

Charter of the ESE Standards Process Group (SPG)

Status of this Memo

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Abstract

This memo documents the composition, selection, roles, and organization of the ESE Standards Process Group (SPG).

Status of this Memo	1
Copyright Notice	1
Abstract	1
1. Introduction	2
2. The Goals of the SPG.....	2
3. The Players	3
3.1 Earth Science Enterprise Management	3
3.2 The Standards Process Group (SPG)	3
3.3 RFC Editor.....	3
3.4 Technical Working Groups (TWGs).....	3
3.5 Process Participants.....	3
3.6 Public.....	4
3.7 Stakeholders.....	4
4. SPG Membership.....	4
4.1 Selection of the SPG Members.....	4
4.2 Liaison Members.....	4
5. The Role of the SPG	4
6. SPG Organization	5
6.1 SPG Chair	5
6.2 Delegation of Technical Areas	5
6.3 Decision Making.....	6

6.4 Openness and Confidentiality.....	6
Contributors (The SEEDS Standards Process Study Team).....	6
References.....	7
Appendix A Glossary of Acronyms.....	7

1. Introduction

Future ESE data systems will consist of a heterogeneous mix of interdependent components derived from the contributions of numerous individuals and institutions. Participants from these widely varying organizations will be responsible for data management functions including data acquisition and synthesis; access to data and services; and data stewardship.

“An important premise underlying the operation [of the ESE network of data systems and services] is that its various parts should have considerable freedom in the ways in which they implement their functions and capabilities. Implementation will not be centrally developed, nor will the pieces developed be centrally managed. However, every part [of the ESE network] should be configured in such a way that data and information can be readily transferred to any other. This will be achieved primarily through the adoption of common standards and practices [SEEDS Pre-formulation Document, Reference #1].”

The SPG is charged with running the ESE’s standards process. The process is inspired by the open review and emphasis on implementation modeled in the IETF’s standards process. ESE requirements for timeliness and accountability have been incorporated into a tailored process that emphasizes adoption of standards that work. Proposals for standards will be developed by ESE stakeholders and codified in a “Request for Comments” (RFC). The SPG will facilitate the gathering of comments in a three-stage review. First, is review for relevance to the ESE, second is review of implementation, and third is review of operational experience. Only when a proposed standard is relevant to ESE data systems, has been shown to have at least two working implementations, and significant operational experience has been gained will the standard become a fully qualified ESE standard. The process recognizes proposed and draft phases for a standard, and also separate scope for “core” and “community” standards.

The process for getting an RFC published as an ESE standard is detailed in RFC 002, “The ESE Standards Process” [2]. Information about the preparation of RFCs and policies relating to the publication of RFCs are described in RFC 003 “Instruction to RFC Authors” [3].

2. The Goals of the SPG

The charter of the Standards Process Group (SPG) is to advance the productive use of data systems standards within the ESE. Through management of the ESE’s standards process, the group will direct the adoption of data systems standards relevant to data stewardship, the interoperation of ESE data systems and to the interoperation of ESE data systems with ESE’s partners, suppliers, and customers consistent with Enterprise goals.

The goals of the SPG are:

1. Enable data and service providers to easily join the ESE network of data systems through use of standards.
2. Facilitate interoperability between components of the ESE network of data systems through use of standards.
3. Facilitate data stewardship and preservation through use of standards.
4. Develop and manage effective standards recommendation, adoption, and approval processes to guide the evolution of ESE standards.
5. Support the evolving strategies and goals of the Earth Science Enterprise through use of standards.

3. The Players

The players involved in the process include the following:

3.1 Earth Science Enterprise Management

The role of ESE management in the process is to perform such financial, legal and logistical tasks as necessary and to act on recommendations from the SPG as appropriate.

3.2 The Standards Process Group (SPG)

The Standards Process Group (SPG) is the decision-recommending board of the process. SPG decisions have force only with ESE management concurrence. The membership of the SPG and their roles are detailed in Sections 4 and 5.

3.3 RFC Editor

The primary process documents are called Request For Comments (RFCs). The RFC editor is responsible for logistical coordination of RFCs including assuring that RFC submittals follow established standards for content coverage and format and that the RFC library is maintained and is accessible. The editor will work with submitters to advise on content and format, but the ultimate responsibility for providing a sufficient RFC in acceptable format rests with the author(s) of the RFC.

3.4 Technical Working Groups (TWGs)

Technical Working Groups (TWGs) are commissioned by the SPG to perform specific review and evaluation of candidate standards, related implementations, and operational experience. Membership on a TWG is partially drawn from the SPG membership and partly drawn from technical area experts and/or ESE community members. The duration of a TWG corresponds to the review schedule set by the SPG for a particular candidate standard.

3.5 Process Participants

Process participants are individuals, but they may often act as representatives of stakeholder programs, projects, tasks, or communities affected by standards under consideration. There is no restriction on who may be a Process participant, but direct stakeholders funded by the ESE necessarily dominate the process of adopting standards for the Enterprise.

The public includes all process participants, all ESE stakeholders, and all those who are generally understood to be the “public”. Any person may make comment on RFCs under consideration. Specific procedures to ensure fair and appropriate public comment will be developed by the SPG.

3.7 Stakeholders

Stakeholders are those who are materially affected by the work of the SPG. The SPG has a direct interest in stakeholders because the success of standards recommended by the SPG is ultimately determined by the use of those standards by programs, projects, tasks, or other activities directed by or performed by SPG Stakeholders.

4. SPG Membership

The SPG shall be composed of full time staff and part time permanent members from ESE stakeholder activities within the ESE. These stakeholders include: ESE Management, ESE mission projects, ESE data systems awardees (e.g., REASoN CAN), ESE science data providers, and other projects, programs, tasks, activities or organizations identified by the ESE. .

4.1 Selection of the SPG Members

The SPG members are nominated by ESE stakeholder organizations and appointed by ESE Management.

4.2 Liaison Members

Other agencies (e.g., USGS, NOAA, etc), industry, or other ESE working groups (e.g., the Reuse Working Group, the Life Cycle Working Group) may appoint liaison members to the SPG.

Liaison members participate in SPG discussions as appropriate to their roles and as designated by the SPG.

Vacancies in the liaison positions do not affect the SPG power to make decisions.

5. The Role of the SPG

The responsibilities of the SPG include:

1. Manage and coordinate activities in the adoption and approval of ESE standards.
2. Identify the interfaces or capabilities that need to be standardized across the ESE data systems.
3. Examine ESE requirements from NASA HQ, the different mission systems, science and application communities, and external organizations; perform a ground up analyses of different capabilities of existing ESE data systems.

4. Coordinate public reviews and evaluations of various candidate standards and their implementations.
5. Form and task TWGs to evaluate candidate standards.
6. Monitor TWGs' activities.
7. Make decisions related to the disposition of standards track RFCs and technical notes in the approval process.
8. Advise ESE management of resources needed to adopt and implement standards or to provide technical support for approved standards.
9. Focus on adopting standards implementations that are relevant to the ESE network of data systems and that have mature implementations and operational experience.
10. When no mature candidate standard for a defined need can be identified, advise ESE management of need for development.
11. Coordinate document management for all standards track standards and technical notes that come before the SPG.
12. Publicize ESE standards within ESE communities, industry, and external organizations.
13. Participate in national and international data systems standards organizations.
14. Coordinate related activities to facilitate the use of standards across ESE data systems, data providers, and data users.
15. Periodically review and evaluate the process as it pertains to meeting the ESE mission and where appropriate, modify the process.
16. Coordinate with other ESE working groups as identified, such as the Reuse, the Level of Services, and the Life Cycle Working Groups discussions as a liaison member.

6. SPG Organization

6.1 SPG Chair

The chair of the SPG is appointed by ESE management. The chair shall have authority to manage the activities and meetings of the SPG.

6.2 Delegation of Technical Areas

The chair of the SPG shall have authority to delegate responsibility of technical areas to its members. SPG members responsible for the technical areas shall provide leadership on forming and tasking TWGs to evaluate RFCs in the technical areas. Possible technical areas might include:

- The SPG Engineering Team

The SPG Engineering Team would be composed of systems engineers from the ESE data systems community (e.g. DAAC systems engineer, mission systems engineer, measurement systems engineer, etc.). The SPG engineering team would identify the interfaces or capabilities that need to be standardized

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Charter of ESE SPG

across the ESE data systems. The team would examine ESE requirements from NASA Headquarters, the different mission systems, science and application communities, external organizations, as well as perform a ground up analyses of different capabilities of existing ESE data systems.

6.3 Decision Making

The SPG attempts to reach all decisions unanimously. If unanimity cannot be achieved, the chair may determine rough consensus by informal polls or other means. SPG recommendations do not use formal or recorded voting.

The SPG makes all the decisions related to the advancement of the RFCs along the standards track. The SPG may approve or disapprove TWGs' recommendations. The SPG will consider public comments, technical factors, and ESE programmatic concerns in making decisions.

The SPG may reach decisions by face-to-face meeting, teleconference, Internet communication, or any combination of the above.

6.4 Openness and Confidentiality

The SPG publishes minutes of all its meetings and all its findings regarding to RFCs on the SPG website. However, discussion of personnel matters and legal and financial matters may be kept confidential, and the chair may, with the consent of the members, exclude liaison members from such discussions.

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References

- [1] NASA Earth System and Applications Advisory Committee, "NewDISS: A 6- to 10-year Approaches to Data Systems and Services for NASA's Earth Science Enterprise," February 2001, NASA document, unpublished, available from <http://eos.nasa.gov/seeds/>.
- [2] ESE-RFC 002, The ESE Standards Process, November 2003
- [3] ESE-RFC 003, Instructions to RFC Authors, November 2003

Appendix A Glossary of Acronyms

DAAC	Distributed Active Archive Center
CAN	Cooperative Agreement Notice
ESE	Earth Science Enterprise
NASA	National Aeronautics and Space Administration.
NOAA	National Oceanic and Atmospheric Administration
REASoN	Earth Science Research, Education, and Applications Solutions Network
RFC	Request For Comment.
SEEDS	Strategy for the Evolution of ESE Data Systems SEEDS is the name given to the study that produced the initial concept for the ESE standards process. See http://eos.nasa.gov/seeds
SPG	Standards Process Group
TWG	Technical Working Group
USGS	United States Geological Services