



TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS

WHAT IS TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS (TSM&O)?

TSM&O is a set of strategies used to optimize the performance of existing transportation infrastructure. TSM&O leverages technology and active management strategies to improve system performance without adding more lanes.

Examples of TSM&O include but are not limited to:

- Traffic Signal Optimization (retiming)
- Traffic Incident Management
- Enhanced Enforcement Campaigns
- Alternative Intersection Design
- Access Management
- Ramp Metering



TDOT Interstate Dynamic Message Sign

WHY HAVE TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS (TSM&O)?

Implementing TSM&O is generally a lower cost alternative than lane expansion when dealing with growing demand. Developing a robust TSM&O program benefit a community by:

- Optimization of previous investments
- Improving cooperation between responsible agencies
- Reduced traffic incident duration
- Reduction in travel times
- Improved driver information



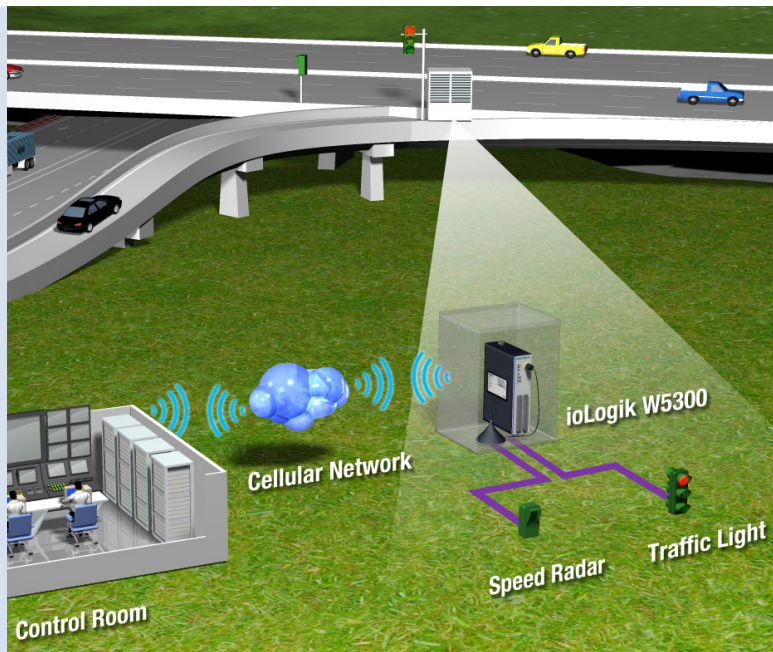
Ramp Metering



TENNESSEE EXAMPLE OF TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS (TSM&O): LEBANON

West Main Street (Business 70) and Cumberland Street (US 231) are two of Lebanon’s busiest thoroughfares and form the primary spines of the city’s traditional center. As traffic continues to grow on these two main corridors, the City sought ways to improve flow while avoiding costly and disruptive road expansion.

In 2013, Lebanon initiated a signal optimization and management study for 27 signalized intersections on West Main Street and Cumberland Street. The study resulted in new signal timing and communications plans for both corridors that optimize and coordinate signals at each intersection. The study also included a communications master plan for the City, in which various communications media, such as fiber optic cable and wireless technologies were studied and estimated in order to coordinate the signal system City-wide. A phased approach was planned to gradually and cost-effectively implement the communications system.



Traffic Signal Timing Analysis

HOW TO UTILIZE TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS (TSM&O)

PROJECT DEVELOPMENT

Leadership Commitment Community leaders must demonstrate a clear commitment to support the project.

Visioning and Consensus Establishing a shared vision and consensus allows the community to set project goals and objectives. Understanding needs and developing support from the community is vital to start the planning, design, and implementation processes.

Planning and Design Communities should leverage local resources and knowledge to assist in guiding project activities to best meet the needs of their community. Tailoring best practices to meet local conditions and desires will assist in developing an implementable, successful planning study.

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