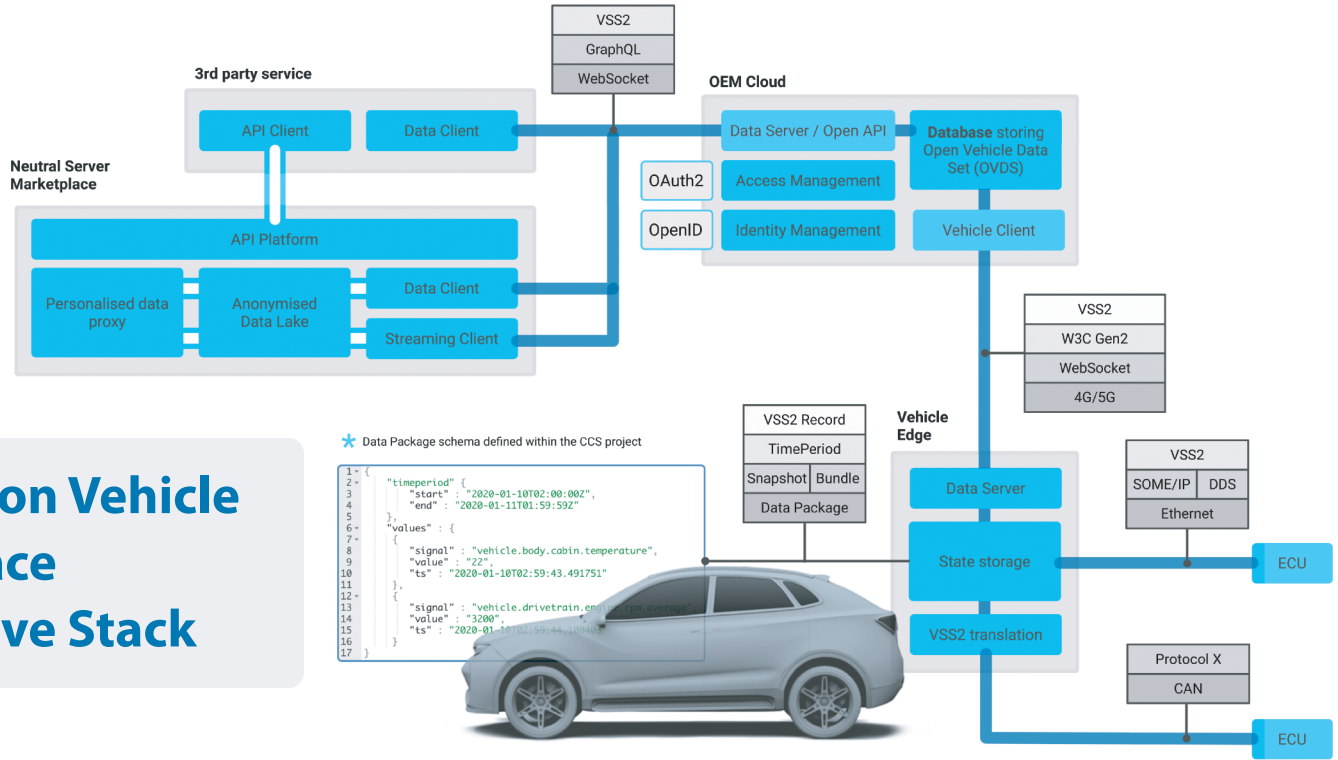




Connected Vehicle Interface Initiative (CVII)



* Data Package schema defined within the CCS project

```

1- {
2-   "timeperiod": {
3-     "start": "2020-01-10T02:00:00Z",
4-     "end": "2020-01-11T01:59:59Z"
5-   },
6-   "values": {
7-     "signal": "vehicle.body.cabin.temperature",
8-     "value": "22",
9-     "ts": "2020-01-10T02:59:43.491751"
10-  },
11-   "signal": "vehicle.drivetrain.engine.rpm",
12-   "value": "3200",
13-   "ts": "2020-01-10T02:59:43.100000"
14-  }
15- }
16- }
17- }

```

Common Vehicle Interface Initiative Stack

Connected Vehicle Interface Initiative (CVII) is an industry-wide, OEM-led dialog on joint development and adoption of common vehicle data models, access protocols and standard interfaces in the entire scope of the vehicle plus the cloud.

<https://www.w3.org/2021/Talks/tg-auto/>

We're working on standard vehicle service catalog (VSC) and related web-vehicle remote procedure calls. The combination of these existing and new activities forms a strong foundation for connected vehicles on the web. Join W3C's Automotive and Transportation and Smart Cities groups today to help us achieve faster results for the industry.

<https://www.w3.org/2021/05/autowg-charter.html>

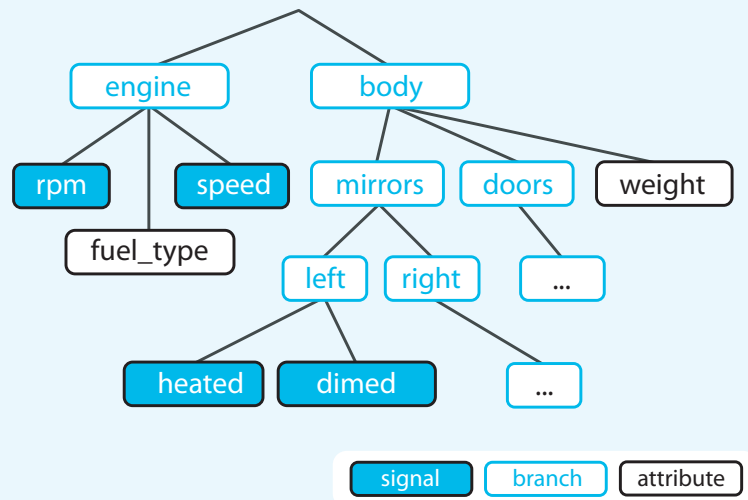
<https://www.w3.org/2021/06/smartcities-workshop/report.html>

W3C and COVESA's partnership has already produced industry-relevant standards such as Vehicle Service Specification (VSS). We are working on Vehicle Information Service Specification (VISS)

<https://www.w3.org/TR/vehicle-information-service/>

and on Vehicle Signal Specification Ontology (VSSo)

<https://w3c.github.io/vsso/>



Industry Challenges

- Smart City trends require a common way to communicate with vehicles, destinations and devices.
- Third-party developer ecosystem wants common APIs to work across all brands of vehicles.
- Development time and costs are higher and integration is more difficult with proprietary approaches to data models.
- OEM and vendors in the vehicle data cloud market require integration/interoperability to realize revenue/profit potential. Fragmentation/integration/interoperability problems inhibit fast growth and slow innovation of important (end-user functions) functions
- Missing link between technical systems, humans and organizations necessary for buyers and sellers throughout the whole supplier chain to plan projects more accurately, increase use of off-the-shelf technology, and make development costs more predictable

Connected Vehicle Interface Initiative (CVII) Approach

- Build interoperable technology solutions for vehicle data and service delivery by standardizing data models and protocols
- Establish a common language to describe data and function interaction between all vehicle technology companies
- Develop industry-wide standards for a vehicle data model and service APIs
- Build ontology model to enable sharing more useful data for cloud applications

Consumer and Commercial Impact

- Interoperable solutions for vehicle data and service invocation reduces costs and improves efficiency for the entire ecosystem
- Enables sharing of data for in-vehicle applications
- Improved passenger experiences, enhanced safety, real-time information/entertainment/efficiency/maintenance/safety/convenience
- Common data model accelerates market for next generation apps that offer new conveniences and revenue opportunities

To learn more about Automotive and Transportation activities, visit:

<https://www.w3.org/auto/>

or email: Marty Voshell: marty@w3.org

or Alan Bird: abird@w3.org



COVESA

Consumer Vehicles

- ▶ Safety: notifications such as lower tire pressure
- ▶ Reduce costs: with regular maintenance updates
- ▶ Insurance discounts: safe driving data to lower insurance premiums
- ▶ Accurate weather reports: data in real-time from micro weather stations

Cloud Services

- ▶ Expand connected vehicle ecosystem marketplace
- ▶ Exchange data in a controlled, permission-based manner
- ▶ Leverage existing cloud services providers
- ▶ Reduce cost of AI, tools, services

Fleet Vehicles

- ▶ Compliance: telematics data to meet government regulations
- ▶ Efficiencies: optimize driving routes and fuel efficiency
- ▶ Supply chains: integrate information with shipping destinations
- ▶ Safe driving monitoring
- ▶ Verification of any vehicle issues or accidents

