

Wireless Roadside Inspection (WRI)

Vision and Goals

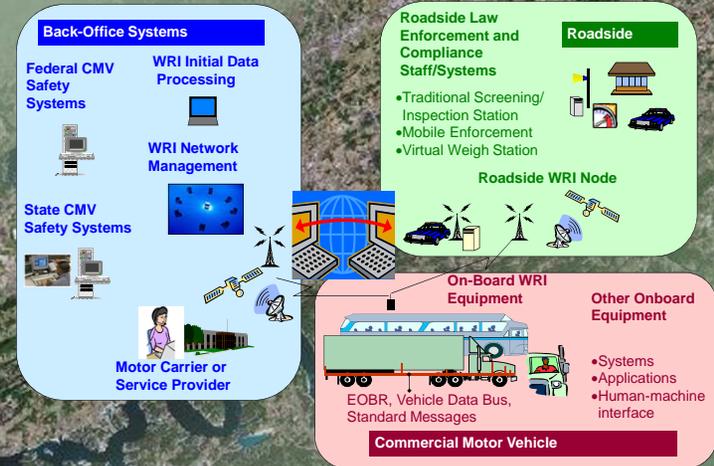
With widespread use of the WRI program, motor carrier safety will be greatly improved (reduction in accidents) due to the increased compliance (change in motor carrier and driver behavior) caused by higher frequency of roadside safety inspections using wireless technologies.

Overview

Every year the number of trucks on the road, and the numbers of miles those trucks drive increases while the roadside safety inspection resources remain constant. The likelihood of a roadside inspection is far less than of a truck being weighed. Only about 3.4 million annual truck inspections are performed annually, compared to the 85 million (92 M WIM) weight inspections.

Key Components

All three platforms greatly differ in how the data is transferred from the vehicle to law enforcement, but they all have the same main components shown at the right



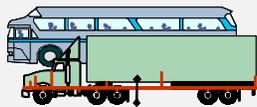
Safety Data Message Set Contents

Identifiers

Driver license jurisdiction and ID
 Vehicle identification number (VIN)
 Vehicle state and plate
 Motor carrier/coach USDOT number
 Shipping document ID
 Equipment (e.g., trailer) ID

Vehicle Measures

Brakes
 Tire pressure
 Vehicle position
 Weight



Electronic On-Board Recorder (EOBR) Data

Driver's Log
 (Duty Status + Location of Duty Status Change over time)

Vehicle Status

Lighting
 Safety belt

Data Bus:
 SAEJ1708/SAEJ1587, SAEJ1939

Additional Vehicle Measures or Status

Cargo (incl. HazMat)	Collision warning	Container	Coupling
Driver performance	Emissions	Exhaust system	Fuel system
Steering	Suspension	Trailer	Wheels
Wipers	Other		

Pilot Test Platforms (Phase 2)

Dedicated Short Range Communication (DSRC)

- Two-way Communications via Short-range DSRC radio from CMV to Roadside
- 5.9 GHz Transceivers used in WRI Proof of Concept and VII (IntelliDriveSM) Proof of Concept

Commercial Mobile Radio Service (CMRS)

- Two-way Communications via Commercial Mobile Radio Services (CMRS)
- Example includes the various existing Fleet Management systems

Universal Identification (UID)

- Communications path supports identifying techniques such as DOT and license plate readers
- Would not require CMV onboard technology
- Also can support NORPASS, PrePass, Oregon Green Light, etc.