



Caltrans Division of Research,
Innovation and System Information

Research

Notes

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Project Title:
Dynamic Transit Trip Planner (DTTP)
Interactive Transit Station Information
System (ITSIS)

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Interactive Transit Station Information System (ITSIS)

Interactive Transit Station Information System (ITSIS) is the implementation of innovative strategies incorporating Connected Vehicle technology in transit traveler information.

WHAT IS THE NEED?

Although public transit is an important means of transportation for many American travelers, it is still largely underutilized. Encouraging greater transit use is seen as part of the integrated solution to the congestion problem in metropolitan areas and has been a major objective for transportation innovations such as Integrated Corridor Management.

The real-time transit traveler information system has been one of the key innovations to enhance the user experience and encouraging mode shifts. Effective solutions have already been implemented worldwide and are providing essential core travel information to users, empowering them to make better transportation choices. While this information is typically still provided to travelers using messaging signs at fixed locations. Recently, it is becoming more common for it to be made available through the Internet and personal smart phone applications. There exists several gaps in the current implementation of real-time transit traveler information system that the research contract proposes to overcome, making it a more reliable system for travelers to use.



DRISI provides solutions and
knowledge that improves
California's transportation system

WHAT ARE WE DOING?

We propose to develop an Interactive Transit Station Information System (ITSIS) using real-time transit information to research these three important questions:

- Can the technologies envisaged by the USDOT enable timelier and accurate passenger information, and an interactive transit station information process?
- Can ITSIS benefit passengers by allowing them to interact with transit systems for obtaining 'personalized' information?
- Can ITSIS enable more efficient operation of transit?

In this project, we will stress using innovative information management methods to enable improved mobility for transit and transit users. ITSIS will provide a better service to passengers and allows travelers to interact with transit systems on their current trip plans and needs.

WHAT IS OUR GOAL?

This project's goals are:

- To identify issues and gaps of the existing real-time traveler information communication systems.
- To develop issue-resolving concepts and approaches for an ITSIS using Dynamic Short Ranged Communications (DSRC) based Connected Vehicle technology.
- To conduct testing of a prototype ITSIS traveler information hub utilizing the existing California Connected Vehicle Corridor located on El Camino Real in the Bay Area.

WHAT IS THE BENEFIT?

The benefits for California is an improved and accurate passenger information service for passengers and detailed user information for transit agencies. The addition of interactive sessions with travelers will improve service levels and facilitate better operational and planning decisions.

WHAT IS THE PROGRESS TO DATE?

The researchers have completed the Concept of Operations document deliverable for Task 2 and the Federal Transit Administration has approved and accepted the deliverable. UC Berkeley Partners for Advanced Transportation Technology (PATH) has met with the New York Metropolitan Transportation Authority to learn about their development experience for their information system and about their newly instrumented traveler information system. The proposed communication approach was reviewed in the connection with the prototype user interface design and the pros and cons of the proposed communications approach were analyzed. A meeting with Santa Clara Valley Transportation Authority is being scheduled to determine the best location for the ITSIS hub for the testing phase of the project. PATH has also developed some prototype user interface designs and information/data flow diagrams for the ITSIS System Information Hub.