A variety of tools and strategies are necessary to effectively operate and manage transportation infrastructure as a coordinated regional system, including the roadway network, transit system, and active transportation facilities. In this coordinated multimodal approach, the entire system will be connected by technology that will help people decide which routes to take and what forms of transportation to use. This technology will also help operators manage demands on different parts of the transportation system, including bus and train lines, major transit centers, and roads and highways. This management system is a part of the Next Operating System (Next OS), the electronic nervous system of the region’s transportation network. Policies governing Next OS and data and institutional governance structures will ensure that the transportation system can support the technology the region needs.

The policies governing the use of technology within the transportation system can be designed to work in tandem with infrastructure improvements for Complete Corridors and Next OS. The ultimate goal is to make sure that people have the information they need to travel seamlessly through the region’s entire transportation system.

What system management and operations efforts are already underway?

Five local, regional, and state agencies collaborated on system performance for freeway, local roads, and transit for the Interstate 15 Integrated Corridor Management project. One result of this collaboration is that local roadway signal timing is coordinated with freeway ramp meters to better manage traffic entering and exiting the freeway during major incidents. The focus remains on the users of the freeway and major roadway networks regardless of who owns or operates the individual systems. This is an example of an operational governance process change agreed upon by local and state agencies in an effort to improve management and operations across networks and across agencies.
What does it look like?

Transportation systems management and operations encourages agencies to combine tools, resources, and solutions to achieve greater performance of the entire system. Integration can happen with:

- Systemwide investments to integrate corridors into one managed network
- Support for information sharing between technology providers and fleet operators
- Coordination of operational strategies so that corridor, regional, or system objectives are achieved
- Embedding transportation systems management and operations policies, governance, and processes into an agency’s normal way of doing business, including planning, program management, and infrastructure improvements.

Who will be responsible for integrated management?

SANDAG, Caltrans, local agencies and jurisdictions, and transit providers will be responsible for developing the policies that will allow the region to integrate systems for coordinated management of transportation.

What could SANDAG do?

- Coordinate with regional partners to develop and maintain a policy, operational governance, and performance-based framework through the completion of a Transportation System Management and Operations (TSMO) Plan to help manage mobility and infrastructure across jurisdictional boundaries.
- Develop and maintain a flexible, adaptable approach to working with the private sector so that solutions launch quickly while still complying with regional, state, and federal laws, regulations, and policies. Technology changes quickly, and the Next OS framework will encourage new apps and services to enter the San Diego market to compete for users and offer innovative services.
- Work with regional transportation system operators to develop and maintain a set of common data standards that will allow systems, including planners and policymakers, to share data with one another while protecting security and privacy.

Resources

U.S. Department of Transportation, Transportation Systems Management and Operations (TSMO) Plans
ops.fhwa.dot.gov/plan4ops/tsmo_plans.htm

Transportation Systems Management and Operations (TSMO) Resource Connect
transportationops.org

U.S. Department of Transportation, Integrated Corridor Management
youtube.com/watch?v=xWPyzgFlf7w