

Federation of Earth Science Information Partners Partnership Application

Please complete all sections to the fullest extent possible and forward completed application to: Carol Meyer, carol.meyer@earthsciencefoundation.org. If you have any questions, please contact her at 877.870.3747.

I. CONTACT INFORMATION

A. Primary Contact/Principal Investigator

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B. Designated Assembly Representative (could be same as above)

Name: Same as above

Address:

Phone:

Fax:

Email:

C. Other Contacts

Name:

Address:

Phone:

Fax:

Email:

Name:

Address:

Phone:

Fax:

Email:

Name:

Address:

Phone:

Fax:

Email:

II. ABOUT YOUR ORGANIZATION

A. ORGANIZATION/DIVISION/PROJECT NAME:

Organization

NCAR – National Center for Atmospheric Research

ESSL – Earth Sun System Lab

HAO – High Altitude Observatory

Projects:

SESDI – Semantically Enabled Science Data Integration (primary)

VSTO – Virtual Solar-Terrestrial Observatory (primary)

Other projects related to data integration, knowledge extraction and sensor web

B. OVERVIEW OF YOUR PRIMARY ACTIVITIES (250 words or less)

The overall goal of our projects and activities is to integrate a balance of data/model holdings, portals and client software, and a semantically rich, ontology-enabled framework that provides an environment that researchers can use without undue effort as if all the materials were available on their local computers. Our work includes the conception, design, development and deployment of production data frameworks built on semantic web technologies and methodologies. We focus on user-centric data search, query, access and use with the goal of enabling data integration virtual data product generation, data fusion, analysis and visualization. In conjunction with our collaborators, we develop and deploy inter-disciplinary Virtual Observatories. We also develop and deploy high performance data access and transport mechanisms (OPeNDAP). We actively participate in community outreach activities, working groups and international professional associations, and standards organizations.

C. Please list and briefly describe the primary product(s) or service(s) that your organization provides (will provide) to the community.

Products:

Access and use of diverse data in solar, solar-terrestrial and space-physics to a broad national and international community which includes university researchers and students, agencies and government entities. Integration of data sources across disciplinary boundaries, e.g. volcanoes, climate and solar irradiance. Virtual data products from these data sources.

Services:

OPeNDAP data services, including high performance transfer, security, file-out and aggregation.

Web service interface to VSTO semantic data framework – access to query, data retrieval and visualization services.

D. Please give a main website address for the proposed Partnership:

Web Address: <http://sesdi.hao.ucar.edu/> and <http://vsto.hao.ucar.edu>

III. HOW YOUR ORGANIZATION WILL BENEFIT FROM/CONTRIBUTE TO THE EARTH SCIENCE INFORMATION PARTNERS (ESIP) FEDERATION

- A. Describe current or anticipated users of your products and services and how you think the Federation can help you better serve this population. (200 words or less)

Aeronomy – CEDAR database: over 600 users
Solar physics – images of the solar atmosphere: over 100 users.
Interdisciplinary: initially the research community - dozens

Role of ESIP – to broaden the audience for interdisciplinary and virtual datasets and prompt use in areas not traditionally served
- to provide an audience for transfer of technologies we develop and deploy into new discipline areas.

- B. Describe any Earth science technologies that you have developed and are willing to bring to the Federation's efforts to provide best-practices. (200 words or less)

Semantic Web: use of ontologies, reasoning and semantically mediated services, smart search, etc.
Virtual Observatories: provision of a virtualized point of presence (portals, services, application) to a variety of data sources and networked services (analysis and visualization)
Data-integration: development of semantically mediated interfaces for integrating data across (and even within) discipline boundaries.
OPeNDAP server and client enhancements
Use case driven design and development.

- C. Describe how your proposed membership would contribute to the efforts and the mission of one or more standing committees, working groups and/or clusters. See Page 3 for descriptions of the different activities of the various standing committees, working groups, and clusters. (200 words or less)

Directly to new Semantic Web Cluster activity and to existing Application Cluster activities (Air Quality, Water) to investigate use of semantic web and virtual observatory concepts and technologies.

- D. Describe your own use of Earth science information and data and how you would see this use enhanced by your partnership in the Federation. (200 words or less)

We currently utilize a variety of atmospheric and solar datasets in our data integration work within SESDI. This use is likely to expand as we learn about new data sources from Federation members. In turn we would expect to contribute/serve new datasets to Federation partners.

IV. YOUR CHOICE OF MEMBERSHIP TYPE. PLEASE PICK ONE.

ESIP-I (primarily a data archive center)

ESIP-II (primarily a research center)

ESIP-III (primarily applications and education)

ESIP-IV (primarily a sponsoring member)



V. Any other comments about your proposed membership and its relation to the Federation that you wish to provide.

I'd be happy to provide additional materials (presentations, posters, papers) that describe the projects in more

detail.

Thank you for your application for partnership in the ESIP Federation.

List of Federation Committees and Clusters

Administrative Committees

Executive Committee: Comprised of all standing and administrative committee chairs, ESIP Type Representatives, the President and Vice President of the Federation. Oversight body for most day-to-day activities of the Federation, acts on behalf of the Assembly between meetings.

Constitution and Bylaws: Provides counsel on matters related to the constitution and bylaws and other related issues (e.g. amendments to government documents)

Finance and Appropriations: Oversees financial resources of the Federation, including the annual budgeting process.

Partnership: Reviews and processes all applications for membership before making applications available for review by members of the Federation. Deals with other membership-related issues.

Standing Committees:

Commercial Development: Promotes a forum wherein commercial development of Earth science information can be fostered.

Community Engagement: Provides a forum for the Federation to promote partner products and to engage new users for data products and services.

Education: Provides a forum to make accessible to educators and learners at all levels in both formal and informal educational contexts the Earth science data, information, tools, and curricula available within the ESIP Federation.

Information Technology and Interoperability: Provides a forum for discussing information technology and interoperability issues of the Earth science community and serves as a central point for activities in this realm.

Products and Services: Provides a forum for defining best practices and defining requirements for earth science products and services. Currently is involved in developing an inventory of partner products and services.

Clusters (presently active, April 2005):

GIS

Intelligent Systems

Air Quality