Statewide Procurement Of Demand-Response Transport Scheduling Systems: Lessons Learned

Carol L. Schweiger, Vice President

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Presentation Outline

- Introduction to Procurements
- Characteristics of Procurements
- Issues Associated with Procurements and Deployments
- Lessons Learned
- Statewide Procurement – Is it the Right Approach?
Introduction to the Four Procurements - Iowa (IA)

- Iowa DOT Office of Public Transit organized “consortium” of agencies providing demand-responsive transit (DRT) services
- Needs assessment and subsequent deployment plan developed
- Individual agency plans developed
- DRT scheduling and dispatching software identified as key system across all participating agencies
- Procurement resulted in selection of one vendor
Introduction to the Three Procurements – Tennessee (TN)

- Tennessee DOT conducted needs assessment of rural and small urban transit systems in state
- RFP developed to procure and deploy recommended technologies, including DRT scheduling and dispatching software
- One software product selected and made available for any agency within the state
- Mid-Cumberland Human Resource Agency in Nashville, TN first deployer
Introduction to the Four Procurements - Missouri (MO)

- Missouri DOT Multimodal Operations - Transit Section established Steering Committee of county and regional rural transit agencies
- Needs assessment and subsequent deployment plan developed
- Individual agency plans developed
- DRT scheduling and dispatching software identified as a key system across all participating agencies
- Procurement resulted in selection of one vendor
Introduction to the Three Procurements – Pennsylvania (PA)

- Specifications development for statewide procurement of DRT scheduling and dispatching software conducted by:
  - Pennsylvania DOT’s (PennDOT’s) Bureau of Public Transportation Services and Programs
  - Technology Committee of the Pennsylvania Public Transportation Association (PPTA)
- Procurement conducted in 2010
- Three levels of automation to meet needs of majority of agencies
Characteristics of Procurements

- Process followed in each procurement
- Agency responsible for issuing the RFP
- Selection of agencies for initial deployment
- Agency(ies) contracting with selected vendor
Characteristics of Procurements: Iowa

- In 2002 and 2003, Iowa DOT conducted technology needs assessment for small urban and rural transit systems
- Result was **Statewide Transit Intelligent Transportation Systems Deployment Plan: Rural and Small Urban Transit Systems**
- In December 2003, Iowa DOT issued RFP to select DRT software vendor
  - Iowa Rural Transit ITS Consortium and consultant assisted Iowa DOT
  - Vendor selection completed in 2004
- Consortium provided initial “deployers” of selected software
  (Region 9 in Davenport and Region 3 in Spencer)
Iowa DOT did not provide deploying agencies with third-party implementation assistance.

As of July 2008, nine out of 16 Regional agencies have deployed the software.
Characteristics of Procurements: TN

- In 2005, TDOT conducted technology needs assessment for small urban and rural transit agencies
- Resulted in development of statewide specifications for paratransit scheduling and dispatching software
- Request for Proposal (RFP) issued in April 2006 by Mid-Cumberland Human Resource Agency (MCHRA) on behalf of TDOT
- Procurement process conducted by Evaluation Committee consisting of TDOT, consultant and four transit agency representatives
- TDOT and MCHRA utilized consultant to assist them with contract negotiations and development of statewide contract template
Characteristics of Procurements: TN

- MCHRA’s contract was tailored version of the statewide contract template
- Contract between MCHRA and vendor signed at end of 2006
- A third-party consultant was provided to MCHRA during DRT software deployment
- As of July 2010, MCHRA is fully deployed
In 2007, MoDOT conducted technology needs assessment for small urban and rural transit systems.

Result was Statewide Rural Transit Intelligent Transportation Systems Deployment Plan.

In September 2008, MoDOT issued RFP to select ITS vendor.
- Steering Committee and consultant assisted MoDOT.
- Vendor selection completed in 2009.

Initial deployer of selected ITS is OATS (operates in 87 of 114 counties with statewide fleet of 600 vehicles), with Cape Girardeau County Transit (CGCT) and Southeast Missouri Transportation Service (SMTS) to follow.
MoDOT providing deploying agencies with third-party implementation assistance

As of August 2010, OATS in the process of deployment
Characteristics of Procurements: PA

- In 2006, PPTA Technology Committee developed goals and objectives for statewide procurement of DRT software.
- In 2007, consultant developed draft specifications that included three levels of functionality:
  - **Level 1**: includes computer-assisted scheduling software which
  - **Level 2**: includes advanced scheduling and dispatching software
  - **Level 3**: includes fully automated scheduling and dispatching software that shall be capable of integrating with automatic vehicle location/mobile data terminal (AVL/MDT) technologies
- In 2009, PennDOT finalized specifications and Department of General Services (DGS) issued RFP in 2009
- Procurement in process as of August 2010
### Technology Functions

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<th>Function</th>
<th>Level 1</th>
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Issues

- Agency that issues RFP and is responsible for relationship with vendor affects contractual leverage with vendor.
- Addressing specific needs of each agency with one software product is a challenge.
- Obtaining meaningful and comparative cost information from vendors is challenging.
- Level of project management oversight required during implementation is most important success factor.
- Vendors’ capacity to implement systems throughout a state will play a role in deployment success.
Lessons Learned

- Software with different levels of sophistication may be required to meet the needs of agencies.
- Developing a statewide contract template that can be easily modified for each agency’s software deployment is critical.
- Developing a body of knowledge and experience within the state to assist agencies with deployment and on-going operational assistance:
  - Will require less funding (for third-party assistance)
  - Encourages collaboration among agencies within a state.
Lessons Learned (continued)

- Meeting the needs of agencies that are not technology-savvy presented challenges
- There is a potential need for additional technology beyond DRT scheduling and dispatching software (e.g., AVL)
- It is necessary to utilize a rigorous project management process. Key elements:
  - Design review process
  - Acceptance testing process
- Changes to agency operations and management are necessary to accommodate new scheduling and other technology systems
Why Select a Statewide Approach to ITS Deployment?

- Small/rural agencies do not have to, on their own:
  - Conduct a needs assessment
  - Develop their own specifications
  - Conduct a full procurement
- Economies of scale, particularly for hardware (e.g., mobile data terminals)
- Create “body of knowledge” within the state, providing agencies with better technical assistance
- Develop “template” contract between agency and vendor
- Facilitate procurement and negotiation of umbrella agreement with vendor
- Ability to utilize statewide communications resources
Why *Not* Select a Statewide Approach to ITS Deployment?

- Small/rural agencies that have very diverse needs
- Not enough interest by agencies that may deploy technology in the future
- No strong lead agency to spearhead the procurement process
- Not having an agency that is willing to “go first”
- No access to implementation assistance resources
Thank You!

For additional information:

Carol Schweiger, Vice President
TranSystems Corporation
Phone: +1 857-453-5511
E-mail: dschweiger@transystems.com