2007 NSDI Cooperative Agreements Program
Category 4: Geo-Enabled Federal Businesses Initiative

Interim Report

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Project Narrative

Current geospatial and internet technology provide for the creation, distribution, acquisition and utilization of geographic data and mapping functionality with relative ease. Decision making and problem solving at all levels may be enhanced through the consideration of previously excluded, context-relevant geographic information and spatial data. Geographic information systems (GIS) and other geospatial technology facilitate the integration and synthesis of geographic data with non-spatial data. Federal business managers with limited or no experience with geospatial approaches should be educated about the potential benefits possible through effective application of geospatial data and technology.

The core value of this project is the resulting business case portfolio by which the Federal Geographic Data Commission (FGDC) and its partners can communicate effectively with all Federal program managers and senior leaders. The portfolio is a means of speaking geographically when geography is not the common language. The business cases will be vetted through the Geo-Enabled Business Practices Committee,

of the Geospatial Line of Business, so that as a portfolio they effectively represent the scope of collaborative initiatives that are possible within the Federal community. We plan on the business cases offering the opportunity to begin with common interests in National goals and then work backwards into the collaboration process, then the geo-analytic approach, and finally the technical aspects of data and analytic capacity within enterprise architectures. We will rely heavily on insights that can be provided by the Geospatial Line of Business, as it provides confirmations on the feasibility of business cases as they are proposed by our team.

Our goal is ensure that the business case portfolio is understandable to the diverse membership of the Federal audience. We will not assume that the audience is versed in geospatial techniques, but through the introduction to the portfolio, we will ensure that the audience has a basic understanding of the concepts of geographic thinking. The first segment of the audience includes those who have limited understanding of geo-analytics, but know the business management decisions that are critical for program performance. The second segment includes those who generate information through different means to support decision-making. The third segment is those who mange information technology.

We will increase the value of the portfolio by addressing both the regular geographic analyses for internal management decisions and geo-analytics required to foster joint initiatives. This distinction will help broaden the appeal of the portfolio to different interests in the Federal audience.

In our experience, a solid business case is one that focuses on the desired outcome, identifies who is likely to be interested in the outcome, and how their respective strategies can lead to cooperative capacity for achieving the initiative. We believe this approach allows each agency to control their information and resources while maximizing their ability to cooperate. The business case creates an opportunity for each agency to share their contributions, for example data layers, and see how their view of the situation matches up with the views of their partners. From this approach, we can also speak to the opportunities for sharing other resources. The next step is to emphasize how the geo-analytics provide new insights from the relationship between the shared layers of information.

Summary of Project Activities and Key Accomplishments to Date

The Team has chosen a set of comprehensive business cases for geo-enabling decision-making processes that are common across Federal programs. The business cases include layman descriptions of the geography and analytics that apply to critical decisions, and supportive technical descriptions for program development of geo-analytic capacity, including the Federal Enterprise Architecture Geospatial Profile.

The main objective of the Cases is to demonstrate that geospatial component can and have to unite the activities across several Federal programs. In spite of the fact that each Federal program has its own goal and objective, it can be optimally united with another program along geospatial and locational program axis.

The business cases have been selected to cover major policy themes that consistently challenge Federal organizations. Each case begins with the National goal and identifies the potential collaboration of geospatial solutions across programs that potentially affect the problem in question. The case is examined in terms of the potential added value of utilizing geospatial techniques. Following the business cases is a more technical description of how to build the capacity and capabilities of geospatial decision-making, in terms of Federal requirements and contemporary technologies.

In their activities the Team relied on Dr. David Paschane's insight knowledge of Federal geo-enabled business practices. There were several meetings between Dr. Paschane and members of the Team. Thorough detailed discussions helped to outline the project priorities, objectives, management plan and ways of analysis, evaluation and reporting.

The Team has chosen the following business cases that have a strong geospatial component and introduce Federal executives and program managers to the power of geographic information systems (GIS) and the general advantages of spatial information and geographic science. These business cases also address major national issues:

Emergency Preparedness Case

Do we understand how America's personal and economic well-being is at risk in different emergencies, and are our intergovernmental systems designed to respond to these events and support subsequent restoration of well-being?

Homeland Security Case

Do we have the human and technological capacity for collecting, securing, verifying, and using critical information across all disparate communities, regardless of the level of threat or in the presence of threat incidences?

Transitioning Workforce Case

Do we apply best possible preparation and connection solutions to workforces across business sectors, industries, and markets when candidate employees are in critical transitions, such as initial retirement, military separation, or work rehabilitation?

Healthcare Networks Case

Do we understand the market factors that lead to citizens using various networks of healthcare options, with or without prepaid private insurance, and how does this health-seeking behavior affect health outcomes?

Education Quality Case

Do we know what options in educational funding and administration lead to successful academic outcomes, given differences in contextual factors, and can we identify where communities are in critical need of these options?

Energy Production Case

Do we know the long-range capacity and opportunities for developing energy within national boundaries, and the relative advantages of investments towards these opportunities in different locations?

Transportation Infrastructure Case

Do we have sufficient strategies for sustaining long-term development of transportation infrastructure, while mitigating the full scope of risks that likely due to natural, technological, and man-made hazards?

An evaluative framework to structure our business case analysis is being synthesized from the following components:
- The Performance Review Model of the Federal Enterprise Architecture Geospatial Profile
- Agency Strategic Plans
- Exhibit 300
- PART documentation

Additionally, jointly with the Great Lakes Commission, it has been decided to create an Internet wiki site (http://gis.glin.net/wiki/display/NSDI/Project+Home). On that site the FGDC CAP Category 4 project's objectives, tasks, progress and deliverables are published. The Team would like to personally thank Mr. Pete Giencke for setting up the wiki.

Dashboard > Geo-Enabled Federal Business Case > Project Home > Common Geo-Enabled Business Cases   Search

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Added by Pete Giencke, last edited by Walter Svekla on Sep 28, 2007 (view change)
Labels: (None)

Team

This project is led by Dr. Sergei Andronikov of George Mason University (GMU) and Walter Svekla of M&M Solutions, LLC (MMS). As an Associate Professor in the School of Management, Dr. Andronikov endeavors to demonstrate the value of geo-analytical thinking to business students, the larger business community, and government agencies that are accustomed to thinking aspatially. M&M Solutions is a strategic management consultancy applying GIS and Internet technology to solve problems relating to government services, land records management, urban planning and the environment. At M&M Solutions, Walter has been innovating methods for the thoughtful integration of GIS and geographic information into existing business and decision-making processes.

Introduction

Federal executives and program managers make decisions and solve problems that take into consideration how their organization's inputs, outputs, and outcomes vary in different places. The consideration of these factors in locations is often too general to make sense of how the organization affects or could affect a specific place. Though all government programs affect American citizens, most program managers cannot accurately say where citizens realize these affects, given the variation in contexts and interactions with other government and non-government entities. Today's geographical sciences enable highly specified knowledge about who is affecting whom across different places. The technology has advanced to where it is easier to examine complex processes in terms of geography than any other method. The use of location-based management knowledge is very empowering for any organization. The capacity to explain inputs, outputs, and outcomes where they are and where they might be enables government leaders to manage much more effective programs.

The following portfolio of business cases introduces Federal executives and program managers to the power of geographic information systems (GIS) and the general advantages of geographical science. The central theme across these business cases is, *knowing where your business is*...in terms of what you can and cannot affect through your own organization or in cooperation with other organizations that also develop geographical capacitates. The Federal Geographic Data Commission (FGDC) is leading the OMB Geospatial Line of Business, which is designed to support all Federal agencies in the development of their geospatial capacity. The term "geospatial" is used to characterize the broad scope of the technology, science, and governance associated with geographic information.
 The business cases have been selected to cover major policy themes that consistently challenge Federal organizations. Each case begins with the National goal and identifies the potential collaboration of geospatial solutions across programs that potentially affect the problem in question. The case is examined in terms of the potential added value of utilizing geospatial techniques. Following the business cases is a more technical description of how to build the capacity and capabilities of geospatial decision-making, in terms of Federal requirements and contemporary technologies.

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Next Steps

How will this project continue in the future?
Because there are many opportunities for geo-enabling federal business, we have a well developed vision for thinking creatively about how geographic information may augment Federal business.

Describe the next steps in your project
Next steps include assistance on the part of the Geospatial Line of Business to identify Federal individuals with demonstrated expertise in supporting Federal geo-enabled business practices through their participation in the project. The main challenges to creating the portfolio of business cases is acquiring descriptions of the Federal programs and confirming the examples of programs that may be appropriate for each business case.

Then, each business case will be evaluated and scored in compliance with OMB's scoring system that has 10 factors, and a perfect score on individual factors is weighted as 5.
An evaluation metrics will be built for each case following OMB's criteria for achieving the maximum points. The compiled Exhibit 300S will be taken as the basic metrics for evaluation.
After thorough analysis of these business cases, the Team will verify the outcome and expand the cases to include inputs from outside readers. It is planned that several seminars across government entities will be conducted.

Then, a technical outline for alignment with FEA geospatial capacity and competency development and the Geo LOB tasks will be compiled

Where do you need assistance?
Probably at the further identification of Federal subject matter experts.

Attachments
None at this time.

Feedback on Cooperative Agreements Program
What are the CAP Program strengths and weaknesses?
CAP Program strengths lie in the diversity of project categories and the distribution of award recipients throughout the United States. Weaknesses include a perceived bias towards applications of technology versus consideration and research into the theoretical underpinnings of GIS-use in government institutions and the effects of such technology on society-at-large.

Was the assistance you received sufficient or effective?
Assistance received to date has been sufficient and effective.