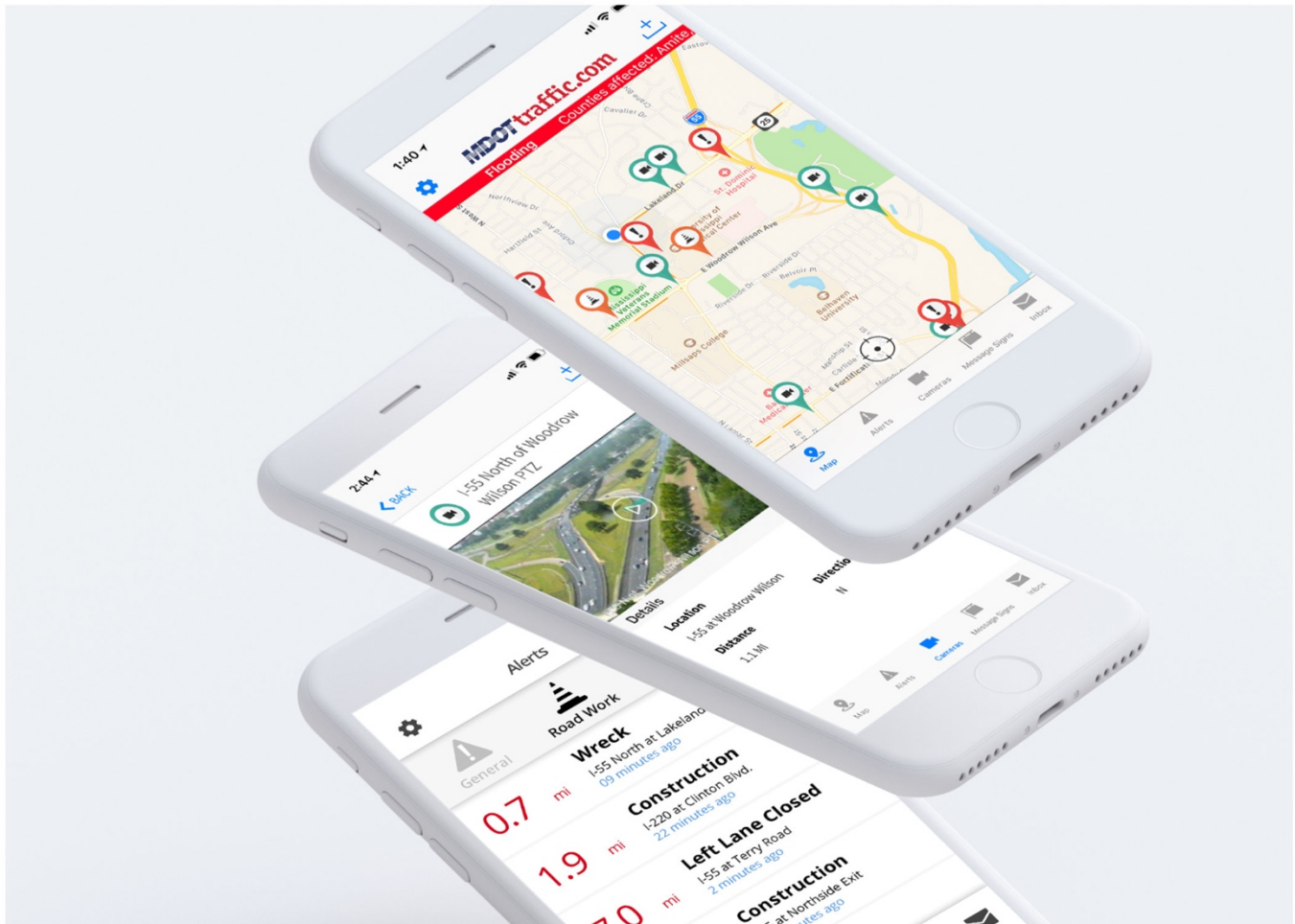


Mississippi Department of Transportation

Drive Safe, Mississippi!

MDOTTraffic Mobile App (2.0)



CONTACT:

Craig Orgeron
Chief Information Officer and Executive Director
Mississippi Department of Information Technology Services

(e) craig.orgeron@its.ms.gov

(p) 601-432-8000

EXECUTIVE SUMMARY

Imagine you are headed to work when your phone buzzes with an alert telling you there is a wreck on your commute. You are able to take an alternate route, avoid the wreck, and beat your boss to the office. Better yet, how about a traffic recap without even picking up your phone courtesy of your Amazon Echo?

Mississippi Department of Transportation (MDOT) has made that possible with the launch of MDOTtraffic mobile. With

approximately two million drivers in Mississippi, and numerous highways and roads to drive, MDOTtraffic gives citizens the knowledge they need before getting on the road every morning. Mississippi's most downloaded application, MDOTtraffic gives Mississippi drivers an efficient and effective way to stay up-to-date on the latest traffic data as they travel back and forth from their homes, places of business, and recreation spots.



In 2012, the MDOTTraffic 1.0 mobile application was launched as a companion to the current web-based version developed by the Mississippi Department of Transportation.

MDOTTraffic.com allowed users to create accounts online, giving users the same experience as the mobile application. However, as technology and geolocation advanced, MDOT knew giving their users more information would be beneficial to their commute, beyond just “before-you-go” traffic alerts.

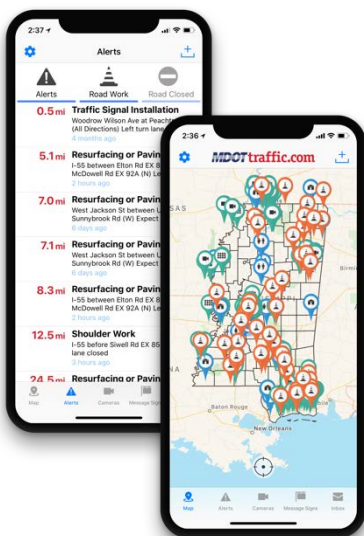
Replacing the seven-year old mobile application and reworking the mobile features for a seamless process was not easy. MDOT's vision called for the application to work behind the scenes on all mobile devices, while giving on-the-go users traffic information, eliminating the need to check their mobile devices constantly. Thus MDOTTraffic 2.0 was born, and with it came updated GPS features, geolocation triggered notifications, and real-time alerts from the Mississippi Department of Transportation.

MDOTTraffic 2.0 provides users with up-to-the-minute access to all Mississippi weather and traffic information, including road closures, road work, streaming traffic cameras, weather sensors, message signs, rest areas, and welcome centers. The accessibility of the application is due in large part to the consistent design, both in styling and in function, that was achieved

throughout all the platforms where the application is available, including: the iPhone, iPad, Apple Watch, Android mobile devices, and Android tablets. The application is contemporary and fresh and makes it easy for users to access all the high-level features in one or two clicks.

The delivery of these new options to the consumer greatly enhances their ability to get from point A to point B, while feeling safe and knowledgeable of their surroundings. It also greatly established how Mississippi citizens and government agencies can work together. The information that was gathered from Mississippians over the five years from the initial system and the advances in technology resulted in a very effective application that has seen much positive feedback since its launch.

PROJECT CONCEPT



The Mississippi Department of Transportation wanted to build on the success of the online application, created in 2012. The MDOTTraffic 2.0 mobile app is a companion to the current web-based version. MDOTTraffic.com allows users to create accounts online and gives users the same experience as the mobile application, giving updates about road conditions and construction projects, alerts on accidents, and notifications on changing weather. Registering online also allows users to receive email and text alerts about road and severe weather conditions. Both the website and the mobile application offer many of the same features, which creates a harmonious experience across platforms.

- **Interactive Mapping:** The home screen displays a full map of Mississippi that can be user location based within a ten-mile radius with just a touch of a button. At a glance a user can see a visual representation of traffic cameras, message boards, traffic incidents, rest stops, and much more.
- **Customizable Pin Selections:** For finding specific locations or events faster, users can toggle on and off between six different map pin indicators: alerts, cameras, signs, rest areas, welcome centers, and roadway weather stations. The pins can toggle off or on in any combination, and a touch to any pin on the map will trigger a pop-up map annotation.
- **List Option:** Users can select a toggle button on the mapping screen and have the ability to open to five different tabs; alerts, cameras, message signs, rest and welcome areas, and

weather stations. These tabs show users the most recent notifications. Alerts are displayed by proximity to the user, and upcoming rest areas and welcome centers are based on location.

- **Statewide Streaming Traffic Cameras:** Users can access the camera's map view and displays all the live streaming cameras currently active in the MS Traffic Incident Management System anywhere in the state.

PROJECT SIGNIFICANCE

The audience size of the online MDOTTraffic 2.0 expands to the two million licensed drivers in Mississippi. Since the launch of the project there has been an average of 2,100 users per month and over 12,000 downloads in the past 12 months. Total downloads for the innovative mobile apps exceed 152,000. Features include:



Push Notifications: Users can opt in to receive custom push notifications from the application. MDOT can create customized pushes to users that can be sent statewide or to specific regions or counties within the state. Messages can include information about road hazards, inclement weather, or general information that MDOT wants to make the public aware.



Geolocation Triggered Notifications: Users can receive notifications tailored to the specific location of the user. A current radius of five miles is created around the user and when traveling, once a user encounters a traffic incident within that radius, a notification will be sent alerting the user. The real-world use case around this is when a traveler is on a Mississippi highway or road and a traffic incident occurs within five miles in the route they are taking, the user will receive an alert on their mobile app notifying them of the upcoming traffic incident or roadwork. This will allow the user to take an alternate route and avoid unnecessary delays.



Mobile Experience: The streamlined mobile experience is designed to provide features and usability in a mobile-first environment. The application's video streaming protocol adjusts based on the user's data connection to preserve bandwidth, cellular data and battery life. The simple menu buttons allow the user to navigate through the application with only a few touches to select information.



GPS: The applications contain location-based mapping features, showing nearby cameras and alerts on an interactive map. Touching the GPS icon zooms down to show the user’s exact location and displays alerts and cameras. This feature is especially useful for quickly determining if there is a traffic accident or alert close to the user’s proximity.



Video: Dynamic adaptive video streaming from a vast network of over four hundred statewide cameras allows users to view real-time traffic at major intersections, highways and roads across the State at their convenience.



Digital Voice Assistant: Use the Ask Mississippi digital voice skill on Amazon Alexa and Google Home to get the latest traffic information. With Amazon’s latest Echo Auto product, users now have access to MDOTTraffic in their car, accessible using just their voice. Travelers can simply, “Ask Mississippi for my local traffic report” and receive the latest alerts directly from MDOT.



Wearables: Providing traffic alerts on the Apple Watch allows driver’s a simple glance at their wrist to see the traffic notifications, without the need to pick up their phone while traveling.

PROJECT IMPACT

MDOTTraffic 1.0 was created for the Mississippi Department of Transportation in 2012. Over the first five years, MDOT saw steady growth in adoption. However, as mobile app usage continued to rise, and the service expanded to new devices including wearables like the Apple Watch, MDOTTraffic 2.0 has increased downloads year over year to exceed 152,000.



The new features that have been added to the application, including geolocation triggered notifications and an updated look from the original application have garnered great reviews from the Apple App Store and Google Play Store users. The app is currently rated at 4.5/5 stars on the Apple App Store. Feedback included comments such as: “well-organized and easy to use”; “I am loving this app, real time video from every traffic cam in the state!”; “MS App has a

ton more features than any other app I have seen!"; and "Very elegant, well-organized and easy to use. Street cams are A+, great app". The real-time, statewide, streaming traffic camera videos and new geo-location traffic alerts have caused a lot of buzz and are a source of user appreciation.

Since the complete redesign and launch of MDOTTraffic 2.0, the dynamic mobile application has won six national awards, highlighting mobile user experience and technical achievement with the implementation of the location-based traffic alerts that have driven the app's popularity among commuters and travelers throughout the state.

Experience MDOTTraffic for yourself, and stay up-to-date on the latest traffic information in the State of Mississippi!

iOS - <https://itunes.apple.com/us/app/mdot-traffic/id513915894?mt=8>

Android - <https://play.google.com/store/apps/details?id=com.nicusa.ms.mdot.traffic&hl=en>