

Meeting summary for CVPFS Annual Meeting - Day Two - Winter 2024 (San Diego, CA) (12/04/2024)

Quick recap

The meeting discussed various ongoing projects and updates from different states, focusing on the deployment of connected and automated vehicles, cybersecurity efforts, and the development of new applications. The team also discussed the challenges and potential solutions for deploying and maintaining connected vehicle technology, particularly in public vehicle fleets. Lastly, they explored the need for better communication and education among agencies and contractors, and the potential for integrating existing technology with new developments.

Next steps

- Brian Smith (UVA) to write up summaries of potential new projects and distribute to members for feedback. Members to provide feedback on proposed new projects after receiving summaries.
 - Brian to scope out and develop RFPs for approved new projects.
 - Brian to further develop concept for training/implementation plan to improve outreach of pooled fund tools and results.
 - Brian to explore developing guidance document on public fleet deployments for connected vehicle systems.
 - Brian to investigate potential for small-scale public fleet deployments to gain implementation experience.
 - Brian to coordinate closely with JPO on any new training/outreach initiatives to avoid duplication of efforts.
- Marisa Migliore (FHWA/TFHRC) to arrange for someone from Turner Fairbank to give an overview presentation on SDSM messages at the January monthly meeting.
- Nick Hegemier (Ohio DOT) to look into developing configuration guidance for different OBU vendors and models.
- Members are taking on several action and review items:
 - Members to consider volunteering for potential rural connected vehicle application deployments.
 - Members to review and provide feedback on updated Connected Intersections guidance document when available.
 - Members to review and provide feedback on SIMS installation guide.
 - Members to consider ways to better engage with vehicle manufacturers on connected vehicle deployments.
 - Yamilet Diaz (Florida DOT) to continue working on resolving OBU issues with Florida Keys deployment.
- Members to sign up with Mallory for San Diego site tours if interested in attending.

Summary

The meeting was led by Brian Smith (UVA), who introduced the agenda and the participants. Participants included:

Shafique Islam (Arizona DOT), Joseph Jones (Arizona DOT), Mallory Artusio (UVA), Brian Smith (UVA), Rob Tieman (UVA), Jagtar Dhaliwal (Caltrans), Balwinder Tarlok (Caltrans), Mona Attallah (Caltrans), Raj Khangura (Caltrans), Ben Glenn (Alaska DOT), Cam Morris (Tennessee DOT), Christine Shafik, Frank Perry (WSP), Chris Toth (WSP), Chuck Felice (Utah DOT), Blaine Leonard (Utah DOT), Anthony Ingrassia (Connecticut DOT), James Sekorski (Connecticut DOT), Dean Deeter (Athey Creek), Jeremy Schroeder (Athey Creek), Fahad Khan (Virginia DOT), Gene McHale (FHWA), Marisa Migliore (FHWA), John Hourdos (FHWA), Fred Heery (Florida DOT), Yamilet Diaz (Florida DOT), Gunnar Rhone (Pennsylvania DOT), Jacob Gasper (Minnesota DOT), Sunny Gill, Jay Parikh, Rich Deering, Mike Shulman, Justin Anderson (FHWA), JD Schneeberger (JPO), Jonathan Parent (Transport Canada), Kathy Asmussen (Virginia DOT), Melissa Clark (Caltrans), Mo Kim (GSU), Nathan Loeb (Caltrans), Nick Hegemier (Ohio DOT), Patrick Chan (SAE), Peter Thompson (SANDAG), Raj Sharma (Maryland DOT), Srinivasa Sunkari, Subhadipto Poddar, Supanpreet Kaur (Caltrans), Tomas Lindheimer (Texas DOT), Erika Kemp (Texas DOT), Tony English (Neara), David Karnes (Wisconsin DOT), Shreekant Marwadi (Leidos), Ryan Hall (OmniAir), Marisa Walker (ACA), Bobby McCurdy (ITS America), Siva Narla (ITE), Dmitri K, Emi Carbray (AASHTO), Govind Vadakpat (FHWA-JPO), Kevin Chan (Minnesota DOT), Joshua Meng (UC Berkley-PATH), Cory Johnson (Minnesota DOT), Hassan Valizadeh, Lisa Saldin, Omar Aboulaban (AECOM), Xiaoyang Jia (Tennessee DOT), Daniela Bremmer (Washington DOT), John Wiens (Neara), Linda Baker (Neara), Hassan Charara, Brian Romansky, Murray Egan, Steve VanSickle, Nathan Ruckert, Jianming Ma (Texas DOT), Ralph Boaz, Virginia Lingham (WSP), Rick Smith, Xiaoxiao Zhang (WSP), Gopi Surnilla (Valtech), Angela Fessler (Valtech), Matt Gilbertson (Panasonic), Brian Simi (Michael Baker), Alan Davis (Georgia DOT), Victoria Coulter (Georgia DOT), Richard Woo (Maryland DOT), Kody McCarthy (New Hampshire DOT), Alex Lemka (Maricopa County DOT)

Member Updates

The meeting discussed various ongoing projects and updates from different states:

- Maryland mentioned ongoing projects such as studying work zones using innovative drone technology and working on a statewide V to X deployment plan.
- Minnesota discussed the feasibility study of I 35 in Duluth and the comparison of Lidar detection and traditional in-pavement loop detection at signalized intersections.
- Tennessee discussed the development of a readiness plan, a Lidar detection project, and a queue monitoring warning system.
- Texas discussed the Technical Port or TCFC Project, which involves installing 59 RSUs and integrating them with the SCMS system. Texas also discussed the importance of including self-driving vehicles in their plan.

- Virginia discussed the importance of strategic planning and the need for a new strategic plan. The conversation ended with a discussion about the need for a clear vision and use cases in their strategic plan.
- Wisconsin discussed deployment of connected and automated vehicles, including the expansion of the Connect the Corridor project in Madison. WisDOT also discussed the development of a strategic work plan for the department and the creation of on-shelf projects ready to advance connected vehicles.
- Jonathan Parent from Transport Canada shared updates on their cybersecurity efforts and the development of a sample regional architecture.
- Blaine Leonard from Utah discussed their ongoing projects, including the installation of 540 roadside units, the development of new applications, and the collaboration with Colorado and Wyoming on the Accelerated Eadox Grant.

Connected Vehicles Deployment and Updates

Marisa Migliore (FHWA/TFHRC) and Shreekant Marwadi (Leidos) presented updates on the map tool, including security enhancements, RGA integration, and user interface updates. Marisa discussed the improvements made to the site, including backend monitoring of API calls, switching to Google Maps API for elevation data, and adding protection from bot and common denial of service attacks. She also mentioned plans to switch base map file providers due to cybersecurity issues and the discontinuation of Bing Maps API in June 2025. Marisa then introduced the RGA tool, which will combine features from the map tool and generate both J2735 and GA messages. Shreekant provided further details on the UI updates, including the addition of fields and options, and the ability to upload GeoJSON files for RGA conversion. Marisa also highlighted the support services provided by their team, including training, equipment loan programs, and configuration support. Lastly, she introduced the Cav Telematics tool for monitoring RSU health and data processing.

USDOT resources that were mentioned:

- MAP tool: <https://webappopen.connectedvcs.com/>
- Deployer Resources and Support:
- ITS Professional Capacity Building Program - Connected Vehicles Deployer Resources
- CAVe-in-a-box (free loan to any interested group):
<https://www.its.dot.gov/pcb/CAVEducation.aspx>
- Our GitHub page: <https://github.com/usdot-fhwa-stol>
- Support services contact - CAVSupportServices@dot.gov
- SAE Standard for SDSMs is J3224

Connected Intersection Program Updates

Frank Perry and the WSP team discussed the Connected Intersection Program, which involves engaging with three deployment sites to gather feedback on the guidance document and update it accordingly. The team also discussed the SCMS Manager updates and the next steps for the project, including delaying the release of the next revision until early 2025 to

incorporate more updates. The team also discussed the progress of the WSP Manager, including the addition of Autocrypt to the production Certificate Trust List and the development of policies around signal priority preemption and network V2X policy. The team decided to cancel the next panel meeting due to a lack of significant updates.

Connected Intersection Message Monitoring System Project Updates

Frank Perry and the WSP team discussed the system's verification of messages, monitoring of spam and map messages, and the comparison of these messages. The team introduced a new team member who has been working on the project since October (Xiaoxiao Zhang). They discussed the project's agenda, including a project management update, updates to the system requirements, and updates to the software design document. The team focused on the development of new functionalities, such as the event state conflict monitor, the message revision counter, and the ingesting of traffic signal controller data. They also discussed the optimization of costs associated with operating the system, including data storage and transfer costs. Then, the team reviewed the deployment of the system in Utah and Maricopa County, and the updates to the installation guide. Lastly, they discussed the message visualizer, a new feature for the Conflict Monitor, and the time delta events for internal debugging.

The next panel meeting is scheduled for Friday, December 20th at 2 PM Eastern.

CLOSED SESSION