

2/20/2019

2017 ITS Architecture Update

The goal of this project is to provide maintenance support to the Minnesota Statewide Regional Intelligent Transportation Systems (ITS) Architecture by updating the current architecture in conformance with the latest version of the National ITS Architecture [Architecture Reference for Cooperative and Intelligent Transportation (ARC-IT) Version 8.2]. This includes updating the architecture documentation and the architecture database using the latest Regional Architecture Development for Intelligent Transportation (RAD-IT) software Version 8.2.



Project Description

The Minnesota Statewide Regional ITS Architecture geographically covers the entire state of Minnesota, encompassing local, regional and state transportation agencies and transportation stakeholders. It represents a shared vision of how each agency's systems work together by sharing information and resources to enhance transportation safety, efficiency, capacity, mobility, reliability, and security. The Architecture is a living document and evolves as needs, technology, stakeholders and funding changes. The Architecture was previously updated in September 2014. Since the last update, several ITS projects has been completed/implemented, underway, programmed, and planned. Stakeholders' visions and needs have also evolved, and such changes need to be reflected in the Minnesota Statewide Regional ITS Architecture accordingly. In addition, a new

version of the National ITS Architecture (now ARC-IT) was released in spring 2017 along with a new version of the software tool RAD-IT that is fully compatible with the new version of the National ITS Architecture.

This Architecture update effort is comprehensive due to the recently completed updates on other Minnesota Department of Transportation (MnDOT) plans. This update aligns with the golden opportunity set forth by the MnDOT Family of Plans that are recently updated or underway to build linkages between them with the Architecture.

Benefits

The project provides the following benefits:

- Identifying current capabilities in the state as well as gaps in services
- Providing a common framework for the planning, design, implementation, integration, and operation of ITS throughout the state
- Enhancing the efficiency of ITS planning, project deployment and enhancements, operations, and maintenance
- Improving integration between systems and coordination among stakeholders
- Assisting in research, planning and deployment of emerging technologies such as connected/automated vehicles and smart city applications
- Compliance with ARC-IT allows MnDOT to receive Federal funds for ITS projects