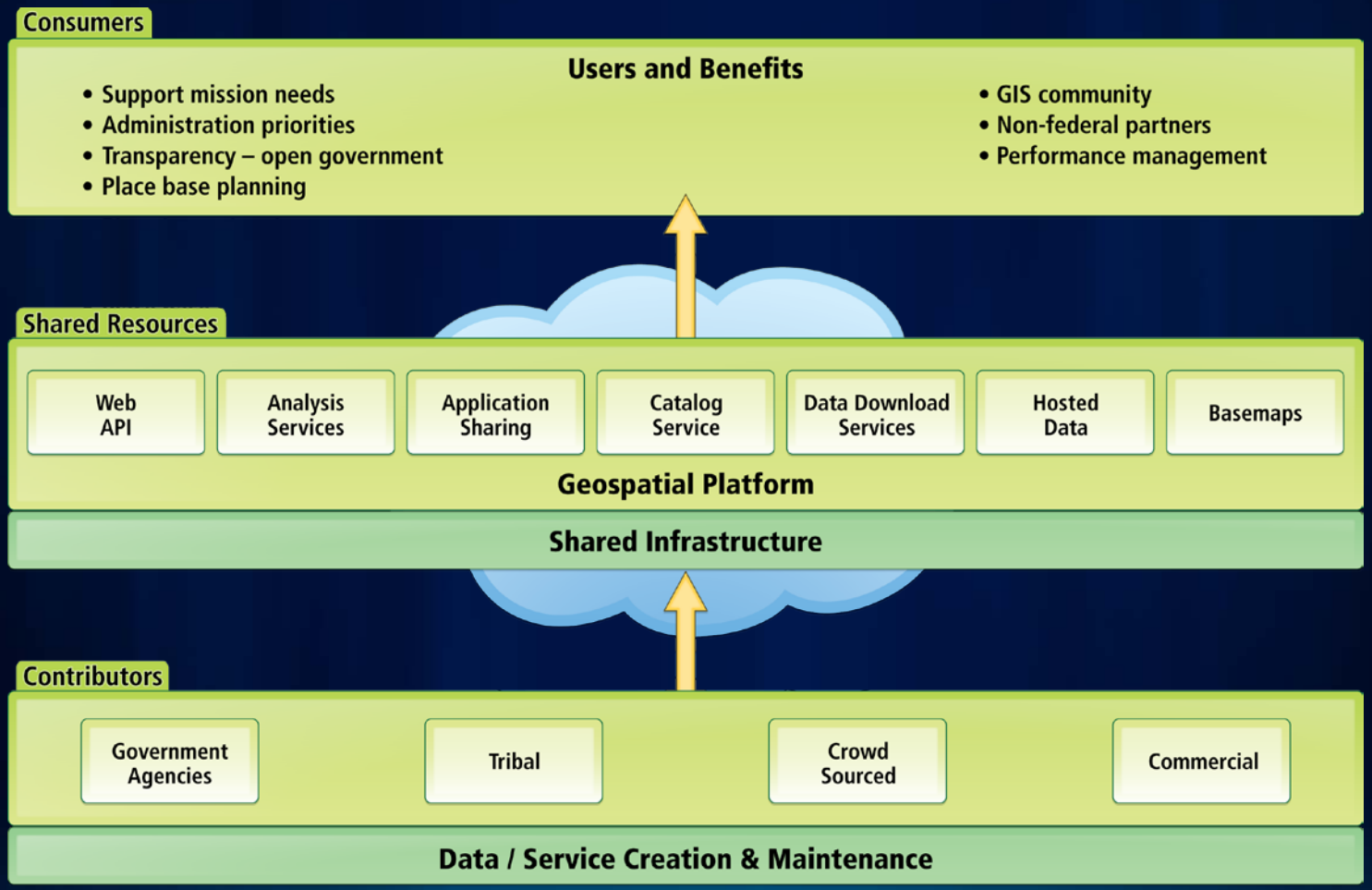
Example – INSPIRE



Source: http://inspire.jrc.ec.europa.eu/reports/position_papers/inspire_ast_pp_v4_3_en.pdf

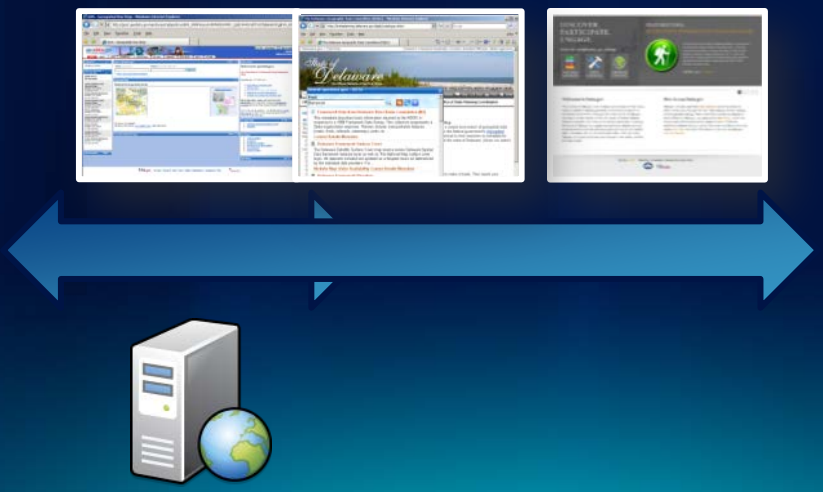
Geospatial Platform Connects Providers and Users

Contributors, Consumers and Shared Infrastructure/Services



Example – Data.gov

- Data.gov – new initiative to transparent government
- Should Data.gov build yet another catalog for data?
- Geodata.gov and Data.gov collaborated
- Geodata.gov now supplies Data.gov with 385,000+ downloadable datasets through an OGC Web Service

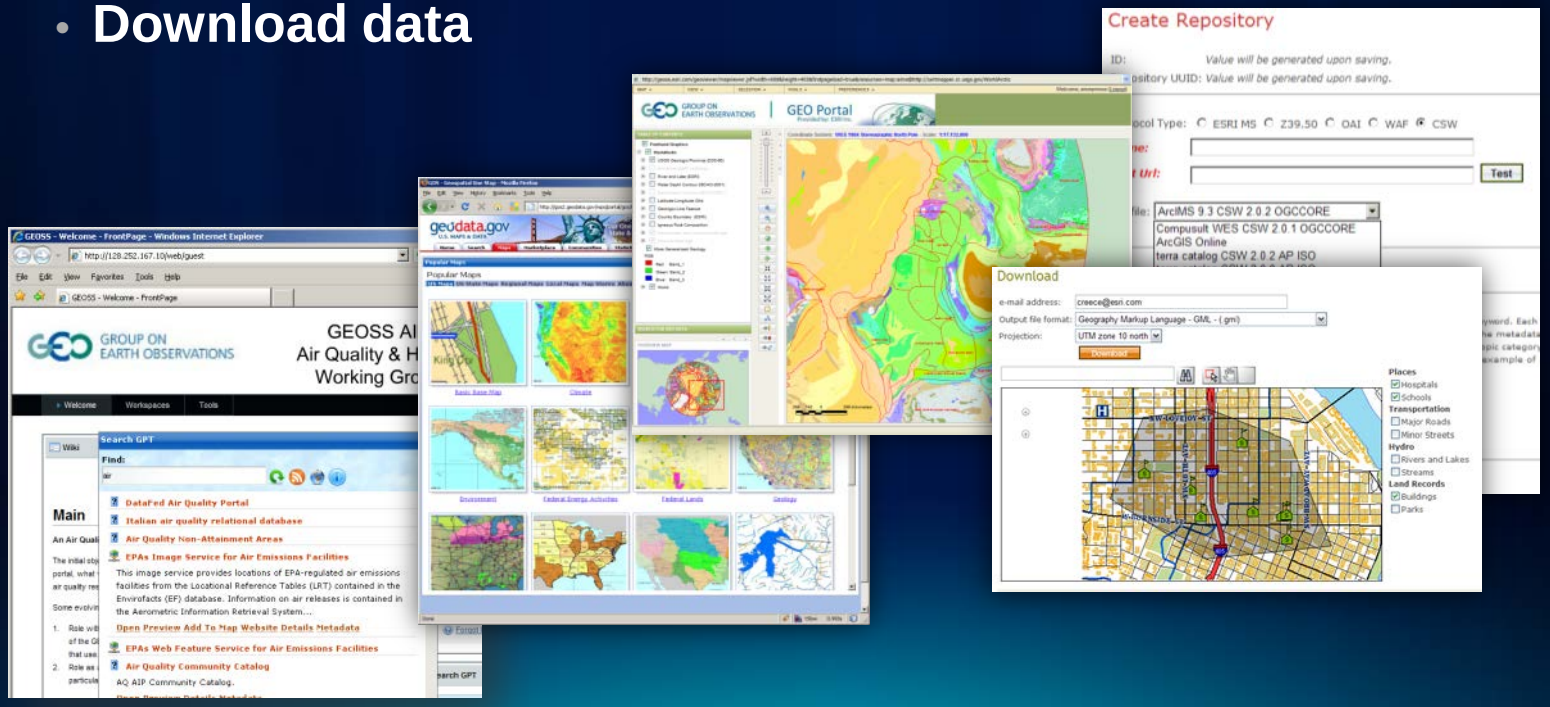


Esri Geoportal Server

Esri Geoportal Server

Enabling discovery and use of geospatial resources in heterogeneous environments

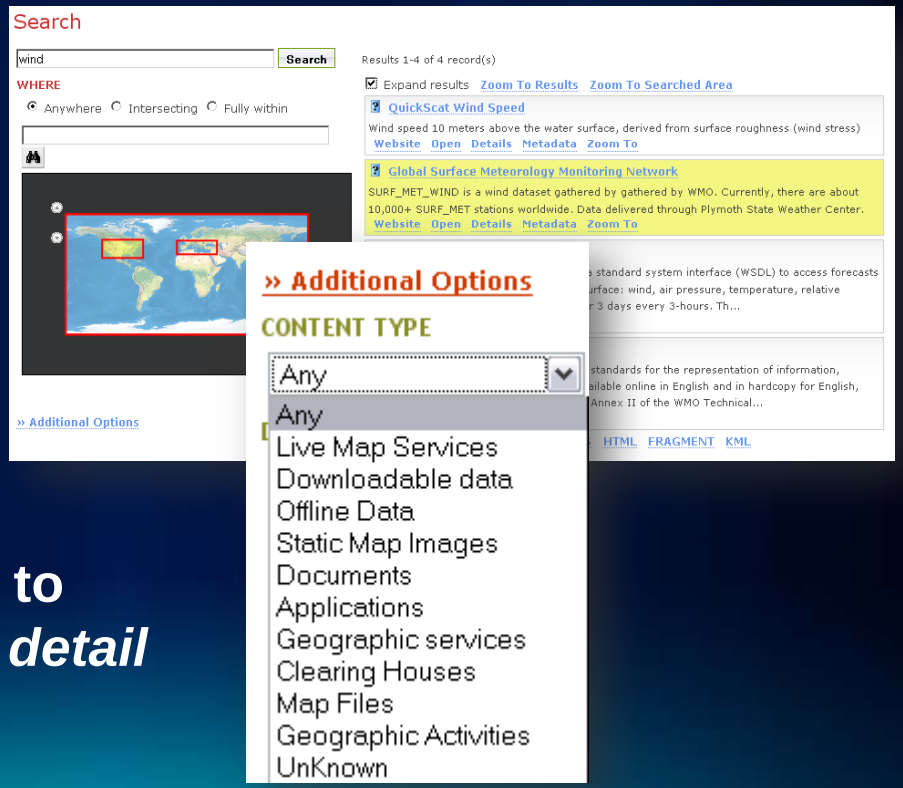
- Search and view geospatial resources
- Manage, publish, and store metadata
- View live map services
- Download data



Use Case: *"I want to find data …"*

Solution:

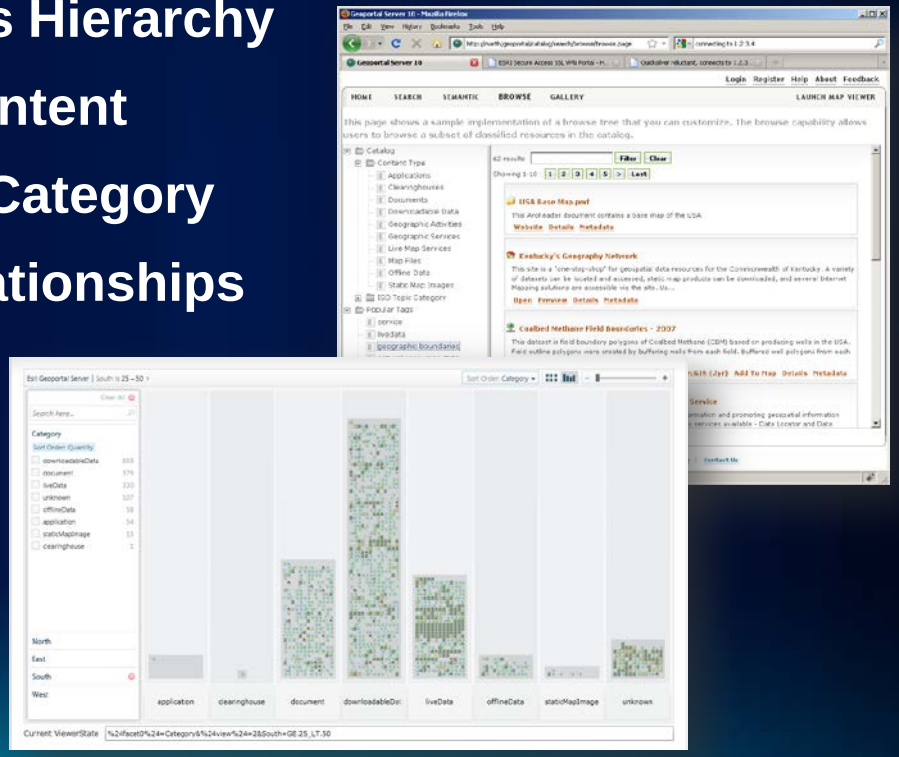
- **Simple keyword Search**
- **Spatial search**
- **Federated Search**
- **Advanced options for experts**
- **Smart matching and ranking**
- **Thesaurus Service**
- **Search results are simple to understand… *yet contain detail for power users***



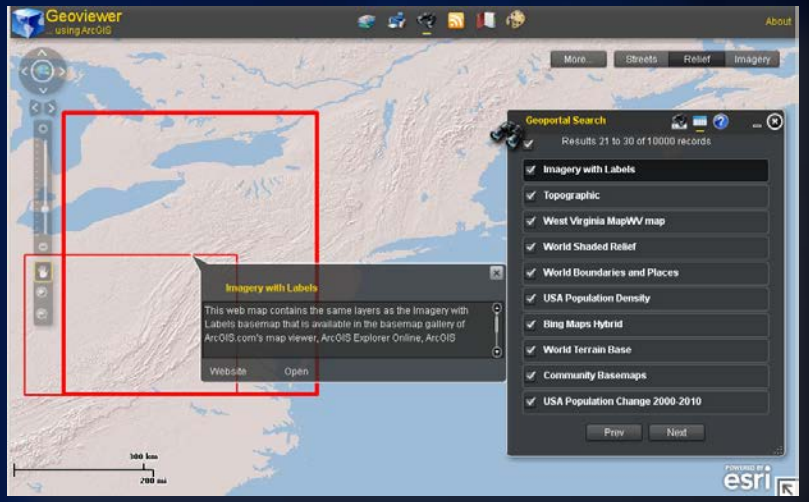
Use Case: *"I don't want to search though…"*

Solution:

- **Analogous to Department Store**
- **Implementer Organizes Hierarchy**
- **Based on Metadata Content**
- **Filter/Paginate Within Category**
- **Classification and Relationships**



Use Case: *"I want to make a map …"*



Solution:

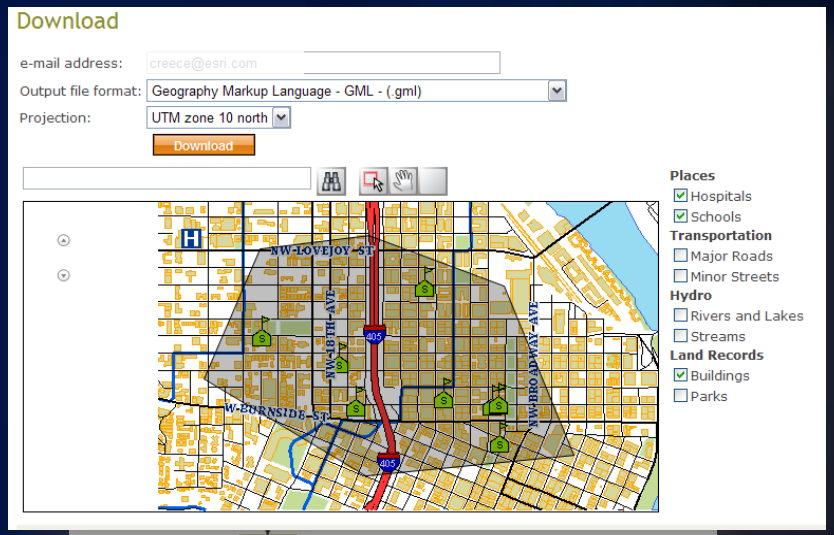
- **Preview services:**
  - **ArcGIS Server Map Services**
  - **ArcIMS Image Services**
  - **OGC WMS, SOS**
  - **GeoRSS**
  - **KML**
- **Provide integration points for map viewer platforms**
  - **JavaScript, Flex, Silverlight**
  - **ArcGIS Desktop ArcMap**
  - **ArcGIS Explorer**
  - **Java ADF**

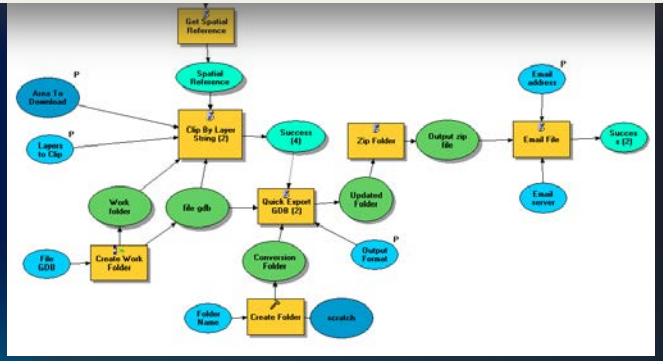
Use Case: *"I want to download data …"*

Solution:

- Select area
- Select data
- Set options
- Deliver download link through email

- Based on Clip-Zip-Ship Service
- Extensible in Python



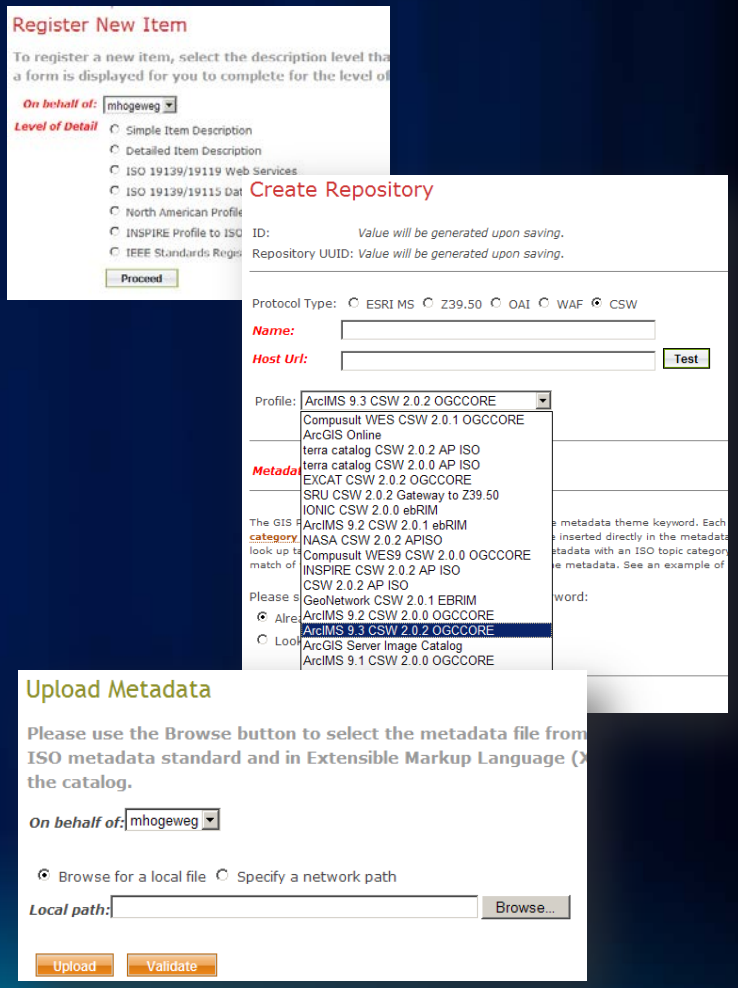


Use Case: *"I want to share my resource…"*

Solution:

- Register Servers or Services Directly
- Create metadata online
- Upload metadata
- Register catalog service for harvesting

- **Support metadata standards:**
  - INSPIRE
  - North American Profile
  - Dublin Core
  - Configurable

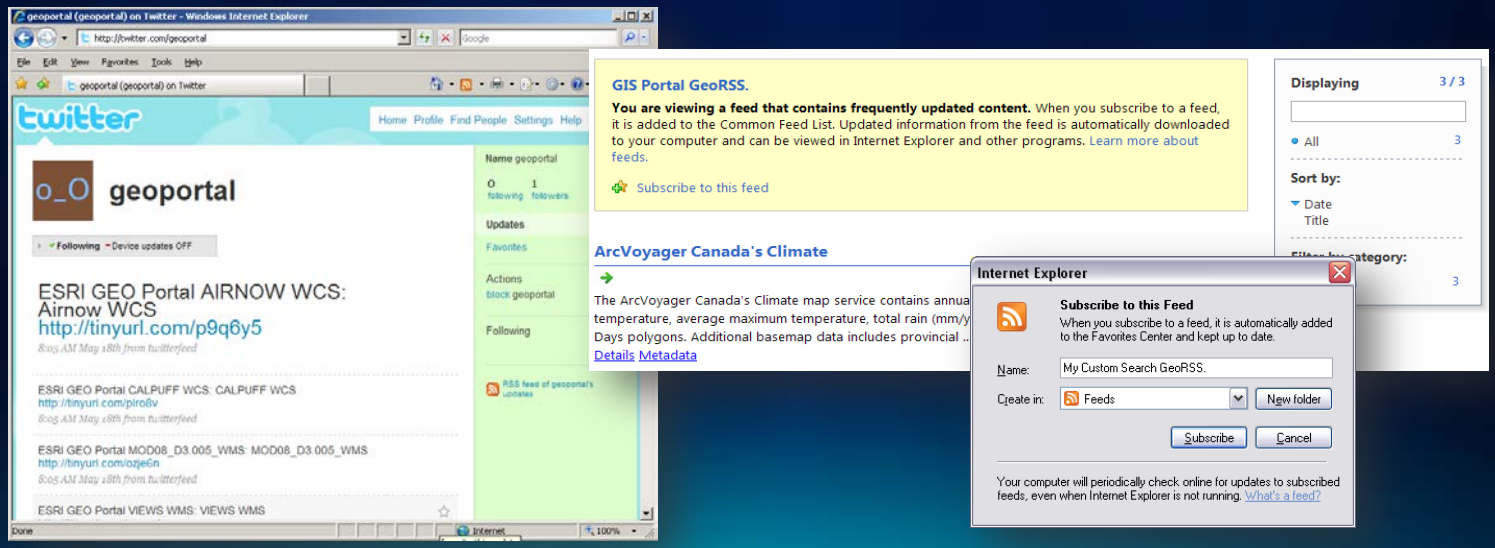


Use Case: *"Is new data is available…?"*

See results through REST API: GEORSS ATOM HTML FRAGMENT KML

Solution:

- **User specifies search criteria**
- **Give user link to a GeoRSS feed**
- **User subscribes to GeoRSS feed**



Use Case: *"Is my resource is available…?"*

Solution:

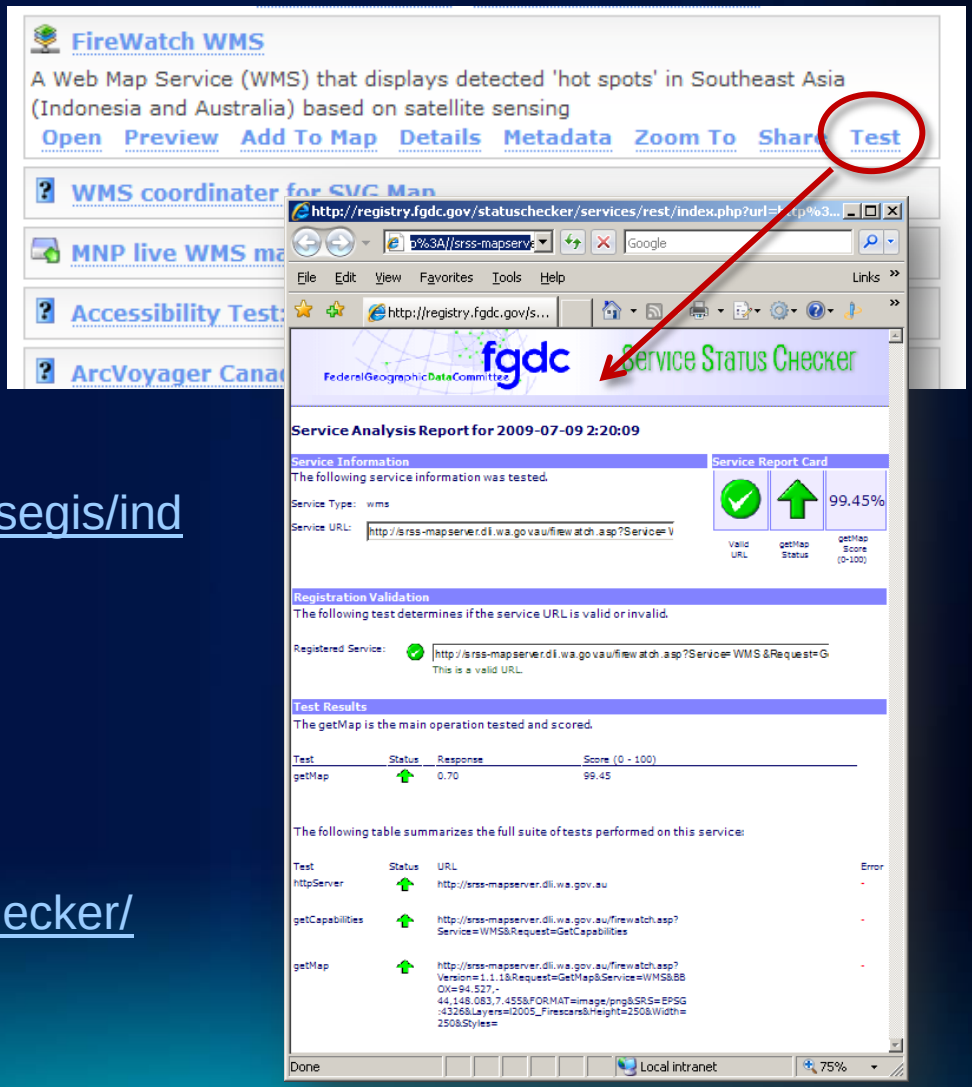
- **Monitor Services**
- **Verify Implementation**

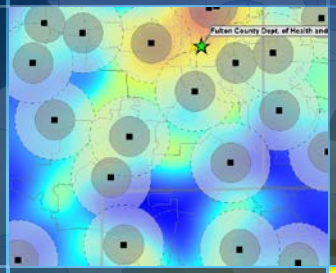
- **Performance and Scalability:**

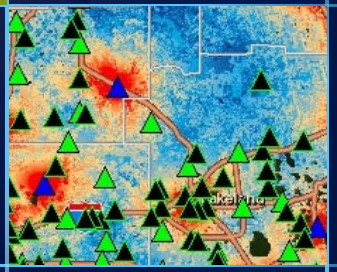
  http://resources.esri.com/enterprisegis/index.cfm?fa=performance.main

- **FGDC Service Status Checker:**

  http://registry.fgdc.gov/statuschecker/







DEMO

Discover

Evaluate

Access

Geoviewer

Esri Open Source?

Esri Supports Open Source Software

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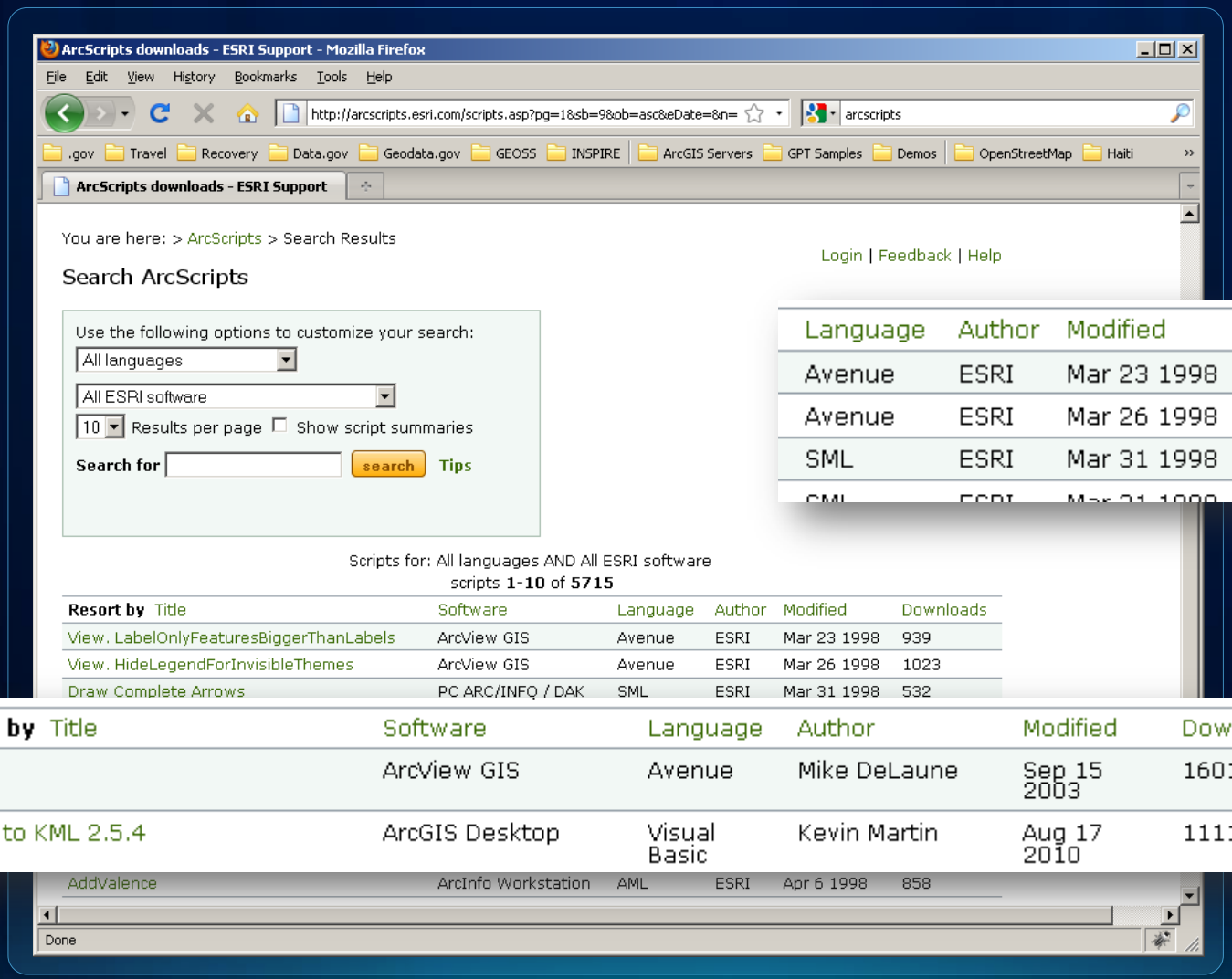
Esri Supports Open Source Software

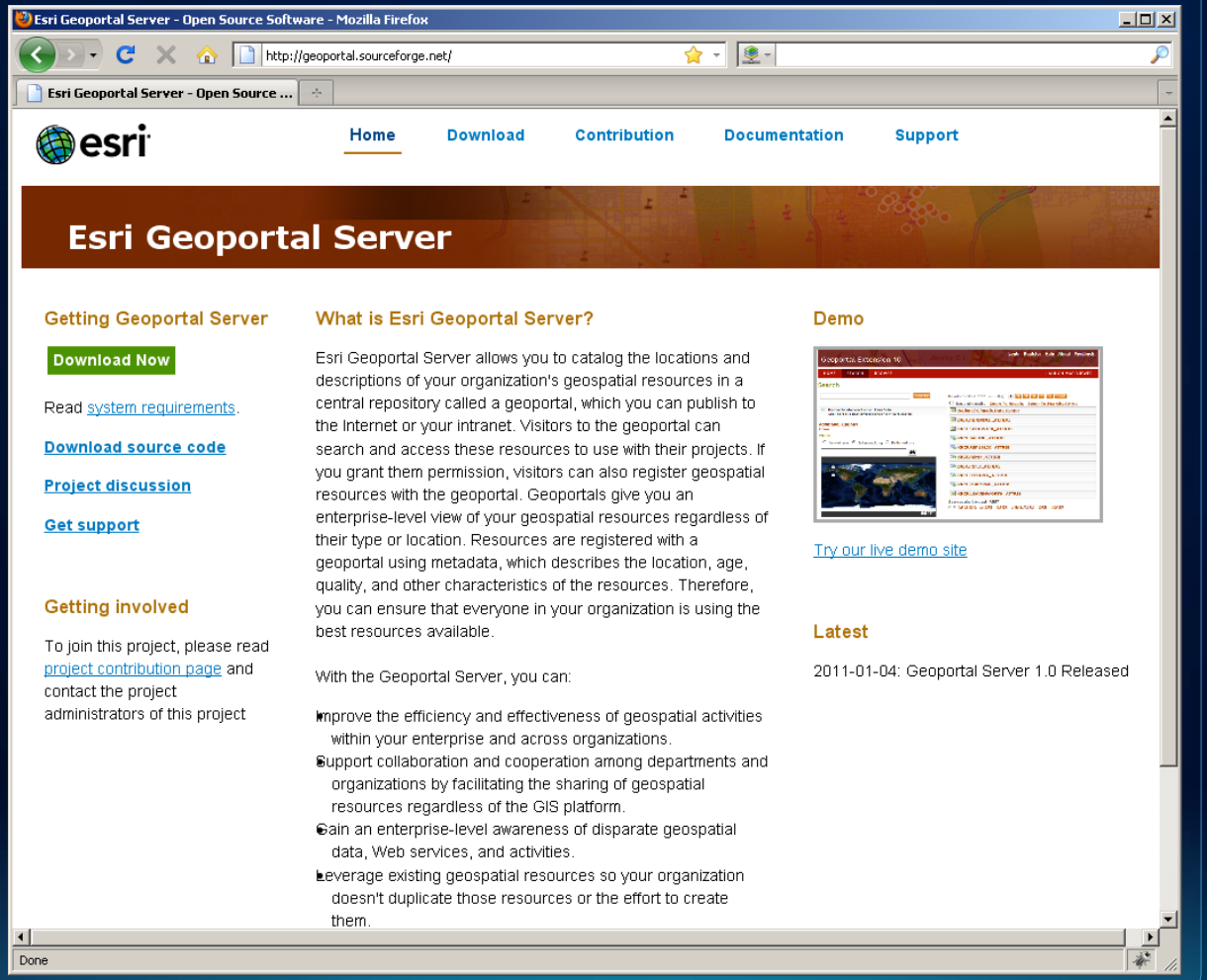


Language	Author	Modified	Downloads
Avenue	ESRI	Mar 23 1998	939
Avenue	ESRI	Mar 26 1998	1023
SML	ESRI	Mar 31 1998	532

Resort by Title	Software	Language	Author	Modified	Downloads
XTools	ArcView GIS	Avenue	Mike DeLaune	Sep 15 2003	160178
Export to KML 2.5.4	ArcGIS Desktop	Visual Basic	Kevin Martin	Aug 17 2010	111115

Esri Geoportal Server

http://esriurl.com/geoportalserver



Esri Geoportal Server 1.0

New and Familiar

- Geoportal Extension is now Esri Geoportal Server
- Released under Apache 2.0 license
- Available on SourceForge
  - Code
  - Documentation
  - Releases
  - Community
- No requirement for ArcGIS Server
- Optional technical support from Esri
- http://esriurl.com/geoportalserver

Community Contributions Welcome

Development Plan Geoportal Server 2011

- **Version 1.1 – April**
  - **Enhanced ISO/INSPIRE metadata editor**
- **Version 1.1.1 – June**
  - **Enhanced FGDC metadata editor and documentation**

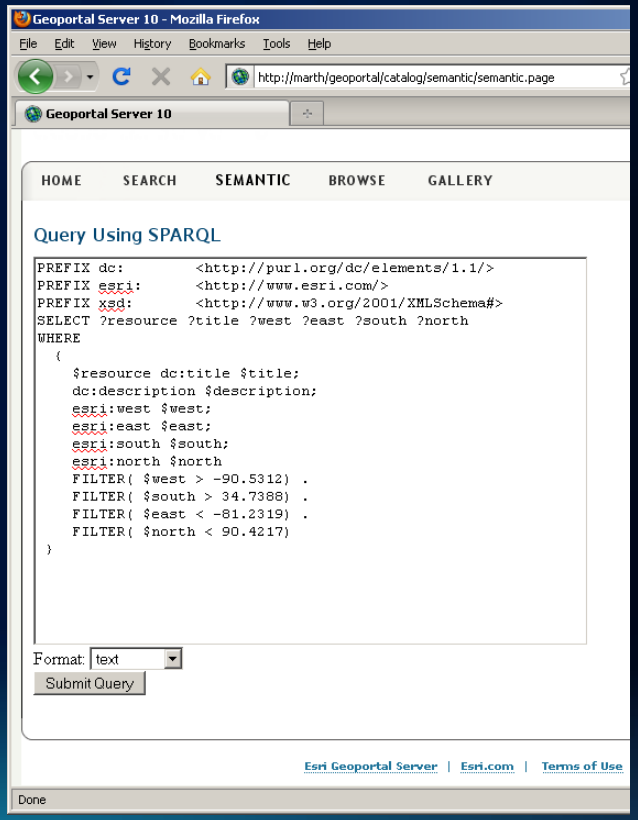
- **Version 2.0**
  - **ArcGIS Portal integration**
  - **ebRIM, Feature Data Dictionary, Feature Catalog support**
  - **Simplify installation/upgrade**
  - **Enhanced WMTS, SOS, WPS support**
  - **OAI-PMH, Z39.50, and GeoSPARQL**
  - **Complete Wiki documentation**
  - **Upgrades to new underlying API**

Enhanced Metadata Editor

- New Framework for Metadata Editors
- New Publishing Pipeline
  - Form Validation
  - Schema Validation
  - Schematron Validation
- Separate User Interface From Form Logic
- Edit Full Metadata
  - Repeatable sections and elements
  - Componentized Metadata Definition
- Extensible Through JavaScript
- Version 1.1 – ISO/INSPIRE Metadata
- Version 1.1.1 – FGDC Metadata

Linked Data – GeoSPARQL

- Driven by Open Government Initiatives:
  - Data.gov, Data.gov.uk
- Semantic Web Technologies:
  - Uniform Resource Identifiers
  - Resource Descriptor Framework
  - Ontologies
- Relationships Between Resources:
  - Linked Data
- Spatial Operators



ArcGIS Portal

ArcGIS Portal

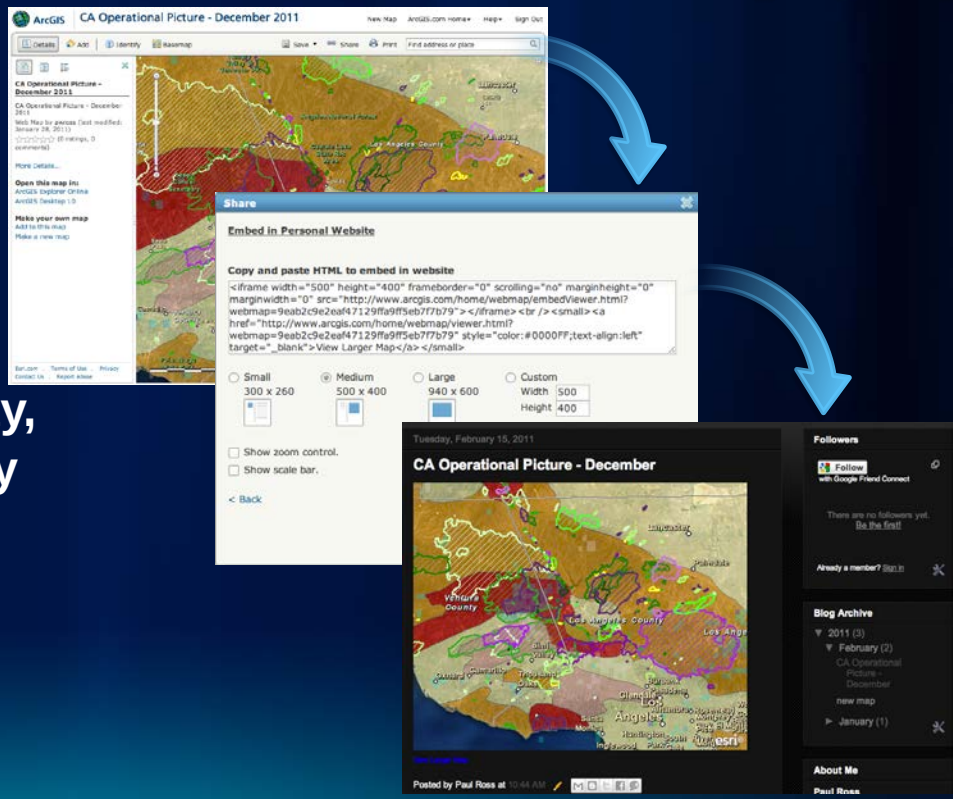
A private, collaborative, geospatial content management system

- Catalog
- Web experience
- Free viewers
- APIs
- Open
- Identity management
- Admin tools

ArcGIS Portal

Sharing and collaboration

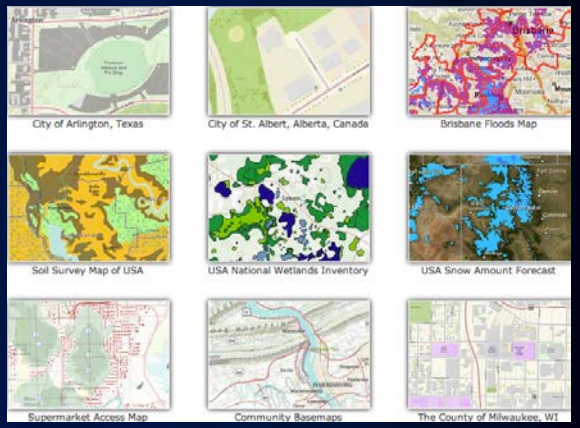
- Sharing
  - Embed in web page or blog
  - Links & social networks
  - Reuse & Leverage maps
- Collaboration via groups
  - Exchange content
  - Limit to specific community, project, or common activity
  - Private and public



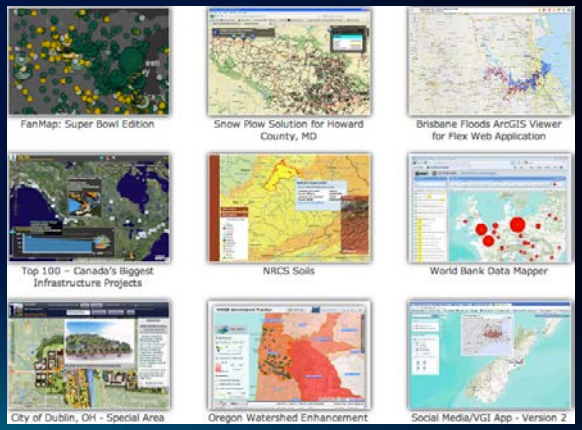
ArcGIS Portal

Sharable items

- **Maps**
  - Web maps
  - Map, image, feature and globe services
  - Map & layer packages (.lpk), map templates (.mxd)
  - Coming soon: WMS, KML and CSV



- **Apps**
  - Web mobile and desktop
  - Can include code samples

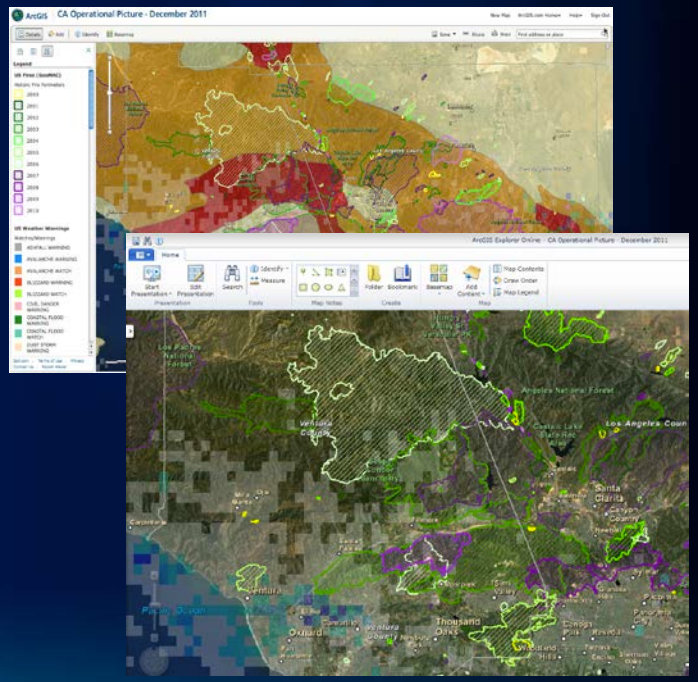


- **Tools**
  - Geocoding, Network analyst services
  - Coming at ArcGIS 10.1 - Analytic models

ArcGIS Portal

Map Viewers

- Integrated viewer and Explorer Online
- Integrated search
- Easily created mashups
  - Registered with the Portal, or
  - A named ArcGIS Server
- Tools for refining the map
  - Notes, Popups, Presentation tools
- Shared to clients
  (desktop, mobile, custom apps)



ArcGIS Portal or Geoportal Server?

Geoportal Server and ArcGIS Portal

- Search ArcGIS Portals from Geoportals
- Full Metadata with ArcGIS Portal Items
- Contribute Resources to ArcGIS Portals/ArcGIS.com
  - Transform Standards-based Metadata
  - Authenticate with ArcGIS Portal
  - Register Resource with ArcGIS Portal
- Future Plans:
  - Synchronize content between Geoportal and ArcGIS Portal
  - Related Items
  - Provide OGC CS-W Interface to ArcGIS Portal

ArcGIS Portal or Geoportal Server?