Standards and Protocols Working Group

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• Stds/QC from data acquisition through software development, products, data distribution and archive
• GEOSS architecture team influences existing efforts, eg., IOOS Data Management and Communications, for data management compliance
• Existing standards setting efforts need to be utilized to minimize duplication
  – Accommodate or adapt the ratified standards and standard setting bodies for national or international level operational activities
  – Data format conversion processes must be identified
• Need ease of use for input as well as extraction to encourage data providers to contribute data.
• End user must be factored in at the beginning
  – Tactical (imagery and Web) : real-time, accurate, accessible products require flexible, facile standards
  – Strategic (prognostic): global or national data products and services require ongoing standards process and consistency
• Roles and Responsibilities of Academia/Public/Private Sector vary depending on usage
Questions/Answers

Q: How should data and info from GEOSS be managed and disseminated?

A:

- Start with (inter)national initiatives that are considering scalable cyberinfrastructure.
- Address barriers to full and open data exchange
- Consider and promote common collaborative architectures, etc., but not particular standards
- Develop integrating elements such as portals, translators and middleware that utilize existing elements such as Global Change Master Directory, Geospatial OneStop
- Develop a common portal architecture to include all elements. Distribution is virtual
Questions/Answers

• Q: How do we minimize standards and protocols?
• A:
  – Build from existing groups and standards. Develop new material when no existing standard can be found
  – Consider data independently of today’s usage context so that standard is not over-constrained
Questions/Answers

• Q: How should standards be set and enforced?
• A:
  – Reward contributors to GEOSS data system
  – Develop and publish appropriate recognized standards that are recognized as high quality and appropriate to community
  – Utilize existing bodies such as FGDC
    • Workshops, best practices, consensus to develop candidate standards
  – Determine whether standard is appropriate to GEOSS (and associated other) architectures through technical team supporting Project Offices.
• Q: Who is responsible for quality and cal/val?
• A:
  – Initial calibration and data quality is the responsibility of those contributing data. However, subsequent “ingest” activities must have second order QA activity to flag gross errors and outliers. Iterate findings/fixes with providers.
  – Must include the data uncertainty with the data in order to convey risk
• Validation of data and metadata must be included
• Q: What role do scientific workflows have in GEOSS?
• A:
  – GEOSS should provide linkages to “toolkits” that allow users to operate on data
Questions/Answers

• Q: Security – what is required and how can adequate security be implemented?

• A:
  – Prevention of malicious attacks
  – Limiting access
  – Adopt industry-wide best practice solutions first in a phased approach, beginning with “open” data sources first
• GEOSS advocates for consistent standards that support ease of use and applicability
• GEOSS facilitates discussions among sectors to address roles and responsibilities, depending on particular applications
• GEOSS supports ongoing standards setting efforts within each community or discipline and facilitates (inter)national consensus building
• GEOSS supports quality control/assurance activities from data acquisition, through processing, to product, to archive
• GEOSS provides linkages to standards and toolkits that encourage data compliance and consistency of use across communities