

# CCS Components: State Storage Deep Dive

## CCS Components: State Storage Deep Dive Agenda

- Timing
  - 15-20 min: Ulf Intro presentation on CSS Components: State Storage.
  - 40 min: reaction and building future plan
- Technical API discussion
  - Design Issues in Ulf's presentation
  - Review current State Storage component API
    - Anything to fix or extend?
    - Categorise in wider architecture:
      - In VSS Terminology State Storage is 'simple'. Is this component strong coupled (fit) for that use case and something else is needed for 'more powerful' or do we reuse/extend?
      - Simple vs powerful may have multiple dimensions: throughput, features (e.g. events), etc.
  - Related areas (likely will need their own Deep Dive sessions as too big a topic to conclude here)
    - Abstraction APIs
      - To Feeder, to Server
      - Requirements
        - Speed
          - Low vs medium vs high frequency
          - Native for high frequency?
      - Kuksa.val is also a target
    - Last value vs time series
      - VISS protocol has some TS query
        - 'History filtering'
        - Simple support for this in current WAI. Other process (e.g. comms) must tell WAI to start/stop recording. Then VISS client (e.g. cloud) must detect vehicle became disconnected and query for missing data.
        - Kuksa currently has no TS
- Date
  - Monday 23rd May 4pm CET.
- Rough meeting notes:
  - Attendees: Ted Guild, Ulf, Paul, James Murphy, Florian Pinzel, Stephen, Jose Gomez
  - Presentation: [COVESA AMM 2022 - State storage \[PUB\].pdf](#)
    - Origin of component in CCS Project
    - Data structure
      - Actuator model encapsulated (abstracted) in State Storage component
      - VSS Path list
        - SQLite has manager to help create path list.
        - Redis has no need for path list.
    - Design Issues
      - Polling vs event notification
        - Ulf: looked into SQLite event framework but it didn't seem to fit the needs here. Not looked into Redit yet.
        - Discussion of requirements of slow to medium frequency data vs high frequency
  - Futures
    - Timeseries, event notification, app framework etc.