

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) are the application of electronic technologies and communications to improve the operation of roadway and transit systems. Some examples of ITS technologies and the benefits of deployment are provided below.

Traffic Management Center

A Traffic Management Center (TMC) serves as the foundation for operations of ITS. Operators in a TMC can use ITS to improve incident management, special event management, and regional traffic coordination. Video from cameras and real-time information on travel conditions can be provided to local agencies such as emergency management providers, transit providers, and the media.

Dynamic Message Signs

Posted traveler information messages on dynamic message signs provide motorists with details about incidents, evacuations, and construction.

Closed Circuit Television Cameras

Transportation operators use video surveillance to detect and verify incidents, monitor congestion, and check road conditions in inclement weather. During emergencies, video images can be shared with emergency management operations

Road Weather Information Systems

Monitoring weather conditions using road weather information system stations can assist maintenance personnel in responding to potentially dangerous roadway conditions. In areas prone to flooding, flood detection equipment could be paired with roadway closure equipment to prevent cars from driving on flooded roadways.

Work Zone Management

Portable dynamic message signs and closed circuit television cameras facilitate detour and lane closure implementation and traffic management in work zones.

Emergency Management

Traffic signal preemption improves emergency vehicle response times and safety. Sharing of video feeds and camera control from traffic management agencies also improves incident response.

Traffic Signal Systems

Closed loop traffic signal systems allow transportation operators to monitor and change signal timing plans from a traffic management center and facilitate corridor signal synchronization.

Transit Management

Automated vehicle location systems integrated with computer aided dispatch systems facilitate transit management. Transit security technologies, trip routing, and reservation systems provide added safety and convenience for transit patrons.

