

Pennsylvania Statewide Demand-Response Transit Scheduling Software Implementation

Project Description:

For more than thirty years, PennDOT has subsidized demand-response transportation for vulnerable populations. These programs are complex to manage at the state and local level because demand-response transportation changes daily and because service hours and service delivery decisions are made at the local level. Software support is essential. Over the past thirty years, individual demand-response systems have independently procured and implemented technology for passenger eligibility/registration, trip reservation, scheduling, dispatching, reporting, and invoicing. Technology companies have supported/developed their software to varying degrees. Small systems often lack adequate technology expertise to develop specifications for a competitive procurement and manage software vendors. No one system had a sufficient economic impact on a vendor to influence support or software development.

In 2009 PennDOT, in partnership with demand-response transportation providers and technology consultants, began developing specifications to address basic demand-response software functions. A statewide technology procurement using these specifications would:

- relieve individual transit systems of the administrative burden of procuring/managing a software vendor
- standardize software functions, facilitating consolidated management across multiple systems/counties
- standardize data for state program management and compliance analysis

Using a combination of federal and state funding, PennDOT procured Ecolane, paratransit software which offers real-time scheduling and mapping of vehicles, access to information online, and other state-of-the-art features. This procurement saved millions of dollars and many hours of administrative time compared to individual transit system procurements. Savings on maintenance is estimated at \$600,000 annually. And, PennDOT, on behalf of Pennsylvania transit systems, has influenced support, continual improvements, and development.

Ecolane allows transit systems and PennDOT to:

- Maximize productivity/efficiency (trips per hour)
- Maximize effectiveness – (trips per hour, improved on-time performance, etc.)
- Reduce/control the cost per trip
- Improve customer service
- Support regionalized service delivery/agency consolidation
- Standardize simple, distance-based fare structures
- Standardize reporting/data definitions—crucial to statewide program and service analysis
- Ensure consistency/accuracy of data