

## **Regional Advanced Traffic Management Systems**

**Abstract:** In metropolitan areas in the United States, it is common for multiple governmental entities to have operational and management responsibilities for overlapping portions of the public roadway network. Each agency typically owns and operates their own traffic signal and/or traffic management system, collecting data and controlling infrastructure on their own facilities. What is less common is for the rich data collected by these systems in aggregate to be made available for the benefit of all.

A Regional Advanced Traffic Management System is a shared, overarching system that can sit above agency systems where traffic data from a variety of sources can be collected, concentrated, evaluated, stored, and distributed to better manage traffic with a regional focus. A regional system operates on the principal that traffic flows do not end at the county line or city limits, and that the sharing of information and coordinating of control helps improve operations for all facility owners. Typical applications include incident detection and coordinated response, decision support, strategy management, and coordinated infrastructure control.

This discussion will describe in detail the common characteristics and potential benefits of such systems. Examples of typical and creative applications from systems around the county will be shared, including from Washington State where the Seattle Department of Transportation is using predictive data from the I-5 freeway to manage traffic signal plans in the downtown area.

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