

Earth Science-Ontolog Mini-Series

Session 2:

“Understanding Semantic Insertion within the Earth Science Application Lifecycle”

Mini-Series & Session Co-Chairs: Drs.
Gary Berg-Cross and Naicong Li

Thursday, Sept. 6th, 2012



Session Overview and Agenda

1. Opening Remarks for Session 2: Dr. Gary Berg-Cross
2. Dr. Richard Hooper (CUASHI) - "Implementing a community-governed ontology: Experiences from the Water Sciences Community "
3. Professor Peter Fox (RPI/TWC) - "Life cycle semantics in Earth and space sciences – what's worked (and not) and where are we... a decade in..."
4. Mattia Santoro (CNR, Italy) "A Semantic Broker for enhancing resources discovery" working with S. Nativi, M. Santoro, C. Fugazza, M. Craglia)
5. Dr. Naicong Li (U of Redlands) Dr. Philip Murphy (U of Redlands), Professor Krzysztof Janowicz (UC Santa Barbara) - "An ontology-driven framework and web portal for spatial decision support"
6. Open Discussion
7. Closing Remarks – Gary Berg-Cross



Goals of the Session within Overall Mini-Series

Goals -1

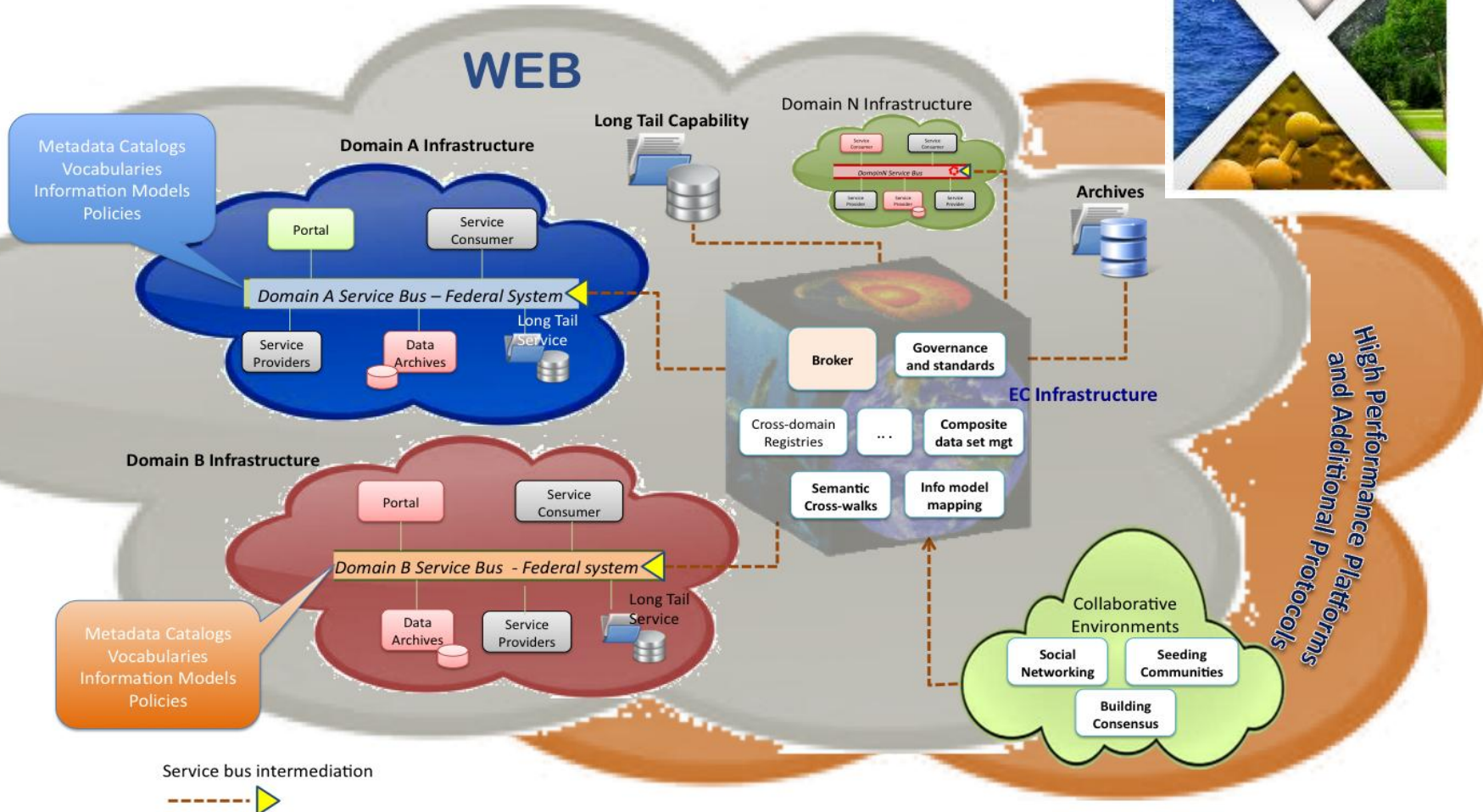
The **overall goal** is to bring together members of both communities (Earth Science and ontology/semantics) into a **meaningful dialog**.

- One goal of this session is to further a dialog on current status of **needs** and work of earth science **systems** with an eye to the application of semantic technology that can help.
- We want to build on Session 1 by getting a better idea of requirements, such as **improved vocabularies structured by use cases** that highlight earth science challenges and issues.

– What should ontologists understand about these issues?



Goal of Understanding the “CONSENSUS DIAGRAM”



Goal of Understanding Earth Cube Domain Visions

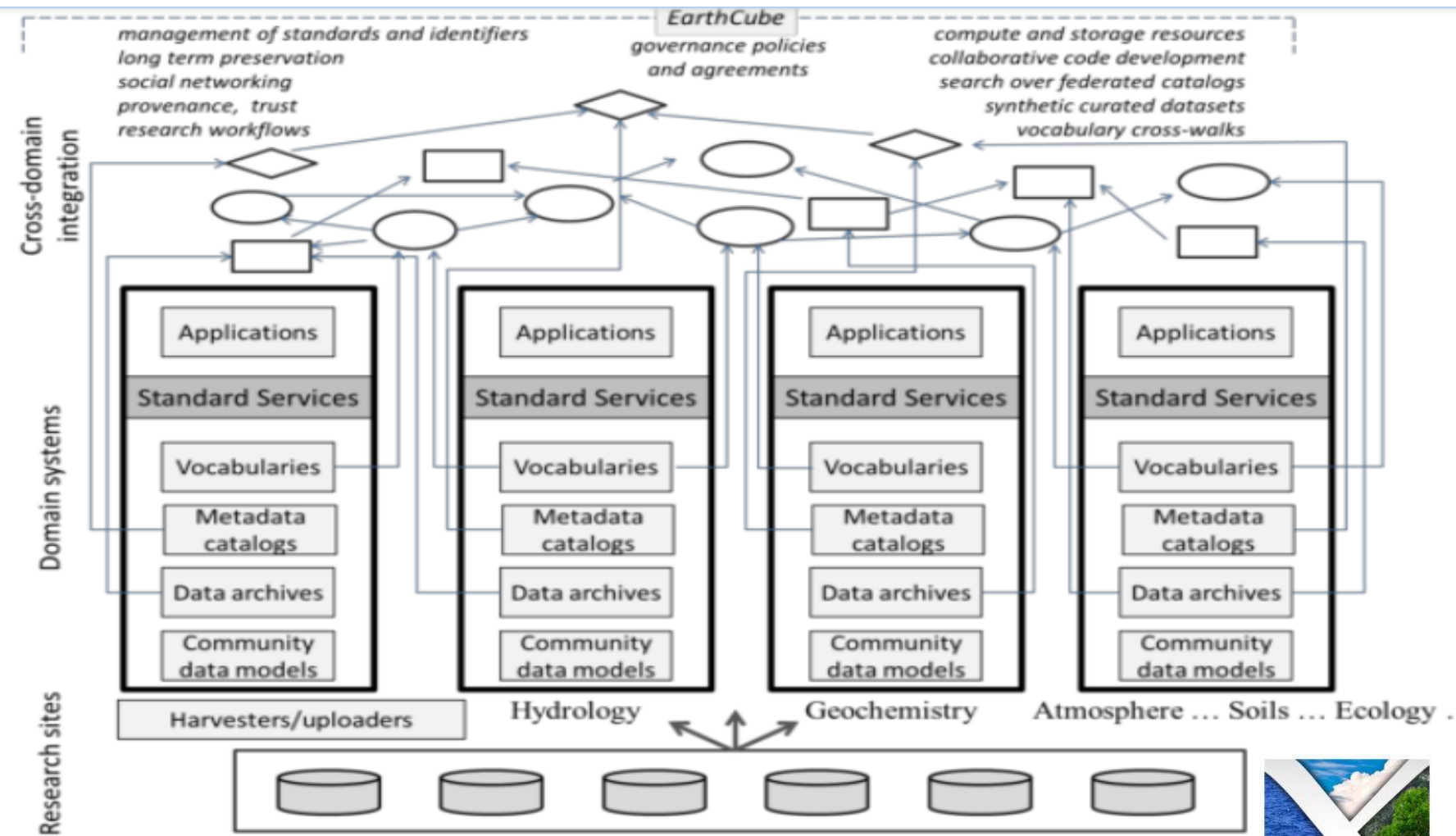


Figure 1. Initial model of an EarthCube logical organization.



Session Goals - 2

- Given an understanding of needs/issues etc. we want to continue to highlight –
 - Ontological engineering architectures and approaches, and prospective tools
 - These will enable collaborative understanding of the challenges and potential value in the application of ontology and semantics in Earth Science
 - Tech Infusion into Shared Infrastructure
 - This help might include various tools to use within cyberinfrastructure for the Earth Science Community.
- **Description, Goals, Objectives:**
<http://ontolog.cim3.net/cgi-bin/wiki.pl?EarthScienceOntolog#nid3CWC>



Upcoming Sessions

- Session-3: Thu 2012_10_11 - co-chairs: Krzysztof Janowicz & Pascal Hitzler: Methodologies: including, what *is* semantics, image approaches, etc.
- Session-4: Thu 2012_11_08 - co-chairs: Dalia Varanka & Mark Schildhauer: Review of the field of ontologies for earth science (and existing ontologies)
- Session-5: Thu 2012_12_06 - co-chairs: Nancy Wiegand & Mike Dean: Tutorials

