

CAT Coalition – Infrastructure-Industry Working Group May 27, 2021 Meeting Summary

Action Items:

- All: Review and provide feedback on draft of Primer of Terms resource.
- Jeremy will send meeting invites for the upcoming meeting.

Notes:

Opening

- Tracy herself and Ed as co-chairs of this working group.
- The role of this group is to: 1) support pre-competitive industry research that will advance infrastructure development and maintenance; 2) Connect IOOs with industry; 3) Support the natural evolution of infrastructure to accelerate CAVs; and 4) Clarify terms, definitions and target audiences.
- Tracy provided a brief recap of the previous working group meeting, which featured presentations on the I-I WG Primer of Terms, KPMG’s AV Readiness Index by Ted Hamer, and Update on Physical Infrastructure Enhancements to Support AV Deployment by Paul Carlson. These presentations are available on the CAT Coalition I-I WG webpage:
https://transportationops.org/CATCoalition/infrastructure_industry_WG.

I-I WG Work Plan Activities: Primer of Terms and AV Scan

Tracy provided a brief recap about the Primer of Terms resource, and requested a last call for comments. Please send any comments to Jeremy (schroeder@acconsultants.org) within the next week before this resource is posted on the CAT Coalition website.

Tracy also noted that the second round AV scan questions have been developed for four different groups and will be distributed in June:

1. Private-sector AV providers
2. Public-sector: AV Shuttle deployers
3. Public-sector: Personal Delivery Device (PDD) deployers
4. Public-sector: Other AV deployers

IOO-OEM Forum Product: Connected Intersections Consistent Procedures for Operations

Blaine described the background of the Connected Intersections (CI) effort, where some initial work in the IOO-OEM Forum SPaT/RLVW Working Group to develop a Clarifications for Consistent Implementation resource led to a broader effort by USDOT/ITE to more formally standardize the deployment and operations of connected intersections for national interoperability.

Blaine described the purpose and need for this document developed by the IOO-OEM Forum, entitled “Connected Intersections Consistent Procedures for Operations” (CPO), which begins a discussion beyond deployment to focus on operations and maintenance. The document is posted on the CAT Coalition Resource webpage as a dated draft document for everyone to provide feedback:
<https://transportationops.org/CATCoalition/resources>. WG members are encouraged to send feedback to either Blaine (bleonard@utah.gov) or Jeremy (schroeder@acconsultants.org).

Blaine described the four principles for CIs that are presented in the document, as well as the evolving tactics for normal operations and during disruptions. He described the identified need for some sort of malfunction monitor to identify disruptions to normal operations, which has not been finessed yet to achieve consensus. He also acknowledged the evolution of the tactics given current agency resources and penetration rates for applications using this information.

The CPO resource can be accessed at: <https://www.transportationops.org/CATCoalition/resources>.

SAE ADS Standards Roadmapping Initiative

Tim Weisenberger described the SAE Roadway Automation Readiness Roundtable effort that is underway. He described the convergence of automation with cooperative and connected technologies, which are represented by SAE J3016 and SAE J3216, respectively. He described how this SAE tool helps to cover a gap between these two areas, which have been advancing separately. The Automated Driving System Standards Roadmap includes both standards and global developments in ADS and other related technologies in order to advance SAE's ability to be a thought leader in the industry and also help advance research, harmonization, and crowdsourcing for best and current practices.

Tim noted the early stages of development and rapid evolution of technologies in this field, which contrasts with how the standards development process is centered around mature technologies. SAE is currently in a design phase with information gathering for the development of this tool. As such, the tool is still in an early phase and is expected to mature to be enhanced and able to provide better information in the future.

He described the features and information contained in the tool. One feature of the tool notes standards needs and which have funding and are being addressed through ongoing efforts. The tool includes a mechanism for users to provide feedback, and Tim emphasized this is a way to improve the tool by incorporating more information that are submitted by the broader community. Tim noted ongoing relationships and partnerships, for example with AASHTO, regulators, policy makers, and industry representatives. This effort attempts to provide a conduit to connect government and industry.

Tim noted differences globally in standards and regulation. For example, the United States tends to let industry lead the way in a preferred direction, rather than relying on regulations. Industry includes multi-national corporations that have to accommodate global regulations. Anyone interested in getting involved can contact: adam.duran@qs-2.com.

Tim noted that standards in disruptive technologies requires new methods to help address automated vehicles, shared and digital mobility, electric vehicles, advanced driver assist, micromobility, wireless charging, infrastructure needs for automated vehicles, human factors, and cybersecurity. SAE standards are open to all and driven by quality input from industry experts and stakeholders.

Ted Bailey suggested a collaboration between NHTSA (<https://www.nhtsa.gov/automated-vehicle-test-tracking-tool>) and National Conference of State Legislatures (NCSL, <https://www.ncsl.org/research/transportation/autonomous-vehicles-legislative-database.aspx>) AV policy tracking websites to help identify what states are adopting what SAE standards within state-level decision making processes and regulations. Ted emphasized a lack of understanding of who is doing what when it comes to adopting specific standards across the country. Tim agrees this is a good idea, and would appreciate understanding what is needed. As a next step, a collaborative discussion may be

beneficial. Ted shared the following link: <http://lawfilesext.leg.wa.gov/biennium/2021-22/Pdf/Bills/Session%20Laws/Senate/5460-S.SL.pdf?q=20210527112204> and noted that Washington State referenced the SAE J3016 standard in State Law to help define "Autonomous" as Levels 4 and 5.

Val Rader asked about whether it is known what vehicles are using SPaT and MAP messages. Tim responded that it would depend on what developer you are working with. There are not deep standards just yet in this area. A taxonomy is the starting point.

Partner Updates:

AASHTO: King Gee said that AASHTO has begun looking at next phase for CAT Coalition, and is working with ITSA, ITE, and USDOT to bring a larger group of organizations and individuals to explore what the next phase is. In the meantime, the I-I WG and other WGs of the CAT Coalition should continue working to bring the products to a close.

Marisa Walker noted that TRB is hosting a webinar in June on State & Local Deployments of Connected & Automated Vehicle Infrastructure.

Next WG meetings and Adjourn

The next meetings for this working group are tentatively scheduled for:

- Thursday, July 15, 1:30-3:00 pm ET
- Thursday, September 30, 1:30-3:00 pm ET
- Thursday, November 18, 1:30-3:00 pm ET

Registered Attendees:

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|-----|--------|-------------------------|-------------------------------|
| 1. | Tracy | Larkin Thomason (Chair) | tlarkin@itsa.org |
| 2. | Adam | Argo | Adam.ARGO@odot.state.or.us |
| 3. | Amanda | Hamm | amanda.hamm@vdot.virginia.gov |
| 4. | Anne | Reshadi | anne.reshadi@dot.wi.gov |
| 5. | Asfand | Siddiqui | asiddiqu@dot.ca.gov |
| 6. | Ashley | Nylen | ashley.nylen@state.co.us |
| 7. | Blaine | Leonard | bleonard@utah.gov |
| 8. | Brian | Simi | brian.simi@dot.ca.gov |
| 9. | Carlos | Alban | calban@itsa.org |
| 10. | Carole | Delion | cdelion@mdot.maryland.gov |
| 11. | Chris | Nowak | Chris.nowak@tc.gc.ca |
| 12. | Daniel | Halsted | HalstedDB@scdot.org |
| 13. | Donna | Clark | donna.clark@atssa.com |
| 14. | Doug | Gettman | doug.gettman@kimley-horn.com |
| 15. | Emily | Brown | emily.brown@cfxway.com |
| 16. | Eric | Perry | eric.perry@atssa.com |
| 17. | Greg | Leeming | greg.p.leeming@intel.com |
| 18. | Jack | Pokrzywa | jack.pokrzywa@sae.org |
| 19. | James | Kuhr | james.kuhr@txdot.gov |
| 20. | Jay | Parikh | jparikh@campllc.org |

21.	Jeffrey	Wishart	jwishart@exponent.com
22.	Jianming	Ma	Jianming.ma@txdot.gov
23.	Joe	Brady	jbrady@asce.org
24.	John	Hibbard	jhibbard@dot.ga.gov
25.	John	Corbin	John.corbin@dot.gov
26.	Kelly	Bartlett	bartlettk@michigan.gov
27.	Ken	Moshi	ken.moshi@tc.gc.ca
28.	Kevin	Tobias	kevtobias@pa.gov
29.	King	Gee	KGEE@AASHTO.ORG
30.	Lauren	Isaac	lauren.isaac@easymile.com
31.	Lauren	Parrish	lparrish@odot.org
32.	Marisa	Walker	marisaw@azcommerce.com
33.	Michael	Mollenhauer	mmollen@vt.edu
34.	Nagham	Matout	nagham.matout@atssa.com
35.	Nicole	DuPuis	ndupuis@apta.com
36.	Paul	Carlson	pcarlson@roadinfrastructure.com
37.	Ray	Derr	rderr@nas.edu
38.	Rebecca	Hunter	rebecca.hunter@spacex.com
39.	Roger	Berg	roger.berg@na.denso.com
40.	Roshini	Durand	Roshini.durand@reachmilestone.com
41.	Scott	Belcher	scottfbelcher@gmail.com
42.	Ted	Bailey	baileyte@wsdot.wa.gov
43.	Thomas	Kern	tkern@transportationops.org
44.	Tim	Weisenberger	tim.weisenberger@sae.org
45.	Val	Rader	val.rader@alaska.gov
46.	Zeke	Reyna	zeke.reyna@txdot.gov