TRAFFIC MANAGEMENT CENTERS

Description

Traffic management centers (TMCs) serve as the mission control for an urban area's major street and highway network. This one location monitors traffic signals, intersections, and roads and proactively deploys traffic management strategies to reduce congestion and coordinate state and local authorities during special events, emergencies, or daily stop and go traffic.

TMCs may not always be the first detector of crashes and stalled vehicles that cause traffic jams, but they are always an important information source. Operators monitor cameras, sensors, and other technology to alert the proper authorities and approaching drivers (via dynamic message signs [DMS] or a website) about problem areas, reducing crashes and saving drivers time, money, and wasted fuel. Representatives of law enforcement, fire and emergency management services (EMS), and local transit agencies are also often co-located at TMCs in order to improve multiagency response.

Houston TranStar Operation Center (govtech.com)

Cost:	●●●●○
Time:	Moderate
Impact:	Regional
Who:	Public Agencies
Hurdles:	Funding

Exceptional TMCs reach across city boundaries in a large urban area to collect information on the entire road network. Using a complete network picture, TMCs can proactively identify weak areas, suggest solutions to state or local agencies, and communicate solutions or information to drivers and transit riders in real time. They can also participate in studies of longer-term congestion reduction strategies.

Target Market

TMCs should be used to monitor the freeway and major street network as well as transit in almost all urban areas. Cameras and message signs typically monitor and communicate traffic conditions on freeways, highways, and other major surface streets in that particular city or region.

How Will This Help?

- <u>Reduce delay caused by stalled vehicles or incidents</u> by continuously monitoring the network via CCTV cameras or sensors and deploying traffic management strategies as needed.
- <u>Alert approaching vehicles to problem areas</u> by updating message boards and web information.
- <u>Provide information regarding alternate routes</u>, alleviating the effects of bottlenecks or incidents.

Success Stories

- Houston, Texas: TranStar has 730 CCTV cameras used to monitor the network and dispatch emergency vehicles and tow trucks. The center also controls DMS and other operational devices, all contributing to reduce delay by 11.3 million vehicle hours ($227 million) in 2009.

- Utah: CommuterLink monitors the major roads throughout the entire state. Since the TMC's (and other ITS strategy) deployment, freeway speeds have increased 20 percent and intersection delays have decreased by 27 percent.

Implementation Issues

TMCs require significant funds to start and maintain operations, which can limit their deployment. Additionally, municipalities may not wish to hand over certain tasks, such as signal timing, to a TMC, thereby limiting its effectiveness.

For more information, please refer to: http://mobility.tamu.edu/mip/strategies.php.

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