



NASCIO 2016 State IT Recognition Awards

Wisconsin Department of Transportation Information Communications Technology (ICT) Innovations Category

State of Wisconsin 511 Wisconsin Mobile App

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Executive Summary

Travelers are most likely to need travel and road conditions information while they are on the road and not near a computer. In response to this need, the Wisconsin Department of Transportation (WisDOT) now makes travel information available via the 511 Wisconsin native mobile app.

The 511 Wisconsin mobile app delivers information previously available only via the 511 website, phone dial system and Twitter feed, refactored for convenient, quick access via mobile devices. The app is provided at no charge to users. The 511 Wisconsin app was developed via an innovative partnership with the State of Wisconsin and Wisconsin Interactive Network. In just over a year the app has been downloaded more than 25,000 times, an average of 59 times per day or about once per 200 Wisconsin residents.

Project Narrative: Concept

The 511 Wisconsin mobile app delivers up-to-the-minute traffic and winter road conditions, closure information, construction information, user-customizable traffic alerts, message boards and live freeway camera images. The application also provides the user with options to view and customize travel information for roadways in the State of Wisconsin.

Traffic data is provided by WisDOT through reuse of existing content and feeds originally developed for the [511 Wisconsin website](#). This data allows the user to (for example) choose custom routes through the state to accommodate road construction, closures, and weather-related road conditions. The 511 Wisconsin mobile application is available on both Android and iOS platforms.

The 511 Wisconsin app reflects a look and feel similar to the 511 Wisconsin website, but leveraging native mobile device capabilities. The application contains three main areas: Map, List, and Settings; the user can customize the views and travel information in each area.

The 511 Wisconsin mobile application for Android and iOS platforms includes:

- In keeping with WisDOT's foremost concern for safety, the 511 Wisconsin mobile app includes the requirement to agree to the Disclaimer: "This application should not be used while operating a motor vehicle. Please agree to these terms before use."
- Customization - Enabling users to:
 - Tailor a landing page
 - Select frequently traveled routes
 - Choose Favorites for frequently traveled routes and camera captured areas
 - Choose areas to see incident data and alerts
- Map display
 - Features "uncluster" when zoomed in, and "cluster" when zoomed out, to make for an efficient and usable map display
 - Overlay displays the color-coded map legend without requiring the user to toggle as required on the website



Figure 1 Map Legend Overlay

- The following Customer data, which the user can customize via the Legend interface:
 - Message Signs
 - Traffic Cameras
 - Incidents
 - Road Work
 - Closures
 - Winter road conditions or Traffic Speeds
 - Color palette for the road speeds/conditions
 - Favorites

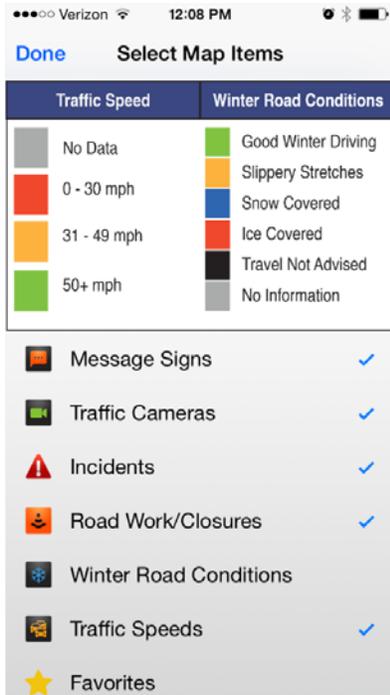


Figure 2 Customizing the Display

- My Alerts
 - Customize My Alerts with counties that are important to the user
 - Or choose to see all alerts across the state

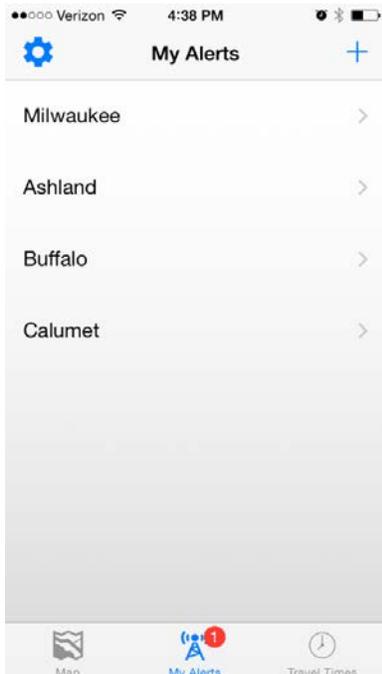


Figure 3 Customizing Alerts

Transportation data provided by WisDOT includes:

- XML Feed Packets:
 - Travel Times
 - 511 Incidents
 - Road conditions
 - Winter road conditions
 - Work Zones/Construction
- The app pioneers the use of a color palette that accommodates even the most extreme cases of colorblindness. The winter roads and traffic speeds are color coordinated and the palette is distinguishable by individuals who experience multiple types of color blindness, including:
 - Deuteranopia (Green Blind)
 - Protanopia (Red Blind)
- Push Notifications – Users can elect to have incident notifications pushed to them even when the app is not open
- Tutorial – The 511 Wisconsin Mobile app has a tutorial overlay for each feature including:
 - Settings
 - Maps
 - My Alerts
 - Travel Times
 - Legend
- Settings give the user pertinent information about using the app
 - Help
 - About 511 Wisconsin
 - Traffic Map/Home
 - My Alerts
 - Travel Times
 - Favorites
 - Travel Times or Winter road conditions
 - Message Signs
 - Traffic Cameras
 - Incidents
 - Road Work/Closures
 - Push Notifications

Significance

WisDOT's goal was to provide a mobile application that works on all mobile phones and tablets and can be provided free of charge to allow the Wisconsin motoring public and visitors a seamless and efficient way to gain valuable traveler information needed, especially in the snowy Wisconsin winter months. The 511 Wisconsin mobile app met these goals and was developed and implemented at a savings to the State of Wisconsin and taxpayers of more than \$274,000.

Impact

511 Wisconsin is valuable to Wisconsin citizens and visitors in keeping them informed of official road conditions, statewide or local alerts and especially winter road advisories. The app proved to be a valuable tool during Wisconsin's winter snow events. Wisconsin drivers' use of the app skyrocketed significantly through this time of the year. In just over a year the app has been downloaded more than 25,000 times. This volume of downloads demonstrates the value and impact the mobile app adds to the WisDOT suite of services.

"Good for traveling home after work. Gives me an idea of a route before I get stuck. And I get to visualize how the roads are looking." – 511 Mobile App User

The 511 mobile app fulfills a critical need for WisDOT to provide timely and accurate information to users when and where they most need it, helping keep the roads safe for all travelers. And it has the added impact of increasing user engagement with WisDOT services. The app provides savings and value to the citizens of Wisconsin on a daily basis, and makes Wisconsin roadways a safer and more comfortable way to travel.