



MetroGIS Geospatial Architecture Workgroup

A subgroup of the
MetroGIS Technical Leadership Workgroup

Agenda
Tuesday September 23, 2008
1:30 to 3:30 p.m.
Metropolitan Council
Room LLA
390 Robert St. North, St. Paul
(Map Attached)

1. Welcome, Introductions, Note Taker
2. Approve Agenda all
3. Approve Meeting Summary from August Kotz
4. Review Next Steps all
5. Workgroup Vision Related to Trust Issues Kotz
6. Broker Functions – Revised List all
7. Existing examples of Brokers - ***Come prepared to show examples you have found*** all
8. Presentation of Broker Products – ESRI Portal Tool ESRI
9. Next Steps all
10. Adjourn

Directions to the Metropolitan Council:

A map and directions are available here

<http://www.metrocouncil.org/about/LocationDirectionsMap.htm>

Enter the building and check in at the guard desk. The meeting is in the Lower Level, Room B. This is in the unsecured part of the building, so you will not need an escort. Take the elevator down 1 floor and curl around to your right to room LLA.



Next Steps

Trust Issues

- Clarify what comprises comprehensive documentation of a web service.
 - Review lessons learned from the GeoServices Finder project, in particular, that project team's investigation of best practices and standards promoted by the OGC, FGDC, etc.
 - Review services portion of the North American Profile of the ISO metadata standard – just released for review.
- 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.
- Develop or find a template or model for a service level agreements.

Broker

- Refine list of broker functions.
- Define role for MetroGIS (what should it try to do now, what should wait for state?).
- Compare desired functions to off the shelf product capabilities.
- Determine if an off the shelf product should be used and if additional design work will be needed to meet all desired functions.
- Recommend a course for achieving the desired functions (implementation plan).
- Research activities in progress in other states, and internationally, that can be leveraged for this project.
- Implement a test-bed broker as a first step in understanding the needs and as a way to “kick the tires” on at least some of the desired functionality.
- Include an assessment of user needs to clarify the functionality that users really want. (*so we are not building something we don't need*)
- Articulate the benefits of sharing services and of achieving a system that effectively supports sharing of services.

Issues Associated with Relying on Other Organization's Web Services

Workgroup Vision: *Is this correct?*

We have a central authority that facilitates the creation and posting of standard information about services so that potential users can easily investigate issues of trust (when the cost of failure is not low). Service providers then are required to provide some threshold of information (metadata). This is required so that potential users can establish trust levels for their particular use or context. We also allow users to review and report on existing services (feedback).

Spreading the Costs:

This puts some costs on everyone:

- the central authority to create the system and monitor services
- the provider to document service and any self reporting
- new users to investigate for their own context/use and cost of failure
- existing users to review/report/give something back

Big questions:

1. How much should the central authority require of the provider to allow participation?
 - a. "Full" metadata
 - b. Partial metadata is just fine
 - c. Complete metadata, but OK to say "I don't know"
 - d. Allow minimal, but encourage and support full
2. Should the central authority certify services?
 - a. If so, how, what criteria?
 - b. Or should it just measure quantifiable things and report results?
 - c. Should providers self report?
 - d. What are the reporting criteria?
3. How do we allow user feedback and reviews? Should they be by name or do we allow anonymous reviews?

Quality of Service

Trust in Web Services is built on these Quality-of-Service indicators:

1. Reliability
 - a. Does the provider's service go down often?
 - b. How do we establish and meet expectations of uptime?
2. Performance
 - a. Are there performance measures or statistics?
 - b. Are there ways to document expected performance?
3. Support
 - a. Do they have 24/7 support?
 - b. Is there documentation
 - c. Is it rapid support or not?
4. Availability
 - a. Is the service available from multiple sources?
 - b. Are there redundant servers?
5. Integrity
 - a. Are the data accurate, correct **or as described in metadata?**
 - b. Will parameters or access methods change?
 - c. How will a change to the service affect my business? Are there ways to mitigate this?
6. Interoperability
 - a. Can I easily use the service in my development environment?
 - b. Will the service play well with other data and services?
 - c. Does the service meet well known existing standards?
 - d. Who establishes the standards that should be used?
7. Accessibility
 - a. How do I access the service?
 - b. Who gets to use the service I'm providing?
8. Commitment
 - a. How committed are they to this service?
 - b. Do they need it for their own business needs?
9. Security
 - a. Who will authenticate users?
 - b. Who will authorize users?
 - c. How do I obtain authorization?
10. Longevity/Temporal
 - a. **Will archived data be available in the future?**

Did I characterize this accurately? Does it apply specifically to a web service, or is it really applicable just to the underlying data?

Geospatial Broker and “Front End” Functions

- Broker involves many types of geospatial resources including data, web services, applications, feeds, etc.
- Broker should support a federation of smaller “nodes” via harvesting or linking on the fly.

<p>Search</p> <ul style="list-style-type: none"> – Spatial data – Metadata search – Structured interface – Catalog (list) – Cross-selling (recommendations) 	<p>Inform</p> <ul style="list-style-type: none"> – News/discussion forum – Standards & cookbooks – Thesauri & gazetteers
<p>Discovery</p> <ul style="list-style-type: none"> – Metadata and documentation viewer – Map viewer – Link to content provider – Connect to service – Download service 	<p>Administration</p> <ul style="list-style-type: none"> – Catalog maintenance – Harvesting – Security & User management – Hardware/network support – User profiles (preferences) – Back-end database – Service Approval & trustworthiness – Service Monitoring – Metrics of usage – Support/training on providing services, SLAs, documentation, etc.