

Project Plan

Project Name: Minnesota Geospatial Commons – Test Implementation

Date: 06/07/2010 Version: 1.3

Prepared By: Mark Kotz



A Executive Summary

Business Need/Opportunity

The Minnesota geospatial community has access to a large number of shared geospatial datasets, mainly through multiple data download sites. However, no one web location exists through which people and organizations can find and share such data. Shared web services and applications are even less accessible, and only modestly promoted as a potential shared resource. There exists in Minnesota a significant opportunity to collaboratively develop a single location through which published Minnesota geospatial resources can be found and shared.

Many in the community are very interested in this opportunity and have a compelling business need to see it succeed, not the least of which are the agencies that manage the biggest GIS data distribution sites in the state (DNR, Met Council, MnGeo & Mn/DOT). Further, the existence of a collaboratively developed Commons may eliminate the need for existing, disparate GIS data download sites, saving several organizations from the responsibility of maintaining their own sites and upgrading them periodically.

The coordinated geospatial commons that is envisioned would greatly advance our ability to share web services in particular, by both providing a place to publish information about them and also by facilitating assessments of the reliability and trustworthiness of such web services. The increased usage of web services will produce efficiency gains for many organizations, in particular those that develop geospatial applications.

Perhaps most importantly, the Commons will provide a one stop location for a broad array of business and GIS users in Minnesota and beyond, whether professional or casual, to find and share useful resources, and will promote greater sharing of geospatial data, services and applications.

Statement of Work

This effort includes the following:

- Define the needed functions of the Commons
 - Begin with those functions needed by the major data producers
 - Get additional input from the broader MN geospatial community
- Assess existing sites and products and choose a product for a test bed implementation
- Further define the critical functions and requirements (i.e. role of the broker, services documentation)
- Form a multi agency implementation team advised by the Commons workgroup
- Create and approve a project charter
- Create and approve a project plan for the test bed implementation
- Implement a test bed Commons focusing on high priority functions
- Test functionality and assess strengths and deficiencies of software product and implementation methods
- Make recommendations and project plan for a full production Commons, including
 - Roles and responsibilities
 - Functions to include
 - Implementation methods
 - Timeline

- Governance
- Report findings
- Seek commitment and/or funding

This effort does not include the following:

- Implementing a final production Commons

Project Objectives

Business Objectives for the project are:

- Define the needed functions of the Commons
- Implement a test bed version of the Commons
- Make recommendations and develop a project plan for a full production Commons
- Report to MnGeo and the geospatial community

Constraints

The following limitations and constraints have been identified for this project:

- The effort relies on voluntary participation by multiple government agencies
- This project has no defined budget
- This project will proceed within the bounds of the prioritized Commons functional requirements previously defined by the Geospatial Architecture Workgroup
- Upon approval of this Project Charter, the next milestone will be the completion of a Project Plan.

Assumptions

The following assumptions were made when developing this Project Charter:

- This project has the approval of MnGeo to host the test bed Commons.
- Participating agencies will continue to support staff involvement with this project.
- More specific staff commitment levels will be defined in the project plan.

The Project Charter was approved on 3/19/ 2010.

B Scope Overview

Business Scope

Phase 1 – Requirements

- Define and prioritize preliminary list of functions
- Assess user needs and modify functions and priorities if appropriate
 - Create online survey
 - Advertise on existing data discovery sites and GIS/LIS newsletter
 - Compile results and compare to functions list and modify as appropriate.
- Assess web service requirements
 - Clarify what comprises comprehensive documentation of a web service.
 - Agree on a list of key characteristics that must be addressed to achieve “trust” in a web service.
 - Further define the roles of the Broker (both machine and human) and the Enterprise Service Provider with respect to quality of service and trust.
 - More clearly define the options for, and recommended functions of the broker and how it interfaces with the service provider and the application client.

Phase 2 – Implementation – ESRI Geoportal Extension

- Identify a host server
- Identify training needs of implementation group
- Research functionality and configuration options
- Develop a plan for which Commons functions will be implemented
- Develop a configuration plan
- Define how selected geoportal software will fit into existing architecture
- Install and/or configure hardware and firewall connections
- Install and configure software
- Implement client functions and complete UI/design work
- Individual agencies contribute resources (e.g. data, services, applications) to test Commons
- Develop a test plan and test cases
- Test implemented functions
- Assess how implemented functions meet workgroup defined needs
- Describe what other functionality is needed
- Recommend how that functionality might be acquired or created
- Recommend whether the ESRI product should be used for a production site
- Modify implementation if appropriate

Phase 3 – Make Recommendations and Plan for Production Commons

- Make recommendations for a production Commons
 - Functions to include
 - Implementation strategy
 - Roles and responsibilities
 - Estimated up front and ongoing costs
 - Benefits and risks
 - Potential sources of funding
- Articulate the benefits of sharing services and of achieving a system that effectively supports sharing of services.
- Model service level agreements
 - Develop or find a template or model for a service level agreements (SLA).
 - Work toward an SLA for the MnGeo image service.
- Report to stakeholder organizations, including participating agencies, MetroGIS Policy Board and the MN Geospatial Advisory Councils
- Report to the MN geospatial community, federal partners, NSGIC and others. They may have valuable input or assistance.
- Propose a project plan for a production Commons

Scope Management Plan

Proposed scope changes will be assessed in terms of impact to project schedule, cost and resource usage. Any changes to this scope must be documented in a revised version of the project plan. Approval of Project Manager is required. Any scope changes involving staffing or funding changes also require the approval of the project owners.

C Budget Overview

Estimated budget for the project by state fiscal year:

| | | | | |
|--------------------|-------------------|---------|------------------------------|-----------------------------|
| Budget Amount: \$0 | Fiscal Year: 2010 | Funded? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Budget Amount: \$0 | Fiscal Year: 2011 | Funded? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

All staff time, hardware, software and other resources will be contributed in-kind from participating organizations. A request will be made to MetroGIS to fund staffing for some key project tasks.

Budget Management

Any changes to the budget must be documented in a revised project plan. Approval of Project Manager and Project Owners is required.

D Project Team

The following people and organizations are stakeholders in this project and included in the project planning. Additional project team members are added as needed.

Executive Sponsors: Commit resources & advocate for project

- David Arbeit, Minnesota CGIO, MnGeo
- Dave Hinrichs, CIO Metropolitan Council
- Kathy Hofstedt, CIO Mn/DOT
- Robert Maki, CIO Minnesota DNR

Project Owners: Ensure adequate resources are available and track project status

- Chris Cialek, MnGeo
- Rick Gelbmann, Metropolitan Council
- Tim Loesch, Minnesota DNR
- Dan Ross, Mn/DOT

Project Manager: Lead the planning and execution of the project, chair workgroup

- Mark Kotz, Metropolitan Council

Project Workgroup: Plan and design the Commons, advise Implementation Workgroup

- Mark Kotz, Met. Council (Chair)
- Bob Basques, St. Paul
- Chris Cialek, MnGeo
- Jessica Deegan, Met. Council
- Jessica Fendos, DEED
- Josh Gumm, Scott County
- Leslie Kadish, MN Historical Society
- Steve Lime, DNR
- Charlie McCarty, Mn/DOT
- Chris Pouliot, DNR
- Nancy Rader, MnGeo
- Nancy Read, Metro Mosquito Control District
- Dan Ross, Mn/DOT
- Hal Watson, DNR
- Paul Weinberger, Mn/DOT

Implementation Team: Implement test bed version of ESRI Geoportal Extension

- Jessica Deegan, Met. Council (Co-Team Lead)
- Jim Dickerson, MnGeo
- Josh Gumm, Scott County
- John Harrison, Mn/DOT

- Susanne Maeder, MnGeo
- Chris Pouliot, DNR (Co-Team Lead)

Survey Team: Plan and implement a user survey

- Jessica Deegan, Met. Council
- Chris Pouliot, DNR
- Alison Slaats, 1000 Friends of Minnesota

Service Requirements Team: Identify issues related to web services requirements and how they might be implemented using a broker in the Commons environment

- Hal Watson, DNR (Team Lead)
- Jessica Fendos, DEED
- Susanne Maeder, MnGeo
- Matt McGuire, Met. Council

Project Team Management

The project manager coordinates the project tasks assigned to team members. Changes to the project team require approval of the Project Manager and Project Owner for the affected agency if relevant. Changes will be tracked in revisions to the project plan.

E Project Schedule

Key project tasks, responsible groups and estimate hours:

Detailed project schedule is provided below.

Schedule Management

The project Schedule will be posted online and updated as tasks are completed. Any changes to the schedule must be documented in a revised project schedule. Sign-off from Project Manager is required

Project Tasks with Estimated Completion Dates and Total Person Hours Required

| Task (time estimates to the right are in total person hours for task) | Estimated Complete Date | Done | Resources if not full team | Implement | Work group | Service Reqs | Survey | Proj Mngr | MnGeo | Sponsors |
|--|-------------------------|------|----------------------------|-----------|------------|--------------|--------|-----------|-------|----------|
| Preliminary functions defined and prioritized | 11/13/09 | ✓ | | | | | | | | |
| Workgroup agrees to implement ESRI Geoportal Toolkit as test bed | 02/04/10 | ✓ | | | | | | | | |
| Approve project charter | 03/15/10 | ✓ | | | | | | | | |
| Online survey is launched | 03/16/10 | ✓ | | | | | 10 | | | |
| Create draft project plan | 03/26/10 | ✓ | | | | | | 5 | | |
| Draft project plan reviewed by workgroup | 04/08/10 | ✓ | | | 8 | | | | | |
| Research functionality and configuration options | 04/29/10 | ✓ | | 30 | | | | | | |
| Identify training needs (if any) of implementation group. | 05/01/10 | | 1 person | 2 | | | | | | |
| Project plan approved by workgroup | 05/06/10 | ✓ | | | 5 | | | | | |
| Identify a host server | 05/07/10 | ✓ | | | | | | | 1 | |
| Clarify what comprises comprehensive documentation of a web service | 05/14/10 | | | | | 9 | | | | |
| Develop plan for which Commons functions will be implemented in test | 05/15/10 | ✓ | | 20 | | | | | | |
| Designate how selected geoportal software & components will fit into existing architecture | 05/15/10 | | 1 person | 4 | | | | | | |
| Report on survey results to date and comparison with list of functions | 05/21/10 | ✓ | | | | | 2 | | | |
| Project plan approved by executive sponsors, owners and project manager | 05/21/10 | | | | | | | | | 3 |
| Develop a configuration plan | 06/04/10 | | | 20 | | | | | | |
| Install and/or configure hardware and firewall connections | 06/11/10 | | 1 person | 3 | | | | | | |
| Agree on a key characteristics to achieve “trust” in a web service | 06/18/10 | | | | | 9 | | | | |
| Install and configure software (including toolkit and underlying software) | 06/25/10 | | 1 person | 20 | | | | | | |
| Online survey is ended | 06/30/10 | | | | | | 0 | | | |
| Compile survey results and compare to functions list | 07/09/10 | | | | | | 4 | | | |
| Define roles of Broker (machine & human) and Provider relate to quality of service & trust | 07/15/10 | | | | | 12 | | | | |
| Develop a test plan, test cases, and tracability matrix | 07/16/10 | | | 10 | | | | | | |
| Define options for, and recommended functions of broker and how it interfaces with service provider and the application client | 08/06/10 | | 2 people | | | 20 | | | | |
| Submit MetroGIS funding proposal if appropriate. Due Sept. 2 nd . | | | | | | | | | | |
| Implement client functions and complete UI/design work. (tasks broken down by functionality pieces eventually) | 09/17/10 | | | ? | | | | | | |
| Individual agencies contribute resources (e.g. data, services, applications) to test Commons | 09/24/10 | | | | 15 | | | | | |

Minnesota Geospatial Commons – Test Implementation

| | | | | | | | | | | | |
|---|-----------------|--|----------|---|------|-----|----|----|----|---|---|
| Test implemented functions | 09/24/10 | | | | 15 | | | | | | |
| Revise any needed implementation pieces | 10/01/10 | | | ? | | | | | | | |
| Revise data or service contributions | 10/07/10 | | | | 6 | | | | | | |
| Test Bed running with real data & services - open for comments | 10/11/10 | | | ? | | | | | | | |
| Give presentation about Commons at MN GIS/LIS Consortium Conference | 10/15/10 | | | | | | | 5 | | | |
| Assess how implemented functions meet workgroup defined needs | 11/04/10 | | | | 10 | | | | | | |
| Describe what other functionality is needed | 11/04/10 | | | | 10 | | | | | | |
| Modify implementation if appropriate, based on feedback | 12/02/10 | | | ? | | | | | | | |
| Recommend how that functionality might be acquired or created | 12/02/10 | | | | ? | | | | | | |
| Recommend whether the ESRI product should be used for a production site | 12/02/10 | | | | ? | | | | | | |
| Create draft recommendations for a production Commons | 12/16/10 | | | | | | | 8 | | | |
| Modify and approve recommendations for a production Commons | 01/06/11 | | | | ? | | | | | | |
| Create draft project plan for a productions commons | 01/20/11 | | | | | | | 10 | | | |
| Modify and approve project plan for a production commons | 02/03/11 | | | | ? | | | | | | |
| Report to stakeholder organizations and geospatial community | 02/11/11 | | | | ? | | | | | | |
| Model service level agreements | 02/11/11 | | 2 people | | | 8 | | | | | |
| Articulate the benefits of sharing services and a system that supports such sharing | 02/11/11 | | | | ? | | | | | | |
| | | | | | 109+ | 69+ | 58 | 16 | 28 | 1 | 3 |

F Communication Plan

The Geospatial Commons Workgroup will maintain a schedule of monthly meetings. All workgroup members, subgroup members, project owners and other who have expressed interest are included in the CC list for meeting agendas and meeting notes. If a particular meeting is not needed, it will be cancelled. The workgroup maintains a Basecamp web site for collaborative work. This site is accessible only to authorized users. Additional or alternate workgroup collaborative work sites will be considered if the need arises.

The workgroup chair/project manager will report progress to the following groups at their request:

- MetroGIS Coordinating Committee
- MetroGIS Policy Board
- State Government Geospatial Advisory Council
- State Agency Geospatial Advisory Council

Key stakeholder organizations will be kept abreast of the progress of the workgroup through their representatives on the workgroup.

The workgroup will also maintain a web page under the MnGeo advisory committee site at <http://www.mngeo.state.mn.us/workgroup/commons/index.html>. The project schedule will be updated periodically and posted on this site.

It is expected that workgroup members will provide presentations about the project at various venues. Specifically, the project will be presented at the Minnesota GIS/LIS Conference in October.

Individual task teams will work closely on a weekly or daily basis while completing specific tasks.

G Issues Management

As issues arise within the project, each team will determine if the issue is significant enough to report it to the Project Manager. The Project Manager, in consultation with the Team Lead, will decide if the issue should be reported to the full Workgroup. If so, the collaborative work site will be used as a place to describe and track issues. For project work to continue efficiently, it is desirable that most issues be resolved within each team or with consultation with the Project Manager. Issues may include testing results, unexpected problems, and other items that impact project completion.

H Project Plan Documents Summary

All significant electronic project documentation will be posted on the collaborative work site. Teams will determine when a document is sufficiently complete to post on the site.

I Approval

Below is documentation of confirmation that **project sponsors, project owners and project manager have reviewed the information contained in this document and approve of this as the formal project plan for the Minnesota Geospatial Commons – Test Implementation project.**

To indicate approval, send an email to mark.kotz@metc.state.mn.us stating that that you approve the project plan for the Commons Test Implementation project.

Executive Sponsors: Commit resources & advocate for project

- David Arbeit, Minnesota CGIO, MnGeo
- Dave Hinrichs, CIO Metropolitan Council
- Kathy Hofstedt, CIO Mn/DOT – Approved by email 5/21/10
- Robert Maki, CIO Minnesota DNR – Approved by email 5/25/2010

Project Owners: Ensure adequate resources are available and track project status

- Chris Cialek; MnGeo
- Rick Gelbmann, Metropolitan Council – Approved by email 5/12/10
- Tim Loesch, Minnesota DNR – Approved by email 5/19/10
- Dan Ross, Mn/DOT – Approved by email 5/20/10

Project Manager: Lead the planning and execution of the project, chair workgroup

- Mark Kotz, Metropolitan Council – Approved 5/10/10

The Project Plan will be approved by the Project Executive Sponsors, Project Owners and Project Manager
Project Changes will be approved by the Project Owners and Project Manager