What is VII?

Vehicle Infrastructure Integration (VII) connects vehicles and the infrastructure to enable transmission of information between:

- Vehicles to the infrastructure
- Infrastructure to vehicles
- Vehicle to vehicle
How VII Will Work

Vehicle manufacturers will install all new vehicles with the equipment necessary to provide 2-way communications with the department’s roadside infrastructures.

This will allow motorists advanced warning of traffic and weather conditions, and allow traffic management centers first-hand information about what is happening on the roadway.

VII - The Big Picture
What it Can Do

- Provides tools for travel times that are relevant to truckers
- Provides travel information
- Increases operational efficiencies
- Benefits truck drivers which benefits ALL drivers
- Serves as a tool for emergency responders
- Expands on devices motorists already use
- Provides tools for travel times that are relevant to truckers

The VII Team

Who's involved?

Currently the US DOT, AASHTO, several state DOTs, contractors and vehicle manufacturers are involved in discussions and subcommittees of VII.

**State and Local Agencies:**
- Florida DOT
- NYS DOT
- Virginia DOT
- MTC
- Idaho DOT
- Caltrans
- Utah DOT
- *WSDOT
- Indiana DOT
- Minnesota DOT
- Michigan DOT
- Maryland SHA

**Auto Manufacturers:**
- Alliance of Automobile Manufacturers
- General Motors
- Mitsubishi Motors
- Nissan
- Honda R&D
- Ford
- General Motors
- BMW
- Daimler Chrysler
- Toyota

**US DOT:**
- FHWA
- DOT/NHTSA
- DOT/FMCSA

**Associations:**
- AASHTO
- ITS America

**Contractors:**
- PB Farradyne
- MitretekSystems
- Cambridge Systematics
- University of Maryland
- El Tinklenberg

*WSDOT Policy – Doug B. MacDonald
Working Group – Gummada Murthy
Licensing
WSDOT applies for DSRC licensing

• WSDOT is currently in the process of applying for two dedicated short-range communication (DSRC) licenses with the Federal Communication Commission (FCC).

• The licensing is mandatory for registering radio signals with the FCC and to ensure there is no interference with other licensed services.

DSRC Locations
Current and Proposed

Locations of FMS/RB Readers
The Future of VII with Current Roadside Devices

VII is the next step for integrated electronic toll collection/travel information/CVISN

CVHAS Pooled Fund Study

The cooperative vehicle-highway automation systems (CVHAS) is a federal pooled-fund program.
- Uses pooled resources from public and private sectors
- Deploys solutions that will improve transportation and seeks to facilitate sharing of experiences from its projects

Active projects
- Radio Freq. ID tags to enhance truck safety (Cal. PATH Program)
- Lane Departure Warning (Florida DOT / Turnpike)
- Vehicle-Vehicle and Vehicle to roadside communication (California PATH)
- Passive roadside reflectors to improve radar reliability (University of Minnesota)
- Expediting VII integration (for integrated pavement information etc.) (California PATH/Chrysler).
WSDOT current involvement in VII

• WSDOT is proposing a freight application for CVHAS

• NW VII Coalition participant along with:
  Utah
  ODT
  ITD
  CalTrans
  Alaska DOT

• AASHTO/VII Working Group

In Washington State, we view VII as state-of-the-art, leading edge technology. We fully support VII nationally, and immediately transpose the concepts presented for our statewide applications.