FTA RESEARCH
FEDERAL TRANSIT ADMINISTRATION

U.S. Department of Transportation
Federal Transit Administration

REPORT SUMMARY

Evolution of Intelligent Transportation Systems for Mobility Management and Coordination Serving Northeastern California's Rural Frontier

Background

In 2004, the Federal Transit Administration (FTA) selected the Modoc County Transportation Commission to further support operational testing of emerging Health and Human Services (HHS) Coordination tools. As a frontier rural community in Northern California with limited technology infrastructure and as a rural operator serving three states, Modoc County was an ideal environment to re-test the web-based Client Referral, Ridership, and Financial Tracking (CRRAFT) software developed for New Mexico as well as other emerging Intelligent Transportation System (ITS) solutions.

Objectives

- Test CRRAFT.
- Develop an integrated accounting solution to meet federal and California reporting mandates.
- Deploy a "smart card" fare payment serving a variety of human service agencies that fund trips for their clients.
- Create a one-stop physical and virtual mobility management center for Alturas, California, as well as California's rural frontier.

Findings and Conclusions

CRRAFT testing was suspended when the research team determined that the software could not be re-written for California's accounting needs and in open source code. The Modoc County Transportation Commission then focused on modified commercial off-the-shelf solutions. Without robust and fully-functioning cellular or wireless Internet, accurate base maps, or adopted data exchange standards, successful project implementation of the smartcard and CALnections.com, the virtual mobility portal, were a few years ahead of their time. The project champion then identified other ITS solutions to explore, derived to optimize passenger safety. Also, importantly, analysis very clearly points to the need for a strategy of passenger compartmentalization – the need to construct LRV seats that provide better support and protection for a much wider range of body types.

Benefits

This research offers in-depth examination of the critical differences in the rural frontier environment. Although each of the various ITS solutions tested was not fully functional at the end of this research, the report explores challenges facing comprehensive rural ITS solutions. The physical mobility management center opened and the virtual center was scaled back. This report offers a fresh perspective on coordination and considers trip planning versus mobility management. Successes of this research led to first-in-the-nation deployments of Greyhound's Interline agreement and on-line trip planning for the rural, intercity carrier Sage Stage at Google Maps in 2007. Simple Excel-based tools tested in this ITS research project for managing on-line trip planning at Google Maps or other trip planners are now offered at no cost through the National Rural Transit Assistance Program (National RTAP). The no-cost trip planning tools are named GTFS Builder (General Transit Feed Specification Builder) and may be downloaded at www.nationalrtap.org.

Project Information

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