Future Directions

The Fifty States Initiative outlines a fundamental change in the way all government will work together in the future to build the National Spatial Data Infrastructure (NSDI). Instead of the current “build it and they will come” philosophy that relies on random grants and partnerships, a new program emphasizing strategic and business planning with specifically targeted implementation grants, performance measures and incentives will be employed.

This initiative is one of twelve planning activities that are either complete or “in development” as a result of the Future Directions strategic planning process being used by the Federal Geographic Data Committee (FGDC). For further details on all activities, see their webpage at:

http://www.fgdc.gov

The Fifty States Initiative Action Plan was approved for implementation by the Board of Directors of the National States Geographic Information Council (NSGIC) in December 2004, and by the FGDC Coordination Workgroup in February 2005. It identifies the criteria, characteristics and activities that will identify effective coordination councils in the future. In addition, it lays out several implementation steps that the Federal government and other entities need to undertake to establish more formal statewide coordination councils that will take an active roll in completing the NSDI. In this document, the term “statewide” applies to the District of Columbia, Puerto Rico and the Insular Areas.

NSGIC’s Coordination Criteria

NSGIC published the following nine criteria that its members believe are essential for effective statewide coordination of geospatial information technologies.

1. A full-time, paid coordinator position is designated and has the authority to implement the state’s business and strategic plans.

Explanation: Many states have created one or more full time positions to oversee coordination of geospatial technologies. These individuals are responsible for implementing the state’s business plan and are typically assigned to the Governor’s Office, Chief Information Officer, Budget Department, or the Technology Office. In some states, these duties fall on a volunteer and in others, no one is willing to assume this role. Having a full-time paid individual is advantageous and a significant portion of their energy is channeled into ongoing statewide coordination council activities.

2. A clearly defined authority exists for statewide coordination of geospatial information technologies and data production.

Explanation: A responsible individual or group has been designated in many states through executive orders, budget authorizations, or legislation. These individuals, or groups, are usually better

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Coordination Criteria (continued)

able to deal with difficult coordination issues since they are empowered to perform this function. In some cases, “all volunteer” efforts are very effective at coordinating statewide activities through consensus building. These groups are often recognized as a “clearly defined authority” although they have no specific powers.

3. The statewide coordination office has a formal relationship with the state’s Chief Information Officer (or similar office).

Explanation: Geospatial technologies are clearly a component of any state’s information technology architecture, but they are not always viewed as such by “old school” IT leaders. A close relationship with the state CIO is essential to move major geospatial technology initiatives forward.

4. A champion (politician or executive decision-maker) is aware and involved in the process of coordination.

Explanation: A visionary political champion who understands geospatial technologies is a valuable ally that can help obtain recognition and funding to support new initiatives. Without a strong political champion, new initiatives often fail.

5. Responsibilities for developing the National Spatial Data Infrastructure and a State Clearinghouse are assigned.

Explanation: The responsibility for the component pieces of the NSDI should be assigned to appropriate staff and agencies to ensure that stewards are identified, and to prevent duplication of effort. Assignment of responsibilities should happen in advance of actual need, to ensure that the appropriate activities are planned for and incorporated into the state’s business plan.

6. The ability exists to work and coordinate with local governments, academia, and the private sector.

Explanation: Each state must have the capability to routinely meet and coordinate with all other sectors. Safeguards should be developed to ensure that the needs of other sectors can be incorporated through consensus building activities.

7. Sustainable funding sources exist to meet projected needs.

Explanation: Sustainable funding is the foundation of effective partnerships. Data production tends to be the highest component cost for implementation of geospatial technologies and most users have requirements for continuous updating of data layers that need reliable fund sources. Effective consortia can only be established when each of the players brings something to the partnership. Non-lapsing funds also help to stabilize partnerships.

8. Coordinators have the authority to enter into contracts and become capable of receiving and expending funds.

Explanation: To be effective, individual state GIS coordinators or the agencies identified as the stewards for the component pieces of the NSDI must be able to readily contract for software, systems integration, training, and data production costs. Often partnerships can be “brokered” to capture end-of-year funds when contracting mechanisms are already in place.

9. The Federal government works through the statewide coordinating authority.

Explanation: It is essential that Federal agencies use statewide GIS Coordination offices and councils as a type of “clearinghouse” to make sure that grant opportunities are being used wisely to implement the business plans of the states. Going through the coordination offices and councils will also help to minimize duplications of effort.

What is the National Spatial Data Infrastructure?

Presidential Executive Order 12906 defines the NSDI as “the technology, policies, standards, and human resources necessary to acquire, process, store, distribute, and improve utilization of geospatial data.” As detailed in Office of Management and Budget (OMB) Circular A-16, the NSDI “assures that spatial data from multiple sources (federal, state, local, and tribal governments, academia, and the private sector) are available and easily integrated to enhance the understanding of our physical and cultural world.” The Federal Geographic Data Committee (FGDC) is designated as the coordinating entity responsible for developing and implementing national strategies to advance the goals of the NSDI.

You can find the full text of the Executive Order at: http://www.whitehouse.gov/omb/circulars/a016/a016_rev.html
Characteristics of Effective Statewide Coordination Councils

In addition to identifying the NSGIC Coordination Criteria, the Fifty States Initiative Action Plan requires that a more consistent system of statewide councils (or “authorities”) be established that incorporate the following characteristics:

1. Provide a mechanism for broad representation and inclusion in decision-making of user communities, including Federal, state, county, municipal and tribal governments; private sector GIS users and vendors; academic sector; non-profit organizations; utilities; and the general public.

2. A Strategic Plan that incorporates a vision statement, with appropriate goals and objectives related to implementing the NSDI.

3. A Business and Marketing Plan that details the development of a geospatial technology infrastructure (including data) to mirror the definition of the NSDI (see bottom of page 2).

4. Formal authorization establishing the council along with appropriate bylaws.

5. A relationship and linkage with the nine coordination criteria (see bottom of page 1) to feed consensus based decision-making into official statewide initiatives.

6. Funding and support to enable the operation.

7. A commitment to implementing the appropriate OGC, FGDC, ANSI and ISO standards.

A note about funding: The Fifty States Initiative Action Plan stresses the wise use of existing funding mechanisms. In particular, the allocation of Federal grants for development of geographic data, or research and implementation of geographic information technologies should only be awarded to states that conform to the guidelines in the Action Plan. States will have to support the minimal criteria, characteristics and activities identified in the Action Plan. To do this, states will be required to fund at least one full-time coordinator and the operating costs associated with effective coordination councils.

Measuring Successful Implementation

The Action Plan identifies the following list of activities that can be used to measure the successful implementation of the NSDI by statewide coordination councils/authorities.

1. Local, state, tribal and federal agencies have data sharing agreements in place unless they routinely provide data in the public domain.

2. A published list of local, state, tribal and federal data stewards and integrators for each of the framework layers is available.

3. Local, state and tribal framework data are being posted to the statewide clearinghouse or otherwise being made available through OGC interfaces.

4. Local, state and tribal data producers create metadata for data holdings and post it to the Geospatial OneStop (GOS) Portal.

5. A functioning clearinghouse or appropriate inventory tool is available to all interested sectors in a state.


7. Local, state and tribal agencies adopt and incorporate OGC, FGDC, ANSI and ISO standards as appropriate.

Why Implement this Plan?

NSGIC estimates that the geographic data required by state, local, regional, tribal and federal governments will cost in excess of $6.6 billion, not including maintenance costs. There are over 18,000 municipal governments, 3,141 county governments, unknown numbers of regional organizations, and over 327 tribal governments that are all creating geographic data in addition to the states and Federal government.

Coordination efforts need dramatic improvement. Otherwise, these organizations will continue creating the same data on a frequent basis. By some estimates, there may be as much as 50% waste. We simply can't tolerate this situation, and it's time for all levels of government to work together to stop the waste. Planned solutions include a series of well thought out performance measures, incentives and rewards.
ABOUT NSGIC — The National States Geographic Information Council (NSGIC) is an organization of States committed to efficient and effective government through the prudent adoption of geospatial information technologies. Members of NSGIC include delegations of state GIS coordinators and senior state GIS managers from across the United States. Other members include representatives from Federal agencies, local government, the private sector, academia and other professional organizations. A rich and diverse group, the NSGIC membership includes nationally and internationally recognized experts in GIS, geospatial data production and management, and information technology policy.

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Implementing the Vision

Many Federal geospatial mapping programs and grants are designed for quick success by “picking the low hanging fruit.” However, a viable NSDI can only be constructed on a solid foundation. Long-term strategies must be put in place to promote incremental development of the NSDI using available Federal resources to assist all levels of government. The Fifty States Initiative Action Plan recommends that Federal agencies establish assistance programs to meet targeted state and local needs. As a starting point, The National Map Partnership Project (http://geography.usgs.gov/nsgic-naco-usgs/partnership/) has collected information on impediments and incentives reported by the states regarding participation in The National Map. Those factors can logically be extrapolated to the entire NSDI. The FGDC needs to coordinate the grant programs of its member Federal agencies to target assistance programs that are appropriate for each state-wide coordination council.

The Action Plan recommends the following list of outreach activities by the FGDC & NSGIC as they work with national associations such as the National Governor’s Association.

1. Representatives of the these organizations should meet at least once per year to strategize on the “Fifty States Initiative.” (Suggest the NSGIC mid-year meeting as the appropriate venue.)

2. Representatives of these organizations should be made available for “cross fertilization” by giving presentations at conferences and business meetings.

3. Federal grant announcements should be conditioned on participation in the “Fifty States Initiative.” Reminder letters emphasizing that grant activities require adherence to these characteristics should be routinely sent by granting agencies. In addition, Federal agencies should require a letter of support from state coordination councils for all grants involving geospatial information technologies or development of the NSDI, other than research activities.

4. NSGIC and appropriate Federal agencies will actively engage and send letters of support to these organizations to invoke actions by their respective memberships such as the issuance of resolutions.

5. Letters offering support from “targeted” Federal agencies (e.g. DHS, EPA and Interior) and NSGIC should be sent to each Governor and CIO requesting full participation in the “Fifty States Initiative.”

6. The FGDC should replace previous cooperating partner agreements using new agreements with states that are conforming to the Fifty States Initiative.

7. New cooperating partners should be invited to regular meetings to help implement the new governance structure of the NSDI.

8. NSGIC and the FGDC should advocate that the “Fifty States Initiative” activities be included in the Digital States Survey conducted by the Center for Digital Government.