NSDI Cooperative Agreements Program
Integration with Web Mapping Services
03HQAG0147
Final report

Maine Office of Geographic Information Systems
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Collaborating organization
Maine Geolibrary Board
http://www.maine.gov/geolib/

Project Narrative:
The project began by identifying critical layers to be included in OGC-compliant map services. These layers are listed below in a following item. The base map service was built as an ESRI IMS service, using the WMS connectors. The z3950 protocol service was set up and the clearinghouse node was registered.
All the layers used in the Framework WMS have URLs for the WMS included in their metadata.
One problem area was a lack of cartographic standards to use as a guide to symbolize the data layers. Another problem seems to be a lack of technical resources and difficulty in finding specific information when assistance is needed.
The work performed thus far is a critical first step toward further development. MEGIS, in cooperation with the Maine GeoLibrary Board, is preparing to solicit an RFP for development of a Maine GIS Portal, which among other features will allow users to search, discover, display, and utilize OGC map services and metadata. MEGIS has also been awarded a CTM Partnership Grant with USGS, which will allow further development of the services and portal.

Status of your Clearinghouse Node
Site Name: http://megis.maine.gov

   - How many metadata entries?
Complete FGDC-compliant metadata exists for all data layers housed by MEGIS
(112 layers)

- How many metadata entries with OGC WMS references in them?
Fifteen layers. OGC-WMS references are entered for all layers in the map service (listed below), with the exception of Hydrography. A program to produce an enhanced hydrography layer is in progress.

- Issues in metadata management and service

We have had trouble with the online html metadata report component. Currently working with Intergraph to resolve.

Status of your Web Map Service
- Software type and version used
ESRI Arc IMS 4.3, data resides in Arc SDE

- Status/Issues with the OGC WMS setup
The map service is operational at the following URL:

- Provide URL to your WMS "getCapabilities" request
http://megisims.state.me.us/wmsconnector/com.esri.wsit.WMSServlet/WMSFramework?
REQUEST=GetCapabilities

- Describe what types and coverage of data are present
Town boundaries- line and poly
Orhophotography- 1m B&W for most of state, with 0.5m color for southern part of state
Conservation Land ownership boundaries
Utilities and other transportation
Railroads
Interstate mileposts
Maine DOT Public Roads (statewide public-use roads)
E911 roads (In towns where final data available. Includes accurate road names and address data, both public and private roads.)
20-ft contours
Hydrography- line and poly

Integration
- Provide status of Clearinghouse or geodata.gov search portal to access your maps through the metadata (URL)

All the layers used in the Framework WMS have URLs for the WMS included in their metadata. The z3950 protocol service is running and the clearinghouse node is registered.

- Successes and Problems
The primary obstacles for us were: Unsure of where to find specific information. Few examples available to follow. Determining which projection to use and how to implement seemed difficult at first.

- Recommendations

Next Steps (if appropriate)
- Describe the next phase in your project
The next phase will be to contract for vendor services for implementation of our GIS Portal. The Geolibrary Board has approved specifications, and the contract is undergoing final review before sending out to bid.

Implement Portal

Along with Portal implementation will be installation of Data Download Extension for internet map services. This will allow users to define an area of interest and download the data in a user-specified format.

MEGIS has also been awarded a CTM award for partnership on the National Map. This will compliment the work performed under this grant. This will ensure compatibility with Maine's GOS project and *The National Map,* and sets the stage for future coordination with all federal programs on data development, data maintenance and delivery.

- Requirements (more technical assistance, software, other?)
Vendor to supply Portal software
Data Download Extension to Arc IMS

- What areas need work?
We have had trouble with the online html metadata report component.

Feedback on Cooperative Agreements Program:
The program allowed us to get started on WMS services, and establish metadata links to the services. This will be expanded to further development, establishment of our GIS portal, and improved data access for all who use MEGIS data.
 The assistance was helpful in laying the foundation for a larger project. We were able to conduct R&D, create base map services, and plan for further development. This has allowed us to obtain other sources of funding for further development.
What would you have done differently: probably form a group to work out cartography issues and establish standards. More research. Be better educated about the technology/standards.