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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
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TRAVELER INFORMATION ON ARTERIALS – THE CHALLENGES

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.
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TRAVELER INFORMATION ON ARTERIALS – THE CHALLENGES

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



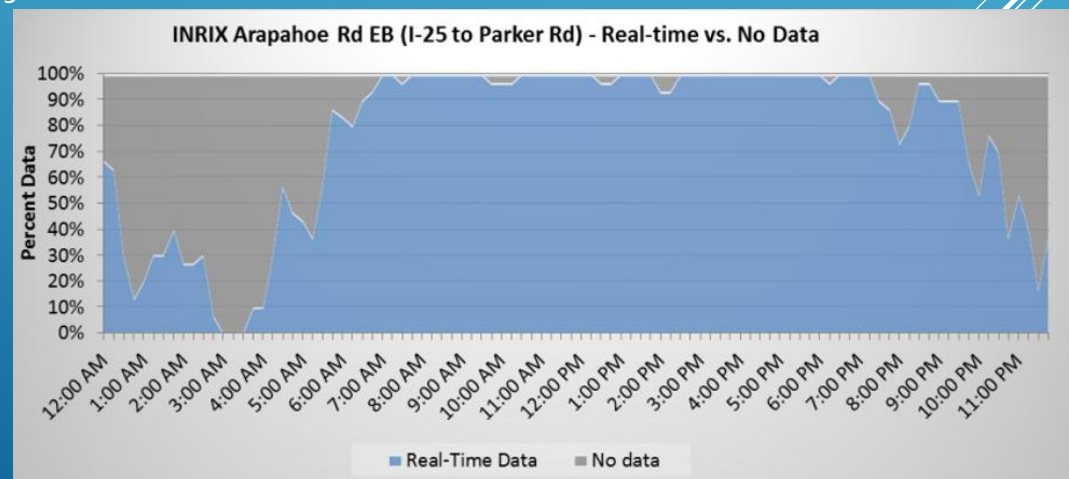
TRAVELER INFORMATION ON ARTERIALS – THE CHALLENGES

3. Data integration with


- § neighboring agencies and/or State DOT
 - § transit agencies
 - § bicycle and Pedestrian agencies
 - § public safety agencies
 - § Others
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- § 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
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TRAVELER INFORMATION ON ARTERIALS – THE CHALLENGES

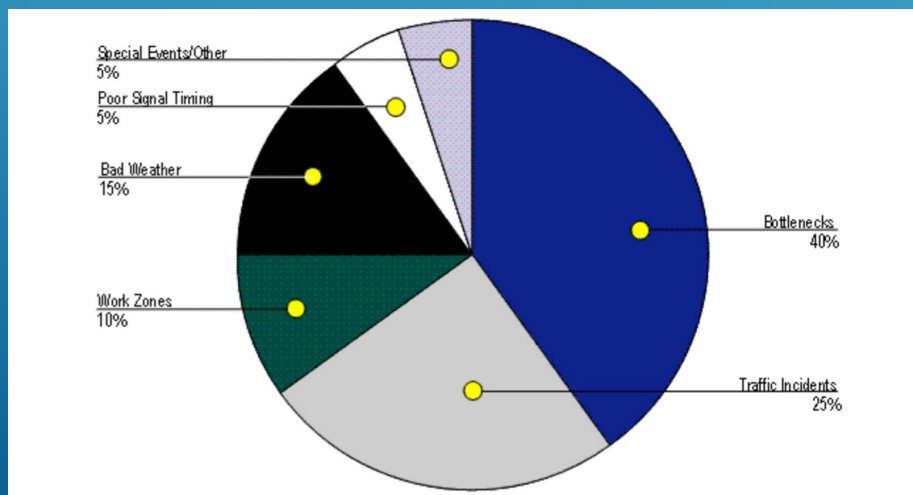
6. Not enough metrics to determine effectiveness, usage
 - § Not just global numbers - # of website hits, subscribers, etc.
 - § How do they impact what we are trying to achieve
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TRAVELER INFORMATION ON ARTERIALS - GUIDELINES

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
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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



TRAVELER INFORMATION ON ARTERIALS – GUIDELINES

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

TRAVELER INFORMATION ON ARTERIALS – GUIDELINES

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.

TRAVELER INFORMATION ON ARTERIALS – GUIDELINES

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
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QUESTIONS??

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Thank You!!