



SafeTrip-21 Initiative Safety Components

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SafeTrip-21 Initiative

- ◆ Safe and Efficient Travel through Innovation and Partnerships for the 21st Century
- ◆ Launched in Spring 2008
 - California Connected Traveler Test Bed (5 applications)
 - I-95 Test Bed (4 applications)
- ◆ Emphasis on applications that:
 - do not entail extensive public sector infrastructure
 - can achieve immediate benefits
 - demonstrate the potential for sustainable deployment
 - leverage existing technology to address current transportation needs.
- ◆ Evaluation Report finalized

Safety Components

- ◆ 'Geo-fencing'
- ◆ End-of-Queue Warning System

'Geo-fencing'

- ◆ Networked Traveler – Transit/Smart Parking Application
- ◆ Provides real time transit and parking information
 - Integrates information on bus and rail services (schedule and status) from multiple agencies in the Bay Area
 - Integrates information on current utilization at selected rail stations
- ◆ Delivers information via website and Smart Phone (multiple mobile platforms)
- ◆ Safety Challenge:
 - Allow use while riding transit, or walking/waiting for transit
 - Block use while driving

General Findings

- ◆ Mobile Platforms:
 - Android – 58%
 - iPhone – 42%
- ◆ Users were generally pleased, although areas for improvement were identified
- ◆ Strong agreement among users that the ability to access multiple transit services and having reliable arrival and departure information was important
- ◆ Most users reported that having the transit information available to them made them more confident about using transit

'Geo-fencing' Findings

- ◆ Feasible, but performance varied slightly between mobile platforms
- ◆ Congested traffic conditions a challenge
- ◆ Detracted from the quality of the user interface for transit riders
- ◆ Occasionally blocked legitimate use by transit riders

End-of-Queue Warning System

- ◆ Networked Traveler – Foresighted Driving Application
- ◆ Provides in-vehicle audible alert of imminent slow-moving traffic in the Bay Area “Slow Traffic Ahead” when speed differential is 15mph or greater
- ◆ Integrates:
 - Real time speed information from existing sensors
 - Location, speed, and direction information from 4 specially equipped vehicles
 - Calculates potential impact situations approx. 60 seconds ahead of time
- ◆ 24 recruited drivers, regular driving habits

Findings

- ◆ Participants were more aware of traffic conditions when the alert was triggered, especially for those instances when congestion did not occur at the “normal” times or locations during their daily commutes
- ◆ Alerts caused some behavioral changes, including reducing participants’ speeds in response to the alerts
- ◆ Participants considered the alert message was delivered at the right loudness level, was very clear, and was understandable
- ◆ Participants reported that the information may have been more valuable if specific congestion information (e.g., miles upstream and duration) was available