

Traffic Data in Tampa Gets the AI Treatment

Skip Descant | August 6, 2018



Lane closures, hazardous road conditions, traffic accidents and other motorist concerns in Tampa Bay, Fla., are getting a new set of eyes and analysis, in the interest of making roadways safer.

The city is involved with a pilot project using [Waycare](#) technology to better analyze traffic-related data coming from its own infrastructure — sensors, cameras, and other devices — as well as data points flowing from sources like Waze and even in-vehicle telematics, to provide real-time information about traffic conditions.

“But also using predictive analytics for proactive measures, (to) not only, how to mitigate what’s happening now and be reactive to it, but how do we actually flip that equation to be proactive about how we mitigate and strategically allocate our resources,” said Noam Maital, CEO of Waycare, a traffic analytics company headquartered in Palo Alto, Calif.

The pilot has been up and running for about three months, and is centered on the urban core of Tampa, which is roughly the area from the international airport to downtown. It’s

a cross-collaboration among the city's traffic management department as well as police, fire and dispatch agencies, all of which are focused on improving safety and gaining efficiencies.

"The goal is to demonstrate to the entire community, and the region, if not the nation, that this is a good idea and it's worth investing in, and expanding," said Vik Bhide, manager of Smart Mobility at the Tampa Transportation and Stormwater Services Department.

The concept of digitally connecting vehicles to public infrastructure is not new to the region. The Tampa Hillsborough Expressway Authority (THEA) has been involved in a [project](#) to install connected vehicle technology in personal vehicles using the Lee Roy Selmon Expressway. The technology allows the vehicles to communicate with traffic signals and other devices to better manage the flow of traffic and improve safety. As an incentive to encourage motorists to participate in the Connected Vehicle Pilot, participating commuters can get a 50 percent reduction in toll charges, up to \$550.

Cloud-based traffic management platforms like Waycare's represent the next level of using technology, coupled with artificial intelligence and machine learning to better understand traffic dynamics as well as better manage traffic and the city's response to accidents.

Bhide recalls a recent incident where a truck overturned in the intersection of Interstates 4 and 275. The traffic center received the notification from Waycare almost instantly.

"Mainly because Waycare relies on so many different types of feeds that it gets information fast, and it can verify that information better than most other agencies that require a little bit more manual interaction," said Bhide. "Luckily, there were no injuries. But if there were injuries involved, time is everything. You need to get there to save lives."

Also part of the response to the accident was reprogramming traffic signals in the downtown area, allowing for a smoother flow and less congestion, he added.

Looking forward, "as this algorithm learns the network, what we want to do going down the line, is not only get notified as soon as there's an incident, but depend on the algorithms to tell us the exact impact of the incident," said Bhide. "And that is very valuable information. Because now we can have targeted responses, from a congestion management standpoint."

From an incident management standpoint, the technology enables officials to immediately begin deploying emergency response vehicles to accident locations.

“So that’s where you start seeing the predictive and the AI tools really bearing benefits, not only in real time, but also kind of getting a glimpse of the near future, and you being able to respond to some of these issues proactively,” said Bhide.

Connected vehicle technologies are also being deployed in non-urban areas like a 90-mile stretch of I-70 in Colorado, where the Department of Transportation partnered with Panasonic to begin installing about 100 roadside units that will be able to communicate with in-vehicle technology and the state’s Traffic Management Center. The system is known as “[Vehicle-to-Everything](#)” and will enable an unprecedented level of communication and data sharing with the aim of improving highway safety and the flow of traffic.

Back in Florida, the Waycare platform is also deployed in nearby Pinellas County, home to St. Petersburg, allowing for the beginnings of regionwide network, said Maital.

“So multiple agencies can share that information together,” he added.

The future of traffic management will not simply be a one-way conversation where transportation officials push information to drivers via signage, said Maital. Instead, officials will be able to send information directly into the vehicle about conditions such as lane closures, and other alerts.

“These are things that are going to have huge impacts on primary crash reduction,” he added.

<http://www.govtech.com/Traffic-Data-in-Tampa-Gets-the-AI-Treatment.html>