



API-Design and Standardization

COVESA AMM, Novi Michigan, Sept 2024

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COVESA: how to create an international data model?

Standardizing non-differentiating data with common sense VSS

- Status:**
- W3C automotive group (will) close → VISS2 protocol is pushed back to COVESA
 - AUTOSAR is starting API-gateway specification
 - Chinese Market tend to local regulation e.g., [MIIT guideline](#)

Guidelines for the Construction of **National** Internet of Vehicles Industry Standard System

- Japanese Ministry starts also local API-initiative and the [“Open SDV Initiative”](#)
- **the right time to bring COVESA-VSS to an international standard**

Who organizes the standardization tasks

Data Expert group
CVI-group 
New “Standardization group”

What might be part of the standard

1. VSS-only (e.g., *.yaml,...)
2. Aspect-model & additional meta-data
3. OpenAPI spec + Failure codes
4. Protocol VISS3 (HIM-model)
5. Test kit & ref. implementation (e.g. SDK, Kuksa,...)
6. Standard service/fct/capabilities

Which standard do we target

ISO (e.g. TC22, TC204)
SAE J1979,
SAE J1939 xx
+ **Digital Annex**

Who wants to contribute and vote?

You??

Which “joint” partners do we want to invite

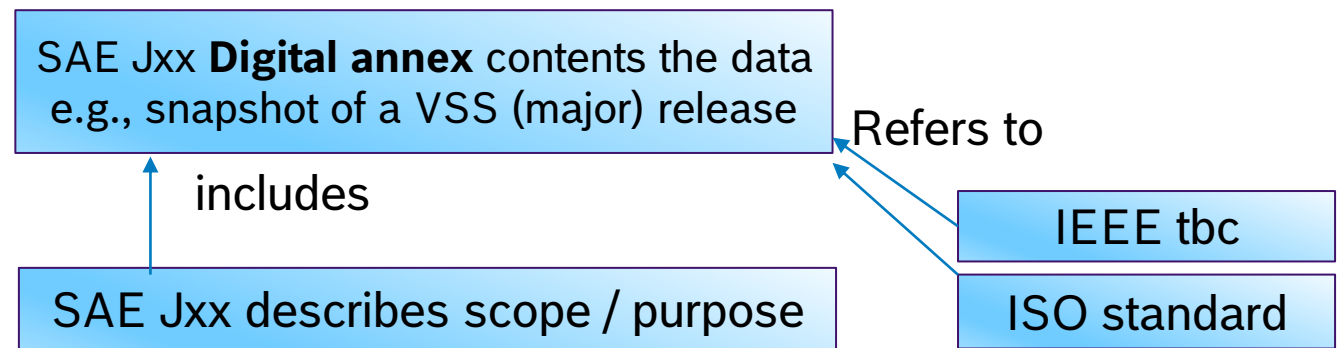
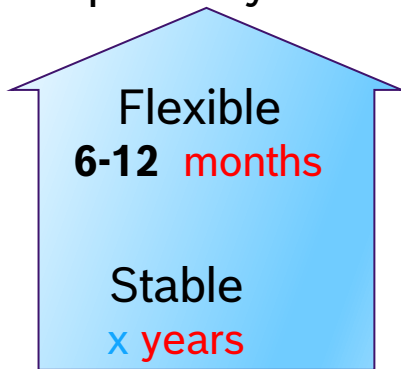
AUTOSAR??
Eclipse SDV ??

API Standardization

Standardization activities are bundled in the CVI-group

- Standardization is an enabler for future series implementation of the VSS
- An international standard can be referred by governments, public funded projects (e.g. FEDERATE)
- A standard has to offer both: stability and “fast” update-rate (s. VSS release sequence)
- Way of working CVI-Group aligns the content (s. new charter: [COVESA API Standardization Charter.docx - Google Docs](#))
 - First concept based on SAE J1939 with its Digital Annex

Update cycle



API Standardization

Way of working



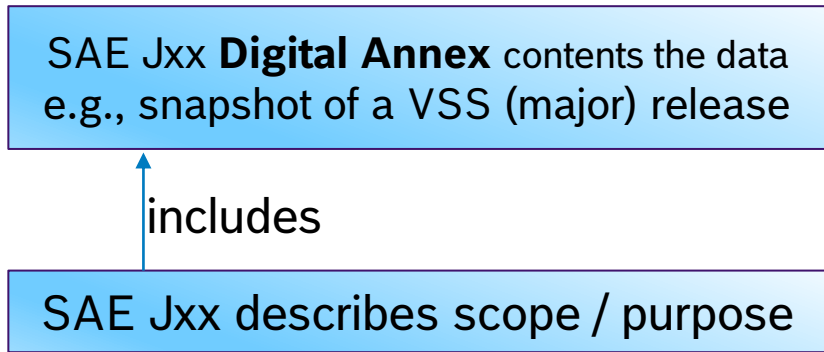
Technical experts
Discussion

Releases VSS → data Expert group
Standard alignment → CVI-group

SAE

Establish new group

Create SAE-Standard
incl **Digital Annex**
Create a data-model compliance test
s. SAE J1939 + Digital Annex



ISO

Establish new group

Create and approve
ISO Standard referring to



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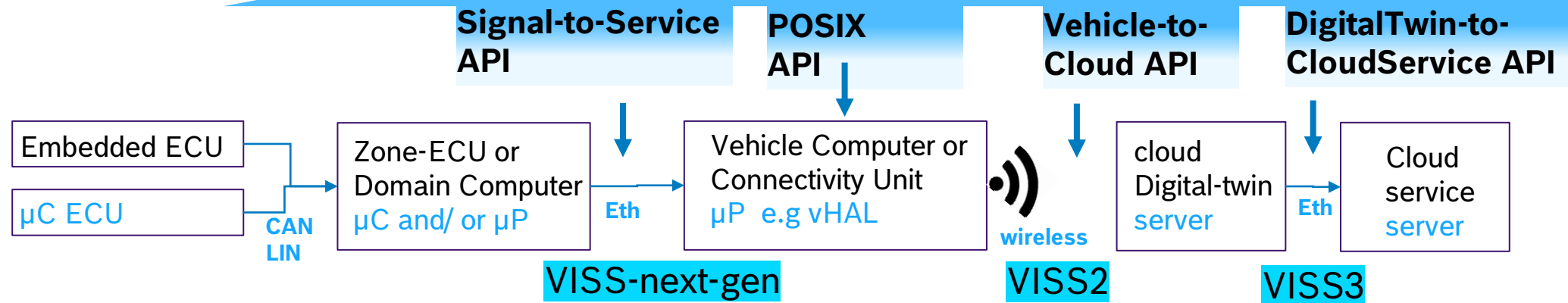
Latest News : From Workshop yesterday

What to achieve

- One API for all domains (Body, Infotainment, Powertrain..)
- Interoperability between different vehicle platforms
- Harmonize the interface language in-& outside the vehicle
- Enable data centric app-development

How to achieve

- Start with a Data-based API standard (function/capabilities-based-API might follow later)
- Step 1: One data model for all APIs (VSS+units+Quantities)
- Step 2: Enable different implementation (e.g. **VISS-versions**)



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API Standardisation Elements are aligned in CVI group (Tuesdays)

