

# NSDI STRATEGIC VISIONING WORKSHOP – MEETING NOTES

March 5, 2013

**Welcoming Remarks & Introductions:** Ivan DeLoatch & Dan Cotter

**Participants:**

Name	Organization
Stephen Lowe	U.S. Department of Agriculture
Carl Zulick	U.S. Department of Agriculture - Forest Service
Tony LaVoi	Department of Commerce - National Oceanic and Atmospheric Administration
Ashley Chappell	Department of Commerce - National Oceanic and Atmospheric Administration
Tim Trainor	Department of Commerce - Census Bureau
Kaile Bower	Department of Commerce - Census Bureau
Bill Mullen	Department of Defense - National Geospatial-Intelligence Agency
Jim Bjostad	Department of Defense - National Geospatial-Intelligence Agency
Nancy Blyler	U.S. Army Corps of Engineers
Tai Phan	Department of Education
Keith Tucker	Department of Health and Human Services
Robert Shankman	Department of Health and Human Services
Kirk Greenway	Department of Health and Human Services - Indian Health Service
Dan Cotter	Department of Homeland Security
Lew Summers	Department of Homeland Security
Eric Berman	Department of Homeland Security - FEMA
Peter Noy	Department of Homeland Security - USCG
Jerry Johnston	Department of Interior
Larry Sugarbaker	Department of Interior - USGS
Don Buhler	Department of Interior - Bureau of Land Management
Beth Wenstrom	Department of Interior - Bureau of Land Management
Ron Salz	Department of Interior - Fish and Wildlife Service
Bill Wilen	Department of Interior - Fish and Wildlife Service
Steve Lewis	Department of Transportation
David Winter	Department of Transportation
Rolf Schmitt	Department of Transportation
Wendy Blake-Coleman	Environmental Protection Agency
Michael Byrne	Federal Communications Commission
John Sullivan	General Services Administration
Autumn Wallin	General Services Administration
Jacqueline Nolan	Library of Congress
Colleen Cahill	Library of Congress
Adrian Gardner	National Aeronautics and Space Administration
Ivan DeLoatch	Federal Geographic Data Committee
John Mahoney	Federal Geographic Data Committee
Ken Shaffer	Federal Geographic Data Committee

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Name	Organization
Tricia Gibbons	Lead Alliance
Carol Jeffords	Lead Alliance

- Objective: Build the foundation for the NSDI Strategic Plan
- Logistics: Tricia Gibbons
- Warm-up exercise: one strength of the federal geospatial community (captured on stickies and posted on wall chart)

## Discussion Re History of the NSDI graphic:

- Lack of coordination pre-FGDC
- Long history of collaboration within the community
- Environment in 1990
  - Stove-piped
  - Data not readily available; now data flowing so much faster
  - Huge technology changes
  - Disconnect between statistical agencies and others
  - Geospatial community was in the “back room” and was much smaller

## SPOT Analysis

Table groups identified the current and internal strengths and problems of the federal geospatial community. Themes that emerged as **strengths** included:

- Standards
- Collaboration
- Communication
- Sense of Community
- Leadership
- Knowledge management
- Broad cross section

Problems seemed to fall into categories or buckets. They included:

- Addressing Data Services
- Messaging
- Accountability
- Enforcement and agency commitment
- Exposure & finding of data
- Need for a business case & process
- NSDI – role of the federal government and role of non-federal stakeholders
- Operational issues

There is a PowerPoint Graphic Summary of the SPOT available also. The actual inputs included:

## STRENGTHS

- Collaboration (interagency, across organizations, cross-government, FGDC a forum for collaboration, missions support) (7)
- Standards (established data standards, benefits of standards, connection to non-geo standards & architecture efforts) (5)

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- Speed & incorporation of applications
- Provide directions/road work for cooperation (2)
- Data; amount of data (2)
- Metadata guidance
- Distribution of data
- Framework data – Cadastral NSDI Public Land Survey System
- Dedicated community of data set managers who, if organized, would do a lot to push forward approaches in all business lines to improve cross agency cooperation
- Demonstration of best practices
- Innovation
- FGDC cap grants
- Network channels
- Audit response
- Large collective budget
- Skills, experience
- Keeping conversation moving forward on geospatial data sharing & quality to make it more accessible and useful
- Document archive; traceability, track, open to public
- Passion of the community and the shared value of developing standards and a new strategic plan
- Single point of blame
- There is a sense of community and a desire to solve real world problems. This puts a face on the NSDI.
- Diverse geospatial community
- Collective leadership
- NGAC coordination
- There are pockets of expertise, best practices, and collaboration throughout government that could be shared.
- GIS still has promise to encourage geographic understanding
- Common voice
- Collegial interagency forum of unclassified, law enforcement and intelligence communities exploring more efficient geospatial data acquisition and dissemination
- Amount of information we can share with private sector
- Willing to help with solutions
- Information (data, programs, people)
- Evolution of web services - national MPP geoplatform

## PROBLEMS

- Geospatial not fully integrated into wider IT community/Still in the back of the house (2)
- Appearance that Google or ESRI can do all this for free
- OMB expects us to function more as a business rather than an association
- Data quality
- Aging workforce (e.g., employees leaving government in the next five years)
- Lack of FGDC Steering Committee members' seniority (A/S representing DOI should have DAS level *as a minimum*.)
- No consequences for failing to build your portion of NSDI: No carrot, no stick (2)

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- Lack of OMB leadership with OMB Circular A-16; Lack of *enforcement mechanism* for A-16 mandate to cooperate on data sharing/purchasing/acquiring (2)
- Building NSDI not part of agency mission; A-16 theme leads not always aligned with agency missions (2)
- We focus on everything; need to prioritize (2)
- Prioritization: convincing OMB to invest in geospatial
- Taking in citizen-collected data – data flows both ways
- Data sharing; open data policy
- Data licensing (2)
- Lack of Master Data Management (MDM) skills cross-federal government
- Failure to recognize data is data – we are not unique
- How do we collectively identify what the focus is to be?
- Unclear federal roles in NSDI; Role of the federal sector in geo-community (3)
- Role definition and identity for all sectors; Define the role for private sector, state and local (2)
- NSDI partnerships with non-Feds
- Perception we're not partnering – yes we are
- Communication – not marketing enough
- Speed of policy development vs. speed of changing technology
- Speed of technology adoption impacts interoperability
- Incorporation of metadata
- Lack of standard symbology
- How to think with maps instead of just mapping
- IT security and bureaucratic inertia ≠ innovation
- Congress tends to fund “missions” not data; data needs to be mapped back to mission needs to be viable
- National spatial services infrastructure
- What is best governance model?
  - Geospatial portfolio (data, services, infrastructure)
  - X-cutting?
- No internal controls (standards, metadata)
- Process maturity
- OMB RMO - Geo Literacy
- HSIP data access for non-HS partners
- HSIP vs. common data
- How do we explain the relevancy of the NSDI? Relevancy framework (business value) (2)
- Agency-specific mandates not conducive to shared workload
- Lack of awareness at top level of agencies
- Lack of awareness, lack of visibility, lack of support
- Many major programs have geospatial components that are not visible to GIOs; disconnect between geospatial and CIO (2)
- Funding strategy
- One size fits all mentality
- Agency assertions that we can't collaborate on data because “we're different”
- Many agencies don't build uniform, consistent “national datasets” coast to coast, border to border
- No congressional mandate to build NSDI

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- Geospatial is not a “program.” It is placed organizationally in different places agency to agency – IT, reserves, engineering, geospatial, etc. – making it hard to communicate and collaborate.
- Difficult to quantify geospatial investments and expenditures
- 508 non-compliance
- Need for decision support
- Too many reasons to acquire to different standards – research, science, ops, etc.
- Little accountability for success
- OMB/EOP interface and coaching
- Money
- Archiving? Losing data
- Not meeting public expectation of sharing/discovery
- Addressing the needs of a diverse user community
- Need to share/need to know – changing mind set
- Data discovery – ongoing
- Defining authoritative open data
- Data privacy & open data policies
- Incorrect agency level of support to NSDI
- Dedicated & consistent FGDC representation
- Disparate business process – challenge to cooperation

## THREATS

- Performance measures
- Competing priorities; Loss of focus/priorities (3)
- System & data security restricting use
- Data corruption (2)
- Geo-terrorism
- Loss of SMEs
- Data privacy
- Lack of vision
- Use – What/how are we raising capability of the nation? Are we “building it, they will come”?
- Lack of governance, OMB engagement
- Need clear definition and re-agreement on what NSDI looks like
- Failure to have a plan
- Reduction in funding
- Decreased productivity
- Technology leapfrogging current government initiatives under development
- Inertia in noting or accepting that things have changed
- Spoofing of GPS?

## OPPORTUNITIES

- Geospatial Platform – when it’s ready, invite scrutiny from users; adjust and then sell/promote the Platform
- State/local partnerships (2)
- Mobile technologies → multiple platforms, access
- Issue focused collaboration – communities
- Geoplatform.gov 2.0 → demo shared services!

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- Sequestration – should show industry that Congress is serious about fiscal restraint. Money for data *must* go farther.
- Faster/more accessible data/applications
- GAO Report – leverage
- Real willingness within OMB to make real change (e.g., FEMA flood mapping reauthorization)
- Opportunity to develop a plan that we want to be held accountable for
- Make Todd Park/ Steven Van Roekel – legacy
- Do some intel – which agency/program authorizations are coming up which can be leveraged
- Leverage state and local base – common framework to share data
- Focus on outcomes to hold FGDC accountable & executive champions
- Accountability
- Semantic web
- Big data
- Opportunity to market our successes, control our story
- Economies of scale
- More resourceful
- Open data policy → can be leaders
- Development of GIO & geospatial activities → visibility
- Shared services can mean greater capabilities
- Open source → constant access/interoperability
- Extend NSDI to support infrastructure analysis at local levels
- Galvanizing central focus – *emergency preparedness*. Common denominator of all bad things in the need for place-based knowledge/data.
- Performance measures

There was a short discussion of the Promise of the Geospatial Platform.

- Shared information
- Stepping stone
- Quantifiable
- Cost savings
- Co-investment story line
- Poster child on the way government can/should provide products & services

## **ENVIRONMENTAL SCAN: CONTEXT MAP**

Participants worked in table groups to identify environmental factors that would impact the federal geospatial community. Table groups were given specific topics to explore. There is a PowerPoint Graphic Summary available also. Results by category follow.

## INDUSTRY TRENDS

- Ubiquity of mobile computing & location-based services – huge impact on our industry
- Agencies focused on making data available generically – enables downstream users – any platform
- Movement → spatial. What doesn't have a spatial component any more?
- Moving to the cloud – cost factor, efficiencies
- Government data *will* be re-used by industry – how to push out more, ensure value

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- Greening industry
- Globalization, human geography, competing services
- Big data/data science pattern analysis
- Open source
- Metrics count everything
- Professional services competition market shift
- Market disruption – new tools
- Surveillance society
- Smart phones
- Broadband
- Trend: crowd sourcing more mainstream; how to harness this capacity if of value
- Why should we do it when Google can do it?
- Demand for human geography

## POLITICAL FACTORS

- Political attention span is diminishing
- Inconsistent – non-integrated federal initiative priorities
- Campaign mode
- Political perspective of GIS has changed - from why do we need GIS to how do we use it or where do we fund it?
- Do more with less & work smarter
- Privacy issues – copyright, open data sources, tension between privacy & services
- Drones, wireless, hot spots – do we care? Just want to get our data out
- Demonstrating utility of geospatial data - democratization to Congress
- Transparency – openness philosophy; hesitation on part of agencies to publish
- International – data sharing between countries is key; we impact them & they impact us
- Government needs to understand what we need to publish authoritatively
- Need to understand who is consuming
- Politics of budget will work against enterprise anything
- Leverage comms for messaging – will always be secondary
- Issue is always the issue: “comms”
- Desire to eliminate redundancy

## ECONOMIC CLIMATE

- Globalization
- A lot of power in the small business sector (& how they add to economy)
- Pros and cons of budget cuts (good for collaboration but bad for skill set knowledge maintenance)
- Shrinking budgets (2)
- Business expansion
- Funding restrictions
- No new programs?
- U.S. leadership position in geospatial services
- Emphasis on shared services
- Consolidation
- Evolving funding models

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## TECHNOLOGY FACTORS

- Mobile devices increase demand for ROI
- Commoditization → technology transfer
- Real time data demand
- Device mash-ups with spatial data
- Faster access
- Small disruptive tech innovation (e.g. square)
- Network is the computer
- Ease of delivery – mobile devices, services, apps

## INTERNAL TRENDS

- Enterprise services
- Mainstreaming GIS
- Migrating to Cloud
- Rapid changes in technology & mobile apps not consistent across agencies
- Interagency partnering
- Mobile workforce
- Accessibility
- Data having a geospatial component
- Collect once - use many times
- Tell a story with the data
- Growth potential in geospatial workforce
- Tech savvy “youth” (35-year-olds) enter SES ranks; total shift from fear of technology to having it be a part of life
- IT and GIS merge
- Agencies focused on making data available generically
- Agencies don’t know who is using their data; trend for increasing external use; need to survey to justify/improve

## CUSTOMER/STAKEHOLDER NEEDS

- Cost – software, network
- Stakeholder needs driven by industry; build so they know they need it
- Spending money wisely
- Social media
- Crowd source
- National data at local scale

## AGENCY NEEDS

- Subject matter experts specific to agency needs
- Connecting in remote locations & emergencies
- Understanding & validating requirements
- Data security & privacy
- Shrinking budgets
- Mature & trusted data
- Dynamic data access

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- Meet mandated requirements

**Visioning: The Desired Future State of the NSDI**

The participants discussed and responded to the following questions. After table group discussions, they shared their thinking with the whole group.

It's 3 years from now. The group has reconvened to celebrate accomplishments. What has the NSDI become? What does it look like? What's its value to stakeholders and customers? What sorts of products or services does it offer?

Each block in the following table reflects one of the five reporting groups' comments on the flipcharts.

Relevant NSDI = authoritative Everything flows from that Interconnected (throughout the agencies)	Framework Education Known Authoritative MAPS Standards
Users Agile Common standards Collaborative Empowering Accessible Sustainable/resilient Problem solving Focus on services/products Valuable Indelible	Innovation Collaborative Focused Authoritative Used (for multiple purposes) Relevant Timely Integrated Succession planning
FOCUSED It's all about data 1-Acquire 2-Transport 3-Store 4-Access 5-Manipulate 6-Wield  Business Relevant <ul style="list-style-type: none"> <li>• Extinct?</li> <li>• Bloated</li> <li>• NSDI needs to focus on data</li> <li>• Data-focused</li> <li>• Lean &amp; mean</li> </ul> FGDC needs to focus on coordination of Federal Geospatial initiatives	

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Visioning: Key discussion points following report outs from the five groups.

- A product people can use
- Which products or which services?
  - We own & produce
  - We provide service
  - We provide raw data
- NSDI isn't a thing but a philosophy
- Public/private partnership is key
- Data is a foundational element to provide services & knowledge
- Interconnected throughout the agencies
- Valuable collections of data; need a curator – need to show value
- Focus on the data: data first
- Business relevant information
- Information and analysis
- Core sets used in a variety of ways for a variety of purposes
- Data/infrastructure/services
- Way to interact with the data
- Weld data to drive decision making
- Gather and use data – others may mine the product as well as the data
- Identify those data sets that are most critical and focus
- Data sets that sit on a geospatial foundation
- National GIS? Behind the scenes
- Memo to scientific community was shared
- Individual application of that data
- Stewards of data sets need lifecycle plan
- FGDC – needs to be an advocate for filling gaps in the data
- Feedback loop
- Recognize decision makers will use what they have
- Base layers (data) – maybe they'll change
- Time sensitive mission dynamic data
- Authoritative data sets – what does that mean? (mature? Good? Never has been defined)
  - Need to agree on criteria
  - As a group, formalize and make data sets that meet that requirement
- Work more effectively together to use at some level

FGDC – needs to focus on coordination of federal geospatial initiatives

NSDI – needs to focus on DATA

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## NSDI Description Themes

<ul style="list-style-type: none"> <li>• Data focused X X X</li> <li>• Collaborative X</li> <li>• Common Standards X</li> <li>• Accessible X</li> <li>• Flexible &amp; agile X</li> <li>• Known &amp; visible X X</li> </ul>	<ul style="list-style-type: none"> <li>• Focused X</li> <li>• Authoritative X</li> <li>• Used &amp; reused X</li> <li>• Relevant / Business relevant X</li> <li>• Innovation</li> <li>• Indelible</li> <li>• Timely</li> <li>• Integrated</li> </ul>
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## Federal perspectives – goals & focus areas for the next 3 years

As individuals, participants were asked to identify one goal to focus on for the next 3 years. They discussed at table groups and reported to the whole group.

- Full and open access to all federal data in a searchable and standards-based manner to support interoperability and decision-making.
- Top 10 (X) data sets are established, posted, managed as MDM, and used by multiple communities for multiple purposes as MDM.
- Fund the top 5 data sets and demand that they be completed, maintained, and served up to the people in three years.
- Complete the authoritative layers of the NSDI.
- NSDI data themes are complete, maintained, authoritative, discoverable, and accessible through the national geoplatform, leveraging and not duplicating efforts of the SLTTC sectors.
- Agencies have geospatial data strategies and scheduled plans that roll up into a central federal geospatial data strategy vetted and accepted by stakeholders and customers, bought into by OMB and the administration.
- Implement an integrated service for finding and accessing geospatial enabled data sets with well-defined quality attributes.
- Make A-16 data (NGA) accessible.
- Elevate the seniority of the FGDC Steering Committee (SC) members to the DAS equivalent level. Continue the ExCom at the current seniority level to feed decision points to the SC. Energize the Coordination Group (CG) to identify and work the hard issue of finding common ground among the agencies.
- Data and services on the Geospatial Platform (GP).
- Designate the NSDI as part of the Federal Enterprise Architecture (FEA). Begin staffing to have it serve as a trusted data discovery catalog for both inside and outside government. Start small. Focus on immediate success via agile development process. Build up from that.
- Exposure of the initial set of NGDAS, which are all rated as mature, and their associated APIS through the platform.
- Establishment and implementation of an open sourced based collaborative community for data access and sharing of well-managed geospatial assets across all levels of government.
- Facilitate a networked community of public service professionals in the creation of policy and administrative innovations.
- Eliminate duplication of effort through collaboration and recognition of the collective good.
- Provide timely and open access to high quality data, products, and services.

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- Replicate the Maryland Governor’s Decision System for the US.
- Integrate data acquisition into business process and require spatial integration of all tabular data.
- Continuity throughout focusing on communication, collaboration and sharing.
- Cooperation across government with commitments to work together.
- A viewer on the nationalatlas.gov that displays federal geospatial data at any scale for any part of the Nation.
- Clearly define the standards or exchanging geospatial data.
- How to think with maps instead of just mapping. Data rich but analysis poor.
- NSDI is something known throughout the federal government
- Put the money for spatial data acquisition and integrations in the hands of 1 – (people/offices/ organizations) and order cooperation to meet the many missions. Change the business model.
- Line item authorization linked to data theme production and distribution.
- Collaboration, data discovery, data sharing, data usage, problem-solving, collaboration.

Quick Evaluation: Plus / Delta

+	Δ
<ul style="list-style-type: none"> <li>• Well-facilitated</li> <li>• Great meeting</li> <li>• Strength among the group is its diversity</li> <li>• Learned something</li> <li>• Good participation/participants who were present</li> <li>• Early closing 😊</li> <li>• Cookies 😊</li> </ul>	<ul style="list-style-type: none"> <li>• Clarify confusion – Platform, NSDI, FGDC</li> <li>• Higher level folks need to engage</li> </ul>

Ivan DeLoatch and Dan Cotter thanked the group for coming. The meeting was adjourned at 5:00.