



The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

Status:

Laureate

Year:

2013

Organization Name:

Texas Department of Transportation

Organization URL:

www.drivetexas.org

Project Name:

Drive Texas

Please select the category in which you are submitting your entry:

Safety & Security

Please provide an overview of the nominated project. Describe the problem it was intended to solve, the technology or approach used, how it was innovative and any technical or other challenges that had to be overcome for successful implementation and adoption. (In 300 words or less.)

TxDOT has launched a new online map application, Drive Texas, that provides travelers with real-time traffic conditions, traffic and weather feeds, as well as links to other useful travel information. Drive Texas displays statewide conditions affecting travel construction, closures, accidents as well as a live weather feed that allows drivers to check conditions along their route. Travelers can plot a course by entering their start and end cities to view highway conditions along their route, and they can also locate TxDOT Safety Rest Areas or Texas Travel Information Centers. In select cities, travelers can also view images from traffic cameras, messages posted on dynamic message signs, and other detailed information. This new site features a user-friendly interface, making it easy for the

traveling public to access real-time conditions affecting travel across Texas. The application can be found at www.DriveTexas.org, or by clicking on the "Highway Conditions" link on the TxDOT homepage. And for those on the go, a mobile-friendly version is available. To use Drive Texas while en route, motorists should pull off the highway to a safe location or have a passenger access the service. "People are mobile and want traffic and road conditions before and during their trip," said Margo Richards, TxDOT's Travel Information Division Director. "Drive Texas will make it easier to plan trips, avoid problem areas, and reach destinations quickly and safely. The goal is to make travel as safe as possible." TxDOT is committed to working with others to provide safe and reliable transportation solutions for Texas. This new feature provides the traveling public with the information they need to plan their trips and arrive safely at destinations.

When was this project implemented or last updated? (Please specify month and year.) Has it incorporated new technologies and/or other innovations since its initial deployment? (In 300 words or less.)

The project was implemented in August of 2004. Since TxDOT's initial deployment of highway condition information for the public, many new technologies and innovations have been incorporated into the application. www.DriveTexas.org uses the latest web mapping technology to power the condition information that is provided on the website. The website uses the latest advances in web 2.0 technology such as JavaScript coding, Dojo Toolkits for enhanced mobile experiences, XML and REST endpoint interfaces. Cutting edge web mapping technology allows for a robust browsing experience. Roadway condition information is maintained around the clock. Updates are transmitted to an Internet cloud environment to allow the application to scale up and down to meet the demands of the public utilizing the website.

Is implementation of the project complete? If no, please describe the project's phases and which phase the project is now in. (In 300 words or less.)

The project is fully implemented and has transitioned into a maintenance mode. Updates to the application are made at least quarterly to stay in pace with the changing mapping technology and to enhance the user experience whenever possible.

Please provide at least one example of how the technology project has benefited a specific individual or organization. Feel free to include personal quotes from individuals who have directly benefited from the work. (In 300 words or less.)

www.DriveTexas.org contains a link to a comments page to allow anyone to submit feedback to TxDOT. Here is one comment that was received on 1/5/2013 during one of the State's major weather events. "Interactive map with road conditions was a real help during recent travel on westbound interstate 10, with the snow storm of early January 2013. I was able to quickly and definitively determine that I-10 west was closed and that I should hole up in San Antonio for a few days. Your interactive map is evidence that you guys are trying to provide a very useful service to the public and I thank you. Good job."

Would this project be considered an innovation, a best practice or other notable advancement that could be adopted by or tailored for other organizations and uses? If yes, please describe that here. (In 300 words or less.)

Many state and local transportation agencies post roadway conditions on the Internet for the traveling public. None of the websites go to the level of detail found at www.drivetexas.org. The innovative part about the website is the timeliness of updates for roadway conditions especially roadway conditions affected by weather. Detailed weather is displayed on www.drivetexas.org and updated every five minutes. The website takes the detailed weather a step further by allowing the user to play the weather events to see where the weather is tracking to give the user as many tools available for safe route planning. The inclusion of traffic camera links takes the user experience a step further to give the user the ability to zoom in on a particular location to see what is happening at ground level for a specific area. A traffic data feed is also included to assist with travel time planning as well as rest area and travel information centers to assist the traveling public. The site is a "one stop shop" for roadway related information. This makes www.drivetexas.org a truly one of a kind website.

If there are any other details that the judges should know about this project, please note them here. (In 300 words or less.)

A few other key points to consider. The web application is tested on the following browsers: Internet Explorer 7, 8, 9, Google Chrome, Apple Safari, and Mozilla Firefox. The mobile version of the www.drivetexas.org is iOS, Android and Windows Phone compatible. The mobile version allows for gestures such as pinch zoom and accesses the GPS device if available to zoom the user to the map location and display roadway conditions near them. The web application is built around service-oriented technology. It is hosted on the Amazon cloud and



uses its services to host the website. It utilizes services hosted by Microsoft to display traffic information, and routing services. The website uses mapping services hosted by Esri and weather data provided by Telvent. Cookies are also used within the site. The use of cookies allows the website to track and store the user's current view. Tracking this information allows the user to return to a favorite location without starting out at the default location. The website also uses services provided by Google to track analytic information about the website. Incorporating Google Analytics into the site allows usage to be tracked. www.DriveTexas.org takes the tracking a step further and records event level information. Google Analytics keeps track of how often a tool is used, how often a service is turned on or off as well as what browser or mobile device was used. This allows the development team to enhance the site and allows it to evolve based on how it is used. If a new browser is captured in analytics, it can be tested so that the user experience will be the best possible.