Possible questions for discussions if audience is quiet
FOR PREP ONLY, NOT TO SHOW

- What’s the existing solution before VSS and what are the limitations?
  - Inconsistent naming by OEM and model, region, brand
  - Chaos in signal naming across different ECU’s
  - Same signal may have different meanings, even different units, in different vehicles

- What’s the downside to not adopting VSS
  - Decreased reuse
  - Increased development costs
  -Duplication of appl development effort

- What is the process OEMs need to follow to deploy VSS?
  - Look up existing signal names
  - Standard hierarchy and naming conventions
  - Propose extensions where a signal is missing

- What can we do to streamline VSS development?
  - Sonatus helping our OEMs deploy this
  - Providing tool support

- Do we need to deploy VSS on vehicle, cloud, or both? [Sudhir]
  - Range of benefits depending where you deploy
  - Cloud is a good starting point
  - Allow path for engaging legacy vehicles

- Are there any shortcomings to VSS?
- What can be done to expand VSS
  - Promote consistent time stamps in signals?
Using COVESA Vehicle Signal Specification (VSS) to Accelerate Sonatus’ Next Generation Vehicle Services

COVESA - Webinar 2023

February 2nd, 2023
Sonatus: Silicon Valley-Based Automotive SW Leader

Award Winning Technology

Networking, Storage and Compute Systems

Communications (Wireless, Broadband, Fixed Wireless, APN)

Security: Authentication, Encryption, VPN, FW

Virtualization, Orchestration, SaaS, Managed Services

Cloud/Data Management

Mobile and Cloud based Applications & Services

Global Presence

Building on proven data center expertise

A Successful Track Record in Production

Proven solutions in production today with Hyundai
Ramping across their product line

Networking, Storage and Compute Systems

Communications (Wireless, Broadband, Fixed Wireless, APN)

Security: Authentication, Encryption, VPN, FW

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Global Presence

Building on proven data center expertise
The importance and benefits of SDV

Software-defined vehicles (SDV) unlock a range of powerful benefits

- Improved functionality
- Upgradability
- Extensibility including after development
- Development cost savings
- New business models
- New monetization opportunities
Key challenges to adopting SDV

Data Volume
- Vehicle data is significant
- Impractical to send all vehicle data to the cloud all the time
- Prohibitive transmission and storage costs

Upgrades and Extensibility
- SDV enables extensibility
- Heavy OTA updates may be burdensome
- Deploying updates quickly
  - New use cases
  - New business opportunities
  - Evolving needs
  - Urgent situations

Data Formats
- Inconsistent naming across OEMS, models, regions
- Inconsistent units
- Conflicting naming conventions
- Same names, different meaning
Sonatus Vehicle Data Collector
Powerful data collection, configurable in seconds

Technology Examples

Vehicle Data Collector

Features
- Collect only necessary data
- Data policy deployed in seconds
- One vehicle or entire fleets
- Stream to any cloud
- Dynamically adapt data resolution

Benefits
- New monetization options
- Diagnose or eliminate recalls
- Reduce data transmission costs

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Sonatus Vehicle Automation Manager
Vehicle automation and extensibility without coding

Technology Examples

Vehicle Data Collector

Vehicle Automation

Features
- Deploy automations in seconds
- Inputs from across vehicle
- In-vehicle and external actions
- Create workflows without coding
- Limit access to ensure safety

Benefits
- Prototype new features rapidly
- Enhance vehicles after production
- Diagnose issues in the field
- New monetization opportunities
- Lower manufacturing costs

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Benefits of COVESAA VSS

Interoperability
- Consistency across OEMs
- Consistency across models
- Communication between different vehicles, infrastructures

Innovation
- Faster develop applications
- Signal meaning clearer
- Abstracts low-level architecture

Reduced Costs
- Lower development costs
- Software reuse across OEM brands/models
- Easier programmer ramp-up

Easier after-market usage
- Lowers burden on downstream value-added services

Safety
- Consistent use of signals avoid confusion
- Consistent units
- Safer data sharing for V2V
Discussion
Summary

Positive experience with VSS
- Sonatus has found VSS useful in building consistency across automotive
- Our solutions benefit from the portability it provides
- We are excited to be one of the leaders driving VSS adoption

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More information about COVESDA
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