

V2I Deployment Coalition TWG 4 Monthly Meeting Minutes

October 14, 2015 – 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. Ginny Crowson: Prepare draft summary of TWG 4 discussion regarding Issue 11: V2I Consumer Marketing.
3. All: Attend full V2I DC webinar scheduled for 11/5 from 3:00-4:30 (Eastern).

Attendance

1. Navin Katta (Co-Chair)*	Savari Inc.	navin@savarinetworks.com
2. Ed Alegre	Metro	alegree@metro.net
3. Gary Piotrowicz*	RCOC	gpiotrowicz@rcoc.org
4. Mohammed Hadi	Florida International University	hadim@fiu.edu
5. Elizabeth Birriel*	Florida DOT	elizabeth.birriel@dot.state.fl.us
6. Jonathan Walker	USDOT FHWA	jonathan.b.walker@dot.gov
7. Bob Arnold	USDOT FHWA	robert.arnold@dot.gov
8. Virginia Lingham*	MTC	vlingham@mtc.ca.gov
9. Naveen Lamba	CH2M Hill	naveen.lamba@ch2m.com
10. Bob Sheehan	USDOT ITS-JPO	robert.sheehan@dot.gov
11. Stephanie Fischer	USDOT	stephanie.fischer@dot.gov
12. Shel Leader	Private Consultant	shel@sleader.com
13. Jonathan Moore	Kimley-Horn	jonathan.moore@kimley-horn.com
14. Rod Schebesch	Stantec	rod.schebesch@stantec.com
15. Purser Sturgeon	Southwest Research Institute	psturgeon@swri.org
16. Patrick Chan	Consystec	patrick.chan@consystec.com
17. Alan Clelland	Iteris	axc@iteris.com
18. Karen Timpone	USDOT	karen.timpone@dot.gov
19. Ginny Crowson (Liaison)*	Athey Creek	crowson@acconsultants.org

*** Denotes core member appointed by Project Team**

September Meeting Recap

Navin Katta opened the meeting and reminded the group that Faisal Saleem would not be attending. Navin began a recap of the 9/9 meeting with a review of actions from the previous meeting. All actions except the following were completed from the September meeting.

- 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.*

Navin continued with the September meeting recap, noting that group had been asked to submit additional comments to the Issue 6: V2I Outreach summary by 9/16. Comments were incorporated into a final summary that was shared with USDOT. A discussion about Issue 11: V2I Consumer Messaging was also initiated in September. Samples of messaging from both public and private sectors were reviewed by the group and the discussion focused on identifying messages that were common, supportive or questionable. During the discussion about next steps and closing comments from the group, USDOT confirmed that release of the V2I Deployment Guidance will be delayed. A publication target date was not yet know.

Navin briefly reviewed the TWG 4 work plan summary and reminded the group that work has been completed or being under Issue 6 and issue 11. He also noted that the work plan will be included in Technical Memorandum 2 being submitted to USDOT by the V2I DC Project Team. In addition to the TWG work plans, Technical Memorandum 2 summarizes the June workshop, deployment issue status, and establishment of the V2I DC Executive Committee.

Recap V2I DC Executive Committee Meeting

Navin Katta continued with a recap of the V2I DC Executive Committee meeting which happened right after our September TWG meeting. During the meeting, the TWGs met to review work plans and prepare to share progress with the rest of the Executive Committee. After the TWG work plans were shared with the Executive Committee there was discussion about the role of the group which will include:

- Defining primary focus areas for the entire V2I DC;
- Identifying goals that V2I DC can use to measure progress towards accomplishing the focus areas;
- Supporting work of the TWGs by offering input to processes and review of work completed; and
- Elevating results of coalition technical work to the Connected Vehicle Executive Leadership Team (ELT) for policy level considerations.

The Executive Committee then discussed the near-term focus areas and goals which were defined as:

- Help accelerate V2I deployments related to:
 - Intersections (signalized and non-signalized)
 - End of queue warnings
 - Work zone management
 - Curve warning systems
- Inform and educate Connected Vehicle stakeholders on available tools to assist them in deploying V2I technologies
- Research and define a set of V2I issues and identify needed action plans to address issues, as they relate to the initial four goals/focus areas

- Facilitate discussions between OEMs and infrastructure owners and operators to enable both parties to understand goals and objectives of the other party

Navin concluded his update by noting that there will be another summary of the Executive Committee meeting during 11/5 V2I DC webinar.

Discussion with USDOT on Outreach

Ginny Crowson recapped a 9/24 meeting between representatives of TWG 4 and USDOT regarding outreach interests and efforts. The meeting included an explanation of the V2I DC and specifically the focus of TWG 4; an overview of USDOT's V2I outreach efforts; and discussion about how USDOT and the Coalition could collaborate on outreach in the future.

Faisal Saleem explained the V2I DC and TWG 4 focus, noting the discussions that have taken place regarding outreach to transportation agencies and consumer messaging. Karen Timpone, Mac Lister and Mike Pina each described outreach and training efforts that are planned or underway through USDOT. Mike Pina noted that a new website (http://www.its.dot.gov/cv_basics/index.htm) was launched 9/21 to introduce the general public to the Connected Vehicle concept by asking, "What Type of Connected Vehicle User Are You?" and then describing how the technology will benefit the selected type of transportation user. The site also describes how connected vehicles work, what they offer, and how they will be used. It includes videos and presentations illustrating connected vehicle technology. This public web site is offered in addition to the existing web-based toolkit (<http://www.its.dot.gov/landing/cv.htm>) available to transportation agencies. The toolkit offers access to standards, research and other information. Another existing resource available from USDOT is the ITS-JPO Press Room (http://www.its.dot.gov/press_room.htm). Although created for media use, agencies can also use the resources available through this web site.

Karen Timpone added that USDOT has just initiated a new Knowledge and Technology Transfer (KTT) effort to develop an outreach plan for the next five year and develop new resources to support activities outlined in the plan. The draft plan is expected in December and a final plan is expected in March 2016.

Mac Lister added that USDOT has a variety of existing courses and webinars targeted toward Connected Vehicle education. The CV101 course is a basic introduction that has been delivered to roughly 1,000 people and is now being turned into an e-module. The CV102 course is aimed at deployers and applications. A handful of additional classroom courses will be delivered by the end of 2015 and then it will also be turned into an e-module. A new CV201 course will be developed in 2016 and it will be more advanced and technically focused. In addition to these structure courses, USDOT also maintains a library of T3 webinar recordings for educational use. Information about all of these offerings is available through the USDOT Professional Capacity Building web site (<https://www.pcb.its.dot.gov/>).

For future collaboration, TWG 4 will share with USDOT the summaries of its discussions about Issue 6: V2I Outreach and Issue 11: Consumer Messaging. USDOT will continue participating in the TWG 4 monthly meeting and will also share the draft outreach plan with TWG 4 for review and comment.

Further Discuss Issue 11: V2I Consumer Messaging

Ginny Crowson led further discussion about Issue 11: V2I Consumer Messaging. This was a follow-up to what began during the September meeting with a review of sample consumer-oriented materials and a

discussion about common, supporting and questionable messaging. Ginny shared additional research on the response to the Chrysler Jeep hack that happened earlier this summer. There were responses highlighted in various news articles from Chrysler (recall of 1.4M vehicles), NHTSA (investigation of Chrysler resolution to prevent future hacks, and Congress (SPY Act Legislation by Markey-Blumenthal <http://www.markey.senate.gov/imo/media/doc/SPY%20Car%20legislation.pdf>). The hackers themselves also shared their story during a 2015 Black Hat Conference presentation, "[Remote Exploitation of an Unaltered Passenger Vehicle.](#)"

Virginia Lingham commented that the news articles seem to convey a message that emphasizes how manufacturers and government can learn from this mistake and still deploy Connected Vehicle technology to save lives. Alan Klelland noted that a similar hack happened a few years ago with signal controllers which highlighted need for and then drove the implementation of better security. Bob Sheehan and Shel Leader added that further information needs to be released about the outcome of this experience to demonstrate improved security for Connected Vehicles.

Discuss Next Steps and Meeting

Navin Katta noted that Ginny Crowson will prepare a summary of today's discussion and last month's discussion about consumer messaging – similar to the summary of our discussion about outreach last month. The draft summary will be circulated before the November meeting to seek further input, review and comment. The final summary will be shared with USDOT before the end of the year, in line with the anticipated completion date notes in the [TWG 4: Deployment Guidance Work Plan Summary](#).

Navin added that the **November meeting is scheduled for 11/18 from 1:00-2:30 (Eastern)**. The November meeting is also tentatively planned to focus on a review of the newly released V2I Deployment Guidance. However, this is dependent on USDOT releasing the document. If it is not released, an alternate agenda will be prepared by Faisal Saleem and Navin.

The **December meeting is scheduled for 12/9 from 11:00-12:30 (Eastern)** and is tentatively planned to focus on a group discussion of TWG 4 comments regarding the newly released V2I Deployment Guidance. It is also suggested that this meeting include a discussion with USDOT on the disposition of comments that were previously submitted, as well as a discussion about what may be included in future Guidance regarding Issue 14: Federal V2I Policy Statement. The focus of this meeting is dependent on USDOT's release of the Guidance and will be adjusted as needed.

Navin ended his remarks by encouraging TWG 4 members to attend the **full V2I DC webinar scheduled for 11/5 from 3:00-4:30 (Eastern)**. The webinar will present progress since the V2I DC initially met in Pittsburgh on 6/4-5. Topics will include: Executive Committee meeting summary; TWG progress updates; and, the latest V2I news and information.

TWG 4 Member Questions/Closing Comments

There were no further questions or additional comments.

TWG 4: Deployment Guidance –Work Plan Summary

V2I Deployment Issues	Anticipated TWG 4 Actions	Anticipated Completion Date
Issue 1: V2X Applications	<ul style="list-style-type: none"> Identify relevant content from this issue that should be included in the overall outreach in Issue 6 based on TWG 3 findings. 	Q1-2016
Issue 2: Complementary Communications to DSRC	<i>No action planned</i>	
Issue 3: V2I Data	<i>No action planned</i>	
Issue 4: Patents-Intellectual Property	<i>No action planned</i>	
Issue 5: Security	<i>No action planned</i>	
Issue 6: V2I Outreach	<ul style="list-style-type: none"> Provide input to USDOT on V14 of Deployment Guidance. 	Completed 6-29-2015
	<ul style="list-style-type: none"> Identify outreach that may be needed to increase awareness and support of V2I among transportation agencies. 	Q3-2015 and Q2-2016
	<ul style="list-style-type: none"> Provide input to USDOT on additional content for next version of Deployment Guidance. 	Q4-2015
Issue 7: Understanding the Benefits and Costs of V2I Deployment	<ul style="list-style-type: none"> 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
Issue 8: V2I Standards	<i>No action planned</i>	
Issue 9: Understanding V2I Liability Assignment	<ul style="list-style-type: none"> 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	<i>No action planned</i>	
Issue 11: V2I Consumer Messaging	<ul style="list-style-type: none"> 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
Issue 12: V2I Multimodal Applications	<i>No action planned</i>	
Issue 13: Infrastructure Processes as V2I Obstacles	<ul style="list-style-type: none"> Identify relevant content related to infrastructure processes based on work completed by TWG 1 and TWG 3 that should be included in overall outreach in Issue 6. 	Q1-2016
Issue 14: Federal V2I Policy Statement	<ul style="list-style-type: none"> 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
Issue 15: Maintaining V2I Infrastructure	<i>No action planned</i>	