

# Utilizing GOS Map and Data Services for Cross-agency Earth Science and Geospatial Cyberinfrastructure Communities

-- A 2009 NSDI CAP Cat.2 Project

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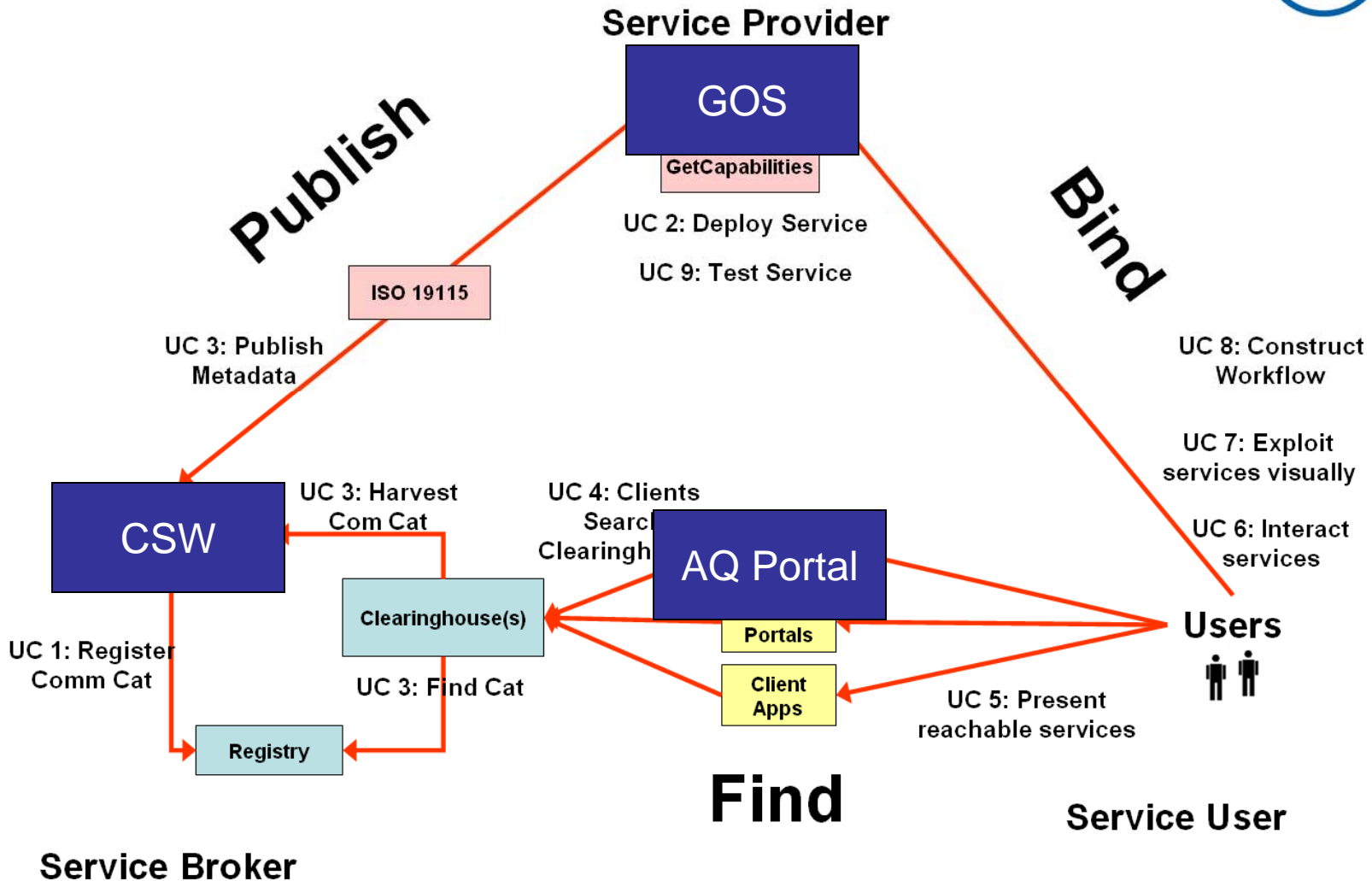
# Objective

- Earth science communities needs relevant information and services from GOS
- Geographers need a cyberinfrastructure to support geospatial research, how to leverage GOS into that infrastructure
- Open-source portlets and standalone client to utilize (GOS) maps and data services to support Earth and geography science communities
- Advance through the partnership of GMU CISC, ESIP Federation, and AAG CISG.

# Project Steps

- 1) Organize the partners' experience on portlet/client development and access to GOS assets,
- 2) Develop testing modules based on the expertise and requirements,
- 3) Integrate the modules into the ESIP Testbed at ESIP HQ and CISC,
- 4) Test the portlet/client through the partnership,
- 5) Improve the portlets according to test feedbacks,
- 6) Repeat steps 4 & 5 as needed,
- 7) Open the portlet as open sources,
- 8) Wrap the portlets with desktop client and integrate with commercial software, such as ArcGIS,
- 9) Use the portlet/client for users at ESIP and AAG CISC and students within classes at GMU.

# ESIP Testbeds: 1. Air Quality



# CSW Service & Client

The screenshot shows a web browser window titled "2D WMS Client - Internet Explorer provided by Dell". The address bar contains the URL: `http://eie.cos.gmu.edu/2DWMSClient/TimeEnabledWMSViewerSS.jsp?http://nsidc.org/cgi-bin/atlas_north?`

The interface includes a search bar with "0" in it, a "Daily" dropdown, a "Speed: 2 seconds" indicator, and a "Generate KML" button. Below this is a table of services:

Visible	Query Name
<input type="checkbox"/>	cryosphere_atlas_nort
<input type="checkbox"/>	blue_marble_01
<input type="checkbox"/>	blue_marble_01_circle
<input checked="" type="checkbox"/>	blue_marble_07
<input type="checkbox"/>	blue_marble_07_circle
<input type="checkbox"/>	sea_ice_extent_01
<input type="checkbox"/>	sea_ice_extent_02
<input type="checkbox"/>	sea_ice_extent_03
<input type="checkbox"/>	sea_ice_extent_04
<input type="checkbox"/>	sea_ice_extent_05
<input type="checkbox"/>	sea_ice_extent_06
<input type="checkbox"/>	sea_ice_extent_07
<input type="checkbox"/>	sea_ice_extent_08
<input type="checkbox"/>	sea_ice_extent_09
<input type="checkbox"/>	sea_ice_extent_10
<input type="checkbox"/>	sea_ice_extent_11
<input type="checkbox"/>	sea_ice_extent_12
<input type="checkbox"/>	sea_ice_concentration
<input type="checkbox"/>	sea_ice_concentration
<input type="checkbox"/>	sea_ice_concentration

To the right of the table is a large globe map showing the Earth from a polar perspective. A small inset map is visible in the bottom right corner of the map area. Below the map, the coordinates "LAT/LONG: 8859993.82,1869708.72" are displayed.

The browser's status bar at the bottom shows "Internet | Protected Mode: On" and "100%" zoom level.

# ESIP Testbeds: 2. Products & Services

1. Permanent Unique Object Identifiers
2. **Semantic Web Services**
3. **Customized Inventories for GEOSS Societal Benefit Areas**
4. Metadata Harvesting
5. **Data and Service Quality**
6. **Metadata for Customized Product-Services**
7. Provenance
8. Deficiencies in ISO Standards

# Joint Center for AAG CISG Committees

1. High Performance Computing (Qingfeng Guan, USGS GISC)
2. **Application & Visualization (Ben Tuttle /Univ. CO-Boulder and Michael Page/Emory University)**
3. **Knowledge & Metadata (Rob Raskin, NASA JPL)**
4. **SOA & SOC & Middleware (Xuan Shi, GIT)**
5. **Free and Open Source Geospatial Software (Jil Jang, Cleveland State University)**
6. Research (Shaowen Wang, UIUC)
7. Outreach (Jil Jiang, Ohio State Univ.)



**Thank You**

**Q&A**