



Florida Drivers Lead the “Waze”

State of Florida
Agency for State Technology
&
Department of Transportation

Category: Government to Citizen

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Executive Summary

Local traffic jams... Road hazards... Construction stops. A standard mapping application does not inform a driver of these types of conditions that can add hours to a daily commute. But Waze, working with the Florida Department of Transportation (FDOT), reports what is happening in real time because Florida's drivers, also known as "Wazers", are self-reporting real-time information. When Wazers report, their GPS patterns build and modify an up-to-the-minute accurate local map as they drive. This information is then used to calculate the fastest routes for any destination to help citizens avoid road congestion – and get to their destinations faster and safer.

In 2014, FDOT was in the national forefront with its public-private partnership with Waze, a free mobile navigational application (app) that uses "crowdsourcing" and sharing of real-time data to help the driving public navigate through traffic and road delays more easily. FDOT and Waze cross-licensed their traffic data to each other, enhancing each partners' ability to provide needed traffic information to the traveling public and, ultimately benefiting both Waze users and users of FDOT's "Florida 511" services.

The partnership originated with the former FDOT Secretary's vision to embrace new technology as a means to improve services to citizens and visitors driving Florida's roadways. Through the data sharing partnership, FDOT's extensive road data is supplemented with real-time information related to traffic jams, road hazards, and road closures due to weather emergencies. FDOT data shared through Waze enhances the benefits of the app, and in return, real-time information that drivers share on Waze is fed to FDOT to enhance its "Florida 511" services in areas where FDOT sensors and cameras may not reach.

Concept

In 2014, Florida Department of Transportation (FDOT) was in the national forefront with its public-private partnership with Waze, a free mobile navigational application (app) that uses “crowdsourcing” and sharing of real-time data to help the driving public navigate through traffic and road delays more easily. FDOT and Waze cross-licensed their traffic data to each other, enhancing each partners’ ability to provide needed traffic information to the traveling public and, ultimately benefiting both Waze users and users of FDOT’s “Florida 511” services.

The partnership originated with former FDOT Secretary Ananth Prasad’s vision to embrace new technology as a means to improve services to citizens and visitors driving Florida’s roadways. Through the data sharing partnership, FDOT’s extensive road data is supplemented with real-time information related to traffic jams, road hazards, and road closures due to weather emergencies. FDOT data shared through Waze enhances the benefits of that app, and in return, real-time information that drivers share on Waze is fed to FDOT to enhance its “Florida 511” services in areas where FDOT sensors and cameras may not reach.

FDOT has a system of sensors that provides real-time traffic information on Florida’s interstates, toll roads and major metropolitan roadways. The system detects varying speeds which can be used to indicate construction, congestion or a crash. However, most arterial roadways and some areas of the interstate did not have these sensors.

Conversely, the Waze app provides mobile users with a real-time forum for sharing road experiences, such as traffic delays, observed road hazards, and information about navigation and travel times. Waze is a free navigation and travel mapping solution app for iOS, Android and Windows smartphones. At the time of its acquisition by Google in June 2013, Waze had attracted more than 50 million users worldwide with 217,000 active users in the Orlando area, 125,000 active users in the Tampa area, and 486,000 active users in the Miami area.

Secretary Prasad recognized the mutual benefit that would come from collaboration and data sharing between FDOT and Waze. He contacted Waze to begin pursuing an innovative solution using social media, crowdsourcing and data sharing through a public-private partnership with Waze.

By March 2014, FDOT and Waze agreed to share for free the information they both collect. Under this agreement, Waze allows FDOT access to Waze real-time data. In return, FDOT allows Waze to use agency data within its app. This agreement allows FDOT to have “eyes” on roads that are not equipped with sensors. The Waze data is then used to inform operations of incident locations, which can then be disseminated to the public through Florida 511.

Figure 1: Receiving data from Waze and providing data to Waze

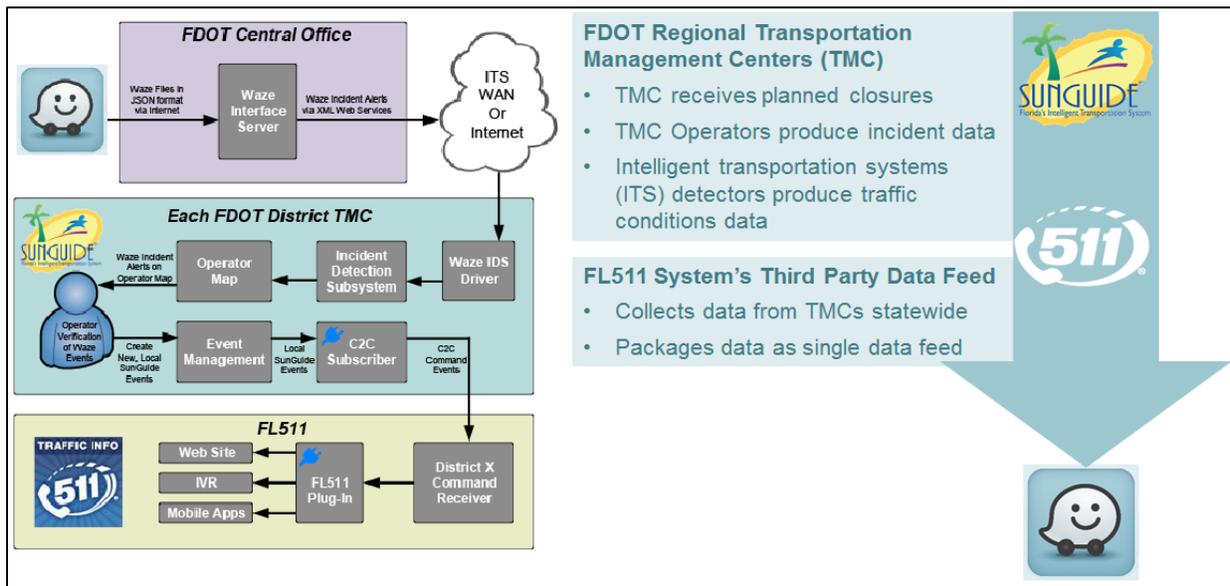
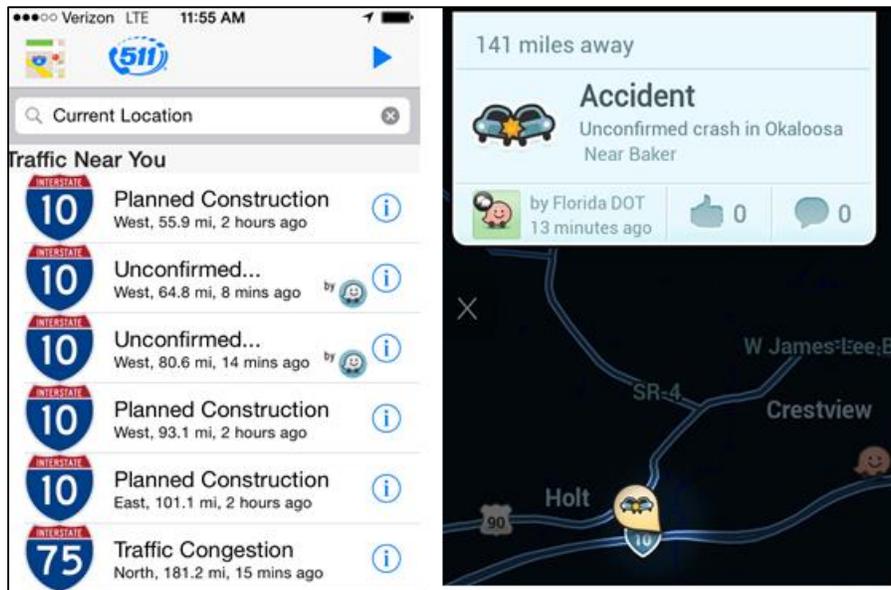


Figure 2: Attribution in Florida 511 phone app and in the Waze app



The initiative continues to be expanded under current FDOT Secretary Jim Boxold.

FDOT is working on more ways to use Waze data to improve the experience for Florida drivers. Reporting objects in roadways directly to a FDOT maintenance office, so debris

can be removed more quickly is one improvement. Using fog alerts from Waze to warn drivers of areas of fog is another improvement.

The partnership has been a great way to provide a better experience for Florida drivers. This is done by providing Waze with accurate real-time data gathered by FDOT, and by Waze providing citizen-reported data to FDOT.

Significance

When implemented in 2014, Florida was the first state in the nation to partner with Waze to achieve these benefits.

In doing so, Florida demonstrated the power of collaboration, sharing state data to benefit citizens through existing mobile solutions, and using the crowdsourcing model to improve the state's data and services.

There have been major crashes that have closed the interstate highway for multiple hours. Sometimes Wazers will not be able to report the problem because automobiles are not allowed through. Waze will still have the ability to report the severe incident because of the information received from FDOT. The Waze app will then adjust routes for Wazers, so they can bypass the incident and save time for Florida drivers. FDOT can react to crashes quicker when Waze alerts are sent to FDOT, often notifying FDOT before other sources. This provides FDOT with additional "eyes" on the road and provides location information that might not be received by other notification sources.

In addition to providing a service to drivers to help them navigate Florida's roadways safely and timely, this partnership also helps FDOT stay in touch with the citizens of Florida and be aware of what drivers are experiencing on the roads.

In the future, the state may also benefit in emergency response, as evacuation routes are established and navigated by anxious drivers. FDOT Secretary Jim Boxold recently observed: "We are now in the midst of hurricane season in Florida. Real-time traffic information on the state's roadways helps keep our travelers safe during weather emergencies."

Impact

All drivers in Florida, both citizens and visitors, benefit from FDOT's partnership with Waze. Drivers who use the Waze app benefit from the additional information that has been provided by FDOT. Other drivers benefit from the additional information that FDOT has received from Waze, particularly in areas without FDOT monitoring devices.

Drivers can be alerted of what is happening in real time, and have information that helps them avoid road congestion – and get to their destination faster and safer.

Reference links:

<http://www.dot.state.fl.us/agencyresources/documents/centraloffice.pdf>

<http://www.ast.myflorida.com/doc%20library/2015%20Technology%20Florida.pdf#page=8>

(from “Technology Florida” publication, in collaboration with
<http://learningforlife.fsu.edu/>)