

# Canadian electric utility streamlines infrastructure analysis with GIS visualization

## Customer Profile

Newfoundland Power serves the majority of electricity consumers in Canada's province of Newfoundland and Labrador, providing power to more than 243,000 customers.

## Business Situation

The utility was tasked with improving processes related to reporting on the ownership and attachments of the more than 300,000 utility poles located throughout the island portion of the province. As the result of a joint use agreement with the local telecommunications company, Newfoundland Power needed an effective way to evaluate and quality check the results of a massive survey of utility poles. Traditional options like spreadsheets were inadequate.

## Solution

Using Visual Fusion, the utility and its consultant built an application in just a few weeks, using out-of-the-box features. The new application lets employees without GIS expertise locate poles precisely and access the data for each, simplifying the task of reviewing the survey data and communicating pole locations to field staff.

## OVERVIEW

**Newfoundland Power leverages opportunity to improve Information Management with a rapidly implemented Visual Fusion solution.**

With only a short period of time to work with a massive collection of data, Newfoundland Power chose Visual Fusion to manage the data from a survey of utility poles that was undertaken conjointly with the province's primary telecommunications company in 2011. Using out-of-the-box features, developers quickly created an application that displays the location and characteristics of the more than 300,000 poles, enabling them to check the validity of survey results, and in the future making the data easily available to employees working in the field.

## Situation

Newfoundland Power serves the majority of electricity consumers in Canada's province of Newfoundland and Labrador, providing power to more than 243,000 customers on the island portion of the province. The company's distribution lines are carried on approximately 300,000 utility poles, many of them with attachments from local telecommunications and cable television companies.

As part of a joint use pole agreement with the primary telecommunications company in the province, a survey was commissioned to determine the location, attributes, condition, and services attached for each pole. To confirm the survey's accuracy Newfoundland Power was required to perform QA checks on a sample of poles. Without a tool to display poles and pole information geographically on a map managing this QA would be very challenging.

"They had no capability to review that data other than spreadsheets," explained Corey Tucker, Senior GIS Consultant with Tamarack Geographic Technologies Ltd., a consulting firm engaged by Newfoundland Power. "It was really hampering them. They were unable to gain confidence in what was being collected."

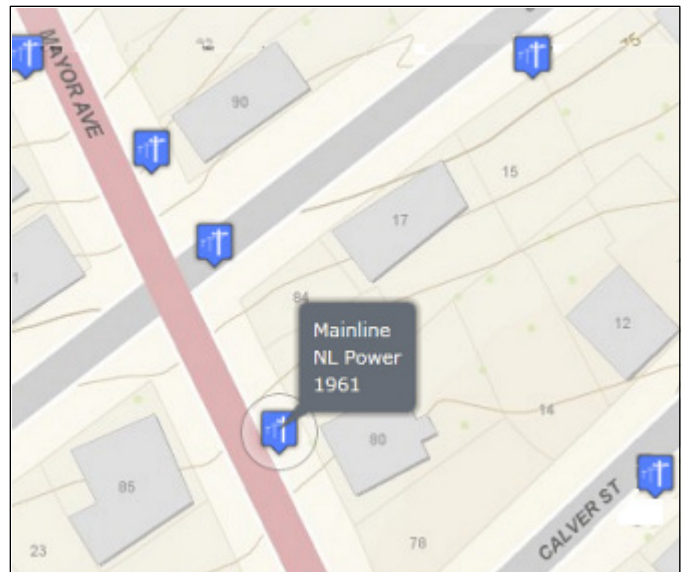
## Solution

Even before the pole survey, Newfoundland Power had been investigating how it could benefit from the use of GIS technology. The survey offered an opportunity to further understand the potential value of GIS technologies in a real world situation. Working with its consultant, Tamarack, the company considered several alternatives for providing insight into the pole survey data, ultimately selecting Visual Fusion.

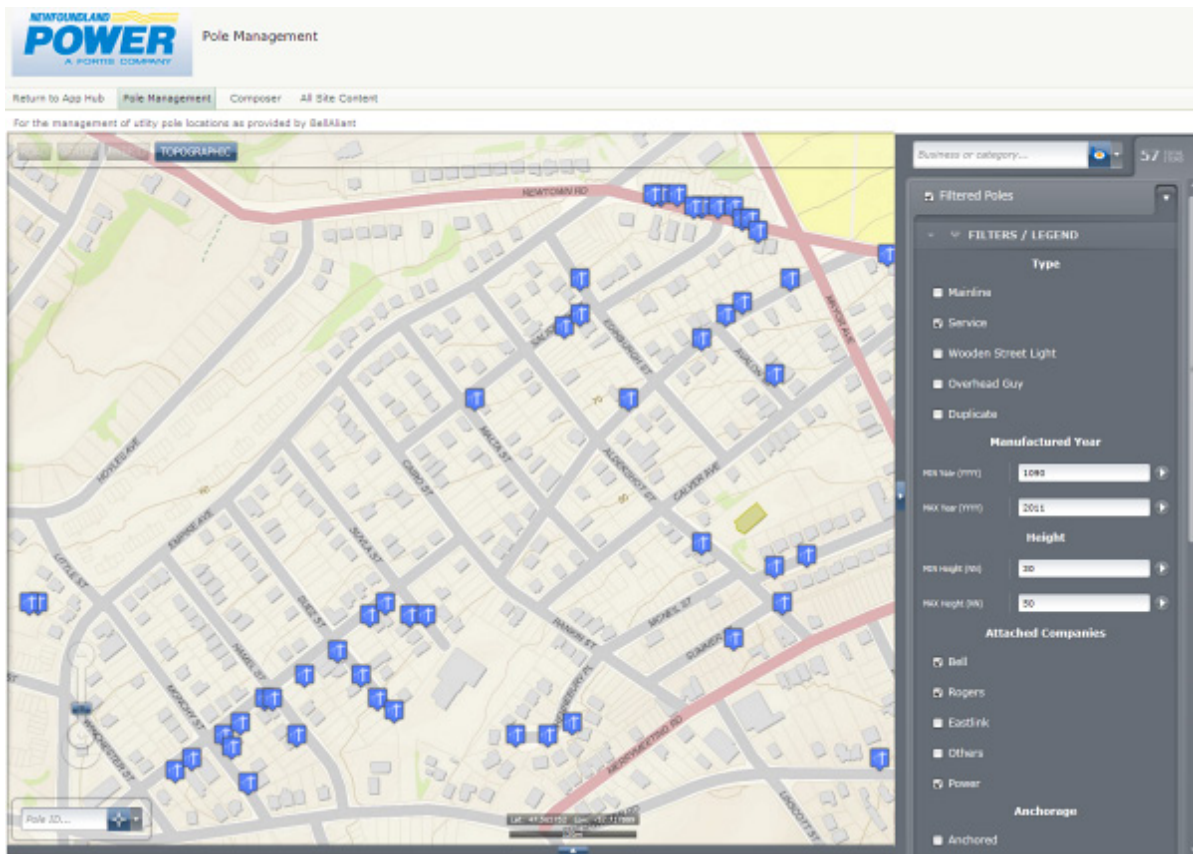
“Quick implementation was a big factor in choosing Visual Fusion,” said Tucker. “The goal was to get the application designed, developed, and deployed in six to eight weeks. Our hope was to use out-of-the-box features and minimize custom programming.”

Thanks to Visual Fusion’s robust feature set, the company was able to meet its goal. Instead of spreadsheets, a SQL Server 2008 database was deployed to contain the survey results. Through Visual Fusion’s SQL Server connector, end users can view and update the survey data.

In the company’s Pole Management application, users can see the exact location of each pole, its type, height, age, condition, ownership, and what services (cable, phone, or power) are attached. To direct field personnel to a specific structure, they can share a favorite view, or email an image created with Visual Fusion’s Label and Snapshot tools.



Visualizing the poles makes it easier to send field crews to the precise locations.



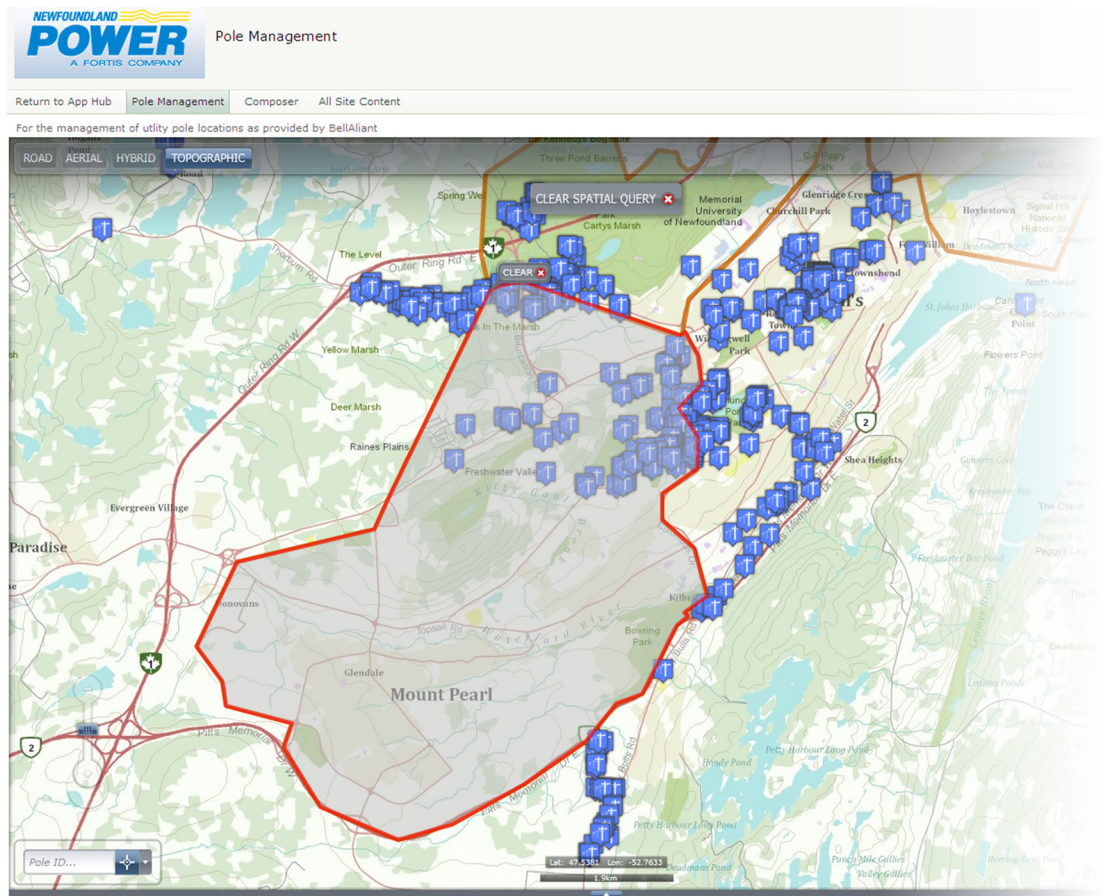
Newfoundland Powers’ Pole Management application gives users with no GIS experience easy access to location data, with no training needed.

“Many of the end users at this company are not GIS experts. They’re familiar with consumer services like Google maps and Bing maps.

The Visual Fusion application provides the possibility of an easy-to-use tool for everyone across the enterprise.”

Corey Tucker,  
Senior GIS Consultant  
with Tamarack  
Geographic Technologies  
Ltd.

Newfoundland Power and the telecommunications company will divide the poles into management areas, which users can edit and view in the application. By selecting any of these polygons, staff can do an instant spatial query to list the poles in the area, or view comprehensive reports by accessing SQL Server reporting services within Microsoft SharePoint. While nearly all of the application uses out-of-the-box features, the company elected to add custom code to calculate and display the average pole age and the number of poles for each service provider, a modification Tamarack was able to easily make for them.



With a single click, users can perform a spatial query on any pole management area

More out-of-the-box features let the company’s users filter poles in multiple ways, and display a graph of the distribution of poles by age.

### An interface for everyone

In addition to rapid implementation, other factors influenced the company’s choice of Visual Fusion. A primary one was the Visual Fusion interface, which employees could use with little or no training.

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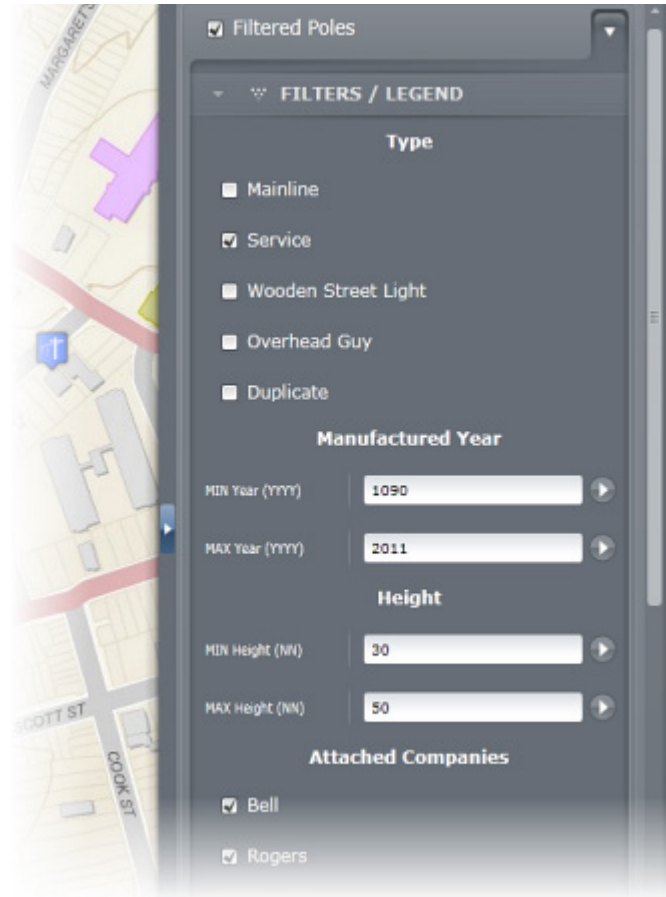
Other factors were Visual Fusion's array of data connectors and deep SharePoint integration. Because Newfoundland Power uses SharePoint extensively, many data sources in its IT infrastructure can be brought into the Visual Fusion solution quickly.

## Conclusion

By choosing Visual Fusion, Newfoundland Power was able to perform QA of the pole survey findings, and provide its users with meaningful access to the pole survey results. Using mainly out-of-the-box features, Tamarack and the company implemented the application on time and employees could use it with no formal training.

Thanks to its data connectors and available SDK, Visual Fusion also gives the company flexibility to solve many different problems in the future.

Tucker indicated, "Visual Fusion has the potential to become the standard way anyone in this organization views spatial data".



Users can filter data in multiple ways. Filters are enabled through configuration and require no custom code.

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## About Us

IDV Solutions® is a data visualization software company committed to helping organizations gain more insight from data.

Visual Fusion is innovative data visualization software that unites data sources in a web-based, visual context for better insight and understanding.

By repeatedly solving key problems for customers in the Global 2000 and government, IDV and its products have earned a reputation for innovation, speed, and the highest quality user experience.