AMM 202404 Technical Track Session Proposals

Session Proposals

This is for Technical Session Presentation Proposals.

Proposed Topic /Session Title	Abstract	Requested Duration	Requested Day	Proposed By	Comments
Extending VSS To Commercial Vehicles	VSS has historically focused on passenger cars. This session intends to discuss various options for extending VSS to better support commercial vehicles, including • Adding new signals to standard VSS signal catalog • Adding an "official" VSS overlay for commercil vehicles • Private/OEM-specific overlays • Using HIM to specify additional independent trees for for trucks, trailers, etc. • Q & A			Erik Jaegervall	Possibly joint sesssion Ulf Bjorkengren and Erik Jaegervall HIM or Overlays? depends
VSS in AGL	Need to discuss with Automotive Grade Linux guys, but they did have a fancy VSS based demo and they have some tech information about that. They might come or give me slides. The interesting thing is, that on the one hand it is a bit more of an end2end use case, but at the same time freely available			Sebastian Schildt	
Learning VSS: A Deeper Dive	Taking the next steps with your understanding of VSS. Learn from the pros as they walk through some how-tos. Get your questions answered and learn how to get involved.			Sebastian Schildt Adnan Bekan Erik Jaegervall	
VSS Format and Tooling				Erik Jaegervall	Parts of general VSS working session
~~VSS Collaboration /Competitor landscape~~				Erik Jaegervall	
COVESA repositories (i.e. not only VSS) as open source components	• Our current approach concerning governance, OSS scans, IP scans, headers/footers • Our current approach concerning license (like MPL vs Apache) • Discussion – what is needed to simplify inclusion/usage in downstream /proprietary projects. Implications of AI, CoPilot and so on ◦ I.e. is there any artifacts or files that members needs			Erik Jaegervall	
New features proposal for next version of VISSv2	New features are proposed for the development of the next version of VISSv2.	30-45		Ulf Bjorkengren	Interface Pillar
VISSv2 consent model explained and demoed	The newly added consent support in VISSv2 is explained, and a demo is jointly presented by Ford and Aiden Automotive Technologies.	60		Ulf Bjorkengren Aiden: Niclas /Sinan	Architecture Pillar
Feeder domain conversion explained and demoed	The design and implementation of the mapping and scaling process of data transitioning between a northbound “VSS domain” and a southbound “Vehicle domain” is presented, together with a demo where it is used to actuate signals on a Ford vehicle.	60		Ulf Bjorkengren Cem Mengi, Ford	Architecture Pillar
Introduction to the Central Data Service Playground	This session is intended to give a high level introduction to the Central Data Service Playground. A neutral playground to investigate internals and combinations of data services on and off of the vehicle in the context of data-centric architectures. We will cover the "What?" and "Why?" of what it is and why it exists.	30-45		Stephen Lawrence on behalf of the Data Architecture group	

Technical overview of the Central Data Service Playground	We will follow the previous session introducing the Playground, with a more technical overview. Covering the "How?" of how it is currently implemented and what the roadmap/backlog looks like.	30-45		Stephen Lawrence on behalf of the Data Architecture group	
Using the Central Data Service Playground	Having given an high level summary of What, Why and How? in the two previous sessions, in this session we turn to using the Playground. Some areas the Data Architecture group wants to explore and how the Playground may be used by the wider eco-system as a "lego piece" to investigate and illustrate.	30-60		Stephen Lawrence on behalf of the Data Architecture group	
CV PoC	Limited, visualizeable PoC from CV use cases			Ted Guild Sven Thomas Sprechley	Include Wally and RP1226?
CV coordination	RP1226, VDV, FMS Cloud, in-vehicle port, in-vehicle API			Thomas Sprechley Ted Guild	
Android Infotainment quality analysis by end-user behavior modeling and vehicle data	How to find those tricky AOSP system issues as e.g. memory leaks during an infotainment project			Emil Dautovic Tero Aaltonen	
Empowering digital services	-Developing an Open Standardized gRPC-enabled VISS API towards Android Automotive OS -Enables securely sharing subset vehicle sensor data towards service providers -Smartification/Smart sensing using VISS Curve logging -RemotiveLabs virtual sensor platform as VSS data provider			Emil Dautovic Ulf Bjorkengren	Presentation will also include Volvo Cars participation (Renjith Rajagopal, Peter Winzell and Kristoffer Nilsson)
Data Acquisition beyond VSS	VSS is a good starting for data collection, but that is only the start. Flexible data collection requires much more. The talk with outline additional areas of collaboration in COVESA to support vehicle-to-cloud dynamic data management.	30–45		James Hunt	
Data Middleware enabling offline-first Telemetry Collection and real-time decision making with an in-car knowledge layer.	This talk explores three aspects of automotive data architecture: • To recap of bi-directional sync in the Porto and Detroit projects for seamless offline data exchange. • To introduce uni-directional data collection's role in analytics and machine learning. • To explain the in-car knowledge layer for real-time decision making, with practical industry examples.	30-45		Haonan Qiu Christian Muehlbauer @andre wendel Arnaldo Vera Humza Akhtar	Possibly joint sessionChristian Muehlbauer and Arnaldo Vera
In-vehicle data storage and data sharing in case of cloud disconnection.	Beyond traditional in-vehicle data transfer and storage, unique user experiences can be unlocked with a robust data middleware. In this technical talk, we will explore the different architectural patterns, challenges and ways of implementing in-vehicle data transfer and storage with MongoDB's Edge Server. As well as how VSS is implemented and some peep into the future of embedded databases.	30-45		Arnaldo Vera Humza Akhtar	
A Framework Approach to Standardizing Consent Management in Software-Defined Vehicles	As the automotive industry evolves, the concept of the software-defined vehicle (SDV) has emerged as a pivotal innovation, offering unparalleled flexibility, customization, and new functionalities. However, this evolution introduces complex challenges in consent management. The requirement for accurate consented data, the complexity of user consent interfaces, and the need for interoperability among diverse systems and jurisdictions calls for a standardized framework to not only ensure privacy but also security. This presentation proposes an approach for developing a framework for consent management.	30		Philippe Le Berre, 360 of Me	
In-Vehicle API (joining forces with AUTOSAR)	The in-vehicle API is based in the COVESA VSS and is linking the Open-Source-Software to the AUTOSAR-technology. The API is shown as standardized “OpenAPI.V3”-specification including error messages. A first implementation shows, how to create a REST-API with Swagger and to “read/write”-vehicle signals from the KUKSA-server.			Dr. Henkel, Director in Systems Engineering & Technical Strategy Mobility (BOSCH)	

Wallet for in-car payment with self souvereign identities (SSI)	Future Car2X services rely heavily on secure and efficient identity verification and data management. The Vehicle Signal Specification (VSS) may be used with payment options combined with Self Sovereign Identity (SSI) to configure the vehicle based on a driver ID stored in a digital vehicle wallet.			Peter Busch, Product Owner DLT Mobility	
Title: VSOMEIP	**Topic/Abstract:** • VSOMEIP and VSS			Adnan Bekan TBD	
Towards a vehicle DATA specification	• Limits of VSS • Previous attempts for expressivity • An API-first approach to generically model data of vehicle properties • Decoupling logical and physical layers. • Integration of domains.	45 min.		Daniel Alvarez Daniel Wilms	Possible joint session with Daniel Wilms (SPREAD GmbH)

A professional benchmark for decision making tools	• A call for participation
	• Using COVESA artifacts to enable a professional benchmark for the decision-making tasks on data streams. Including, but not limited to:
	  ◦ Data stream processing
	  ◦ Complex event processing
	  ◦ Stream Reasoning
		15 min.		Daniel Alvarez
				
				Haonan Qiu
					Possible joint session with RemotiveLabs

How did you cook it? About Honda's AAOS-based IVI system	The Accord released in 2023 is equipped with an AAOS-based IVI system. Honda has implemented in-house software development for the first time with this model and will introduce a wide range of topics from the establishment of the organization to the customization points of AAOS.	45 min (30min + Q&A)	Weds?	Yuichi Kusakabe Honda Motor Company	Stephen Lawrence: Suggest Weds to be on same day as other Android presentations.

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