



Overview

MetroGIS Spatial Data Infrastructure (SDI)

-CREATING PUBLIC VALUE-

(Compiled by the MetroGIS Staff Coordinator - August 13, 2009)

INTRODUCTION

MetroGIS (www.metrogis.org) was created in 1996, its primary purpose being to promote and facilitate widespread sharing of commonly needed geospatial data and information among organizations that serve the seven-county, Minneapolis-St. Paul metropolitan area. More specifically, the goal is to institutionalize sharing of accurate and reliable geospatial data and information so that MetroGIS's data user and producer communities can both share in the efficiencies of being able to effortlessly obtain data needed from others, in the form needed, and when it is needed. In so doing, create substantial public value.

[Click here](#) for a listing of specific forms of public value created by MetroGIS's efforts, categorized by the three cornerstones of an effective public initiative: Compelling Outcome/Value Proposition, Supportive Authorizing Environment, and Sufficient Operating Capacity.

ACCOMPLISHMENTS - REGIONAL SOLUTIONS TO SHARED GEOSPATIAL NEEDS

To date, endorsed regional solutions to shared geospatial needs implemented by MetroGIS include:

- 8 regional datasets. (<http://www.metrogis.org/data/index.shtml>) Several others are in progress.
- 1 regional web service. Geocoder Service (<http://www.metrogis.org/data/apps/geocoder/index.shtml>) Others are in progress
- MetroGIS DataFinder, including DataFinder Café (www.datafinder.org)
- GeoServices Finder <http://www.lmic.state.mn.us/GeoServiceFinder>. GeoServices Finder was developed in collaboration with the state of Minnesota and is hosted on a state server.
- 5 best practices (<http://www.metrogis.org/data/standards/index.shtml>)
- 5 data content standards (<http://www.metrogis.org/data/standards/index.shtml>)
- Maintenance of a general information website (www.metrogis.org)

CHARACTERISTICS OF METROGIS

The remainder of this document describes several characteristics related to of MetroGIS's "foster collaboration" function. It is important to understand that MetroGIS is not responsible for day-to-day management of operational solutions implemented to address any shared need. Rather, willing stakeholder organizations, with a related business need and sufficient resources, are pursued to provide the support for the actual solutions on behalf of the broader community. MetroGIS's role is to define shared needs and, through consensus-based processes, define sustainable collaborative solutions to these needs and oversee the negotiations to secure willing custodian organizations to support them. All solutions are also intended to be work toward the broad objectives of the National Spatial Data Infrastructure (NSDI).

Stakeholders: MetroGIS comprises a diverse group of stakeholders which serve the seven-county Twin Cities region and who use GIS as a tool to effectively perform their business functions. MetroGIS's principal stakeholders are the nearly 300 local (city, county, school and water management districts) and regional government institutions that serve this area. Representatives from state and federal agencies as well as academic, non-profit and for-profit interests also participate in the MetroGIS decision making.

Desired Outcomes and Core Functions:

Vision Statement: The vision for the result of MetroGIS's efforts, or destination expected to be attained, is "*organizations serving the Twin Cities Metropolitan Area are successfully collaborating to use geographic information technology to solve real world problems*". The efficient use of geospatial information and shared knowledge of best practices benefit the region's citizens and their leaders:

- They are better able to solve real-world problems.
- In solving these problems, they make better decisions.
- Because better decisions are made, regional economies are strengthened.
- Citizens are better informed regarding geophysical and geopolitical objects and events.
- Because of all these factors, citizens and their leaders are more likely to reach community goals.

And, ultimately these outcomes play a substantive role in providing citizens a safe place to live and work; enhancing environmental systems and green space; improving housing and transportation systems.

Mission Statement: MetroGIS exists to enhance the capacities of its principal stakeholders to carry out their responsibilities in the most effective and economical way possible". Specifically, "*to expand stakeholders' capacity to address shared geographic information technology needs and maximize investments in existing resources through widespread collaboration of organizations that serve the Twin Cities metropolitan area*".

In other words, as stakeholders use the enhanced capabilities available to them through MetroGIS, they better serve society's needs and, in the course of doing so, achieve effective cross-jurisdictional collaboration and substantive improvements to operational effectiveness and efficiency for their respective organizations.

Core Services and Desired Outcomes

1) *Foster GIS Coordination Among Stakeholders*

- Provide an inclusive, trusted forum to collaboratively resolve geospatial data and GIS technology-related issues and opportunities of common interest.
- Improve trust and mutual understanding within the GIS community through frequent opportunities to communicate with colleagues and peers.
- Build sustainable solutions to common geospatial data-related needs through the use of collaborative and consensus-based processes that seek to institutionalize custodian roles and responsibilities pertaining to data capture, maintenance, documentation and distribution of commonly needed data.
- Enhance individual stakeholder GIS programs and capabilities through sharing technology and proven practices with colleagues and peers.

2) *Oversee Solutions To Shared Information Needs*

- Increase access to, and use of, trusted, reliable and current data needed to support business needs through sharing data and creating community-endorsed [regional data solutions and related applications](#). *Build once and share many times.*
- Improve decision support for its entire stakeholder community through the use of minimal [data standards](#) pertaining to assembly of data produced by multiple organizations into regional datasets. These datasets work together horizontally within a given geospatial data theme and vertically among themes.
- Facilitate use of data standards and best practices.

3) *Support Internet-based mechanisms for discovery and ready access to geospatial data, web services and applications.*

- Support *MetroGIS DataFinder* (www.datafinder.org) as a node of the National Spatial Data Infrastructure (NSDI).
- Advance GeoServices Finder as the go-to means to discover and leverage existing GIS web services and applications of value to the MetroGIS community.

Organizational Structure : MetroGIS, since its launch in 1996, has been governed by a board of elected officials even though it does not have a statutory standing. MetroGIS is not formally created by law and has no ability to manage funds or retain staff of its own. In other words, MetroGIS is a voluntary collaborative forum through which the stakeholder organizations collectively define geospatial needs they have in common, agree upon collaborative solutions to those needs, and most importantly, voluntarily agree to serve as the custodians of the various operational components for each on behalf of the broader community.

This unconventional structure remains an anomaly in the United States, yet the public value created is undisputable in terms of the organizational efficiencies that have been gained. As importantly, the value of engaging elected officials in a range of organizational and operational aspects to defining and acting on shared geospatial needs has proven to provide substantive benefits not only to achieving proposed collaborative solutions but also to improving understanding among elected officials of the public value that can be created and engaging key political leaders in peer-to-peer advocacy for geospatial initiatives.

The MetroGIS [Policy Board](#) is comprised of twelve elected officials, each representing a core stakeholder or core stakeholder community, provides policy guidance and, as importantly, a political reality check for all actions fundamental to the MetroGIS's success. The governing body for each organization represented on the MetroGIS Policy Board formally [endorsed](#) the MetroGIS mission statement and appointed one of its members to serve on the Board.

The other key entity responsible for providing leadership and direction is the MetroGIS [Coordinating Committee](#), which recommends courses of action to the Policy Board. This Committee is comprised of 25+ managers and administrators from a broad cross section of interests and organizations that serve this metropolitan area. It recommends courses of action to the Policy Board concerning design, implementation, and operation of MetroGIS, as well as, the components of regional solutions; solutions that managed by one or more stakeholder interests on behalf the broader community. The Committee is composed of individuals with broad expertise and perspective, including GIS and other relevant organizational policy, data access, data content, and data standards. [Click here](#) for a tabular summary of the key roles of the Policy Board and Coordinating Committee, as well as other groups that report to the Coordinating Committee. [Click here](#) for a diagram of MetroGIS's organizational structure.

Funding and Staffing: The [Metropolitan Council](#) provides the primary staff support, in accordance with its role as primary sponsor of MetroGIS' "foster collaboration" function. For the last couple of years, MetroGIS's support resources have consisted of \$86,000 in project funds for business planning, performance measure, securing supplemental professional services, outreach, and to serve as catalyst for research and development projects important to defining next steps for defined regional solution needs. An accounting of the annual support resources is provided in Appendix E of the [2008-2011 MetroGIS Business Plan](#).

In addition, the Council has provided 1 FTE for the Staff Coordinator position and around .5 FTE for GIS technical and website (DataFinder and the general website). Since its beginnings, MetroGIS has relied upon a matrix management style to garner staff support for its various work objectives. Generally, individuals are recruited on a project-by-project basis, which possess the desired skills and organizational perspectives, from organizations that have a business need for a solution to a particular shared geospatial need.

As an action affiliated with its adoption of the MetroGIS 2008-2011 Business Plan, the Policy Board concurred that a full time Technical Coordinator is needed to ensure that MetroGIS's activities continue to maintain relevancy with changing stakeholder needs. As of this writing, resources had not yet been secured to meet this need. In the interim, 5-6 GIS technical managers comprise a [Technical Leadership Workgroup](#) that is serving a surrogate Technical Coordinator on a part time basis.