FHWA Connected Vehicle Implementation Activities
FWHA Connected Vehicle Vision Statement

Provide national leadership and facilitate a smooth and effective deployment path for transportation facility owners/operators interested in implementing infrastructure enabled connected vehicle (CV) applications.

FHWA V2I Deployment Guidance

✓ Policy Guidance
✓ Technical Products and Tools

V2I Policy Guidance Topic Areas

Planning for V2I Activities
Federal-aid Eligibility
V2I Deployments and NEPA
Interoperability
Evaluation of Deployments
ITS Equipment Capability & Compatibility
Hardware/Software Certification
Reliability

Use of Right of Way
Design Considerations
Use of Existing Infrastructure
Use on Public Sector Fleets
Procurement Processes
Communication Technology
DSRC Service Licensing
Connected Vehicle Privacy Principles
Connected Vehicle Security
Using Public-Private Partnerships
FHWA V2I Technical Products and Tools

- Systems Engineering Guide
- Connected Vehicles and the Planning Process
- Guide to Licensing
- V2I Message Lexicon
- Pre-Deployment Guidance for V2I Safety Applications
- Estimating Benefits and Economic Impacts
- Near Term Transition and Phasing
- Cyber Security for V2I
- Connected Vehicle Training Resources

Guidance & Products Release Timeline

• Draft Guidance/Workshop – Sept 2014
• Interim Guidance drafted based on these comments
• Currently in clearance process – should be released this Fall
• Products released through the end of 2016
What Should You Be Doing Now?

✓ Start to incorporate the concept of Connected Vehicles in your Planning Processes. What problem are you trying to solve?
✓ Update your Regional ITS Architecture
✓ Upgrade ITS investments, consider making them Connected Vehicle Ready (include communications as appropriate), & buy certified equipment
✓ Participate in the V2I Deployment Coalition, Connected Vehicle pooled fund study, and other ways to influence connected vehicle deployment path
✓ Staff participation in available training
Questions

V2I Deployment Guidance/Products Website

http://www.its.dot.gov/V2I

Contact us

Jeffrey Lindley
Associate Administrator, Office of Operations

Jeffrey.Lindley@dot.gov
202-366-8753
Vehicle to Infrastructure Deployment Coalition
V2I DC

Presentation to AASHTO SCOH

Blaine Leonard
Chair Connected Vehicles TWG, AASHTO STSMO
Utah Department of Transportation
Topics

- V2I DC Overview
- V2I DC Structure
- Current Activities
- Business Plan for the Future
V2I DC Overview

The Concept:
• A single point of reference for stakeholders to meet and discuss V2I deployment related issues.

The Approach:
• USDOT asked AASHTO, ITE and ITS America to collaborate on organizing and managing the coalition.
V2I DC Overview

The Role of the V2I DC:

• To help accelerate consistent and effective deployments of Connected Vehicle technologies that address passenger vehicles, freight, and transit operations in both urban and rural areas
V2I DC Overview

Initial Goals of the V2I DC:
To help accelerate V2I deployments related to:
1. Intersections (signalized & non-signalized)
2. End of queue warnings
3. Work zone management
4. Curve warning systems
Current Activities

Initial Activities of the V2I DC (18 months):

1. Inform & educate stakeholders to advance initial goals

2. Research and define a set of 16 V2I Issues & develop Action Plans where appropriate

3. Facilitate discussions between OEMs and Infrastructure owners & operators
V2I Deployment Coalition Structure

Connected Vehicle Executive Leadership Team

V2IDC Executive Committee

V2I Deployment Coalition

TWG 1: Deployment Initiatives

TWG 2: Deployment Research

TWG 3: Infrastructure Operator, OEM, and Supplier Partnerships

TWG 4: Deployment Guidance

TWG 5: Deployment Standards

USDOT - ITS JPO
- FHWA
- FTA
- NHTSA
<table>
<thead>
<tr>
<th>TWG Name</th>
<th>TWG Chair / Co-Chair</th>
<th>TWG Liaison (V2IDC Project Team)</th>
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<tr>
<td>TWG 1: Initiatives</td>
<td>Bill Legg, Washington State DOT (chair)</td>
<td>Dean Deeter, Athey Creek</td>
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<td>Greg Larson, Caltrans (chair)</td>
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<td>Rob Bertini, Cal Poly State (co-chair)</td>
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<td>TWG 3: OEM</td>
<td>Matt Smith, Michigan DOT (chair)</td>
<td>Jennifer Carter, ITS America</td>
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<td>Roger Berg, DENSO (co-chair)</td>
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<td>TWG 4: Guidance</td>
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<td>Ginny Crowson, Athey Creek</td>
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<td>Navin Katta, Savari Inc. (co-chair)</td>
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<td>TWG 5: Standards</td>
<td>Ed Seymour, TTI (chair)</td>
<td>Siva Narla, ITE</td>
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<td>Gary Duncan, Econolite (co-chair)</td>
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V2I DC Efforts

TWGs approach to the 4 Focus Areas:

• Addressing 16 key issues impacting V2I deployment

• Each TWG has a Work Plan of activities

• ‘Fishbone Diagrams’ will help coordinate activities of TWGs

• Monthly TWG webinars

• Coalition wide meetings/calls

Four Focus Areas
1. Intersections
2. Queue Warnings
3. Work Zone Management
4. Curve Warnings
V2I DC Business Plan

Currently drafting a 5 Year Business Plan:

- Framework for the funding sources & associations to sustain V2I DC efforts in the coming years
V2I DC Business Plan 2016 - 2021

**Activity 1:** Stakeholder Workshops / Peer Exchange Sessions / Training & Education

**Activity 2:** V2I DC Webinars

**Activity 3:** Activities of the TWGs

**Activity 4:** Tech Memos & White Papers

**Activity 5:** Project Team Support to TWG & EC

Funding anticipated up to $500,000/yr. over 5 yrs
Total $2.5 million effort being proposed
Recap – Planned Outcomes of Initial 18 Months

1. Inform & educate stakeholders to advance initial goals

2. Research and define a set of 16 V2I Issues & develop Action Plans where appropriate

3. Facilitate discussions between OEMs and Infrastructure owners & operators
V2I DC – Next Steps

• Coalition-wide Webinar => Fall 2015
• Coalition-wide Webinar => Spring 2016
• Initial Findings and Reports => Summer 2016
• Coalition Website => Coming Soon
Questions?

• For additional information on V2I DC:
  Gummada Murthy, AASHTO gmurthy@aashto.org
  Siva Narla, ITE Snarla@ite.org
  Jennifer Carter, ITS America — jcarter@itsa.org
  Dean Deeter, Athey Creek — deeter@acconsultants.org