Information Technology (IT) Support Models for Intelligent Transportation Systems (ITS)

Introduction

State departments of transportation (DOTs) have various models for how information technology (IT) supports intelligent transportation systems (ITS) activities and assets such as dynamic message signs, traffic cameras, advanced traffic management systems and software, traffic signals and ITS field equipment, and data communications to field devices. IT support models can include statewide IT support, embedded IT staff in ITS groups, IT liaisons to ITS, or other approaches. Emerging transportation technologies (e.g., connected vehicle infrastructure, detection/alert systems) and elevated cybersecurity risks are impacting IT support of ITS, possibly calling for additional coordination and procedures. As state DOTs adapt to this changing environment, they can benefit from learning about other agencies' IT support models and practices.

Project Overview

The ENTERPRISE Pooled Fund Study is conducting research to document how ITS groups are supported by IT in the ENTERPRISE member agencies and to gather practices and relevant documentation. This project aims to facilitate collaboration between IT and ITS groups. The project will conduct interviews with IT staff from each ENTERPRISE agency to document:

- Description of IT support for ITS assets
- Perspectives on how emerging technologies are influencing changes to IT support for ITS
- Examples of procedures or other resources
- Best practices and lessons learned

The project will also gather practices from selected publications featuring State DOT practices for IT support of ITS and transportation system management and operations (TSMO) programs.

Photo Courtesy of MnDOT

What is ENTERPRISE?

The ENTERPRISE Pooled Fund Study is a collaboration of transportation agencies that conducts research to advance the deployment of transportation technologies. The ENTERPRISE member agencies are committed to continuing innovation in highway operations and ITS through research and technology transfer. Current ENTERPRISE members are:

- Illinois DOT
- Iowa DOT
- Kansas DOT
- Michigan DOT
- Minnesota DOT
- Ministry of Transportation Ontario (MTO)
- Texas DOT
- Wisconsin DOT

Project Contacts

For additional information about this project, contact:

- Project Champions: Marlon Spinks, Michigan DOT (SpinksM@michigan.gov) and Arturo Perez, Texas DOT (Arturo.Perez@txdot.gov)
- Technical Support: Linda Preisen, Athey Creek Consultants (preisen@acconsultants.org)