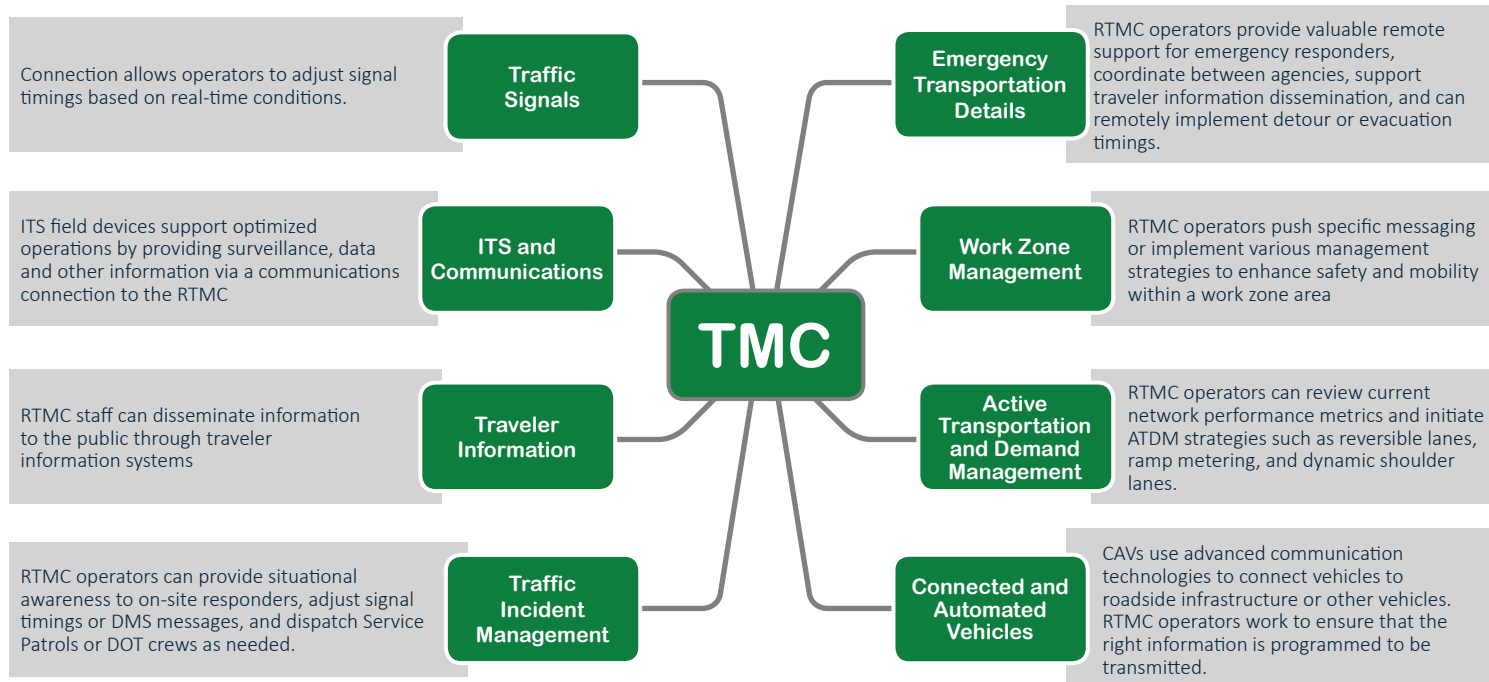# TRAFFIC MANAGEMENT CENTERS

Service Layer Brochure

Traffic Management Centers (TMC) serve as the central location to receive, process, and disseminate transportation information through various systems for the purpose of managing traffic operations - enhancing safety, mobility, and efficiency throughout its service area. TMCs are focused on optimizing the performance of the existing transportation network. Regional TMCs (RTMC) are typically used to focus within a specific area; leveraging regional knowledge and relationships to enhance the ability to optimize the system. RTMCs serve to facilitate collaboration and coordination for stakeholders within a region, reinforcing collaboration as a priority of the TSMO program. RTMCs typically provide the following functions:

- Freeway traffic monitoring and management
- Arterial traffic monitoring and management (agency dependent)
- Real-time traffic condition assessment
- Signal timing changes
- Operation of flow meters and reversible lanes
- Real-time dynamic messaging
- Coordination with media
- Development of emergency and natural disaster relief plans
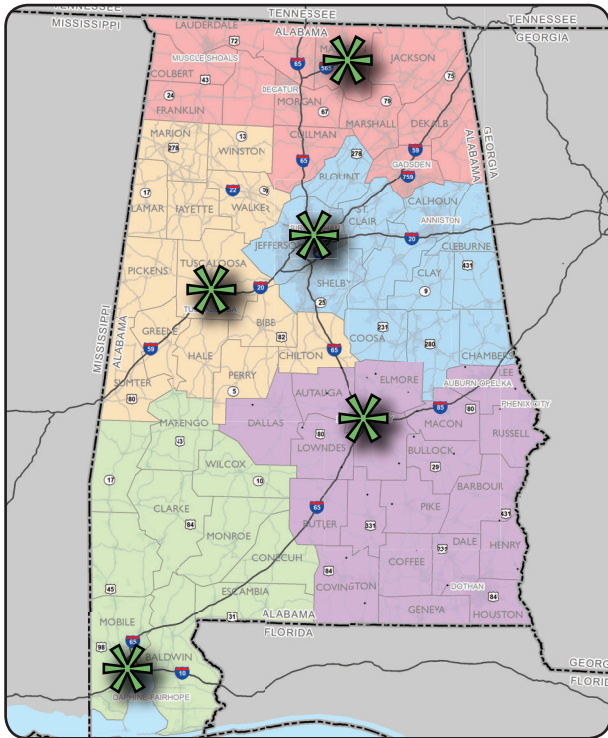- Law enforcement and emergency response crews coordination

Traffic Management Center Dependencies

The RTMC staff rely upon various TSMO strategies and field deployments to support traffic management activities throughout their service area. When RTMCs are connected, it is possible to facilitate traffic management and operations in other regions as backup support. RTMCs provide critical functions that are necessary to implementing other TSMO program elements, such as Traffic Incident Management (TIM) and Emergency Transportation Operations (ETO), with the focus on improving mobility across the transportation system and helping to deliver a safe, reliable, and sustainable transportation environment.

Connection allows operators to adjust signal timings based on real-time conditions.

Traffic Signals

Emergency Transportation Details

RTMC operators provide valuable remote support for emergency responders, coordinate between agencies, support traveler information dissemination, and can remotely implement detour or evacuation timings.

ITS field devices support optimized operations by providing surveillance, data and other information via a communications connection to the RTMC

ITS and Communications

Work Zone Management

RTMC operators push specific messaging or implement various management strategies to enhance safety and mobility within a work zone area

RTMC staff can disseminate information to the public through traveler information systems

Traveler Information

TMC

Active Transportation and Demand Management

RTMC operators can review current network performance metrics and initiate ATDM strategies such as reversible lanes, ramp metering, and dynamic shoulder lanes.

RTMC operators can provide situational awareness to on-site responders, adjust signal timings or DMS messages, and dispatch Service Patrols or DOT crews as needed.

Traffic Incident Management

Connected and Automated Vehicles

CAVs use advanced communication technologies to connect vehicles to roadside infrastructure or other vehicles. RTMC operators work to ensure that the right information is programmed to be transmitted.

Benefits of RTMCs Across the State

ALDOT relies upon five RTMCs located throughout the state in Birmingham (East Central), Mobile (Southwest), Montgomery (Southeast), Tuscaloosa (West Central) and Huntsville (North). The following key functions are provided by the RTMCs.

Situational Awareness

Operators at the RTMC are able to share information from cameras, traffic signal operations, first responders, and other sources to more efficiently support incident management, event management, emergency management, and day-to-day operations.

Operational Support

Operators at the RTMC are able to adjust signal timing as needed based on current situations. The ability to run contingency plans due to incidents, temporary road closures, or hazardous conditions results in a reduction in delay and cost for drivers.

Advanced Traffic Signal Systems

The operations of advanced traffic signal systems (Adaptive signals/Traffic Responsive programs) require monitoring and calibrating as traffic patterns change throughout the year. Operators at the RTMC are able to digest this information daily and adjust the systems as needed.

Asset Management

RTMC staff is able to monitor field equipment and remote troubleshoot devices from the RTMC, allowing equipment downtime to be minimized. This can save significant time and resources rather than having to physically address the issue in the field.

Agency Cohabitation

Multiple groups and agencies work out of the RTMC. This cohabitation of space leads to relationship building and information sharing that results in safer transportation networks.

ALDOT
STATEWIDE TSMO MASTER PLAN