ATIS Data Collection Guidelines Workshop

What do ATIS Customers Want?

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Introduction

- Consumers' perspective on ATIS services
- Why drivers consult ATIS and how they use it
- Critical features of an ATIS traffic service
- Additional suggestions from lead users of ATIS traffic services
- Critical features of an ATIS transit service
- Conclusions

Sources

- ITS User Acceptance research Program, 1995-99
- ITS MMDI Customer Satisfaction Evaluation, 1997-99
  - Smart Trek (Seattle)

    Focus groups and surveys with traffic and transit web site users, TransitWatch®, Traffic TV (cable), and WebTrends™
  - AZTech (Phoenix)

    Focus groups with traffic web site users, TrafficCheck (cable TV), and WebTrends™
  - TransGuide (San Antonio)

    Focus groups with drivers, WebTrends™
- Web-based survey respondents were self-selected, and may not be representative of the user population.

The consumer perspective on ATIS services

- New ATIS services are competing against:
  - Drivers' knowledge of traffic patterns in area
  - Radio traffic reports (considered unreliable)
  - Underlying belief that nothing will help
- We see a positive progression in attitude and expectations as consumers gain experience with ATIS services
- There may be a service quality threshold that an ATIS service needs to surpass before consumers regularly use it

Why drivers consult ATIS...

- All travelers want to reduce trip uncertainty
- Drivers (and, some transit riders) consult ATIS to (*in order of frequency*):
  - Assess traffic on their route
  - Judge the effect of incidents
  - Decide among alternate routes
  - Estimate trip duration
  - Time their trip departure

…And how they use it

- Customers report that they regularly change their trip or their expectations from ATIS information.
  - Time of departure
  - Part or all of their route, potentially lengthening trip mileage or duration
  - Adjust their expectations
- ATIS customers identify benefits from use
  - Saved time
  - Avoided congestion
  - Reduced stress
  - Avoided unsafe conditions

Critical features of an ATIS traffic service

- Overall requirements
  - Accuracy
  - Timeliness
  - Reliability
  - Convenience (and speed)
  - Degree of decision guidance and personalization
  - Safe operation

Critical features of an ATIS traffic service

- Camera views (web and TV)
  - Clearly labeled location and direction
  - Frequent updates, time stamp
  - Fast loading
- Incident information
  - Details: where, when, what type of incident
  - Network impact of incident
  - Up-to-date

Critical features of an ATIS traffic service

- Direct speed measures by segment
- Travel times between user-selected origin and destination
- Dynamic route guidance
  - Offer optional route guidance
  - Consider offering a delay threshold
- Coverage
  - Follow the traffic
  - Major freeways and arterials
  - HOV lanes and express lanes

Critical features of an ATIS traffic service

- Timing of information updates
  - Not less than 5 minutes during peak
  - Time-stamp all information
- Mobile ATIS: Drivers need information while driving
  - Conditions change en-route
  - Safe, fast, specific
- Local weather conditions
  - Weather is like an incident
  - Tell them when there's something to report, otherwise say nothing

Critical features of an ATIS traffic service
User interface and operating characteristics

- Web users want
  - Quick download, multi-dimensionality, color-coded maps, and uncluttered visuals
- TV viewers want
  - just traffic, voice-over descriptions, recommended alternate routes, uncluttered visuals
- Phone users want
  - Fast, easy, hands-free access to location-specific information
- No one wants advertising

Additional suggestions from advanced traffic service users

- **Ramps**: current delay
- **Trends**: conditions are getting better or worse?
- **Predictive information**: on this road, for this time of day, and these weather conditions, what can I expect?
- **Windows of opportunity**: identify them
- **Flash major events**: they're another type of incident
- **Parking information**: which lots are full?

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Critical features of an ATIS ***transit*** service

- Real-time info on Web, by phone, at bus stops, and on monitors at malls and office parks near major transit centers.
- Detailed maps of routes, with stops, and transfer locations
- Point-to-point trip itineraries: transit and multimodal
- Recommended trip times and routes for fastest travel
- Secure online bus pass purchases

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Conclusions

- For fee-based ATIS to succeed, it must provide value to customers everyday
- Low quality ATIS traffic appears to be largely ignored; high quality seems to be sought out
- Regional context conditions customer demand for traffic information
- Individual use rates appear to grow with good experience; ditto for market demand

Conclusions (cont)

- All customers want fast, convenient service, regardless of platform
- Prioritizing services, customers want
  - Freeways and arterials
  - Direct traffic speed, or reliable self-selected point-to-point travel times
  - Incident information
  - En-route guidance, based on their personalized criteria
  - Design features in accordance with the media and location of use

Conclusions (cont)

- Transit ATIS customers want real-time information, and they want it to be available to them on web, phone, en-route at bus stops, and via monitor (or other platform) at locations near to transit centers.
- They want more detailed information on routes, with maps, and point-to-point itineraries
- However, other research suggests that transit riders are not interested in paying for better system information.

Thank you

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