

## Connected Intersections

### Committee Meeting

The following are meeting minutes from a plenary meeting of the Connected Intersections Implementation Guide project on August 23, 2021, scheduled from 3:00 PM to 5:00 PM by web conference.

Times in EDT.

An agenda and chat log are provided.

#### Call to Order & Welcome

Meeting began at 3:00 PM.

The ITE anti-trust guidelines were reviewed by Siva Narla.

#### Roll Call of Committee Members:

The committee members in attendance are highlighted in yellow.

Roy Goudy, Nissan (co-chair)	Faisal Saleem, Maricopa County	Raj Ponnaluri, Florida DOT
John Thai, City of Anaheim (co-chair)	April Wire, Maricopa County (Alternate for Faisal Saleem)	Ray Starr, Minnesota DOT
Christina Spindler, Wyoming DOT	Jay Parikh, CAMP	Steve Bowles, 360 Network Solutions
Doug Schmidt, Aptiv	Jim Misener, Qualcomm	Steve Sprouffske, Kapsch
Ed Seymour, TTI	Justin McNew, JMCROta	Vivek Vijayakumar, GM
Kevin Balke (Alternate for Ed Seymour)	Mike Shulman, Ford	Whitney Nottage, Q-Free
	Mike Stelts, Panasonic	Note: 1 spot vacant.

A quorum was present.

Also in attendance were:

Alan Davis, GDOT	Jimmy Upton, ISS	Michael Finochio, City and County of Denver
Asfand Siddiqui, Caltrans	Jiangchen Li, University of Alberta	MD Omar Faruk, Florida DOT
AJ Lahiri, ConSysTec	John Kenney, Toyota	Michael Lockerman, Denso
Alex Lemka	Joe Gorman, MDOT	Michaela Vanderveen, MITRE
Anthony Gasiorowski, WSP	Jonny Turner, Narwhal Group	Mitra Mirhassani
Brandon Schlueter, San Diego	Justin Anderson, Noblis	Nicola Tavares, ITE
Brandon Stakeleff	Kevin Tobias, PennDOT	Neal Probert, Nissan
Boniface Njoroge	Kevin Vitta, ITS America	Patrick Chan, ConSysTec
Christopher Poe, Mixon Hill	Kezhen Shen, Noblis	Patrick Zelinski, AASHTO
Chuck Felice, UDOT	Krishna Bandi, Ford	Ralph Boaz, Pillar Consulting
Craig Hinners, Intsignia	Kyle Garrett, Synesis Partners	Ralph Koeber, Narwhal Group
Dale Thompson, USDOT	Larry Head, University of Arizona	Rich Deering, RK Deering
Deborah Curtis, USDOT	Lauren Parrish	Ricky Charles
Guoyuan Wu	Mateusz Malinowski, Panasonic	Robert Saylor, City of Plano
Jeannie Willis, City of Dublin	Mary Lynn Buonarosa, UMTRI	

Scott Geisler, CAMP

Siva Narla, ITE

Subhadipto Poddar, Clark County

Tim Seitz

Virginia Lingham, WSP

William Whyte, Qualcomm

Yousheng Mao

### **Meeting Purpose and Progress to Date**

Roy Goudy went over meeting purpose and progress to date.

CI implementation guide is ready for ballot. Committee members received ballot on 8/21.

### **Validation Phase**

Jay discussed the end of the validation phase.

Report covering validation results and analysis expected November/December.

Discussed key observations from Field Test Analysis including SPaT and MAP visualizations.

Bob Rausch asked about validating that the time points and status transmitted in the SPaT data matches the signal displays with respect to the status and time. Format is only a portion of the testing, but the testing needs to confirm that the data accurately represents the signal timing with respect to signal displays.

Jay said it will be done in a future phase of the project. Siva said it will consider based on priorities of the committee.

Bob mentioned without validation, messages cannot be trusted.

### **Validation Sites Feedback**

Raj Ponnaluri discussed experience for Florida DOT.

Larry Head discussed experience for Maricopa County. Noted that the MMITSS code is open source on Github for anyone interested. University of Arizona is writing the applications themselves because Phase 3 for MMITSS is supposed to be hardware agnostic.

Steve VanSickle asked about request for additional sidewalk guidance. Larry said the Leidos MAP tool cannot specify bi-directions for sidewalks and crosswalks; nor does it support defining speed limits.

David Benevelli said crosswalks were connected to crosswalks and direction was not an issue in New York City.

Jim Misener asked about positioning. Larry noted some future implementations. Portland was cutting down trees around intersections to improve positioning for vehicles. Portland also has overlaps, which is new for MMITSS.

Sub Poddar discussed experience for Washington County.

Ralph Koeber discussed experience for Utah DOT. He noted the variations in timing between SPaT message transmissions when comparing DSRC versus C-V2X. They are still investigating what is causing the variations when using C-V2X. Their DSRC does include the SCMS. The Utah DOT implementation has a card, called the SCM, that generates the SPaT message based on the TSCBM. With the SCM card, the

implementation is fully compliant with the CI Implementation Guide, although not all the data elements are properly populated, partially because TSCBM does not provide the values.

Jim Misener asked when the RTCM will be verified. Jonny Turner said the correction implementation is next. Security will also need to be added to C-V2X - they hope to resolve some issues with it in 2-3 months.

Mateusz Malinowski discussed experience for Panasonic. He noted some of Panasonic's observations with the intervals between SPaT and MAP broadcasts relative to each other.

UMTRI was supposed to present next, but there were some technical difficulties.

### **Future Activities**

John mentioned ballots due 8/27 and CI Implementation Guide to published 9/17.

### **Closing Remarks**

Deb Curtis gave closing remarks for USDOT.

Siva Narla gave closing remarks for ITE.

### **Utah/CAMP Connected Intersection Project**

Mike Shulman and Blaine Leonard discussed project and how it relates to the Connected Vehicle Pool Fund Study.

### **Connected Vehicle Pool Fund Study**

Virginia Lingham discussed status of Connected Vehicle Pool Fund Study.

Roy and Siva closed out meeting.

Meeting ended 4:57 PM.

### **Agenda**

- 1. Call to Order**
- 2. Anti-Trust Guidelines**
- 3. Roll Call of Committee Members**
- 4. Progress to Date**
- 5. Balloting Process**
- 6. Validation Phase Results**
- 7. Validation Sites Feedback**
- 8. CAMP Update**
- 9. CVPS Activities**
- 10. Future Activities**

## Chat Log (Times in EST)

[2:01 PM] Nicola Tavares

Welcome everyone. Please mute your audio so that we do not get distracting noise. Thank you

[2:19 PM] Finocchio, Michael R. - DOTI Engineer and Architect Mgr

Sorry I need to jump off this call....hopefully temp and I'll call back in. Thank you.

[2:19 PM] Rausch, Robert

When will you validate that the time points and status transmitted in the SPaT data matches the signal displays with respect to the status and time? Format is only a portion of the testing, but the testing needs to confirm that the data accurately represents the signal timing with respect to signal displays.

[2:31 PM] Ralph Boaz (Guest)

Bob, it was the intention of the TSC Task Force to look at the latency/synchronization issues in the next phase of the project (priorities permitting).

[2:58 PM] Craig Hinnners

What was the name of that app that is being used to assist visually impaired pedestrians at crosswalks with text-to-voice capabilities?

[3:00 PM] Rausch, Robert

SmartCross - Savari - now Harman bought Savari - Navin Katta was the engineer - accuracy was ~~~ they developed and provided a location augmentation device - external to the smartphone.

[3:03 PM] Craig Hinnners

Thank you Bob!

[3:26 PM] Rausch, Robert

fascinating

[3:28 PM] Malinowski, Mateusz

Everyone, please feel free to reach out to me over email if you would like to discuss our presentation further. My email is [mateusz.malinowski@us.panasonic.com](mailto:mateusz.malinowski@us.panasonic.com)

[3:53 PM]

John Thai (External) no longer has access to the chat.

[3:54 PM] Rausch, Robert

Are you using the ATSPM generated inside the controller or with an external device - (CMU) - i.e. how are you validating the accuracy of the ATSPM?