Statewide Incident Reporting Systems:
NCHRP 20-7/215

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Status of Statewide Incident Reporting Systems

Functions
Real-time capabilities for incident reporting
Partnerships for Data Exchange
Challenges – technology, institutional
Case studies and best practices

Timeframe: March – September 2006

Business and Technology Plan and roles for AASHTO
Business and Technology Plan for Statewide Incident Reporting Systems

What should be included in a statewide incident reporting system?

- Priority issues, needs for deployment and implementation
- Data collection options, alternatives
- Technology and resource requirements
- Gaps and challenges facing DOTs
- National incident reporting clearinghouse
- What is the role of AASHTO or other federal agencies in this effort?
Outreach and Data Collection

Literature and Documentation

Initial National Scan (Web Survey)

Interviews with State DOTs

Expert Panels

Workshop

CAD/DOT Integration

Multi-State Incident Data Sharing

Private Sector Data Sources
Detailed State Discussions

- Oregon
- Arizona
- Washington
- Kansas
- Minnesota
- North Carolina
- Maryland
- Connecticut
- Virginia
- Florida*
Statewide vs. Regional Reporting Systems
Roadway Facilities Included in Reporting System
Types of Incidents Captured
How is Incident Data Captured?
Automated Data Exchanges
Primary Uses of Incident Reporting System Data
Key Outcomes and Observations

- Limited system-to-system exchanges for incident data
  - “Real-time” reporting still requires operator interface
  - Multiple sources of incident information
- Overwhelming priority is to support traveler information systems
  - Customer satisfaction a mission critical measure for DOTs
  - Shift from a maintenance tool to key traveler information tool
  - For some, traveler info has been the driving force behind implementation, enhancements to reporting system
- Largely focused on state facilities
- Several states still without statewide reporting system
Key Issues

- CAD to DOT interfaces
  - Public safety doesn’t always gather data DOT needs
  - Challenge establishing that partnership
- National Standards
  - IEEE 1512, DOJ Global Justice XML
  - National standards efforts going in different directions
- Severity index – how is it measured? how is it communicated?
  - Impact to travelers
  - Duration
  - Nature of incident
  - Info needs differ for DOT, traveler, public safety
- Gaps in real-time data on the statewide level
- Multi-state coordination
Key Issues

- Systems tailored and customized for individual state’s needs
  - Where is the interoperability need to support state DOT operations
  - Motivation for change?
- Need for a national incident data clearinghouse?
  - Federal direction not yet defined
  - Where is the market for this – commercial, public safety, DOT?
  - What would be involved to modify legacy systems, state-specific systems
Recommended Strategies

- Coordination with public safety community on a national level
  - Identify DOTs that are partnering successfully with public safety
  - Coordination among Professional Organizations - AASHTO, ITS, ITS America, FHWA, National Traffic Incident Management Coalition (NTMIC), and Association of Public Safety Communications Officials (APCO)
  - Look at ways to progress CAD integration with DOT incident reporting systems
Recommended Strategies

- Outreach and information sharing about incident reporting best practices
  - Develop a centralized source for best practices
  - Support and guidance to states that do not have a statewide incident reporting system in place
    - Requirements
    - Best practices
    - Resource needs (staff, funding, partnerships)
Recommended Strategies

- Coordination with National ITS and Public Safety Standards Development Efforts
  - Standards development organizations (ITE, IEEE, SAE, DOJ)
  - Public safety – DOJ, NIMC – continue strategies to strengthen that relationship
  - Reaching out to involve CAD vendor industry to assist in streamlining the data exchange
  - Provide feedback to AASHTO members (through forum)
Potential Roles for AASHTO

- Represent state DOT and transportation operations interests at national tables
  - USDOT
  - Standards Development Efforts
  - Public Safety community
  - Private sector
- Strengthen relationship with public safety
- Guidance for states as they implement or enhance statewide reporting systems
- Outreach and information sharing with state DOTs
Potential Roles for AASHTO

- Information portal and resource for AASHTO members
  - Current activities
  - Impacts of legislation
  - Lessons learned
  - Other national efforts
- Spearhead development and coordination of demonstration and ConOps to help establish requirements, resource needs
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