V2I Deployment Coalition Monthly Meeting
Minutes
July 13, 2016 – 11:00-12:30 (Eastern)

Actions

1. Faisal Saleem: Work with Steve Lockwood and USDOT to arrange follow-up discussion between TWG 4 and USDOT regarding Deployment Guidance comments. *It was suggested that this discussion take place during the October or November meetings for TWG 4. The action will remain open until USDOT identifies a publication date for the Deployment Guidance.*

2. Faisal Saleem/Ginny Crowson: Following approval by TWG chairs and co-chairs, submit summaries of Issue 6: V2I Outreach and Issue 11: V2I Consumer Messaging to USDOT. *Summaries will be submitted with Tech Memo 4 for the full V2I DC.*

3. Ginny Crowson: Keep in touch with Cliff Heise regarding Iteris work on CVRIA integration with ITS Architecture and explore options for presentation to TWG 4 toward the end of 2016. *This will remain an open action through 2016.*

4. All: Further review draft outreach plan from USDOT and send comments directly to Karen Timpone.

Attendance

#	Name	Organization	Email
1.	Faisal Saleem (Chair)	Maricopa Co., AZ	faisalsaleem@mail.maricopa.gov
2.	Gary Piotrowicz*	RCOC	gpiotrowicz@rcoc.org
3.	Emil Wolanin	Montgomery Co., MD	emil.wolanin@montgomerycountymd.gov
4.	Virginia Lingham	MTC (Bay Area)	vlingham@mtc.ca.gov
5.	Bob Sheehan	USDOT ITS-JPO	robert.sheehan@dot.gov
6.	Bob Arnold	USDOT FHWA	robert.arnold@dot.gov
7.	Jonathan Walker	USDOT FHWA	jonathan.b.walker@dot.gov
8.	Karen Timpone	USDOT	karen.timpone@dot.gov
9.	Stephanie Fischer	USDOT	stephanie.fischer@dot.gov
10.	Shel Leader	Private Consultant-Telecom	shel@sleader.com
11.	Martha Morecock Eddy	Timmons Group	martha.eddy@timmons.com
12.	Mohammed Hadi	Florida Intl University	hadim@fiu.edu
13.	Koorosh Olyai	Stantec	koorosh.olyai@stantec.com
14.	Robert Taylor	Penn Turnpike Commission	robtaylo@paturnpike.com
15.	George Webb*	Palm Beach Co., FL	gwebb@pbcgov.org
16.	Bob Koeberlein	Idaho DOT	robert.koeberlein@itd.idaho.gov
17.	Cliff Heise	Iteris	cdh@iteris.com
18.	Alan Clelland	Iteris	axc@iteris.com
19.	Tim Simodynes	Iowa DOT	tim.simodynes@dot.iowa.gov
20.	Dean Erickson	Triunity Eng. & Mgmt.	dean.erickson@triunityeng.com

21. Chris Stanley	Battelle	stanley@battelle.org
22. Jim Katsafanas	Michael Baker	jkatsafanas@mbakerintl.com
23. Matt Volz	HDR	matthew.volz@hdrinc.com
24. Ginny Crowson (Liaison)	Athey Creek Consultants	crowson@acconsultants.org

June Meeting Recap

Faisal Saleem briefly recapped the June meeting. The primary discussion topic for the meeting was to discuss draft pre-deployment guidance for the V2I applications that have been identified as priority by the V2I DC:

- Work zone management (RSZW)
- Curve warning
- Queue warning
- Intersections (RLVW)

Ginny Crowson reviewed the history and approach used by the ENTERPRISE pooled fund to develop draft pre-deployment guidance for select Connected Vehicle applications. The group then reviewed and discussed details for queue warning and intersections (RLVW). Work zone management (RSZW) and curve warning were discussed during the May meeting. A summary of the discussions regarding these four applications will be provided in the final V2I DC technical memorandum to USDOT.

It was also noted in June that the FCC had issued a public notice to update and refresh the record of Unlicensed National Information Infrastructure (U-NII) devices in the 5.9 GHz band. The notice was available for comment through July 7 and reply comments through July 22. Faisal shared that comments were submitted by Arizona DOT and Maricopa County DOT, adding that associations actively shared information about the notice with the agencies. For example, the National Operations Center of Excellence also hosted a June 30 webinar on this subject. The webinar recording and materials are available online at http://www.transportationops.org/ondemand-learning/webinar-materials-59-ghz-wireless-spectrum-vehicle-infrastructure-applications.

Review V2I Deployment Guidance Product: V2I Message Lexicon

TWG 4 has continued to review the products developed to support the V2I Deployment Guidance. Jonathan Walker reviewed the V2I message lexicon during this meeting. The V2I message lexicon will explain the concepts and definitions for V2I communication messages. The lexicon identifies the contents of a V2I message, how the message is constructed, how the message relates to applications, and how the message relates to deployments. The V2I message lexicon will show the relationships among the CVRIA, the National ITS Architecture, the various standards needed to define the V2I message, and the organizational entities that provide content or services to the V2I messages. The document will discuss the following:

- **How V2I Messages Relate to Applications:** A sample set of scenarios will be introduced including the types of information needed for each scenario. The relationship between the information needed by an application and V2I messages will be explained in this section

- **How V2I Messages Relate to Deployments:** A list of issues to consider and a general systems engineering lifecycle to use as guidance

End Product: The document will describe the various V2I message sets and show the relationship among the CVRIA, the National ITS Architecture, the various standards needed to define V2I messages, existing device specifications, and the organization entities that provide content or services to the V2I messages.

Virginia Lingham commented that the message lexicon will help identify applicable standards and explain how they are intended to work together for various applications. Faisal added the NTCIP link to J2735 in the slide used to show standard/document relationships is shown as a one-way exchange and he believes it may be more of a two-way exchange. Shel Leader asked if the message lexicon will include higher level diagrams to help traffic engineering staff apply standards to devices. Jonathan explained that level of detail will not be in the message lexicon but is included in the application concepts of operation (many of which are available online under the list of Connected Vehicle applications at http://www.its.dot.gov/pilots/cv_pilot_apps.htm).

Review Draft V2I KTT and Outreach Plan from USDOT

Karen Timpone presented an overview of the draft V2I outreach plan developed for USDOT by Iteris and Global 5 Communications. TWG 4 has previously discussed outreach with USDOT – providing feedback on needs and input via focus group on content of the outreach plan itself. Karen explained that plan is focused on deployment and sharing experiences to further advance deployment. It describes the activities needed to engage stakeholders over the next five years. Karen described each section of the plan and emphasized that it will be a living document.

Virginia Lingham asked about the plan references to V2I vs. Connected Vehicle. Karen noted the Connected Vehicle will be used more generally with the public and messaging will focus on removing jargon. Cliff Heise added that the plan recognizes the need to clarify terminology for some audiences and simplify it for other audiences to minimize confusion. Gary Piotrowicz noted the references to tiers may make some audiences (e.g. policymakers) feel downgraded in priority. Karen clarified that tier references are not intended to imply priority, just groupings among the audiences. George Webb shared that he would soon be attending the National Association of County Engineers meeting and asked what he could share in regard to outreach. Karen suggested telling them outreach is coming and there will be more to share during their meetings in April. She also offered to send George fact sheets and he could share with the group and confirmed that the new V2I website will be available in the fall.

Karen concluded by asking the group to email her any additional comments on the outreach plan in the next week.

Next Steps for TWG 4

Faisal reviewed progress with the TWG 4 work plan, reminding the group of the additional review of Guidance products that will continue in the coming months. He noted the associations had also recently submitted a letter to USDOT requesting release of the Guidance as soon as possible. Bob Arnold confirmed that the letter had been received and he was developing a response but there is still no further news regarding the release.

Faisal briefly highlighted other items of interest in relation to the V2I DC. All of the TWG chairs presented their work during a session at the ITS America annual meeting in June. He noted the chairs will be presenting again during the STSMO-SCOHT-RTSMO annual meeting in August. Faisal also shared that TWG 3 is continuing to plan for an OEM workshop this fall and TWG 1 is preparing details and material to support the SPaT Challenge that will also be issued this fall. Faisal concluded with a reminder that the next

TWG 4 meeting is scheduled for August 10 from 11:00-12:30 (Eastern). There were no additional closing comments from the group.

TWG 4 Work Plan Summary and Status

V2I Deployment Issues	Anticipated TWG 4 Actions	Anticipated Completion Date
Issue 1: V2X Applications	• Identify relevant content from this issue that should be included in the overall outreach in Issue 6 based on TWG 3 findings.	Q1-2016 **Underway**
Issue 2: Complementary Communications to DSRC	*No action planned*	
Issue 3: V2I Data	*No action planned*	
Issue 4: Patents-Intellectual Property	*No action planned*	
Issue 5: Security	*No action planned*	
Issue 6: V2I Outreach	• Provide input to USDOT on V14 of Deployment Guidance.	6-29-2015 **Completed**
	• Identify outreach that may be needed to increase awareness and support of V2I among transportation agencies.	Q3-2015 **Completed** and Q2-2016 **Completed**
	• Provide input to USDOT on additional content for next version of Deployment Guidance and associated products.	Q4-2015 **Underway**
Issue 7: Understanding the Benefits and Costs of V2I Deployment	• Identify relevant content related to calculating the benefits and costs of V2I applications based on work by TWG 1 that should be included in overall outreach in Issue 6.	Q2-2016 **Underway**
Issue 8: V2I Standards	*No action planned*	
Issue 9: Understanding V2I Liability Assignment	• Identify relevant content related to V2I liability assignment that should be included in overall outreach in Issue 6 based on TWG 2 findings.	Q2-2016
Issue 10: V2I Synergies with Other Emerging Technologies	*No action planned*	
Issue 11: V2I Consumer Messaging	• Develop a description of the type of content and guidelines that are needed to be developed to enable consistent, accurate consumer messaging related to V2I applications.	Q4-2015 **Completed**
Issue 12: V2I Multimodal Applications	*No action planned*	
Issue 13: Infrastructure Processes as V2I Obstacles	• Identify relevant content related to infrastructure processes based on work completed by TWG 1 that should be included in overall outreach in Issue 6.	Q1-2016 **Underway**
Issue 14: Federal V2I Policy Statement	• Identify relevant content related to a Federal V2I policy statement based on work done by TWG 1 that should be included in feedback on the V2I Guidance documents.	Q4-2015 **Underway**
Issue 15: Maintaining V2I Infrastructure	*No action planned*	