

National 511 Overview

National Rural ITS Annual Meeting

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FHWA – Office of Operations

October 10, 2007



Agenda

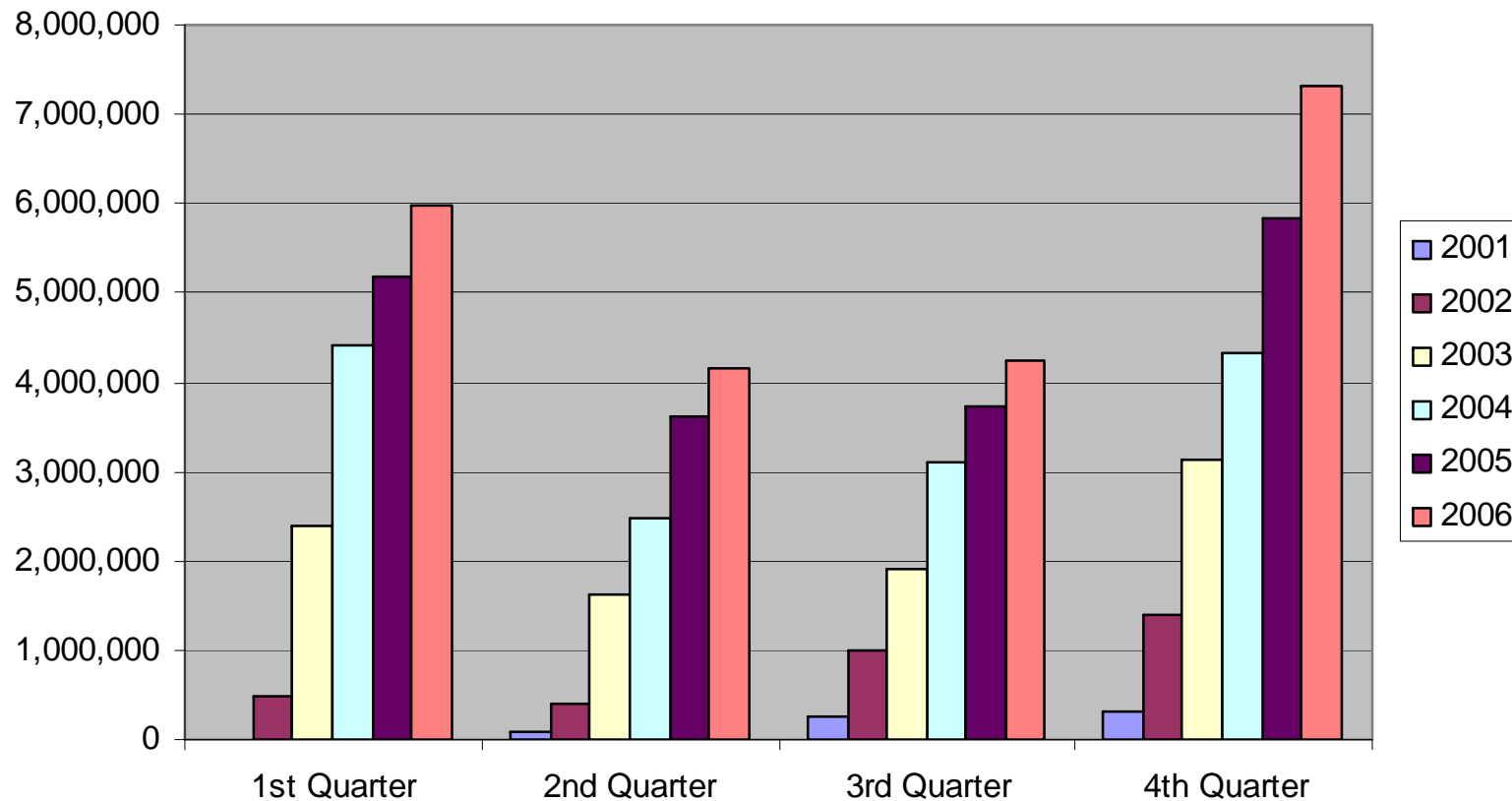
- 511 Progress
- Future Regulation Development
- Looking Beyond 511



511 Deployment Progress



Call Volumes by Quarter



Over 75 Million Calls To Date



2008 Tipping Point?

- Coverage by 2/3 of population, with many major metropolitan areas
- Solid footprint for “national” service
 - Consumer demand / expectation
- Look toward sustainability
 - Organization
 - Support



Web Site Information Traffic Data



Traffic Conditions	No. of States	% of States
Traffic speeds	14	28%
Travel times/delay	11	22%
Traffic flow/congestion	23	46%
Incident data	39	78%
CCTV camera images	40	80%
DMS messages	17	34%
HAR messages	3	6%



511 Data Considerations

- Assess quality metrics
 - Call volume not necessarily indicator of value or usefulness
 - Examine information quality measures beyond customer satisfaction
- Sharing data
 - Institutional, beyond standards



Future Regulation Development



2006 Proposed Program

- "Section 1201" RFI
 - Real-Time System Management Information Program
 - Published May 2006
- Traffic and travel conditions information
 - "Decision quality" for traveler choice of mode, time, and route



Span of the Proposed Program

- Major Highways
 - NHS, limited-access roads
 - Major arterials in metro areas
- Traffic & Travel Conditions
 - Road and lane closures (construction, incidents, weather)
 - Adverse roadway weather conditions
 - Congestion
 - Travel times in congested metro areas
 - Transit service disruptions in metro areas



Characteristics of the Proposed Program

- Real-Time
 - Construction closures / openings within 30 minutes; 15 minutes in metro areas
 - Confirmed road or lane blocking incident information within 15 minutes
 - Roadway weather conditions updated at least 30 minutes
 - Congestion information updated at least 15 minutes
 - Travel times reflect conditions no older than 10 minutes
 - Transit disruptions updated at least 30 minutes



Quality Metrics in the Proposed Program

- “Decision quality” for travelers
- Accuracy
 - Minimum of 85% accuracy
- Availability
 - Minimum of 90% availability



Value of the Proposed Program

- Transportation Agencies
 - Greater control of system-wide transportation assets
- Private Sector
 - Immediate access to shareable data



Upcoming NPRM

- Incremental Implementation
 - Initially focus on high-priority roadways and information
 - Expand Program for broader, deeper coverage
- Flexibility
 - Technology neutral
 - Congestion, performance metrics
 - Alignment with budget cycles
- Data Exchange Formats
 - Build on existing standards
 - Relatively short list



Looking Beyond 511



2008 Activities

- Data Exchange Formats
 - Interim Guidance
- Data Quality Workshops
 - Address quality metrics and data ownership issues
 - Define guide for sharing data and quality metrics
- Notice of Proposed Rulemaking



Data Exchange Formats: Not a Regulation

- A good practice
 - Facilitating consideration of standards
- There is no regulation for this
 - DOT has to adopt a standard
- SAFETEA-LU requires that states use the data exchange formats
 - No time frame established



RTIP Specifications mapped to Standards Dialogs and Messages

Req. No	Functional Specification Description	Source	Dialog(s)/Message(s)
0 General Specifications			
0.1	The RTIP may provide a list of points and segments between any two points that comprise the traffic network(i.e. network topology).	TMDD	Standard:TMDD Message: 1.14.2 -TrafficNetworkInventory
0.1.1	The RTIP may provide unique identification for all points in the traffic network.	TMDD	
0.1.2	The RTIP may provide unique identification of all road segments between any two points in the traffic network.	TMDD	
0.2	The RTIP may provide any change to the traffic network.	TMDD	
0.2.1	The RTIP may provide any change to the identification of any point in the traffic network.	TMDD	
0.2.2	The RTIP may provide any change to the identification of any road segment in the traffic network.	TMDD	
0.3	The RTIP may receive and process information about the network topology.	TMDD	Standard:TMDD Message: 1.14.1 -TrafficNetworkRequest
0.3.1	The RTIP may request information about the network topology upon initialization.	TMDD	Message: 1.14.2 -TrafficNetworkInventory
0.3.2	The RTIP may provide information about the network topology upon request.	TMDD	
1 Traveler Information			
1.1	The RTIP may provide route segment travel times.	National ITS Architecture	Standard:TMDD Message: 1.14.9 -LinkData
1.2	The RTIP may provide route segment speeds.	National ITS Architecture	Standard:TMDD Message: 1.14.9 -LinkData
1.3	The RTIP may provide roadway incident information.	National ITS Architecture	Standard: SAE J2354 Dialog: One-way Traveler Information Message: 5.4 – MSG_AdvisoryInformation where ResponseGroup has entry for incidents.
1.4	The RTIP may provide roadway detours and closures information.	National ITS Architecture	Standard: IEEE 1512 Base Standards
1.4.1	The RTIP may provide list of road segments as detour information.	National ITS Architecture	Message: 6.3—MSG_Public incident description (PID) where DF_IDX_Wrapper has value of impactReports entry.
1.4.2	The RTIP may provide list of road segments that are closed.	National ITS Architecture	
1.4.3	The RTIP may provide information about the effective time frame as a part of detours and closures information.	National ITS Architecture	



Resources Available

- **511 Websites**

- <http://www.deploy511.org>
- <http://ops.fhwa.dot.gov/511>

- **Deployer Websites**

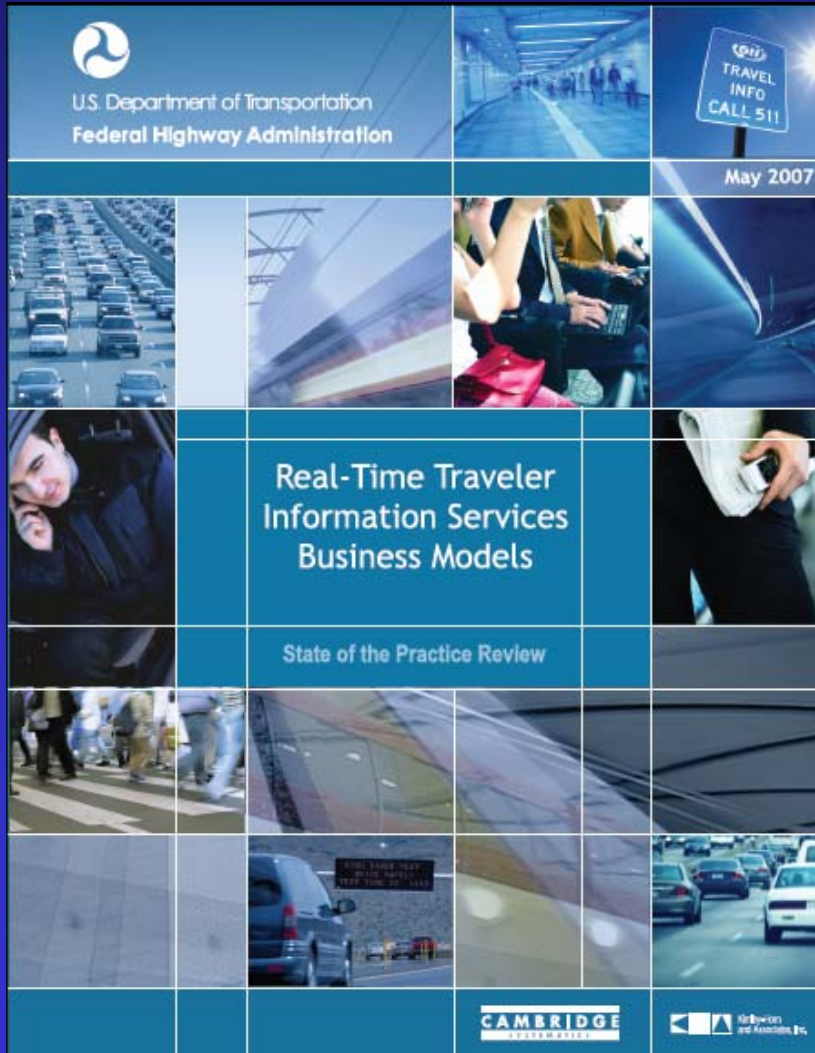
- AZ511.com, 511.KY.gov, 511MN.org, 511tampabay.com, 511virginia.org, etc.

- **Listserv at Yahoo! Groups**

- 511_coalition-subscribe@yahoogroups.com



Business Models Review



- Private sector works best with broadcast media and 'bundled' services
- Public and private sectors are sharing roles
- Public sector policies need to catch up with market changes



Using ATIS During Disasters

Communicating With the Public Using ATIS During Disasters

A Guide for Practitioners

April 2007



- Public panic is not the norm
- People make rational decisions based on information
- Amount of detail should be specific to medium



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