ATIS Data Collection Guidelines Workshop

Workshop Summary

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Scottsdale, Arizona

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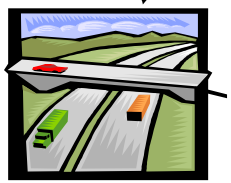
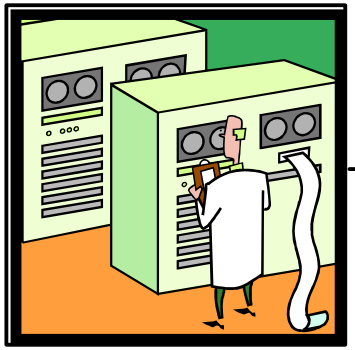
INFRASTRUCTURE

DEVICES

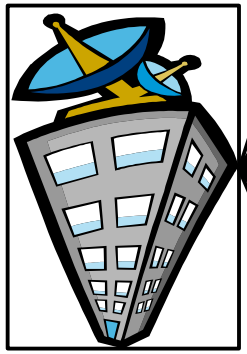
Data Gap



Operations Centers



ISP



Other

Data Gap

- ***Coverage***
- ***Depth***
- ***Accuracy***
- ***Timeliness***
- ***Consistency***
- ***Personalization***

Service Gap

- ***Communications Media***
- ***Devices***
- ***Content***

Problem Definition: *Show Me the Data*

- Stakeholders:
  - Infrastructure providers
  - Information Service Providers (ISPs)
  - System Integrator/Data Fusion Contractor
  - Device Manufacturers/Suppliers
  - Customers and Consumers
- Some areas of interaction between business model selection and data gap issues include:
  - Access rights to data (or the converse, exclusivity)
  - Public vs. private roles in data collection
  - Interagency data sharing
  - Public vs. private roles in data dissemination
  - Creation of economic value in the data or information products

Problem Definition: *Show Me the Data*

- Defining the Dimensions of the Data Gap Problem:
  - Data Coverage
  - Depth of Information
  - Data Accuracy
  - Timeliness of the Data
  - Data Consistency/Reliability
  - Personalization of Data
- Moving Toward Solutions to the Data Gap:
  - Innovative approaches to data collection
  - Keeping in mind regional interests vs. national perspectives
  - Solving public vs. private objectives
  - National leadership?

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Who are ATIS Customers?

- External Factors Influencing Customer Demand
  - The regional traffic context
  - The quality of the ATIS services
  - The individual trip characteristics
  - The characteristics of the traveler
- Segmenting the ATIS Market
  - Control seekers
  - Web heads
  - Low-tech, pre-trip information seekers
  - Mellow techies

Who are ATIS Customers?

- A high-demand ATIS market is a function of several regional factors and the quality of the ATIS services, more than individual ATIS customer characteristics.
- The greater number of customers are in regions where traffic and highway network conditions, transit system complexity, and ATIS service quality all align.
- Almost all ATIS customers are employed commuters with the greatest use of ATIS occurring during peak commute hours.
- Control-seekers dominate the ATIS customer market.
- Web heads comprise the second largest group of ATIS customers.

What do ATIS Customers Want?

- Drivers consult ATIS to reduce the uncertainty of their trip—they want to lessen the impact of traffic congestion delay and aggravation, and increase their control over time.
- Drivers' traffic information concerns include:
  - Accuracy
  - Timeliness
  - Reliability
  - Cost (capital and operating)
  - Degree of decision guidance and personalization
  - Convenience (ease of access and speed)
  - Safety (of operation)
- Transit customers want ATIS services that provide real-time information both pre-trip and en-route, good quality user interface, and convenient access to detailed system information.

What do ATIS Customers Want?

- For a fee-based ATIS service to be successful, it must provide value to the driver every day; it is unlikely that drivers will pay for a service that they consult only when encountering unexpected congestion.
- Drivers want travel speeds and incidents on their primary and alternate routes at the time of their departure—they also want it later in their trip when they choose between alternate road segments.
- The greatest opportunity for new traffic information services is in the vehicle, whether the service is delivered on a fixed or mobile device.
- Must other services be bundled with ATIS to make customers more willing to pay for the service, and would advertising-supported services be acceptable to the ATIS customer?

Private Sector Perceptions and Public Sector Activities

- Geographic coverage of available data is often inadequate, and more likely to be inadequate the larger the metropolitan area.
- Inaccurate data is the second most common quality problem, after inadequate geographic coverage.
- Agencies in a single metro area provide data inconsistent with other agencies in the area.

Private Sector Perceptions and Public Sector Activities

- Timeliness and update frequency problems occur for incident data.
- Problems with inadequate spatial resolution are most important for traffic speeds.
- Some ISPs require greater temporal coverage than is available in most places.
- Public agencies are not necessarily willing to transfer data they collect.
- Private organizations appear to be most interested in information on freeway conditions, followed by arterial then transit.

Features of Traffic and Transit Internet Sites

- Out of the 78 largest metro areas, 42 have at least one traffic site, and 38 have at least one transit site that could be evaluated for the presence of the predetermined features.
- Public agencies are interested in managing the system and have direct access to data they collect for traffic or transit management purposes.
- Private companies are interested in profiting from their efforts and covering data collection or procurement costs.
- The most sought-after traffic information, for the most part, is not available in most metropolitan areas.
- For traffic information, private sites have more features than public sites, but for transit system information the opposite is true.

ATIS Data Collection Guidelines Input

- Data Types and Data Attributes
  - Data Types
  - Data Attributes
  - Performance Levels
- Geographic and Facility Congestion Classification
  - Geographic Region Type
  - Facility Congestion
- Proposed Guidelines
  - Minimum Performance Levels for each Facility Congestion Classification
  - Applying Performance Levels by Geographic and Facility Congestion Classification
  - Local Factors
  - Data Accessibility

Breakout Session #1 Report

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Breakout Session #2 Report

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ISP Panel

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What's Next?

- Subcommittee will continue work
- Detailed Proceedings by April 2000
- Panel Discussion at ITS America Annual Meeting
- Guidelines by Summer 2000

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