



Business Case and Steering Team Charter

Project Name: State GIS Coordination
Date: January 2008

A Business Opportunity

Overview

In 2005, Governor Tim Pawlenty launched the State of Minnesota's *Drive to Excellence (DTE)*, beginning a process of refocusing state government as an enterprise serving all citizens, rather than an amalgamation of independent entities serving individual constituencies. The Office of Enterprise Technology and a framework for IT Governance were among the early outcomes of the Drive to Excellence initiative, providing an enterprise approach to coordinating the development, implementation and governance of information technology and IT services. However, Drive to Excellence did not specifically address the coordination of geographic information systems (GIS). At this time no agency is responsible for coordinating GIS within state government, although several organizations, such as LMIC, somewhat fill this void. The Statewide GIS Coordination initiative builds on the foundation established by the enterprise IT framework and recommendations of the Minnesota Governor's Council on Geographic Information (GCGI) to coordinate GIS within Minnesota.

Context

In 2004, the Minnesota Governor's Council on Geographic Information unanimously adopted *A Foundation for Coordinated GIS* as a framework for its strategic planning efforts.¹ While the report focused on issues of data development, management and distribution, it also identified needs for coordinated GIS:

As the uses of geospatial data and technology has expanded from natural resources to issues ranging from redistricting to emergency response, the need for a framework of standards, practices, and policies that support shared development and implementation has become increasingly important.²

The Council report went on to note that, in the absence of this framework, there is little support for a ". . . growing number of state, local and regional agencies [that] have recognized the value of GIS to their business activities, but . . . cannot efficiently maintain programs on their own."³

¹ See http://www.gis.state.mn.us/pdf/GCGI_Strategic_plans.pdf for a description of *A Foundation for Coordinated GIS* and a summary of the Council's strategic planning activities.

² *A Foundation for Coordinated GIS* (June 2004), p. 5.

³ *A Foundation for Coordinated GIS* (June 2004), p. 17.

In response, *A Foundation for Coordinated GIS* included the following observations and recommendations for overcoming the organizational constraints:⁴

Designation of an organization is needed, with responsibilities clearly defined to oversee implementation and management of a statewide GIS infrastructure and coordination of GIS activities of other Minnesota agencies and organizations. Rather than centralizing GIS capabilities, this organization should focus on complementing GIS programs supporting existing business activities, especially those defined as statutory mandates. In carrying out its duties, this state GIS authority would work closely with state agencies with existing review and oversight responsibilities, such as the Department of Finance and Office of Technology, and actively involve state, regional and local governments as essential partners. The designated organization would:

- Oversee the development and implementation of the MSDI, including the individual thematic I-Plans that comprise the MSDI.⁵
- Monitor the effectiveness of adopted MSDI policies and recommend actions.
- Coordinate implementation of GIS by state agencies within guidelines established for the state's IT architecture framework.
- Coordinate state agency GIS initiatives to better identify opportunities for joint projects and to leverage private and federal resources not otherwise available to Minnesota.
- Work with state, regional, local government and tribal governments, and nongovernmental stakeholders to identify GIS needs and investment priorities and to recommend initiatives that support the state's GIS infrastructure.
- Work with stakeholders, the Office of Technology, and Department of Finance to identify new and emerging opportunities that improve the effectiveness of state programs through use of GIS.
- Serve as an advocate for Minnesota's GIS stakeholders to the executive branch and legislature within Minnesota.
- Serve as an advocate for Minnesota's GIS stakeholders to federal agencies and other organizations.

⁴ *A Foundation for Coordinated GIS* (June 2004), Section 4.2, pp. 15-16.

⁵ MSDI is the acronym for the Minnesota Spatial Data Infrastructure, the Minnesota portion of a national framework termed the National Spatial Data Infrastructure, established by Presidential [Executive Order 12906](#), which calls for the establishment of the National Spatial Data Infrastructure defined as the technologies, policies, and people necessary to promote sharing of geospatial data throughout all levels of government, the private and non-profit sectors, and the academic community. I-Plans refer to plans encouraged by the Office of Management and Budget to implement the NSDI. For more about the NSDI, see <http://www.fgdc.gov/nsdi/nsdi.html>.

- Serve as the state's designated liaison and representative to appropriate federal mapping agencies and national GIS organizations.
- Develop and maintain MN Geographic Data Clearinghouse services, including e-government solutions for distributing geospatial data.
- Receive and spend appropriations, receive and spend grant funds, enter into contracts, memoranda of understanding and other legal commitments.

The challenge for the GIS community is to devise an organizational structure that is capable of achieving these outcomes. The Governor's Council on Geographic Information has agreed to consider alternatives and prepare a recommendation to guide the needed organizational changes, working with appropriate state agencies and stakeholders.

Progress beyond the 2004 commitment has been slow, but as the demand for and value of GIS has continued expanding, it has become increasingly apparent that achieving the full potential of GIS as a tool for enhancing government services will require a more cohesive and formalized structure for coordination than currently exists.

Minnesota is not alone in recognizing the need to coordinate GIS efforts. A growing number of states have addressed the need for coordinated GIS by creating a Geographic Information Office that reports to a state Chief Information Officer; others states have responded differently, but almost 40 have a state coordinator that has a direct or strong relationship with the CIO.⁶ NASCIO, the National Association of State CIOs, recently ranked the highest priority technologies of state CIOs. GIS tied with Security Enhancement Tools as the third highest priority. Closer to home, the Minnesota State IT Master Plan completed by the state's Office of Enterprise Technology in February 2007 identified GIS as an important technology opportunity for the state.⁷

On June 25, 2007, the Minnesota Governor's Council on Geographic (GCGI) held a full-day retreat to help shape a strategy for improving GIS coordination within Minnesota. The retreat, *Compass Points*, was planned by a team formed by the Council's Strategic Planning Committee and was sponsored by Commissioners Dana Badgerow of the Department of Administration and Gopal Khanna of the Office of Enterprise Technology, the state Chief Information Officer. A team from the Management Analysis Division of the Department of Administration facilitated the retreat.⁸

Attending the retreat were 54 representatives from a wide range of GIS providers, users, policy makers and other stakeholders. They participated in a series of facilitated small and large group exercises. Products generated during the retreat included:

⁶ The National States Geographic Information Council reports that in 38 states, GIS coordination either is organized as a direct report to the state CIO (12), has a strong relationship to the state CIO (12), or is working towards a strong relationship to the state CIO (14).

⁷ The *Minnesota Information and Telecommunications Technology Systems and Services Master Plan, 2007*, page 7.

⁸ See http://www.gis.state.mn.us/pdf/Compass_Points_Retreat.pdf for the retreat report.

- Lists that identify Accomplishments, Setbacks, Strengths, Weaknesses, Opportunities, Threats, and Issues facing GIS
- A chart identifying GIS stakeholders and the roles that the GIS community perceives they play in coordinating GIS
- Possible roles for a Recognized Coordinating Authority

Based upon discussions of participants at the retreat, the facilitator recommended several actions, including this one:

Develop coordination structure for state government. Place a high priority on developing and implementing an effective organizational and governance structure for coordinating GIS within state government. It should clearly identify and assign roles and responsibilities and balance the authority of the coordinating entity with autonomy needed by state government stakeholders, including checks and balances that provide for guidance and oversight of the coordinating entity. The organizational plan for state government should address the need for active engagement of partners and customers of the state within Minnesota's broader GIS community. The governance structure should be capable of identifying priorities for meeting state GIS needs and implementing strategies to implement them effectively. Legislative changes, if needed, should be proposed.

In September 2007, the GCGI adopted this *Compass Points* recommendation as its principal goal for the fiscal year. It also endorsed developing a model for state GIS coordination as a Drive to Excellence initiative and assigned responsibility to the Council's Strategic Planning Committee. Several state agencies are represented on the Council and endorse this project, including: Administration, Agriculture, Board of Water and Soil Resources, Metropolitan Council, Natural Resources, Office of Enterprise Technology, Public Safety, Pollution Control, and Transportation. This Drive to Excellence charter proposal is the result.

Objective

The purpose of this project is to develop, recommend and implement an organizational and governance framework to coordinate GIS as an "enterprise" activity of state government. The project's focus is state government functions and services, but with the understanding that the state government has functional relationships with local and regional governments and other stakeholders as partners and customers. As such, this project addresses the state government foundation needed to achieve a broader vision adopted by the Governor's Council on Geographic Information "to improve services statewide through the coordinated, affordable, reliable, and effective use of GIS."

This Drive to Excellence initiative focuses on enhancing the capacity for coordinating GIS within state government. Activities related to coordination of the statewide GIS community are beyond the immediate scope of this initiative, but are considered to be no less important. The two elements of the Drive to Excellence initiative are:

- 1. Organizational Transformation.** This element focuses specifically on creating an organizational capacity for coordination within state government, including responsibility for

coordinating GIS within state government, including a framework for governance that includes opportunities for stakeholder involvement. This aspect of the project will consider the needs for policy direction, prioritization of data and technology investments, standards development, and a principal point of contact for GIS within the state. Recommendations will identify roles, responsibilities and authorities for a state coordinating entity to meet these needs where possible, and may include organizational changes. Recommendations about organization and governance will be made by early 2008 and will include an organizational transition plan that can be substantially implemented by June 30, 2008.

2. **Functional Transformation.** This element concerns operational aspects of GIS within state government, based upon a comprehensive analysis of existing use of GIS and its potential for enhancing state government operations and services. The analysis will serve as the basis for recommending enterprise solutions to technical aspects of GIS services for state government. Examples may include assignment of responsibilities for developing and maintaining a state GIS web portal for data and service delivery, developing statewide databases, maintaining and hosting web mapping services, developing GIS applications, providing secure 24x7 web services and similar functions. Where appropriate, recommendations may include organizational changes to improve efficiencies, responsiveness or reliability. The functional transformation analysis will be completed by June 30, 2008; functional transformation recommendations will be made in time to be considered for FY 2009 legislative initiatives, no later than September 2008.

Potential Benefits

When successfully completed, this Drive initiative potentially would result in benefits that include the following:

- **Improved Coordination of State GIS**
 - ✓ Responsibility for coordination clearly designated
 - ✓ Roles and responsibilities clearly defined
 - ✓ A principal point of contact exists for the State's partners
 - ✓ OET's "infrastructure" for coordination supports GIS coordination and use
 - ✓ Frequent informal and formal communication among partners regarding coordination efforts
- **Improved Accountability**
 - ✓ Reduced ambiguity about coordination responsibilities
 - ✓ Clear points of contact for partners, including local government and federal agencies
 - ✓ A Steering Committee or some other governance structure that sets priorities based on enterprise needs
 - ✓ More transparent budgeting for GIS activities of state agencies.
- **Opportunities for Enterprise Investments**
 - ✓ Priorities for data and technology investments set based on an enterprise view
 - ✓ A long-range investment plan developed to guide investments
 - ✓ Investment proposals more closely tied to the budgeting process

- ✓ Planned agency investments leveraged to support enterprise needs
- ✓ Agency resources pooled to support enterprise solutions
- **Improved Standardization of GIS Technology**
 - ✓ GIS standards integrated into enterprise architecture standards adopted by state agencies
 - ✓ Enterprise licensing for major commercial products, promoting standardization of software and eliminating unnecessary licensing costs
 - ✓ State investments in GIS data and technology will be guided by state policies regarding standardization.
- **Enterprise Leveraged Workforce**
 - ✓ Mechanism to assemble staff for enterprise projects
 - ✓ More diverse workforce, with increased capacity for specialization
 - ✓ Improved capacity for staff development
 - ✓ More flexible career paths for staff
 - ✓ Improved capacity to compete for skilled job applicants
 - ✓ Improved ability to retain skilled staff
- **Expanded Access to GIS Resources**
 - ✓ Direct access to enterprise data resources from a state geospatial data warehouse and agency “centers of excellence”
 - ✓ Unlimited availability for software under enterprise licenses
 - ✓ Staffing pool available for high priority projects and help agencies with limited capacity
 - ✓ Staffing pool available for agency projects at below-market rates
 - ✓ Geospatial services available through enterprise web services
- **Cost Management**
 - ✓ Enterprise licensing and training
 - ✓ Consolidated services within a limited number of utility service providers or “Centers of Excellence”
 - ✓ Lower staffing costs resulting from clustering highly technical and specialized functions to serve the enterprise
- **Improved Customer Service**
 - ✓ More comprehensive integration of mapping functionality in state web-based services
 - ✓ More reliable geospatial services for critical functions ranging from emergency response to programs that directly serve Minnesota citizens
 - ✓ Improved security for sensitive data
 - ✓ GIS data and web services available 24x7

B Deliverables

Informed by the recommendations outlined in *A Foundation for Coordinated GIS and Compass Points*, and advised by stakeholders such as the Governor's Council, the Steering Team will:

1. Develop a project plan that delivers the following:
 - ✓ A recommended organizational framework for coordinating GIS within state government, including designation of a coordinating entity with defined roles and responsibilities such as those outlined in *A Foundation for Coordinated GIS*, section 4.2.
 - ✓ A preferred governance model for the GIS coordinating entity that details its reporting relationships within state government, its relationships to other organizations, a mechanism for stakeholder input and advice, a process for establishing enterprise priorities and making decisions that affect state government and its stakeholders, and for monitoring performance.
 - ✓ Recommended steps to implement the transformation to the desired organizational framework, including an appropriate authorization mechanism (legislation, executive orders, or reorganization orders) and appropriate resources.
 - ✓ An assessment identifying GIS capabilities currently available to state government; needs that are not being met and areas for improvement; and opportunities for improving state services through more effective use of GIS
 - ✓ Recommended roles and responsibilities for supporting functional and operational components of a state enterprise GIS capability, including components that are best implemented as utility services for all state agencies, components that are best supported by “centers of excellence” as shared services, and components that are best supported by individual agencies

The project plan will include the following elements:

- ✓ **Target dates** for the transformation that identifies recommended changes and when they should occur;
 - ✓ A **risk assessment** that identifies potential risks, their impact to the project and mitigation strategies;
 - ✓ A **marketing strategy** for building awareness, understanding and buy-in for GIS coordination;
 - ✓ A **communication plan** to keep stakeholders informed about the project progress;
 - ✓ A **change management plan** for preparing stakeholders for the rollout of the plan;
 - ✓ **Performance measures and benchmarks** to monitor progress.
2. Present the proposed project plan to the DTE Sub-Cabinet for approval;
 3. Implement the project plan to create and roll-out the transformation plan for GIS coordination; and
 4. Perform project evaluation / close out.

C Organization

Steering Team

Name	Role	Agency
Brad Moore	Sponsor	Pollution Control Agency
David Arbeit	Team Lead	Department of Administration
Leo Raudys	Member	Pollution Control Agency
Robert Maki	Member	Department of Natural Resources
John Lally	Member	Office of Enterprise Technology
	Member	Department of Transportation
<i>Larry Palmer</i>	<i>Member</i>	<i>Department of Agriculture</i>
<i>Dan Storkamp</i>	<i>Member</i>	<i>Department of Corrections</i>
	<i>Member</i>	<i>Department of Public Safety</i>
	<i>Member</i>	<i>Department of Health</i>
	<i>Members</i>	<i>Other Drive Subcabinet Agencies</i>
Fred Logman	Team Support	Department of Administration

- NOTES: 1. Names and/or agencies shown in Italics have not been confirmed.
 2. Subcabinet agencies not listed will be added upon request.
 3. Other stakeholders will be involved as members of project work groups.

Drive to Excellence Sub-Cabinet

Name	Agency
Dana Badgerow - Chair	Department of Administration
Michael Campion	Department of Public Safety
Joan Fabian	Department of Corrections
Tom Hanson	Department of Finance
Gopal Khanna	Office of Enterprise Technology
Cal Ludeman	Department of Human Services
Dan McElroy	Department of Employment and Economic Development
Glenn Wilson	Department of Commerce

Roles and Responsibilities

Role: Description	Role Activities (thing they do)	Role Responsibilities (decisions they can make)
<p>Sponsor: A commissioner genuinely interested in the initiative and an advocate for broad support for the outcomes being pursued in the project</p>	<ul style="list-style-type: none"> • Provide guidance and direction as needed • Provide operational oversight to the Steering Team Lead • Make major decisions affecting the project • Resolve cross-functional and external conflicts • Help remove roadblocks and solve issues • Understand the project objectives, deliverables, schedule, timeline & budget • Provide leadership from an enterprise perspective 	<ul style="list-style-type: none"> • Business Plan and work plan approval – present to Sub-Cabinet • Resource assignments • Changes to key project dates • Potential legislative changes approval – present to Sub-Cabinet
<p>Steering Team Lead / Project Manager: A high-level manager to lead all project work and team communications</p>	<ul style="list-style-type: none"> • Draft project scope statement and business case • Schedule and conduct all project team meetings; develop meeting content/agenda • Make core project team member task assignments • Provide status reports to Project Sponsor and Drive Program Office 	<ul style="list-style-type: none"> • Scope decisions that do not affect major milestone dates • When to elevate an issue to the sponsor

<p>Steering Team Members: High-level managers with subject matter expertise</p>	<ul style="list-style-type: none"> • Bring functional expertise to the project • Understand project objectives, project approach and identify tasks • Oversee work groups • Perform research and shares ideas • Participate in meetings and evaluate ideas • Determine business plan material • Develop work plan • Act as a liaison to agency / organization, while also seeing and representing an enterprise view 	<ul style="list-style-type: none"> • When to elevate an issue to the team lead • Potential legislative changes
<p>Work Groups: Subject matter experts who address technical issues related to GIS coordination</p>	<ul style="list-style-type: none"> • Perform detailed activities and tasks to contribute to the make-up of the business plan and work plan • Complete all tasks as assigned 	
<p>Sub-Cabinet Members</p>	<ul style="list-style-type: none"> • Understand and support the project concept and goals 	<ul style="list-style-type: none"> • Approval on business case and work plan • Approval on legislative changes
<p>Drive Program Office</p>	<ul style="list-style-type: none"> • Assist with initiation of the Steering Team and the overall project • Provide guidance and direction as needed to the Team Lead • Ensure progress and issues are reported to the Sub-Cabinet 	<ul style="list-style-type: none"> • When to elevate an issue to the Sub-Cabinet