DYNAMIC REROUTING

Description

Dynamic rerouting is an active traffic management strategy that presents drivers with viable alternate highway routes when their normal route is severely congested due to incidents, special events, or other abnormal traffic conditions. The alternate route is determined based on prevailing traffic conditions along nearby highway routes between a given origin and destination. Alternate route information is typically disseminated using hybrid guide signs, dynamic message signs, or via broadcast media. This not only benefits drivers by shortening their travel time but also keeps the congested corridor from becoming more so.

FHWA

Cost:	●●●○○
Time:	Short
Impact:	Regional
Who:	State & Local
Hurdles:	Speed/Flow Monitoring System (ITS) Deployment

Target Market

Dynamic rerouting works well on busy highway and major street networks with viable alternate routes. It can be implemented quickly in regions with traffic management centers and existing intelligent transportation systems (ITS). The strategy pairs well with speed harmonization and temporary shoulder use.

How Will This Help?

- Reduce congestion by shifting traffic to alternate routes.
- Maximize efficiency and capacity of the network by spreading traffic across the network.
- Increase safety by decreasing the likelihood of secondary car crashes.

Success Stories

- TxDOT provided dynamic re-routing messages using portable solar-powered monitors, signs, and cameras in a smart rural work zone system deployed on I-35 in Hillsboro.

- Several nations in Europe, including the Netherlands and Germany, use rotational prism guide signs that change as traffic conditions change to indicate alternate routes to motorists on urban and rural highways.

Implementation Issues

An effective implementation of dynamic rerouting along a freeway/highway route requires a viable parallel corridor that has adequate capacity to serve as an alternate route with minimum negative impacts. The concept requires operational knowledge of the status of the road network, typically through intelligent transportation systems and a regional traffic management center (TMC) that manages the system. The availability of adequate sensor and sign infrastructure to ensure that reliable alternate route information can be generated and provided is required.

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

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INVESTMENT PRIORITIES