



Project Summary

Texas Department of Transportation

0-5213: Data Access Requirements for Texas Traffic Management Centers

Background

The Texas Department of Transportation (TxDOT) operates Traffic Management Centers (TMCs) in several Texas cities, and there are plans for adding more TMCs throughout the state as well as for expanding the capability of the existing centers. Each of these centers is tasked with an operational role to manage and operate TxDOT roadways within its region. This management is accomplished in part by monitoring traffic data from many TxDOT-funded resources such as closed-circuit television (CCTV) surveillance cameras, freeway operational data (video detection systems, automatic vehicle identification systems, loop detectors, etc.), and roadway incident information.

TxDOT has provided public access to much of this information free of charge via the Internet; this has proved to be a very successful endeavor. Recently, private entities, such as the media and traffic information service providers (ISPs), have requested direct access to this traffic information as well as to live video feeds from the roadway CCTV cameras. The ISPs typically repackage this information, add value and features to the data, and subsequently charge a fee to travelers, media outlets, and other private customers for the information. Although some TxDOT TMCs are providing traffic information access for their regions to the private sector, there are no guidelines and procedures to provide statewide consistency among the existing and planned centers.

What the Researchers Did

To analyze the issue, this research project conducted the following activities:

- identification of what traffic data are currently available,
- examination of current and anticipated practices for furnishing traffic data to private entities,
- inspection of the diverse uses for traffic data,
- review of the potential use of traffic data as a revenue source, and
- identification of prominent administrative concerns associated with sharing and/or selling the data.

What They Found

Researchers reviewed how public agencies share transportation system data with other agencies or outside firms. Contact with TMCs around the country showed that there are three general models for sharing data: no cost to registered users, barter for in-kind services, and fee for traffic data. Although there are few examples of TMC data being sold or bartered, a value of approximately \$0.10 per person per year for the population of the applicable metropolitan area can be placed on the traffic information data.

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Project Completed:

8-31-05

Personal interviews were held with managers of six TxDOT TMCs located throughout the state. Virtually all of the TMCs collect speed, volume, and occupancy data, and they monitor roadways using closed-circuit television systems. Travel time data are collected in Dallas and Houston. Most of the TMCs also collect traffic incident data from external sources including local emergency responders such as emergency medical services, fire, police, and sheriff departments, and the TMCs provide notification of incidents to external sources as appropriate.

All of the TMCs provide information on planned roadway closures as supplied by TxDOT district Public Information Offices on their TMC web sites and on dynamic message signs as appropriate. All of the TxDOT TMCs that provide live video feeds to private entities such as commercial television stations do so under signed formal agreements.

While the Public Information Act does not specifically address providing real-time data to the general public, it could be inferred that the provisions might extend to such data. There is no provision to charge the public for accessing information beyond the cost of materials, labor, and overhead to provide the requested materials. A review of the act indicates that it addresses record information, not real-time data; however, by extension it might be argued that the act can be applied to charges for real-time traffic data.

What This Means

TxDOT currently operates ten TMCs across the state in Amarillo, Austin, Corpus Christi, Dallas, El Paso, Fort Worth, Houston, Laredo, San Antonio, and Wichita Falls. Although some of the TxDOT TMCs are co-located with other transportation agencies, each is primarily a freeway TMC. These TMCs vary widely with regard to services provided, coverage, maturity, and agencies involved; however, each is primarily a multiple-agency, multiple-jurisdiction TMC operated by public agency staff. In that regard, it is recommended that the appropriate cooperative agreements with all TMC partner agencies be executed for data sharing before TxDOT or any other agency makes arrangements with ISPs for use of the data.

Based upon the findings of the research project, researchers developed a set of guidelines that TxDOT could consider for adoption for data access in Texas TMCs. These recommendations include:

- Meeting with ISPs and formulating performance measures concerning the distribution of TMC-sourced data that could be reported to TMC agencies as a gauge of public utility and a guide for future investment. Collecting these performance measures and aggregating them on a statewide basis.
- Meeting with ISPs and devising common procedures for typical activities involving TMC operations including disruption and restorations of data flows and on-site access to a TMC during times of emergencies. Including these procedures or references to them in contractual agreements with ISPs.
- Working toward including consistent requirements in TxDOT contracts with private sector data partners in TMCs throughout Texas.

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