Case Study

ACHIEVING SMART TRANSPORTATION GOALS FOR STAFF-STRAPPED CITY

Replacing manual data collection with crowdsourced and real-time traffic data via visualization platform

st.petersburg

Overview

St. Petersburg is a city on Florida's gulf coast, part of the Tampa Bay area. Known for its pleasant weather and beaches, it is a popular destination for golfing, boating, and fishing. Along the waterfront, the city houses multiple renowned theatres and museums.

St. Petersburg Department of Transportation and Parking Management

The St. Petersburg Department of Transportation and Parking Management is responsible for maintaining and improving the transportation system for the safe and efficient movement of people, goods, and services. The city's Complete Streets policy focuses on consideration for all roadway users and their safety, including motorists, pedestrians, bicyclists, and transit riders, in order to enhance the quality of life for all their citizens and visitors.

Company Name: City of St. Petersburg
Date: January, 2018
Website: https://www.stpete.org/

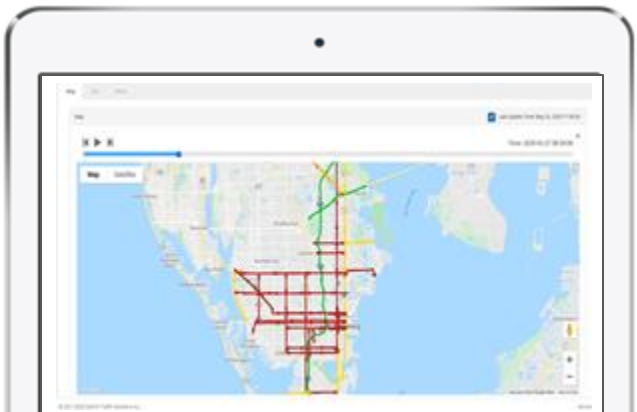
The Challenge

Under the Complete Streets Implementation Plan, adopted in May 2019, the City of St. Petersburg developed a series of additional performance metrics to assess the transportation system's performance in accordance with the new policy. The added measures would help implement modifications to the city's transportation systems that were more balanced among different roadway user types. For the City of St. Petersburg, collecting and analyzing the required data for decision making was difficult, as the department's staffing level had not grown, even with the increased work associated with the Complete Streets data collection project.

For studying travel time and travel time reliability along certain corridors across St. Petersburg, staff would have been required to drive the corridors to perform these studies. It often required two staff members, with one person driving safely while the other person recorded the drive times; other staff would then review and analyze the data. It was a labour-intensive process that was subject to human error, with a perception of the potential for bias. For these reasons, the city decided to find an easy way to automate data collection for certain traffic metrics in order to preserve staff time for data collection and analysis.

The Solution

The City of St. Petersburg chose SMATS Traffic Data Analytics as their solution for this project. The City of St. Petersburg officials use the iNode™ application to monitor traffic flow and congestion levels of various highways and roads across the City. Using integrated crowdsourced traffic data, the city had an easy way to study travel time. This allowed the City of St. Petersburg to monitor and capture on-demand travel time data for any road segment in the city for any time and date.



The Results

With iNode™, the city established over 60 links studying travel time and travel time reliability along specific corridors. The dashboard map on iNode™ enabled the city to have an overall view of the links and their locations, while monitoring and measuring the level of congestion for different links. Each link on the map displays a color (dark red, red, yellow, green), which illustrated the range of speed for that link. iNode™'s visualization and comparison features made the travel time studies easier for the city. Furthermore, the exported charts and CSV files of the data were used for further processing and preparing custom reports.

"The SMATS iNode™ platform has provided the City with a way to automate travel time studies, which helps to preserve staff time and advances the City towards its transportation goals. SMATS staff was readily available by phone or e-mail to accommodate and correct our problems." - Michael J. Frederick, Neighborhood Transportation Manager City of St. Petersburg.

SMATS for St. Petersburg

The SMATS iNode™ platform provided the city with a way to automate travel time studies, which helped to preserve staff time and attention for analysis and other work, advancing the city towards its transportation goals. Using the iNode™ platform, the city scheduled studies that were more anonymized, cost-effective, environmentally friendly, and representative of motorist behavior. The visualizations have also provided value, showing the data in an understandable way to both technical and non-technical audiences. The graphs helped display the data as well as simply relay the numbers for quantitative analysis.

Let us help you achieve your transportation management goals

Get a FREE demo: info@smats.ca