

Bringing Province-Wide Data into Focus

Service New Brunswick builds powerful map-viewer to share data across the province

New Brunswick just turned 225 and has a lot to celebrate. It is Canada's largest Maritime province and boasts three distinct coastlines. New Brunswick's communities enjoy high standards of social services including education, housing, health, income assistance and justice that are administered by the provincial government. They are supported by Service New Brunswick (SNB) – a provincially-owned corporation that works to improve the delivery of government services to the public.

SNB has an extensive mandate with four main lines of business. It operates the province's real and personal property registries, assesses all lands, buildings and improvements across the province, provides a gateway for the public to more than 200 government services, maintains the province's survey control network and coordinates topographic mapping. With no central database to store information, managing all of this data could at times be challenging as different departments were maintaining multiple, duplicate datasets.

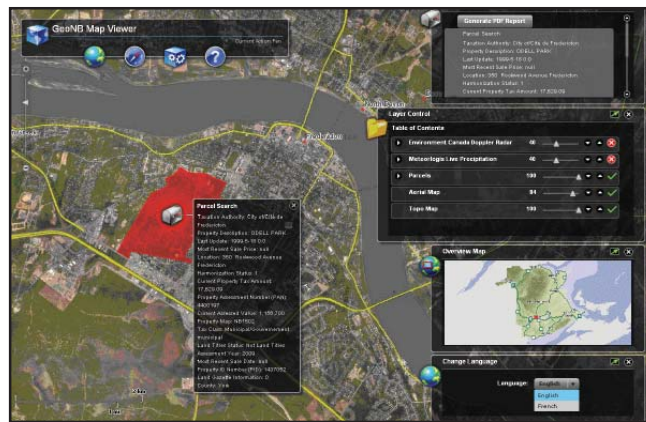
To address the situation, SNB's Land Information Secretariat conducted a thorough review of the province's mapping process and realized that it possessed a rich catalogue of geographic data that was not being fully leveraged. They also needed to address difficulties experienced by users of SNB's Geographic Data and Maps Web site who were having a hard time downloading and viewing the data.

With a desire to improve internal operations and better serve the public, SNB developed an action plan to build a spatial data infrastructure (SDI) that would lead to the creation of the GeoNB Map Viewer. A spatial data infrastructure is a group of technologies, policies, standards and human resources, necessary to acquire, process, manage and distribute geographic information. SNB's first steps to building an SDI were to establish an organizational structure, secure funding and implement a governance framework.

SNB then selected ESRI Canada to develop the

GeoNB Map Viewer application using ArcGIS Server technology. The ArcGIS API for Flex was also used to make rich content available over the Web so that it could be leveraged internally and by provincial residents. At the core of the application is base data consisting of coast-to-coast orthophotos, topographic maps,

information. Through a series of customized widgets, users can apply the "Parcel Search" tool to research a property and find relevant information such as assessed property values, or use the "Search" tool to search parcels by point, line, rectangle or polygon. The ability to switch the user interface from French to English was a key requirement for New Brunswick.



The GeoNB Map Viewer that shows a parcel search within the City of Fredericton, pulling up valuable property information.

and cadastral maps with overlaid live maps that provide a precipitation layer and weather radar data from Environment Canada.

In the Spring of 2008, Fredericton experienced its highest flood since 1973 and the Saint John River rose to over 8.3 metres (1.8 metres above flood level), causing significant property damage. Incorporating live weather data into the GeoNB Map Viewer application has assisted the province in monitoring and preparing for future floods.

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**Bernie Connors,
Service New Brunswick**

SNB's Land Information Secretariat has also integrated the civic address database – a listing of all civic addresses within the province of New Brunswick along with associated attribute

“We have a comprehensive collection of orthophotos that are not freely or easily available anywhere else,” explains Bernie Connors, SDI Manager, Service New Brunswick. “We finally have a way to make this data widely available to the public so they can research properties and access valuable information about their own communities.”

In addition to being able to survey live weather data and research properties across the province, another major benefit of the spatial data infrastructure is that it standardizes data models across departments. One of the province's biggest challenges was that each government department maintained multiple datasets and referenced separate data models. SNB is now working with a consultant to standardize both the hydrographic and road network data models, and then to assign custodians who will be responsible for maintaining and updating the data. This will ensure that departments across the province are accessing the same information.

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SNB's action plan to develop a spatial data infrastructure proved so successful that it has inspired individual government departments to develop their own specific applications. The property assessment department is already planning to build a tool based on the GeoNB Map Viewer application and is currently researching requirements to begin the project. ■