BUSINESS CASE FOR

State Geographic Information Officer (GIO)

On Behalf Of: Missouri GIS Advisory Committee (MGISAC)

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REVISION HISTORY

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EXECUTIVE OVERVIEW

Introduction

This business case is aimed at facilitating the coordination of Geographic Information Technologies (GIT) in the State of Missouri by hiring a Geographic Information Officer (GIO) to provide support to the State Chief Information Officer (CIO).

Just as the State of Missouri is striving to provide a coordinated Information Technology (IT) effort among departments, departments can also benefit from centralized coordination of GIT activities. GIT covers all technologies and standards pertaining to the development of the State's geospatial infrastructure, its data and metadata. This includes technologies such as Geographic Information Systems (GIS), Global Positioning Systems (GPS), and Remote Sensing. By coordinating state GIT activities, the State of Missouri will be better positioned to pursue funding opportunities, deliver funding and develop geospatial data while effectively leveraging existing resources to lower costs.

Currently, State departments work independently through the Missouri GIS Advisory Committee (MGISAC) to develop standards and partnerships. In general, funding is pursued individually and data developed with limited partnering. This current model does not require agencies to partner, and as a result they may not always receive the full benefit of a statewide voice when pursuing funding and developing data. Regarding those departments who do not yet have GIS, there is little or no development support.

The goals of this business case are to:

- Provide better coordination of funding and geospatial data development efforts in the State
- Facilitate geospatial activities within departments
- Develop a GIT strategic plan for the State that includes integrating agency plans

Statewide planning and coordination through a single voice of authority will be accomplished by hiring a GIO within the Office of Administration's Information Technology Services Division (ITSD).

PROGRAM CHARTER

Problem Statement

The State of Missouri lacks mandated coordination of initiatives, data creation, and funding distribution related to GIT. Because of this, the State is potentially missing out on grant funding opportunities that can assist GIT in State agencies. With no single authority in the State to promote standards and drive common goals, agencies are currently left to pursue funding and data development through self created partnerships

Because GIT has evolved individually among departments, technical systems may be duplicated. Integration and sharing of geospatial data and geographic technologies across agencies, departments and other governmental organizations is much more difficult without a statewide authority to facilitate inter-department coordination and cooperation. The lack of statewide coordination is also evident with GIT training. Professionals in each department are left to develop their own training plans without the benefit of a State plan to guide them. Many departments do not have GIT professionals available to develop training plans.

Goals (High-Level Scope Statement)

The State of Missouri will hire a GIO with the authority to develop a GIT strategic plan for the State; promote the use of State architecture standards; drive data creation; expand partnerships between federal, State, local and private entities; coordinate funding; and represent the State with a single voice.

Objectives

Short-Term Objectives:

- Hire a qualified GIO in the Office of Administration's ITSD
- GIO will be a champion for State architecture standards related to GIT
- GIO will coordinate GIT activities for the State
- Have the individual sit as an ex-officio member of the MGISAC and Information Technology Advisory Board (ITAB)
- Establish a GIT coordinating council of State departments with GIO as chair
- GIO will be the primary GIT advisor for the State CIO

Long-Term Objectives:

- Establish a GIT strategic plan for the State that includes integrating agency plans
- Ensure GIT inclusion and geospatial interoperability in major State initiatives
- Establish a Geographic Information Office within the Office of Administration
- Actively pursue funding opportunities and aid agencies in acquiring funds to support State initiatives with GIT
- Establish and coordinate a State GIT training and education plan
- Coordinate the purchase of GIT equipment and software for the State
- Establish data stewardship and maintenance partnerships
- Maximize geospatial data access among agencies
- Assist departments in development of GIT programs

Benefits/Success Factors

Short-Term Success Factors:

- Hiring of a qualified candidate to fill the GIO position
- GIO is a champion and promotes the use of State architecture standards
- GIO promotes and coordinates agency GIT activities
- GIO is ex-officio member of both MGISAC and ITAB
- GIT coordinating council established for State departments
- Primary GIT advisor to State CIO

Long-Term Success Factors:

- GIT strategic plan established for the State that includes integrating agency plans
- GIT is integrated in, and interoperable among, major State initiatives
- GIO office established
- Increase the number of funded joint initiatives
- Training and education plan established
- Increased savings through coordinated GIT purchases and licensing
- Data stewardship and maintenance partnerships assigned
- Geospatial data is more easily accessible among State agencies
- State departments with little GIT are able to develop functional GIT programs

Assumptions

It is assumed that the GIO will have:

- Authority to implement strategic plans
- Support from the ITSD and State CIO
- Sustainable and adequate level of resources to pursue coordination efforts
- The flexibility to develop contracts and pursue agreements that benefit GIT in the State

Risks

- Some agencies may resist coordination on a statewide level from a single office
- The GIO's authority may become diluted thus losing the effectiveness to coordinate

Constraints

- None Identified

Next Steps

- Develop the Position Description Form for the GIO position

APPENDICIES

A. National States Geographic Information Council's (NSGIC) *State Model for Coordination of Geographic Information Technology*:

The table below illustrates the State of Missouri's response to the May 22, 2004 NSGIC survey: *State Model for Coordination of Geographic Information Technology*.

Question	YES	NO
A full-time, paid coordinator position is designated and has the authority to implement the state's business and strategic plans (YES: 29/49 states)		**X**
A clearly defined authority exists for statewide coordination of GIT and data production (YES: 40/49 states)	**X**	
The statewide coordination office has a formal relationship with the state's Chief Information Officer (or similar office) (YES: 36/49 states)	**X**	
A champion (politician or executive decision-maker) is aware and involved in the process of coordination (YES: 36/49 states)	**X**	
Responsibilities for developing the NSDI and state clearinghouse are assigned (YES: 39/49 states)	**X**	
The ability exists to work and coordinate with local governments, academia, and the private sector (YES: 43/49 states)	**X**	
Sustainable funding sources exist to meet projected needs (YES: 13/49 states)		**X**
Coordinators have the authority to enter into contract and become capable of receiving and expending funds (YES: 29/49 states)	**X**	
The federal government works through the statewide coordinating authority (YES: 40/49 states)	**X**	

B. Coordination Opportunities

1. Be at the table / authority / review / comment or council on –
    - Homeland Security GIS Request
    - National Geospatial-Intelligence Agency / Office of America data development
    - Help America Vote Act (HAVA)
    - Centerline Development at State, Local, and Federal levels
    - Orthophotography

2. Coordination with Federal Government –
    - Federal Emergency Management Agency (FEMA) Loss Estimation Software (HAZUS)
    - National Agriculture Imagery Program (NAIP) with United States Department of Agriculture (USDA)
    - FEMA Flood Modernization
    - United States Geological Survey (USGS) National Map
    - USGS National Geospatial Programs Office (NGPO) / Federal Geographic Data Committee (FGDC) Standards Coordination

3. Coordination between and among State Government –
    - Master Address File (MAF)
    - Streamlined Sales Tax
    - Emergency Response

4. Coordination with Regional and Local Governments –
    - Geospatial Database Development and use of State standards
    - Identify funding for local GIT development
    - E-9-1-1 development

5. Coordination between and among local / State / federal government sectors as well as the private sector in order to leverage expertise, data development activities, and general funding

GLOSSARY

Geographic Information Officer (GIO) – This employee is responsible for directing and coordinating inter and intra agency, as well as intergovernmental, GIT functions. Duties involve serving as the State representative on spatial technology matters, assisting with the use of spatial technology in order to improve governmental and agency services and operations. Duties include seeking funding coalitions and opportunities for GIT development, facilitating the sharing of spatial data and ensuring integration of geographic information technologies into agency-wide information systems. Additional duties include serving as a representative to appropriate geographic information systems and technology committees and user groups as well as planning and coordinating GIT projects and performing administrative fiscal functions. Other duties include seeking out data sources and advising on data acquisition, and coordinating and facilitating activities among GIT staff within various governmental units. Duties include supervision of assigned staff and providing oversight to other GIT staff. Administrative direction is received from management personnel; however, the employee is expected to exercise considerable initiative and independent judgment in directing or assisting in the direction of the State's activities with regards to GIT integration.

Geographic Information Systems (GIS) - A geographic information system is a computer based tool for mapping a wide variety of information. The technology integrates database information with the visualization offered by maps. GIS software provides the tools needed to store, analyze, and visually display information. GIS stores and manages information as a collection of layers linked together through geographic references. One of the goals of GIS administration is to eliminate redundant data collection and usage. The principle is that data should be collected once and then accessed by all who need it (efficiency). Benefits stem from creating a capability to complete tasks that were not routinely done because of their size, cost or complexity. With GIS, major data projects can be updated regularly and used for routine decision making. Any data element that includes a location reference has potential for GIS application. The level of detail in geographic references can be as general as a city, county, or zip code, or as specific as land parcel or global positioning system (GPS) references.

Geographic Information Technology (GIT) - covers all technologies and standards pertaining to the development of the geospatial infrastructure, its data and metadata. Technologies covered include Imagery (Remote Sensing) and Mapping (including GIS, Computer Assisted Design (CAD), Global Positioning Systems (GPS), Surveying, & Cartography) with specific geospatial aspects of data acquisition, indexing and delivery (Internet Mapping Services (IMS)) incorporated.

Information Technology Services Division (ITSD) – ITSD is the central point for coordinating the data-processing policies of the executive branch. The division promotes economy and efficiency in the use of data processing and telecommunications for transaction of State business. Services provided by the division include the operation of a centralized computer facility used by State agencies and elected officials; a data processing education center for State employees; systems development services; operation of the State telephone switchboard and associated State telecommunications network; and data entry services to the Office of Administration and elected officials.

Missouri GIS Advisory Committee (MGISAC) – a committee consisting of GIS professionals, information technology staff, and other interested persons to foster cooperation among State, local, and federal agencies, educational institutions, private industry, and others. MGISAC provides guidance for the Missouri Spatial Data Information Service (MSDIS), develops GIS standards for the State; provides an arena for discussions of relevant GIS issues; provides expert advice to the Chief Information Officer (CIO) and the GIS community on GIS related issues; facilitates resolution of GIS issues impacting the State; coordinates and facilitates statewide training as needed; and works together with other states on standards and other GIS issues.