

Commercial Vehicle Birds of a Feather Meeting Minutes and Notes

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Meeting Minutes

8 May 2024

- AMM debrief
- AOB
- Charter Scope
 - Upgrade from BoF to Expert Group
 - Common Data Sampling Campaigns
 - Fleet Management Data Guidelines
 - EV Range Prediction (Ford, Geotab)
 - Other? (Insurance) Ask Paul for slides and intro recent presenters at VSS call
 - Organize and align signals lists for specific campaigns
 - In-Vehicle API (VISS)
 - ACEA FMS (Bosch)
 - ATA TMC RP1226 (Bosch, Morey)
 - Additional / [Hierarchical](#) Information Models (Ulf HIM)
 - Trailer (Great Dane, Volvo Group)
 - Tractor to trailer interface (wired, WLAN, other)
 - Upfitting (refrigeration, salt spreader, plow, sirens) - (Ford, Bosch)
 - HD truck/bus not adequately represented already in VSS
 - Driver Profile*? (limit scope, coord w/ AOSP, CVI, other)
 - IETF GNAP

April 2024

- [Link to AMM CV track agenda/slides](#)

19 February 2024

- EV range prediction/correction factor campaign, see [Github issue 12](#)

12 February 2024

- HAL4SDV - EU projects
- Eclipse SDV example towards SDV Alliance as a demonstrator
- 3 potential projects worth open sourcing regardless of whether accepted in this program

- Cloud2cloud - create a test server w/ VSS, CV guidelines on data points - cloud platform agnostic
 - in-vehicle edge
 - v2c serialization (see PR from Adnan, transmission)
- Endorsements now on the landing page, encourage participants to provide ones as well
- Use case[s] for limited PoC
- Group vitality, wide variation in attendees from week to week
- A few OEMs have wandered in and out, one willing to pilot with Geotab but not part of COVESA and don't think they want to be out in the open
- How to improve outreach?
- Need to put the different aspects of CV activity on the table and see which people want to work on building out more
- Schedule discussions with appropriate people from Stellantis, GM and Ford

5 February 2024

- Endava introductions, engineering company
- Endorsements for [landing page](#)
- AMM PoC and Tech track
 - 3-5:30 on 17th and can spill over onto Thursday
 - include working session
 - mapping from RP1226, already done for rFMS.
- Use case for PoC
 - Looking for input from Wally on use case and availability of data from TMC fleet
- Feedback on [Business case to sell OEM](#)

18 & 25 January 2024

- RP1226, aligning other efforts

4 December, 2023

- FMS - goals:
 - Agreement to use VSS in the cloud, leverage existing mapping for translation
 - Follow CV BoF recommendations - what signals are collected and how they are sampled
 - What is missing in current FMS? OEM only focus of FMS - lacks perspective of fleet customers' data needs
 - What are we missing in CV BoF recommendations? - likely takeaway - ongoing coordination on signals/sampling
 - EU regulator influence on data access - saw article @link? about passenger vehicle OEMs considering FMS
 - FMS has transport protocol but not focused on data being sent - unsure if passenger car OEM will coordinate on this level as much as EU HD OEM
 - ISO 21434 ? Neutral Server/Extended Vehicle - has a transport but not a common data model - any relation with FMS?
- SDV Hackathon on Fleet Management
 - various things connected to LinkedIn, common hashtag #
 - work done in a private github repo - avoid legal issues
 - 6-7 challenges, Rust eco-system, effort to combine different container solutions** - at least 3 different ways to handle containers currently in SDV
 - Elektrobit container management
 - RedHat System D approach
 - 4 teams chose fleet management challenge
 - created a dashboard, MQTT in the background to inject data into the system
 - group looking at profiles - more useful for rental vehicles (relate to ELD in NA?)
 - sourcing data for testing
 - group wanted to perform analytics and extended range of signals being collected by FMS forwarded - unsure what they added
 - Fleet Management Blueprint setup was straight forward, allowing developers to start using/adding onto it instead of wasting time
 - Configuration for sampling campaigns - [Node Red](#) was used for rapid prototyping
 - was too large a topic to solve in a short hackathon
 - emphasis was to understand FMS forwarder (Rust component of SDV Fleet Blueprint) and extend it

27 November, 2023

- [Preview landing page](#)
 - VSS needs to be emphasized more up front
 - Requesting review, promotion and endorsements
- Fleet Management Systems (FMS)
 - EU HD truck and bus telematics standards - OEM only group*
 - Uses J1939 (rFMS/J1939 mapped to VSS)
 - Technical deep dive set for 14 December, 2023 (2h), FMS leadership and reps from the 6 HD OEM
 - Commercial Fleets are a mix of different classes of vehicles, rest of which do not use J1939
 - Goal is to convince them on the importance of higher level abstraction
 - Prove VSS abstraction can be moved to vehicle edge
 - Questions raised by FMS:
 - How would FMS Standard look like in a COVESA API? (AutoSAR collab update on Thursday, also Bosch CV Blueprint - Eclipse SDV)

What are your plans to extend the COVESA VSS with commercial vehicle data? (HD specific branches can be added to VSS, much already there. VSS accepts contributions, want HD OEM SME to provide)

What is the status of development of the COVESA vehicle API? (update from AutoSAR)

Do you have a demo available? (yes, Bosch to present)

- What to present/demo and which goals to emphasize?
 - Like FMS group to participate in CV to advance guidelines or at least some of their member companies
 - Tech demo ready
 - Higher level pitch based on what we've used - shorter version of AMM presentation (15 min max) ACTION ITEM: Ted to condense deck and share with Thomas by email, group on next call
 - Anchor on VSS, including mapping
 - provide links for follow up, wiki with its slide decks and recordings, landing page and github
 - YAML of sampling campaign overlay
- Revisit top [issues](#) introduced last week

20 November, 2023

13 November, 2023

- Sampling conventions

Reaction to previously presented conventions, introduced

[How to handle alternate sampling conventions](#)

- [In-vehicle calculation conventions](#)
- [Review initial proposed set of signals](#)
- Future topics

06 November, 2023

- Tooling & .csv converter topic
 - no comments or offers for support so we continue here between geotab and etas
- FMS-update
 - Carlton explained again the background of why J1939 is a good std to abstract into our guidelines using the VSS data model
 - potentially missusing overlays or need another DEG discussion required
 - explained about the wishes from the fms standards group that SAE J1939 causes them issues/cost due to being so closely copupled to CAN and HW
 - > (melissa request) Create an overview of what data is actually relavent for each additional field we are proposing for VSS overlay
 - > do we define our own DSL (data sampling Language) for measuring the data or do we want to change VSS
 - currently DEG (data expert group) is discussing this topic and thinking that they need to have a way to managed this for specific vehicles
- J1939 questions
 - Some OEMs even considering replacing CAN with IP in the future
 - how do we get VSS to become protocol agnostic
 - Melissa asked if we want to do something with the data >
 - How do we do "plug and play" HW > can the CV BoF be a place that we also focus on this aspect of CV upfitting etc
 - Suppliers & Tiers will need to focus on the lower level abstraction (ford opinion)
- Cummins focus:
 - Cummins to support for the FMS topic > we really need to focus on the fleet beenfits aspect
 - UNECE1516 direction = Operations: Warranties status & SW updates for all makes/models/components could be highly beneficial
 - Should there be some sort of standard defiend in the control layer for updates etc in COVESA

23 October, 2023

- AMM debrief
 - recap of AMM, encourage viewing of recordings especially for consent management
 - Interest in consent management and agreement more of a tangent, not essential for commercial fleet vehicles but for other sampling efforts
 - EV range prediction - additional data sampling campaign interested in using the same conventions as commercial fleets
 - ETAS SDV Blueprint

- Business track
- Landing page in progress
- Alignment with other efforts
 - [Mobility Data Space](#) - related to Catena-x
 - [ITXPT](#) - similar to VDV, has a certification program - ensures compatibility across offerings - in our charter scope as a possible deliverable
 - FMS
- [Issues](#)
 - Sampling configuration directives in use by participants, preferably open standard/convention
 - VSS Tools and overlays - after we have mockup YAML

11 October, 2023 at AMM

- (recordings and slides pending)
- Business track
- Technical track
 - [Overview](#)
 - [Consent Intro](#) (TG, not presented)
 - [Consent Management - Niclas Gyllenram](#) (PowerPoint)

25 September, 2023

- COVESA AMM track (2h tech track, plus a bit on business) - title, abstract, presenter name
 - Overview/recap and example sampling config
 - EV range prediction and start of representation in sampling config
 - ETAS PoC
 - Consent management AiDEN
- EV range prediction artifacts
 - Map provider needed - Google, HERE, OSM - Open Geospatial Consortium (OGC)? / W3C Spatial Data on the Web
- Represent sampling - time, distance, event, other. SOSA/SSN (ontology and too complex)
- Privacy/Consent - ambitious but we have a number of pieces and opportunity
 - Explicitly which data points will be collected (CV BoF in VSS)
 - How they will be used (again CV BoF. use cases are the start of purpose for GDPR). We will use constants for names of use cases as some pertain to multiple signals in order to avoid being too repetitive, side benefit is this can be useful for localization (accommodating descriptions in other languages)
 - Who is collecting the data and how to revoke consent, who is easy and can add entity name or URI to the VSS overlays in CV BoF and same for revocation interface URI. Would need to research if there are any standards around consent and revocation APIs or if this is something AiDEN is willing to propose.
 - A common interface in the vehicle to interact with driver to capture consent - AOSP activity in COVESA and if generalized enough can be used on QNX and other OS instead of Android specific but worth going for the lower hanging fruit of an Android solution.
 - AOSP activity with decent energy at COVESA, CV BoF also off to a good start
 - VSS/VHAL mapping in AA prototype was completed, interest in making VSS more central/prominent in AOSP
 - Some OEM are reluctant to provide rich data to the head unit and AA, that's fine we can simply capture consent and the data sampling campaign can be triggered to act on that on a TCU
 - AiDEN's platform includes consent management for Android Automotive platform, it impressed as being well thought out, intuitive, crisp UI that well informs the individual
 - We would need to convey consent was captured either by current driver (who could remain anonymous), owner and driver was informed that consent is explicit and immutable by operator, data will be collected and their recourse if they disagree is to contact owner and not operate the vehicle. What is sent to the data back end would need to be defined. In W3C Auto Working Group a PhD student and his prof have come up with a "sticky policy" to capture this, maybe too complicated for OEM who would prefer to keep it simple.
 - Strong industry need to handle privacy, has EU OEM tied in knots
- Open issues from Github

11 September, 2023

- Ford EV Range Prediction Team presents
 - [Recording, Slides](#)
 - Research performed at Ford under an EU grant to come up with Correction Factors (CF) based on in-vehicle observations and various external factors (weather, road conditions, altitude changes etc)
 - Data sampling campaign can utilize the conventions for collecting EV specific data that is being proposed in the CV BoF
 - Discussion on merits, interest to prove out
 - Resources (algorithms, data collection techniques used, etc) can readily be opened as the EU research is intended to be public
 - Agreement to align efforts
- [Github repo](#) created, issues created
- Desire to switch from bi-weekly to weekly cadence

28 August, 2023

- Introductions
 - Attendees: Thomas Sprechley (ETAS), Paul Boyes (COVESA), Pierre Pierre Blais (BlackBerry), Ted Guild (Geotab), Sven Jeroschewski (Bosch), Sri Palacharla(GM), Melissa Morris(Ford), Richard Fernandes(GM), Jeff Reid(Google)
- How we'll work

- Spreadsheet as an initial convenience
- All deliverables and issues should be in github, repo requested
- Major announcements to group mailing list, conversations and heads up in slack
- Outline or proposed work
 - [CV signals list with VSS data points being mapped](#)
 - [Overlay in YAML](#), seeking input on sampling conventions
 - review with Data Expert Group
 - assess and if needed amend vss-tools for additional node parameters
 - Need for at least rudimentary vehicle edge calculations
- Open to additional topics to explore
 - Additional signal sampling campaigns that can follow these conventions, speaking with [EV range prediction](#) this week

15 August, 2023

- Kickoff meeting
- [Slides](#), [Meeting Video](#)