State of ITS
The Year Ahead for USDOT’s ITS Program

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Connected Vehicle Safety Pilot

- Data collection exceeds our expectations
- Regular drivers experienced proven technology
- Connectivity across various types and modes
- More data collection in 2014
Integrated Corridor Management

- “Living laboratories” in the fight against congestion
- Pioneering decision support systems for multimodal surface transportation systems
  - Use cutting edge technology
  - Monitor & predict traffic conditions
  - Manage traffic flow
- Successfully deployed two integrated corridor management sites
- Travelers and traffic managers get a more complete picture of traffic conditions
- Make informed decisions
Data Sharing

- Research Data Exchange
  - promotes sharing of archived and real-time data
  - multiple sources and multiple modes
  - Data is vetted and available to public

- ITS Asset Viewer
  - Visually displays ITS deployments
  - Picture of geographic location
  - Status of ITS deployment
AERIS - Eco-Signal Operations

- Uses connected vehicle technologies to decrease fuel consumption
- Decreases pollution by reducing idling and improving traffic flow
- Five Operational Scenarios
  - Eco-Approach and Departure at Signalized Intersections
  - Eco-Traffic Signal Timing
  - Eco-Traffic Signal Priority
  - Wireless Inductive Charging
  - Vehicle Engine Start-Stop Technology
Connected Automation

- USDOT's role in vehicle automation:
  - Facilitate development and deployment
  - Ensure automation enhances safety, mobility, and sustainability
  - Coordinate with industry
  - Address mixed traffic operations
  - Identify benefit opportunities
  - Establish Federal Motor Vehicle Safety Standards
ITS Strategic Plan

- Connected Vehicles
- Automation
- Data (Systems Management and Utilization)
- Emerging Capabilities
- Interoperability
- ITS Technical Assistance, Adoption, and Deployment
Connected Vehicle Infrastructure Footprint Analysis

- Create a vision of a national connected vehicle infrastructure
- Provides guidance to state agencies and DOTs, including:
  - Infrastructure needs at regional and national levels
  - Illustrations of typical deployments at signalized intersections, urban freeways, rural roadways, international border crossings, and other locations
  - System and equipment needs and siting requirements
  - Operations, maintenance and institutional issues
  - Deployment cost estimates
Exploratory Research

- Broad study of emerging technologies that impact the transportation industry
- Scan, identify and assess emerging capabilities
- Explore potential research and development threads
Test Beds

Multiple Locations...One Connected System
Challenges

- In 2013, FCC released a Notice of Proposed Rule Making
  - Would allow unlicensed users to operate in the 5.9 GHz spectrum, currently set aside for connected vehicle technology
  - Critical V2V and V2I interactions take place in this band
- The Department expressed its concerns to NTIA and FCC
Upcoming Events

- **FHWA V2I Guidance Input Workshop**
  - January 16th 1-4pm (Following TRB) - in Washington, DC (Hampton Room, Omni Shoreham)

- **First Connected Vehicle Plugfest**
  - January 29-30 @ McLean, VA (Turner Fairbank Research Center)

- **Connected Vehicle Reference Implementation Architecture (CVRIA)**
  - February 19-20 @ San Francisco, CA

- **ICM workshop** (with ITS America)
  - February 26th in Dallas, TX

- **Connected Vehicle Mobility, infrastructure and Data workshop**
  - February 26-27 @ Washington, DC

- **AERIS webinars**
  - February 13th
  - March 13th
Learning & Training Opportunities

- Spur deployments through education
- Share knowledge and lessons learned
- ePrimer
- USDOT-funded ITS training offerings
  - On-site workshops at ITS America meetings
  - Online training
  - ITS Standards Training

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