Smart Roadside Initiative (SRI) Overview

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Federal Motor Carrier Safety Administration

Connected Vehicle Truck Safety Meeting
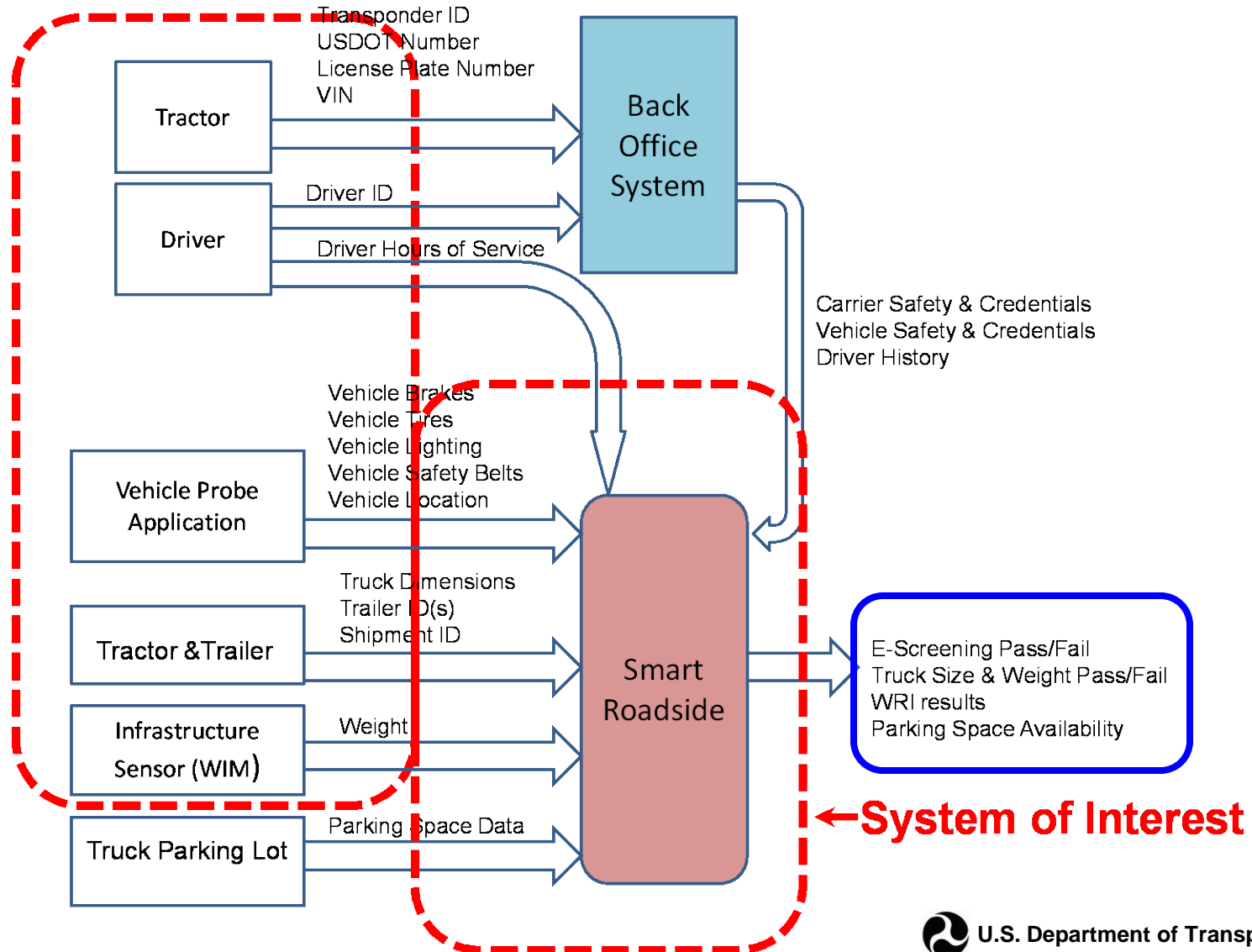
Chicago, IL

August 4, 2011

What is the Smart Roadside Initiative?

Using interoperable technology and improved data sharing to improve safety, security, and mobility on the nation's freight transportation system

What is the Smart Roadside Initiative

Transponder ID
USDOT Number
License Plate Number
VIN

Tractor

Driver

Back Office System

Driver ID

Driver Hours of Service

Carrier Safety & Credentials
Vehicle Safety & Credentials
Driver History

Vehicle Brakes
Vehicle Tires
Vehicle Lighting
Vehicle Safety Belts
Vehicle Location

Vehicle Probe Application

Truck Dimensions
Trailer ID(s)
Shipment ID

Tractor &Trailer

Smart Roadside

E-Screening Pass/Fail
Truck Size & Weight Pass/Fail
WRI results
Parking Space Availability

Infrastructure Sensor (WIM)

Weight

Truck Parking Lot

Parking Space Data

←System of Interest

How are Applications Deployed?

- Commercial Vehicle Information Systems and Networks (CVISN) Core Requirements (SAFETEA-LU, Section 4126)

    □ Exchange of Safety Information

    □ Electronic Screening

    □ Electronic Credentialing

- Expanded CVISN defines Smart Roadside

    □ Enhanced exchange of information

    □ Virtual Weigh Stations

    □ License plate/DOT# readers

USDOT Commercial Vehicle (CV) ITS Research Plan for Wireless Connectivity – Final 7-27-11

Current Phase

- Contract Awarded to:
    - Look at existing equipment/research
    - Develop a concept of operations
    - Prototype development/testing
    - Facilitate stakeholder outreach

Application Analysis and Assessment of

Existing Equipment

- Identify projects and systems that will contribute to the SRI framework.
- Activities:
  - Assessment of state CVISN and IT deployments
  - Assessment of existing FMCSA roadside IT systems

Research Projects

- Literature Review – current and historical studies, programs, field tests
- Definition of relationship between SRI and current vehicle to infrastructure research being conducted by DOT

Concept of Operations

- Identifying Entities on the Road
- Sharing Information – establishing a common framework
- Enhanced Electronic Screening – attended and unattended
- Integrating Public-and Private-Sector Data
- Streamlined/Accelerated Inspections – Wireless Roadside Inspections and traditional inspections
- Performance-Based Standards and an Architecture

SRI Prototype

- System Requirements
- Architecture
- Component Level Design
- Prototype Development and Test
- Build and Install Prototype
- Prototype Field Testing
- Documentation

Next Steps/Goals

- Strategic goals for CVISN/SRI by 2016
  - All States Core CVISN compliant
  - 50% of States deploying Expanded CVISN applications

Stakeholder Outreach

- Critical to involve CMV community throughout research
  - Trucking conferences
  - Webinars
  - Workshops
- Web site: SmartRoadsideInitiative.com

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