The Next Evolutionary Stage of Statewide Reporting Systems

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At the beginning of ATIS, data collection was difficult. 
- Limited policies of data dissemination
- Limited reporting systems
  - Urban Traffic Operations Centers
- Large void in technology for statewide systems
History

• Early reporting systems were designed strictly for historical reporting purposes.
  – Delays of up to a day
  – Lengthy process of reporting problem
  • Time was taken to resolve the issue instead of report it
  • Phone/radio not always available to make a report
History

• Eventually reduced time to several hours.
  – Still had hurdles in policy
• Method of reducing reporting and administrative steps was needed.
  – Limit human involvement
History

• Slow development of reporting systems across the states.
  – Focused on simple database entry interfaces
  • Separate interfaces for construction, maintenance
  • Lack of incident information
  – Limited updates and often no information on the weekends
Statewide ATIS

• Mid 1990’s, University of North Dakota created a proof of concept for Statewide ATIS, known as #SAFE™.
  – Used state’s current reporting system
    • Still limited by reporting systems technology available
  – Technology enabling data dissemination outpaced city and state’s ability to collect and report in near real-time
  – Primary goal of enhancing traveler decision making was limited
Road Condition Reporting Systems

• During the same time period, Arizona DOT contracted Nation’s first fully integrated reporting system.
  – Highway Condition Reporting System (HCRS™)
  – Became statewide after deployment
  – Focused on reporting travel information to reduce traffic and increase mobility
Road Condition Reporting Systems

- HCRS™ led the way for future reporting systems
  - Condition Acquisition Reporting System (CARS™) by Castle Rock Consultants
  - Integrated Roadway Information System (IRIS™) by Meridian Environmental Technology
IRIS™ Evolution

- Created solution to increase the degree, range, and detail of a transportation agency's reporting of information.
  - Fully customizable
  - Handles all reporting categories
    - Road conditions, Construction, Transit, Traffic, Accidents, Events, etc.
IRIS™ Evolution

• Can feed any reporting mechanism provided by the state.
  – Website
  – 511
  – HAR

• Natural evolution of IRIS in data collection, management and standards.
Operator Interface

- Enhanced Zoom capabilities
- Enhanced tools combining multiple functions
  - Increases operator efficiency and flexibility
  - Improves time in informing the public of roadway and travel hazards
- Ability to tie in other data feeds
  - DMS, Traffic Management, CAD, etc
Operator Interface

- Can report on State MRM or Landmarks
  - Based on intersections, towns and local points of interest
Operator Interface

- Enhanced methods of event identification and length.
- Layers increase user familiarity with region.
  - County boundaries
  - Terrain
  - Rivers/Lakes
- Detailed User Configurations.
  - Colors
  - Regional and zoom level settings
Administrative Interface

- Control of all Roads within a state.
- Supervisors/Administrators set permissions on each segment of roadway.
  - Conditions, Construction, Events
  - Prevents reporting confusion for operators
- Changes can be made onsite as needed.
Search Tool

- Allows state to monitor operators, road reports, and keep logs of daily activities for records.
  - Search by:
    - Route
    - Date and Time
    - Type of event, condition/control, construction
    - Operator
  - Can be within either interface with different permissions.
Long Journey

- Although ATIS is still young, the transformations and advancements have been huge.
  - Lack of reporting tools, technology
  - Data is now at the fingertips of travelers
    - High demand pre-trip planning and in-route
    - Cannot feed fast enough
Future of IRIS

- Automatic feeds directly from the field through Maintenance Decision Support System (MDSS™) is the future.
  - NO delays through human interaction
  - Conditions available to traveler as soon as recognized in the field
- Goal of one tool to manage all ATIS functions is just around the corner.
Questions?

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