

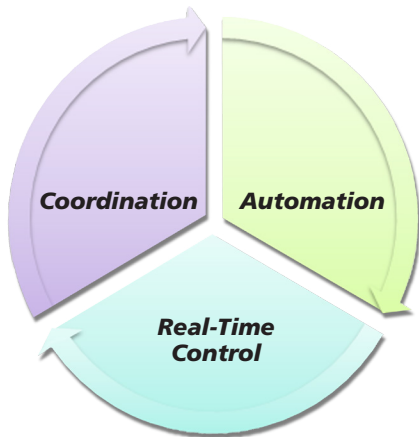
BACKGROUND INFORMATION

SANDAG and its partners developed and implemented an innovative corridor management system that, for the first time, melds multijurisdictional operating capabilities, resulting in substantial improvements to system performance. Funded by a grant from the USDOT, the Integrated Corridor Management (ICM) system is demonstrating the benefits of improved coordination, cooperation, and interconnectivity across freeway, local arterial, and regional transit management systems and staff.

FEATURES

ICM enables multiple systems to “talk” to each other to coordinate operations and maximize efficiency regardless of who owns or operates the individual system; monitors changing conditions and congestion based on real-time information; generates automated response plans; and re-evaluates and generates new response plans as traffic conditions change. An ICM multimodal response plan can include several key features:

- **Coordination** of the I-15 Express Lanes system with Caltrans’ changeable message signs, 511 traveler information, ramp meters, and arterial signal systems to bypass major incidents or manage daily congestion
- **System automation** to monitor congestion and select action plans
- **Real-time** action control changes to traffic signal and ramp meter timing to better manage traffic entering or exiting the freeway system and manage traffic signals across agencies



BENEFITS

The San Diego ICM project serves as an example of how agencies can make the best use of technology assets to improve regional mobility. Through ICM, partners are able to:

- **Save travel time** and fuel consumption, cut greenhouse gas emissions, and reduce travel delays and accidents

- **Improve travel time** reliability and predictability
- **Enable travelers** to make more informed decisions
- **Stretch existing investments** by optimizing what we’ve got

THE FUTURE OF ICM

Partnerships among local, regional, and state transportation agencies are the foundation for Transportation System Management and Operations (TSM&O) strategies like ICM and Active Traffic and Demand Management (ATDM). These strategies maximize the flow of people and goods while providing transportation choices through system and demand management solutions. These partnerships facilitate the cooperation and coordination that’s required to enable a truly corridor-wide approach to mobility management. The following recommendations can help advance the development of TSM&O strategies throughout the San Diego region:

- Establish a regional TSM&O plan to set the strategic vision for developing multi-agency and multimodal goals and objectives aimed at improving procedures across jurisdictions for the implementation of future TSM&O strategies
- Promote prioritization of TSM&O strategy investments as a fundamental component of existing planning and programming processes, planned capital improvement projects, local Capital Improvement Programs, and Climate Action Plans
- Prioritize TSM&O Strategies such as ICM and ATDM in future funding opportunities including the State Highway Operation and Protection Program (SHOPP)

ICM PARTNERSHIP AT WORK

On May 7, 2015, an ICM response plan was generated and deployed after a freeway accident on I-15 closed three of the southbound general purpose lanes during the morning commute. The ICM system identified the incident, determined the best response, and then implemented the plan, which included use of coordinated freeway ramp meters and extended green lights on local agency traffic signals along Kearny Villa Road. These actions, combined with opening the Express Lanes to all drivers, reduced the delay experienced by commuters by 10 percent when compared to the “do nothing” alternative. This reduction translated to an average travel time savings of four minutes for commuters who were re-routed along Kearny Villa Road. To put these numbers in perspective, during the course of one hour, diverted motorists saved a total of 60 hours, the equivalent of 7.5 work days.



“Caltrans is dedicated to the ICM project because it is critical to enhancing the livability of I-15 commuters. The project’s success is due to collaborative, strategic partnerships of local, regional, and state agencies working in concert towards the common goal of providing network efficiency and reliability.”

Cory Binns, PE
Chief Deputy District Director
Caltrans District 11

“MTS bus dispatchers can effectively manage all local and commuter services in the I-15 corridor by using the ICM interface. Because the interface is comprehensive and includes current and predicted traffic, cameras, incidents, and other corridor information in real-time, we can manage our routing dynamically to get our passengers to their destinations in the quickest and most efficient way possible.”

Devin Braun
Manager of Transportation
Communication & Technology
Metropolitan Transit System