CVII Tech Stack: "Deep-dive" topics

- GraphQL strategy sharing Sharing of viewpoints for GraphQL integration
- Interfacing VSS Data Storage to VSS Data Servers
- CAN integration
- VSS and VSC cohabitation

Scheduled or taken place

CCS State Storage Component

Status: Scheduled for Mon 23rd May 2022

Original proposer: Stephen Lawrence Ulf Bjorkengren

The CCS State Storage Component is used as the storage backend abstraction for the WAII VISS Data Server implementation. The session will start with a summary of the component. The abstractions it provides for data feeders and data servers and its current status. Armed with a wider understanding of the component in the group the discussion can both move onto the future of the component and act as a starting point to wider (follow on) discussions about Data Storage in general.

Details: CCS Components: State Storage Deep Dive

Topic backlog / Ideas

GraphQL strategy sharing

Original proposer: Unknown User (alexander.domin)

Alexander wishes to have a discussion about GraphQL and how he sees its integration in the architecture. Exchange of viewpoints should make it clearer where GraphQL can sit in the tech stack.

VSS Data Storage

Original proposer: Stephen Lawrence

Discussion of topics specific to VSS Data Storage

- Architecture implications/outcomes of "last value" statestorage vs timeseries data.
- Revisit CCS statestorage component. Improvements or replacement needed?
    - Minor: to simplify for adopters we should probably transition from use of "CCS"
- Different architecture configurations, e.g. deployment illustrations in vss-otaku and kuksa.val
- Design patterns or abstraction related to data feeders

Interfacing VSS Data Storage to VSS Data Servers

Original proposer: Stephen Lawrence

Architecture and strategy discussion on interfacing VSS Data Storage to VSS Data Servers:

1. Protocols, methods
    a. Is storage abstraction to servers useful?
2. Requirements
3. Different architecture configurations, e.g. deployment illustrations in vss-otaku and kuksa.val

CAN integration

Original proposer: Gunnar Andersson Stephen Lawrence others..

This comes up repeatedly. Integration of CAN into VSS data feeders. Various methods and ways to do: socketCAN, via SomeIP, code generators.

From this would ideally come some more concrete plans to improve and fill in gaps in OSS CAN eco-system

Northbound (former CCS) towards Cloud

Original proposer: Ulf Bjorkengren

We should keep in mind northbound towards Cloud is in Tech Stack scope as previously worked on in the CCS group.

Topics need to be expanded upon by interested parties.

VSS and VSC cohabitation

Original proposer: Gunnar Andersson

Sensors/actuators can be manipulated through VSS (VISS). In-vehicle functions, e.g. comfort, may also be controlled through VSC defined APIs that may be higher level than manipulating sensors/actuators. In this way a future vehicle will most likely contain a mix depending on the functionality. Best practices therefore need to be developed for the cohabitation of VSS and VSC so they both maintain a consistent view of the vehicle state.

Coordination note: This discussion is starting across the three groups, VSS, VSC and Tech Stack. Session planned for Spring 2022 workshops.

VSS Layers

Tech Stack Priorities

Survey as to what are the priorities for Tach Stack and Tooling?

VSS Metadata

VSS Relationship to and Utilization Other Projects

Project requirements