Standards Process Review

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As described in ESDS-RFC-002v3, the ESDS standards process was created to facilitate interoperability among the various NASA ESDS elements. It was designed to focus on the endorsement of existing, working standards that could be useful to NASA ESDS and explicitly avoided becoming involved in the development of standards. The reasoning for this approach is logical. Standards that are in the process of being developed can be unstable in their implementation and avoiding these helps insulate NASA ESDS elements from that instability.

However, as EOSDIS continues to evolve, our views, approaches, and processes with respect to standards matters should periodically be reviewed and, if appropriate, updated. It has become apparent that not everything that we might want to consider an EOSDIS "standard" maps particularly well to that process in all cases. Some examples include the Preservation and Content Specification, the DOI implementation, and the NASA convention for ISO 19115 metadata.

We are asking the ESDSWG to conduct a thorough review of the existing NASA ESDS standards process documented in ESDS-RFC-002v3 and provide recommendations to ESDIS with respect to the following:

- What changes are needed to the standards process to better reflect the current needs of NASA ESDS?
- How should the roles and responsibilities in the current standards process be updated in the context of the new ESDSWG governance structure and processes?
- Is there a need for additional categories of standards to better support some of the specifications that do not fall neatly into the current categories of recommended standard and technical note?
- Explore the possibility of creating an additional process (or processes) designed to facilitate the evaluation and critical review of internally developed "standards" that may have been created to serve our own needs but which affect all EOSDIS elements. If new processes are recommended for certain things, provide decision criteria on process selection. Some examples of this are the Preservation Content Specification, DOI syntax, the NASA ISO convention under development and, potentially, a NASA ESDS convention for HDF5 data product design.

Discussion

2012-11-14 Standards Process Review Session

Please edit these notes!!

- Discussion based on Andy Mitchell's draft process slides
  - Move SPG function into ESDIS Standards Office
  - Keep Tech Note track and Standards Track
  - Add Standards Development track
  - TWG still does evaluation
  - Standards Office writes final review report
  - Discussion on how to deal with multiple standards that cover the same thing. The SWAL document should help people decide which to use
  - Discussion on what "Endorsed" means? NASA HQ has told us we should do this, so maybe now we should use "Approved" meaning that it's approved for use in a NASA system
  - What about steering people in a particular direction. E.g. moving people towards use of ISO.

Development

- Participation in ISO or OGC is very important. NASA is an OGC member, and can input requirements into testbeds at the highest level. All we're currently doing is looking at the output and deciding if we should approve it or not. But realize that there are specs like datacasting that would be nearly impossible to have come out of OGC. Steve Berrick's comment that NASA should take a strategic viewpoint and decide how and where it should place its resources.
- OGC has developed a fast track process - e.g. KML.
- ESA is doing a lot of standards work within OGC.
- Monitoring is not enough. You have to work inside the system with practitioners who understand the technology.
- It's a long term commitment and there might not be immediate measurable impact. But history has shown that there is a benefit.
- Development includes things like OpenSearch, Datacasting, Provenance

Still need the approval process that is agnostic

New Missions need a "dashboard" that gives them very simple answers to their standards questions/needs.
- The current web pages are not easily understandable to outsiders.
- The existing SPG/standards pages on Earthdata need to be cleaned up and simplified considerably
- Info like "how big is the audience/community" should be there.

ESDIS approval should be very quick

How do we inform people about upcoming standards? E.g. ISO 19115 metadata standards
- How is SMAP treating this? SMAP is a mission that has to use 19115 while it's a bit of a moving target. They are working towards a conceptual model whose representation will change over time.

Work Plan

- Refine new standards process model based on today's discussions
- Clean up existing web pages
  - Simplify and rationalize the pages that are outside the wiki.
  - Think about what the missions need to know, probably need to address the product level needs
  - Have to reconcile the Level 1 Requirements language with the info presented so that things make sense.

Research / Open questions

- How to steer people towards use of specs that are not yet fully stable or are not ready to be approved via SPG process? E.g. 19115, lineage. Overall concept entails meeting a conceptual model. ESDIS needs to tell people they should do this and how they can do it in a way that meets Level 1 Requirements
• Refine the Standards Development Process --> call it Specification Development Process
  • Deals with emerging new standards like OpenSearch
  • Add a Strategic Planning activity to the ESDIS Standards Office & document what that means (e.g. OGC participation)

Interested Members

• Peter Leonard
• Benjamin White