



Caltrans Division of Research,  
Innovation and System Information

Research

Notes

Rural

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Project Title:  
One-Stop-Shop for Traveler Information III

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## Multi-State Traveler Information Planning Tool

Travel does not stop at a regional or jurisdictional border

### WHAT IS THE NEED?

The One-Stop-Shop (OSS) web application provides travelers with comprehensive, real-time data that can be used in trip planning. OSS presents routing functionality, CCTV images, weather information, elevation profiles, rest areas, points of interest and more in a consistent, easily accessible and intuitive interface that allows travelers to plan both instate trips and trips that cross state borders.

Real-time traveler information services have thrived in two primary contexts: urban-focused systems and statewide or regional systems. However, neither urban systems nor statewide/regional systems efficiently serve the rural traveler, whose trip may span a great distance between urban areas. In addition, these types of systems are typically designed to conform to specific jurisdictional lines, whereas rural trips typically span multiple jurisdictions. While many rural agencies and districts have sought to provide traveler information, there is considerable variation in the level of information provided and how to access it.

Real-time traveler information is a valuable tool in protecting and enhancing both traveler safety and mobility, especially in rural areas. From a safety perspective, it is important for rural travelers to know before a trip about potential challenges including snow, ice, high winds, fires and other hazards. These same challenges may degrade mobility, as many challenges such as vehicle crashes and work zones. While such information may currently be available through a variety of sources, there is inconsistency in the types and quality of information available. In addition, information is generally scattered over numerous web-based (and sometimes non-web-based) sources, meaning travelers must spend significant amounts of time assembling this information prior to a trip. As a result of the effort involved with gathering this information, many rural travelers do not seek out all the information they need, if they seek any at all. This may result in increased delays and can potentially degrade safety.



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## WHAT ARE WE DOING?

To address these challenges, this project continues the development of a one-stop shop for rural traveler information. At a high level, this is a web-based platform that provides route-specific, real-time, highway-based traveler information based on an origin–destination specified by the user as well as a global view of conditions across the western United States.

## WHAT IS THE GOAL?

To investigate additional data that is available from the states including CMS messages, incidents, maintenance and construction reports, etc. This data will be added to the system where available and consistent with data that is already included in the prototype system. A mobile interface to the prototype system will be designed and developed since users desire access via smartphones and tablets and their use is far more prevalent than when prior phases were conducted. Further evaluation will be conducted to examine the manner in which users interact with the prototype system, using data including counts of selection of specific information and their origin / referring sources.

## WHAT IS THE BENEFIT?

- OSS provides real-time traveler information which protects and enhances traveler safety and mobility in rural areas.
- OSS enables travelers to “know before they go” so that they may make the best travel decisions.
- OSS can reduce the impacts of nonrecurring congestion and unexpected delays by notifying travelers of various roadway incidents (e.g., vehicle accidents, weather, work zones, etc.).
- Agencies responsible for managing the transportation system may find additional benefits from the interface and information provided through the One-Stop-Shop.
- Provided Caltrans’ Quickmap application with enhancements that were first developed on OSS.

## WHAT IS THE PROGRESS TO DATE?

The One-Stop-Shop currently provides traveler information for 11 states including Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming. This research serves as a proof of concept for route-based traveler information provided in one location. While this scale of implementation will yield some direct benefits for the selected states, it is believed that the principal value of this research is in demonstrating the feasibility and attractiveness of a One-Stop-Shop for real-time, route specific traveler information for rural areas. The website is designed in a scalable fashion so that the concept may be expanded to other routes and states.

Ultimately, the One-Stop-Shop could become an umbrella traveler information web site that can be used as a primary point of reference for longer distance trips, improving safety and mobility for all highway system users across the United States.



To learn more about the OSS effort, please visit:  
<http://oss.weathershare.org>.