TRAVELER INFORMATION ON ARTERIALS

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TRAVELER INFORMATION ON ARTERIALS – THE CONTEXT

Traveler information
- Travel Time, speed, queues, etc.
- Traffic Incident Information
- Weather related road condition
- Construction and maintenance activities information
- Event and parking information
- Emergencies
- Traffic images and video
- Transit traveler information
- Bicycle traveler information
- Pedestrian traveler information
- Car pool/van pool information
- Commercial vehicle information

Stakeholders
- Traffic Operating Agencies – state, local
- Public Safety Agencies
- Weather Agencies
- Public Works - Construction
- Public Works - Maintenance
- Event Centers
- Parking Centers
- Emergency Management
- Citizens
- Transit agencies
- Planning agencies
- Freight agencies

Users
- Single mode transportation system user
- Multi-modal transportation system user
- Commercial vehicle user
- State or neighboring public traffic operators and planners
- Public safety dispatchers/other
- Emergency Management Providers
- Event centers operators
- Transit operators
- Information service providers
- Media personnel
TRAVELER INFORMATION ON ARTERIALS – THE CHALLENGES

1. Interstates vs Arterials
2. Not much standardization or consistency in data collection, processing & dissemination
3. Not much data integration
4. Data availability, timeliness and accuracy
5. Lack of clarity on the “Why”
6. Not enough metrics to determine effectiveness, usage
1. **Interstates vs Arterials**
   - Limited access vs more access
   - More interactions on arterials – parking, bus stops, pedestrians, bicycles, etc..
   - Algorithms for Interstates are more mature and More validation has been done
   - Technical differences – easy to show a color coded speed map on interstates, volumes, etc.
2. **Standardization or consistency in data collection, processing & dissemination**

- Segmentation
- Sample size/time interval
- Placement/density of devices, etc.
- Types of incidents, weather related road conditions, etc.
- Processing, validation, output
- Acceptable latency
- Accepting data from private ISPs and vendors
- Providing data to private ISPs and vendors
- More
TRAVELER INFORMATION ON ARTERIALS – THE CHALLENGES

3. **Data integration with**
   - neighboring agencies and/or State DOT
   - transit agencies
   - bicycle and Pedestrian agencies
   - public safety agencies
   - Others

   - Many silo sources for specific needs but few that are comprehensive
**TRAVELER INFORMATION ON ARTERIALS – THE CHALLENGES**

4. **Data availability, completeness, timeliness and accuracy**
   - Is the information available 24/7/365 in x-Minutes intervals
   - Is it available for all of the segments?
   - What is the latency on the information
   - Is the information within x% of accuracy
TRAVELER INFORMATION ON ARTERIALS – THE CHALLENGES

5. **Lack of clarity on the “Why” - The purpose**
   - We seemed to be good at “How” and “what”
   - What problems are we trying to address
   - Lack of clarity on the intended or target audience and usage
6. **Not enough metrics to determine effectiveness, usage**
   - Not just global numbers - # of website hits, subscribers, etc.
   - How do they impact what we are trying to achieve
TRAVELER INFORMATION ON ARTERIALS - GUIDELINES

1. As an organization, be very clear on the why
2. Work and collaborate with others
3. Pay close attention to current trends in technology
4. Identify key metrics and measure them
TRAVELER INFORMATION ON ARTERIALS – GUIDELINES

1. **Be very clear on the why & be in alignment with your agency vision**
   - Congestion chart is different for each area or region
   - What problem are we trying to solve - Incident delay, Congestion delay,
   - There are broader issues to consider - Freedom of travel/lack of modal choices
     Pollution,
   - Target audience and Intended usage
2. **Collaborate with others**
   - traffic agencies
   - other agencies
   - private sector

   - Try not to reinvent the wheel – look to your colleagues and industry
   - Example: Denver Regional Integrated Traveler Information Guidelines
     - CDOT INRIX Validation Study
     - Denver Bluetooth Validation study
     - I-95 Coalition
3. Pay close attention to current trends in technology
   - Data-as-a-service
   - Mobility-as-a-service
   - Traffic incident algorithms
   - Connected vehicles
   - DSRC vs 4G/5G

   - Invest in high value infrastructure and systems
   - Focus on services that private sector cannot easily provide today
   - Example: Traffic video and images, etc.
     - AVL data for maintenance, transit fleet, etc.
     - Road/lane closures related to incident, weather, emergencies, etc.—openings, closings, etc.
4. **Identify key metrics and measure them**
   - Usages during bad weather, incidents, etc.
   - How is affecting the “why”

   - Focus on technology to provide the metrics as much as you can instead of “manual”
   - Align your limited resources based on metrics
QUESTIONS??

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Thank You!!