

Overview

The United States of America (US) has an interagency committee called the Federal Geographic Data Committee (FGDC) <http://www.fgdc.gov> that promotes the coordinated development, use, sharing, and dissemination of geospatial data on a national basis. The FGDC, established in 1990, is a 19 member interagency committee composed of representatives from the Executive Office of the President, and Cabinet level and independent Federal agencies. The Deputy Secretary of the Department of the Interior chairs the FGDC, with the Deputy Director for Management, Office of Management and Budget (OMB) as Vice-Chair. Numerous stakeholder organizations participate in FGDC activities representing the interests of state and local government, industry, and professional organizations. The United States Office of Management and Budget and the United States Congress set policy for Federal agencies. The FGDC is guided by those policies in the design of programs, activities and technologies. The FGDC sets geospatial information policy in harmony with overall information policy.

There is a nationwide data publishing effort known as the National Spatial Data Infrastructure (NSDI) <http://www.fgdc.gov/nsdi/nsdi.html>. The NSDI is a means to assemble geographic data nationwide to serve a variety of users. Geospatial Information Systems (GIS) applications of many different disciplines have a recurring need for a few core themes of data. This framework is a collaborative community-based effort in which these commonly needed data themes are developed, maintained, and integrated by public and private organizations within a geographic area. The framework is one of the key building blocks and forms the data backbone of the NSDI. The framework concept was developed by representatives of county, regional, state, federal, and other organizations under the auspices of the FGDC. Local, regional, state and federal government organizations and private companies see the framework as a way to share resources, improve communications, and increase efficiency.

Framework has three aspects: data, procedures and technology for building and using the data, and institutional relationships and business practices that support the environment. It is designed to facilitate production and use of geographic data to reduce costs and improve service and decision making.

Geographic data users from many disciplines have a recurring need for a few themes of basic data: geodetic control, orthoimagery, elevation, transportation, hydrography, governmental units, and cadastral information. Many organizations produce and use such data every day. The framework provides basic core information for these data themes.

By attaching their own geographic data — which can cover numerous subjects and themes — to the common data in the framework, users can build their applications more easily and at less cost. The seven framework data layers provide basic data that can be used in applications, a base to which users can add or attach geographic details and attributes, a reference source for accurately registering and compiling participant's own data sets, and a reference map for displaying the locations and the results of an analysis of other data.

The framework is a growing data resource to which geographic data producers can contribute. It will continually evolve and improve.

The framework also includes procedures, guidelines, standards, and technology to enable participants to build, integrate, maintain, distribute, and use framework data. These elements ensure that users can depend on accurate, detailed data that can be certified and integrated into the framework to create a trustworthy data source. Users also can update their data holdings from the framework data and they can attach additional information to the framework.

Finally, the framework features institutional relationships and business practices that ensure that framework data are created, maintained, and distributed for all geographic areas and that widespread use is encouraged. The framework integrates data from all types of organizations in all sectors, promotes partnerships for data creation and maintenance, and provides unrestricted access to data. The framework environment is designed to be responsive to the needs of the geographic data community.

Geospatial Platform

The partner agencies of the FGDC advanced the conceptualization and began implementation of the first operational phase of the Geospatial Platform initiative. The Geospatial Platform website is <http://www.geoplatform.gov>. The Geospatial Platform was described in the President's fiscal year 2011 budget as "an accessible, reliable, and cost-effective collection of data, applications, and services that will provide a foundation to help address the Administration's priorities for data sharing, transparency, and collaboration." The Platform is a managed portfolio of common geospatial data, services, and applications contributed to and administered by authoritative sources and hosted on a distributed, cloud-based infrastructure. The Geospatial Platform is used by government agencies and partners to meet their mission needs and the broader needs of the Nation.

Standards

The FGDC is a member of external standards organizations and participates in the development of international standards. The FGDC adopted 64 external standards (<http://www.fgdc.gov/standards/fgdc-endorsed-external-standards/index.html>), including many from the International Organization of Standardisation (ISO), and the Open Geospatial Consortium (OGC), in addition to nationally developed FGDC standards (http://www.fgdc.gov/standards/standards_publications/). Other standards activities include coordinating standardization activities with the Department of Defense.

Geospatial Line of Business

The Geospatial Line of Business aims to further refine the opportunities for optimizing and consolidating Federal geospatial-related investments to reduce the cost of government and, at the same time, improve services to citizens. The Geospatial Line of Business obtained the Office of Management and Budget (OMB) endorsement for the OMB Circular A-16 Supplemental Guidance, which includes processes, roles, and responsibilities for managing National Geospatial Data Assets datasets and themes. Cross-agency coordination of geospatial activities can identify, consolidate, and reduce or eliminate redundant geospatial investments. The Geospatial Line of Business results in a more coordinated approach to producing, maintaining, and using geospatial data, and will ensure sustainable participation from Federal partners to establish a collaborative model for geospatial-related activities and investments.

Portfolio Management

The FGDC provides support for key White House initiatives by working with the Office of Management and Budget (OMB) to develop new Supplemental Guidance to OMB Circular A-16, "Coordination of Geographic Information and Related Spatial Data Activities." The new guidance outlines the process to use portfolio management approaches to more effectively manage Federal geospatial assets and investments. The Geospatial Line of Business is moving towards portfolio management through the development of an implementation strategy and agency implementation plan templates. A current inventory of National Geospatial Data Assets (NGDA) is near completion with each dataset being mapped to the appropriate data theme. The NGDA portfolio is envisioned as a group of NGDA themes, each of which is comprised of related NGDA datasets selected from a much larger and continually changing universe of geospatial datasets. There are many federal geospatial datasets that, to varying degrees, are useful to federal agencies, their business partners, stakeholders, and the public. Only a select subset of these will rise to the significance required for NGDA dataset designation as recommended by the relevant NGDA theme lead, concurred on by the FGDC Coordination Group, and designated by the FGDC Steering Committee. The number of NGDA themes in the NGDA portfolio should remain relatively stable once defined, but the number and character of the NGDA datasets comprising each NGDA theme may change over time in response to geospatial and other business drivers.

A NGDA theme is an organizational construct under which multiple related NGDA datasets are logically grouped and managed as a unit. The NSDI geospatial data theme principles summarized below and described in more detail in Reference Document: Process for adjusting OMB Circular A-16 Appendix E: NSDI Geospatial Data

Theme Principles

Principle 1: Themes are logical groupings of related national capital assets serving the needs of citizens, readily discoverable, and accessible to anyone.

Principle 2: Themes are national in scope and are created and managed in response to well-defined spatial data requirements that are common across multiple Federal agencies and other organizations.

Principle 3: Themes reflect legislated mandates, clearly defined directives, or core spatial reference datasets.

Principle 4: Themes promote cohesive and collaborative development, maintenance, and evolution of multiple related datasets across federal, state, tribal, and local governments and the private or nonprofit sectors.

Principle 5: Themes focus on the spatial representation of natural and man-made assets that are important to the Nation, including boundaries (jurisdictional, legal, and analytical). The FGDC community will use these principles to establish, modify, and maintain the list of NGDA themes that comprise the NGDA portfolio.

National Geospatial Data Assets

Geospatial datasets will be routinely inventoried and recommended for inclusion in the NGDA portfolio when merited. The inventory process is considered a collaborative responsibility of

NGDA theme leads and thematic committees. For approval by the FGDC Steering Committee as an NGDA Dataset, a geospatial dataset must meet at least one of the following criteria:

- Used by multiple agencies or with agency partners such as state, tribal and local governments;
- Applied to achieve Presidential priorities as expressed by OMB;
- Required to meet shared mission goals of multiple federal agencies; or
- Expressly required by statutory mandate.
- Consistent – supported by defined schema, standards and understood content definitions

The portfolio management approach includes both a multi-year dimension premised on continual improvements and annual reporting on implementation progress. NGDA datasets are essential to support agency mission and program needs, satisfy a multi-agency or stakeholder requirement and in simple words meet business-driven requirements. NGDA portfolio management consists of the inventory, selection, organization, management, evaluation, monitoring, and setting of federal geospatial dataset priorities to ensure that NGDA datasets are available to support the mission needs of the federal government and its partners, as determined by federal agencies and their partners and as recommended to OMB.

Geospatial Platform

The “Modernization Roadmap for the Geospatial Platform” document, completed in March 2011, provides a framework to describe how the concepts and goals of the Geospatial Platform were developed and released. This “Roadmap” concludes the upfront planning process for the Geospatial Platform and paves the way for implementation activities. The redesigned Geospatial Platform website (www.geoplatform.gov) was released. The Platform is a managed portfolio of common geospatial data, services, and applications contributed to and administered by authoritative sources and hosted on a distributed, cloud-based infrastructure. The Geospatial Platform is used by government agencies and partners to meet their mission needs and the broader needs of the Nation.

Geospatial One-Stop and the Clearinghouse Network

In fiscal year 2011, the Geospatial One-Stop (GOS) project continued to focus on integrating its geospatial data with Data.gov. Connectivity between GOS and Data.gov takes place using GOS Web service capabilities that enable searches for geospatial data through applications beyond the GOS portal. During fiscal year 2011, the GOS data collection grew to over 678,000 records, of which over 391,000 are shared through *Data.gov*. The GOS to Data.gov integration is complete and can be accessed at: www.geo.data.gov.

National Geospatial Advisory Committee

The National Geospatial Advisory Committee (NGAC) (<http://www.fgdc.gov/ngac>) was established by the Department of the Interior to provide external advice and recommendations to the FGDC. During the past year, the NGAC has analyzed and provided feedback and recommendations on the Geospatial Platform Initiative, The National Map, geolocation privacy, the National Land Imaging Program, Transportation for the Nation, and the

Federal Aviation Administration's laser pointer issue which did not take LiDAR into account in draft legislation. The NGAC also issued white papers on local government Geographic Information System best practices and best practices for interagency data sharing.

Geospatial Metadata

The FGDC led a community effort to generate and compile input to the "ISO 19115: Geographic Information – Metadata" five-year review. The information collected from the community provided critical insight into issues experienced when applying the standard to real world geospatial data and operations.

Fifty States Initiative

Forty-eight of fifty states that were funded by the FGDC Cooperative Agreement Program Grants completed or began implementing strategic and (or) business plans that facilitate the coordination of geospatial programs, policies, technologies, and resources in their states and with the federal government.

NSDI Training Program

The FGDC partnered with all sectors of government, academia, tribal nations, and the private sector to provide National Spatial Data Infrastructure (NSDI) related training. Cooperative agreements, memorandums of understanding, contracts, and cost sharing were utilized to design and lead workshops, develop training materials for the classroom and the Web, and support travel and logistics. In most cases, Federal agencies, including the National Oceanic and Atmospheric Administration and the U.S. Geological Survey, provided trainers and training materials; state and local governments and U.S. Geological Survey Geospatial Liaisons provided logistical support; and private-sector companies sometimes contributed facilities and supplies. By sharing resources, these organizations were able to collectively address the NSDI training needs of their communities.