Refining the GIBS Roadmap [1]

Submitted by ckthomps on Mon, 2014-03-24 13:16 Thursday, July 10, 2014 - 16:00 to 17:30

Event: Summer Meeting 2014 [2]
Session Type: Workshop [3]
Collaboration Area: Geospatial [4]

Information Technology and Interoperability [5]

Products and Services [6]

Visualization [7]

Abstract/Agenda:

NASA's Global Imagery Browse Services (GIBS) is currently under development as a visualization component of the Earth Observing System Data and Information System (EOSDIS), providing a visual analogue of NASA's Earth Science data archives for a multitude of applications, including:

- Near real-time event monitoring
- Disaster response coordination
- Ingestion into geographic information systems
- Weather and climate studies
- Long-term trend analyses
- Education
- Data discovery
- A basis for engaging the public

GIBS consists of two primary software packages, <u>OnEarth</u> [8] and The Image Exchange (TIE). OnEarth consists of a specialized image format and a set of Apache modules capable of serving full-resolution imagery with near-zero latency. TIE is the scalable image management and workflow backbone, responsible for ingesting and archiving source imagery and associated metadata. Together as GIBS, OnEarth and TIE are able to infuse imagery into the process of guiding users towards Earth Science products appropriate for their purposes, facilitating the steps typically undertaken to locate, evaluate, and download data.

GIBS development to this point has been predicated primarily upon baseline use cases generated from within the immediate NASA domain. However, maximizing the value of GIBS as it relates to the aforementioned set of applications requires active participation from the larger corresponding stakeholder community – the interconnected alliance of image producers, service consumers, and image consumers whom are categorized as follows:

- **Image producers**: Generally deliver source imagery to GIBS for ingestion and may or may not be involved with the actual image generation process, though typically they are cognizant over how the images they deliver were produced.
- **Service consumers**: Interact directly with the GIBS web service front end, directly requesting imagery through URLs adhering to WMTS or TWMS protocols. These requests are usually encapsulated within a web-based tool, such as the GIBS reference client, Worldview [9].
- **Image consumers**: Represent the end customer, one who uses the tools (built by service consumers) to view and assess the image layers within GIBS.

Often, stakeholders cross over into multiple categories. This classification is mutable - specific stakeholders may slide into or outside intersecting categories. *GIBS represents the confluence of image producers, service consumers, and image consumers.*

To engage this alliance, the GIBS team invites any and all interested members of the Earth Science community to learn about GIBS and help shape its evolving roadmap through the definition, review and evaluation of use cases and requirements. The ultimate goals of this effort are to synchronize GIBS with the needs of its stakeholders and to help GIBS efficiently navigate towards new

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opportunities for utilizing its rich and growing archive of imagery.

This proposed session begins with a brief overview of the GIBS system to highlight some of its key features and to provide context for further discussion. Current web interfaces and mapping tools utilizing GIBS will be demonstrated as part of this introduction. Next, attendees will separate into subgroups and focus their discussions on topics apropos to the stakeholders within each subgroup. These discussions are intended to help answer underlying questions applicable across stakeholder types that will shape the future direction of GIBS and form the basis for establishing use cases. These questions include:

- Are you clear as to what GIBS is?
 - If no, what type of information about GIBS would help your understanding?
- Do you have any need for an image service such as GIBS?
 - If no, why?
 - If yes, can you describe your need?
- Would you be able to use GIBS as it is?
 - If no, what functionality would have to change or be added for you to consider using it?
 - If yes, do you have an application in mind?
- As an [image producer, service consumer, image consumer], do you understand how you would interface with GIBS?Do you use other visualization tools or services?
 - If yes, what are they? What is their function? How do you interact with them?

Each group will informally report their findings and a general discussion will follow.

Anyone with a vested interest or inherent connection with Earth Science data products is encouraged to attend.

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Teaser: NASA's Global Imagery Browse Services (GIBS) is currently under development as a

visualization component of the EOSDIS

Accepted:

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