DISCOVERY CLUSTER TESTBED PROJECT

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Overview and Problem Statement

2. Discovery Services and Clients: Interoperability Testing, Advertisement, and Assessment of Data to Service Broker

The Discovery cluster provides a medium for Federation members to coordinate on development, deployment, and creation of interoperable specifications for **Discovery services such as OpenSearch, DataCasting, and ServiceCasting**. As such, a common Testbed to deploy services and/or clients would enable the Federation members to test the interoperability of [D...] clients. More over, having a common Testbed where Fe[...] various data centers can access would provide a comm[...] used to advertise their services. Currently it is difficult to know where services exist, what they do, and how to access them. Several machine-processable mechanisms for advertising services (such as service casting) have been evaluated by the NASA Tech Infusion Working Group. The Testbed will provide an environment to demonstrate how Federation-wide member services can be advertised, described, and chained together using existing technologies. From this, new capabilities can also be explored such as enabling an association of data to services where for each data collection or granule, compatible services provided by Federation members can be shown.

ESIP Community Benefits: Improved interoperability of ESIP Discovery services and clients leading to broader adoption. Increased awareness and usage of Discovery services. Improved brokering of data collection and granules to compatible services that can use them.

Pain point: knowing which services are available for which data.

Vision – to support the following

- Setup validation for registration of ESIP services - Start with focus on OpenSearch & Data Casting; may add other services later

- Provide some form of a service cast of registered services

- Encourage the ESIP Community to actively contribute

- Icing on the cake: Chaining together of data and services - e.g., exploring data and services mapping, brokering.
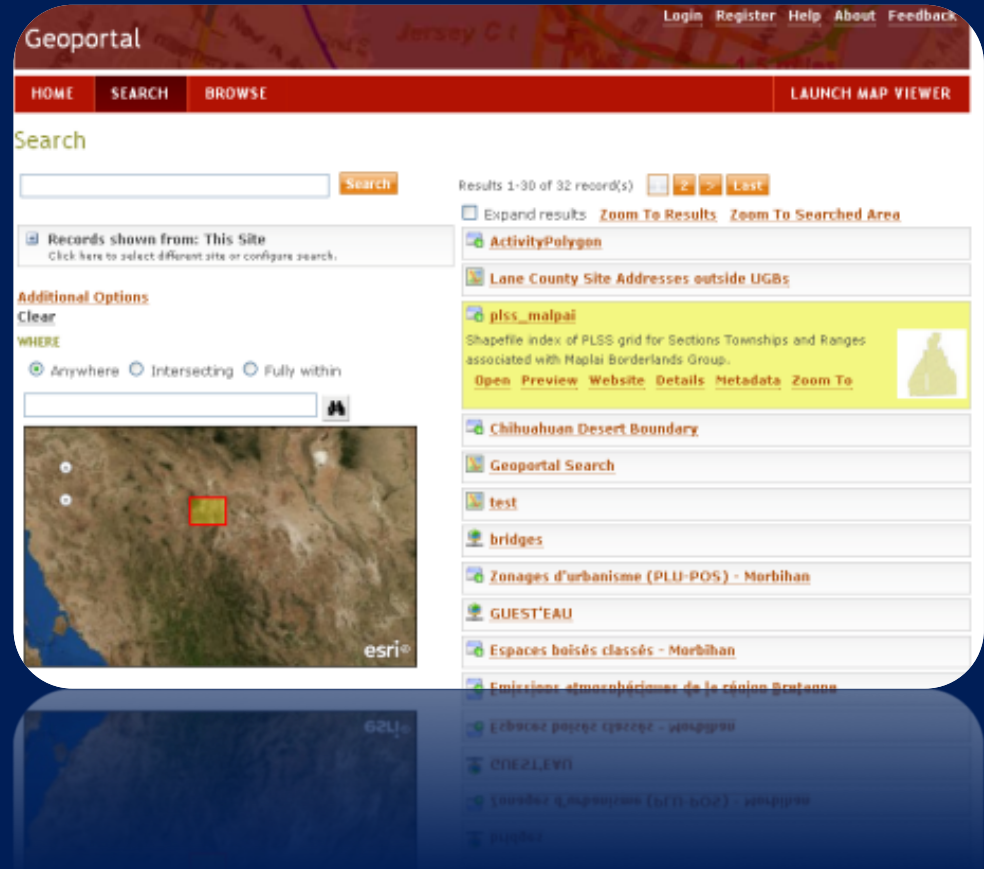
Addressing the challenges

Technology

- **Esri Geoportal Server** solution

- **Out of the box** resource advertisement, discovery, CSW endpoint, REST endpoint, OpenSearch endpoint

- **Customizations** to address use cases that support the vision

Esri Geoportal Server

- Web access point, but also protocol-based endpoints

- User management

- Metadata resource management

- Resource discovery

- Federated search

- Harvesting

- No-cost system setup possible with Open Source software

Resources and Plan

Status

- **Work plan [available](#)**

- **At Requirements stage – Vision, Use Cases, then Requirements**

- **Participants at each stage**

- **Development stage will be Esri developers and willing Discovery Cluster developers**

- **Customizations can go back into Esri Geoportal Server core product**

Tie-in with Testbed Environment

- **Geoportal Server is open source – an SVN connection on sourceforge**

- **Post- project, could import to GitHub - http://help.github.com/import-from-subversion/**