



NOC_oE- SOUTHWEST PEER EXCHANGE TOPIC 1- DATA COLLECTION

Texas Department of
Transportation



Session 1- Data

- Houston TranStar Uses Regional Incident Management System (RIMS)
 - Houston RIMS system implemented in mid 2000's
- All other Districts use Lonestar ATMS
 - Lacked Performance Measure and Key Performance Indicator features
 - KPI & PM Upgrades implemented in 2016

Session 1- Data (Houston TranStar)

- What data sources are you integrating?
 - Probe-based travel times (both toll-tag and Bluetooth-based),
 - Radar/volume data, incident data, camera views,
 - Construction & road closure data,
 - Weather/roadway weather, and transit data are all integrated on the Houston TranStar traffic map.
 - Public comments from Twitter, Facebook and “contact us” emails are integrated into public feeds and used in operational analysis/action.
 - The City of Houston 911 (HFD/HPD) incident data feeds are integrated into TranStar and pushed to the public on the arterial levels of the website.
 - Freight rail monitoring is in place in a major corridor in Sugar Land, Texas (parallel to a major arterials)

Session 1- Data (Houston TranStar)

- What type of data sharing agreements do you have?
 - Houston TranStar Master Operating Agreement- sets the framework for multi-agency data sharing within the partnership (TxDOT, COH, Harris Co, METRO).
 - Other agreements deal mainly with fiber sharing agreements, and the sharing of data over those lines is largely addressed with those agreements on physical infrastructure
 - Agreements between TxDOT and local municipalities or other area counties

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Session 1- Data (Houston TranStar)

- Do you use probe data? If so, how are you using probe data for operations? Are you using the probe data in real time?
 - TranStar uses probe data
 - Houston- For 25+ years toll-tags were the basis for the system,
 - Moving to Bluetooth/AWAM-based technologies in the past five years.
 - Toll-tag technology is still used on HOV and managed lanes, but AWAM used on most other major facilities and arterials.
 - Probe-based data is used in real-time for facility monitoring, traveler information (via internet and broadcast media) and to push 3M+ travel time messages per year to 200+ roadside DMS.
 - Probe Data is used in real time, in addition archived probe data is also used for analysis and planning functions.

Session 1- Data (Houston TranStar)

- Have you been able to crowdsource data for operations activities? If yes, describe the operations activities.
 - A crowdsourcing function is planned in the mobile Android/iOS apps under development, due out within the next 12 months,
 - that will allow users to opt-in to be probes and to actively report incidents or other issues through the app.
 - Citizen reported incidents will then be verified by TranStar operators and responded to as normal

Session 1- Data (Houston TranStar)

- What type of legal and institutional issues have you been challenged with and how have you overcome them?
 - There is generally good cooperation in the Houston region on sharing transportation operations data. The H-GAC Operations Task Force and the Houston TranStar partnership lends themselves to forum for informal and formal agreements and operational data sharing.
 - Challenges have included getting fiber sharing agreements through the legal process and disagreements over the years on various shared maintenance responsibilities.
 - These disagreements are typically worked out after higher level of agency administrators/stakeholders become involved.
 - Periods of budget tightening also have posed challenges, but agency typically have operations as a priority and when budgets normalize those funding levels are reinstated.

Session 1- Data (Lonestar ATMS)

Lonestar ATMS

- What data sources are you integrating?
 - Inrix real-time speeds
 - Limited PD CAD data
 - Roadway sensor data
 - Probe Data
 - Weather alerts

- What type of data sharing agreements do you have?
 - Media (TV, Radio)
 - City of San Antonio
 - County 911 Operations (Bexar Metro 9-1-1)
 - Transit
 - HERE, Inrix
 - Research Institutions (TTI, UT-CTR)
 - Private Traffic Service (Total Traffic)
 - 511DFW.com web site
 - COG/MPO

Session 1- Data (Lonestar ATMS)

- Do you use probe data? If so, how are you using probe data for operations? Are you using the probe data in real time?
 - Lonestar ATMS does use probe data from bluetooth devices
 - Lonestar does have an AVI feature, but is not used outside of Houston
 - Probe data is used in combination with other available speed data to generate Travel Time messages and to monitor speed maps for potential incident locations
 - The probe data is used in real time

- Have you been able to crowdsource data for operations activities? If yes, describe the operations activities.
 - TxDOT is currently negotiating with Waze on data sharing agreement

Session 1- Data (Lonestar ATMS)

- What type of legal and institutional issues have you been challenged with and how have you overcome them?
 - Still challenged to overcome data access to City of San Antonio full CAD data. Key is developing relationships across different departments, and selling the benefits to City department leaders
 - Working with Information Management Division to bring in statewide Enterprise Level applications:
 - Video Sharing Solution
 - Video Analytics
 - Data Analytics
 - Asset Management System/Network Management System/Network Operations Center
 - Video and data sharing requirements for traffic management often exceed band width limitations of business network
 - Administration is asking for clarification on network security practices specifically related to data sharing