

Project Dates

2004 - 2006

Services

Public-private Partnership for commercial traffic information, System integration, Development of traffic probe business model, Development of applications for performance measurement, planning, and management

Key Staff

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Total Contract Value

\$1.9 million

Client Contact

Glenn McLaughlin
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Highway Administration

Baltimore Multimodal Traveler Information System/ Regional Traffic Probe Deployment

Delcan currently serves as manager for the Baltimore MMTIS project. This represents the first regional use of traffic probes to provide real-time information on speeds and travel times across the entire transportation network - freeways and arterials. This work is under contract to Maryland DOT and offers a national model for how to a public agency might best gain full value from traveler information. This effort is a true public-private partnership since it combines funding from both the DOT and the consortium led by Delcan.

The system is operational and provides traffic information across the entire metropolitan area. Efforts are underway to develop public and private markets for the information. The investment from the SHA through Federal earmarks totals \$1.9 million and was awarded under sole-source procurement.

Traffic data provide key indicators for a variety of transportation operations, planning, and capital investment purposes and are thereby critical to the successful management of the transportation network. These data have been collected by traditional sources for traffic studies and capital investment programs for decades, and have more recently been enhanced by data collected through advanced technologies and Intelligent Transportation Systems (ITS). This chronic congestion in metropolitan areas has heightened the demand for a cost-effective technology to assist DOTs, MPOs, and transit agencies with regional traffic data collection. Closely related is the growing demand by travelers for real-time traffic information that is reliable and easily accessible.



**Baltimore Multimodal
Traveler Information
System (MMTIS)/
Regional Traffic Probe
Deployment**

Technology Background:

Today, fixed sensors provide near real-time data on regional major arterials in select cities. Applications for these data are becoming more advanced - including applications for the provision of information on cell or PDA applications and the internet. However, because of limited coverage and high deployment and operations/maintenance costs, data collected and eventually disseminated are thereby expensive to the public sector and underutilized in commercial markets.

Data collected from the vehicle via cell probes or GPS traffic probes provide a response to the demand for near real-time traffic information for both users and operators. A cost-effective alternative to roadside infrastructure, traffic probes cover all important roads - from regional major and minor arterials to local connectors - with consistent data collected all of the time. These data allow for 24-7 system operations, traveler information, performance measurement, and a myriad of other applications. Traffic probes also provide direct measurements the most effective measure of system performance from the user's perspective: travel times.

The Scope of Work Includes:

A business model was developed for applications directly related to cell probe data in conjunction with the deployment of the Baltimore MMTIS; however, the model itself focuses on potential statewide and national deployments and applications that are valid for the public sector – all DOTs, MPOs, transit agencies, local planners, and research institutions; the private sector – automobile OEM's, satellite radio applications, and web service providers; and of course, the traveling public.

The Baltimore MMTIS reinforces the use of advanced technology for applications beyond what we typically think of as ITS. Data collected from cell probes in the Baltimore region will be used for management and planning applications for the Maryland State Highway Administration (SHA) and Baltimore Metropolitan Council (BMC).