

Session 6.3.3 Investigation of Routing Options for the Nova Scotia Road Network (NSRN)

Presenter

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The Province of Nova Scotia has a long history of effective utilization of geospatial technologies and supporting datasets. Service Nova Scotia and Municipal Relations (SNS&MR), through the Nova Scotia Geomatics Centre (NSGC), is responsible for digital base mapping on behalf of the Province and in support of the GeoNova program, which is Nova Scotia's gateway for access to geographic information.

In keeping with the GeoNova philosophy of "collect once, store once and widely share", the NSGC has created the Nova Scotia Road Network (NSRN) which integrates data from a number of sources into one multi purpose database that serves the basic business needs of provincial stakeholders for geospatial road network information and also provides support for E911. The NSRN is maintained through a collaborative process that includes on-line change detection from stakeholders (through a web application for civic address maintenance), a systematic GPS field data collection program, and periodic updates from aerial photography as part of an overall provincial topographic database maintenance program. The NSRN data model is an extension of the Canadian National Road Network (NRN) data standard with additional attribution to support provincial needs. The Province provides annual NSRN updates to Natural Resources Canada in support of the NRN maintenance program.

Now that the basic NSRN is in place, there is interest in expanding data content to support additional applications such as network routing. The NSGC has therefore undertaken an investigation of the business requirements for, and the data model enhancements in support of, an improved NSRN database that will support shortest path network routing. An initial project report delivered in June 2006 documented these requirements, made recommendations for data model enhancements, and included strategies for collection and maintenance of the additional routing attributes. The Province is now undertaking a limited scope pilot project to verify the data model, investigate alternatives for data collection / maintenance, obtain feedback from stakeholders regarding the benefits of the enhanced database, and develop a plan (with cost estimates) and supporting recommendations for a province-wide implementation of a routing enabled NSRN database. The results from the pilot project will be documented in a second report that will be delivered in late November of 2006.

This presentation will discuss the results from the above projects, including implementation plans that are developed subsequent to the pilot project report.