Initial Results of the CEOS Portal Study

CEOS 2010 Plenary Action 24-3

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September 14, 2011

CEOS and GEO Portal Study Summary

- **CEOS Action:** (Plenary 2010, Action 24-3): CEOS Chair to work with the SEO, outgoing and incoming CEO and GEO Secretariat to study the multiplicity of portals in CEOS and GEO.

- **What has been accomplished since the 2010 CEOS Plenary ?**

  ➤ Completed a draft report for review including recommendations
  See the CEOS website (www.ceos.org/seo) , Studies link

- **Future remaining activities and milestones**

  ➤ Conduct a review with WGISS and adjust recommendations

  ➤ Update the report and complete the final version for Plenary

- **Main Issues**

  ➤ Implementation of 7 proposed recommendations ...
  Will CEOS endorse and support the recommendations presented here ?

Portals and Team

Portals

"Community" Portals

- Land Surface Imaging (LSI) Constellation Portal
- Atmospheric Composition (AC) Constellation Portal
- Calibration/Validation Portal
- Forest Carbon Tracking (FCT) Portal
- AVISO Portal (Ocean Topography Altimetry)
- RADS Portal (Radar Altimeter Database)

"Super" Portals

- GEO Portal (part of the GEOSS Common Infrastructure - GCI)
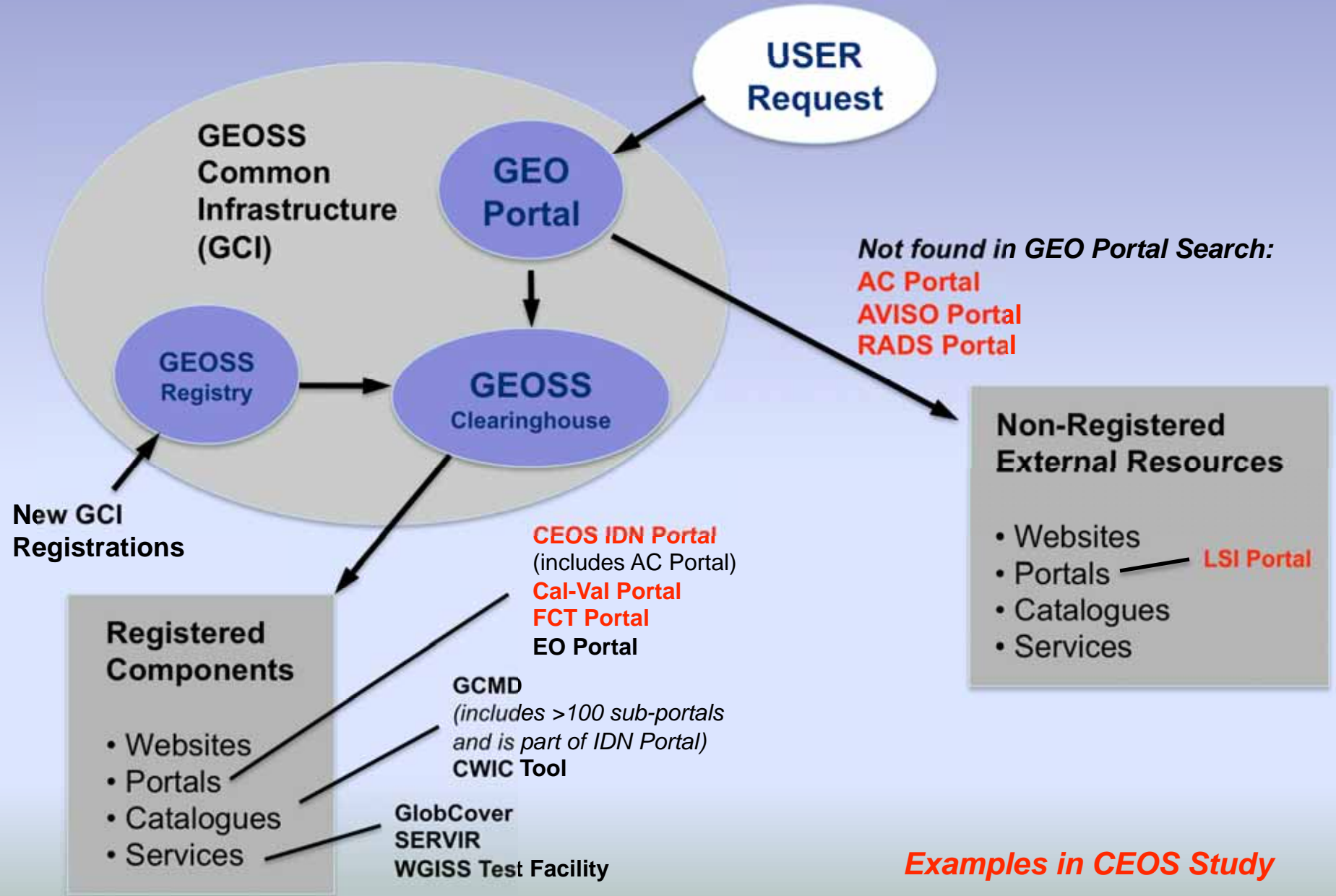- CEOS International Directory Network (IDN) Portals

Team

- NASA SEO: Brian Killough, Shelley Stover, Kim Keith
- CEO: Tim Stryker (USGS), Kerry Sawyer (NOAA)
- Ivan Petiteville (Ex-CEO, ESA)
- SIT: Osamu Ochiai (JAXA)
- **WGISS/WADC**: Pakorn Apaphant (GISTDA), Lynn Oleson (USGS), Chris Lynnes (NASA), Lola Olsen (NASA), Frank Lindsay (NASA)
- Hilcea Ferreira, Marcia Helveringa (ex-CEOS Chair, INPE)
- Symbios: George Dyke, Stephen Ward

Thoughts on Portals

- A common statement heard at CEOS meetings ...
  "*I would like to present a new portal for ....*"

- This study has concluded that "*another bloody portal*" is NOT such a bad idea.

- The definition of a portal is merely a "gateway to information". In some cases that information is mission data, but in many cases that information is educational or scientific.

- The portals examined in this study are diverse, by design, and may never lead to actual mission data .... which is OK.

- As long as a portal has a valid user base and is relevant to CEOS objectives, it should be considered an asset and therefore, supported.

GEO and CEOS Portal Architecture

CEOS

USER Request

GEOSS Common Infrastructure (GCI)

GEO Portal

GEOSS Registry

GEOSS Clearinghouse

New GCI Registrations

Not found in GEO Portal Search:
AC Portal
AVISO Portal
RADS Portal

Non-Registered External Resources

• Websites
• Portals
• Catalogues
• Services

LSI Portal

Registered Components

• Websites
• Portals
• Catalogues
• Services

CEOS IDN Portal
(includes AC Portal)
Cal-Val Portal
FCT Portal
EO Portal

GCMD
(includes >100 sub-portals and is part of IDN Portal)
CWIC Tool

GlobCover
SERVIR
WGISS Test Facility

Examples in CEOS Study

Objectives, Features and Capabilities

- The primary objectives, features and capabilities of the portals are summarized in two tables in the draft report.

- **Diversity** is the common theme … narrow focused "community portals" and broad focus "super portals" connect users to a variety of data types, mission information, science and education products.

- This diversity is critical to the success of these portals

   Recommendation: CEOS should continue to support the development of community portals to serve focused topics. In addition, CEOS should continue to support the development of larger portals with a focus on user diversity and efficient and effective navigation.

Navigation and Content Analysis

- A navigation and content analysis of the portals yielded many inconsistencies that will limit growth of potential users.

  Recommendation: CEOS should adopt a set of standards for community portals. Such standards would consider content on topic background, instructions for portal use, lists of missions and instruments consistent with the CEOS MIM, and intentions for connecting users to data (internally or externally).

- The CEOS community is familiar with the MIM Database but this connection is not used for any of the portals.

  Recommendation: The CEOS IDN and GEO Portals should consider utilizing the CEOS MIM nomenclature and architecture for organizing searches of space data products. Furthermore, consistent terminology should be utilized for instrument types and measurement types.

GEO Portal Assessment

- Navigation is difficult due to ambiguous terminology and "clutter"

- Search results are often numerous. Difficult to narrow results toward intended desire (i.e., broken links and poor descriptions)

- Improved categorization would help (i.e., linkage to MIM).

- The SEO created a You-Tube video (**geoportal-user.mov**) of a typical GEO Portal navigation experience.

  Recommendation: GEO should seek input from a variety of users (i.e., scientists, decision makers, general public) to improve the "search and discovery" process for access to data and information. In addition, GEO should gather feedback on the navigation experience. Navigation and content on the GEO website would be impacted, but the potential of the GEO portal and its usage would be expanded.

More GEO Portal Recommendations ...

Recommendation: GEO should work with WGISS to establish a common metadata model for facilitating the discovery of Level-1 and Level-2 data. With a common set of search criteria, users can issue queries that would result in the discovery of a variety of relevant data products from individual registered data sets to portals with multiple data sets.

Recommendation: WGISS should demonstrate the use of CWIC to connect a common portal (such as the CEOS IDN) to data products residing on an external site (such as the NASA ECHO system). Such a demonstration would be an effective search and discovery example for connecting GEO Portal users to CEOS data.

GCI Data Registration

- There are NO good instructions for the GCI registration process. Who are the users, how do they search, and what are the definitions of "components" versus "services" ?

- CEOS has experience with GCI registration since it registered 40+ data sets in 2008 to 2010 from the CEOS IP. Unfortunately, limited dataset information from CEOS agencies has made the process difficult.

- A more formalized GCI registration process and example templates would be helpful to users (i.e., CEOS, agencies, portal managers, etc).

Recommendation: GEO should consider a more formal and simplified GCI registration process with example templates for a variety of users (i.e., CEOS, agencies, portal managers). Emphasis should be placed on registration of smaller community data portals, rather than individual data sets.

Conclusions

- Portals are everywhere and we will likely see more in the future. CEOS has an **opportunity** to impact the direction of our sponsored portals to improve the connection between users and information.

- Our primary **challenge** is diversity … both users and information. Seamless discovery and access to Earth science information is the goal of GEO and CEOS.

- *The multiplicity of portals is not our problem … It is the approach*. Consistency in portal content, ease of navigation, and recognition of diverse data and users must be considered as we move forward.