

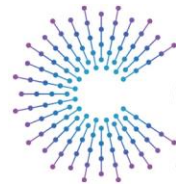


Data Marketplace

Infrastructure for business of scale

26th September 2024

Swen Schisler, Endava

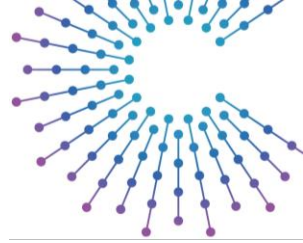


COVESA

Accelerating the future of connected vehicles

Content

1. Introduction
2. Problem statement
3. Brief historical view on COVESA
4. Proposal
5. Guiding principles



Presenter



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Solution Architect

Endava



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Technology is our how.

↳ And people are our why.



68 cities, 28 countries

2000

Year founded
and now a public
technology company.

21.4%

Revenue increase
in fiscal year 2023 compared
to the prior period.

Endava in the
Gartner® Magic
Quadrant™ for
**Custom Software
Development
Services Worldwide**

Automotive

Energy and
resources

Finance and
banking

Government

Healthcare and
life sciences

Insurance

Media and
entertainment

Payments

Private equity

Retail and
CPG

Supply chain
and logistics

Technology

Telecommunications

Travel

We are a global technology company

We work side by
side with leading brands in:

91%

say they are **satisfied** or very
satisfied with our services.

11,025

People
helping our customers
break new ground.

68

Locations
across Europe, the Americas,
APAC and the Middle East.

90%

say they would **recommend**
us to others.

34%

Revenue share
represented by
our top 10 customers.

794.7

Million GBP
in revenue for
fiscal year 2023.

DAVA

LISTED
JULY 27, 2018

NYSE

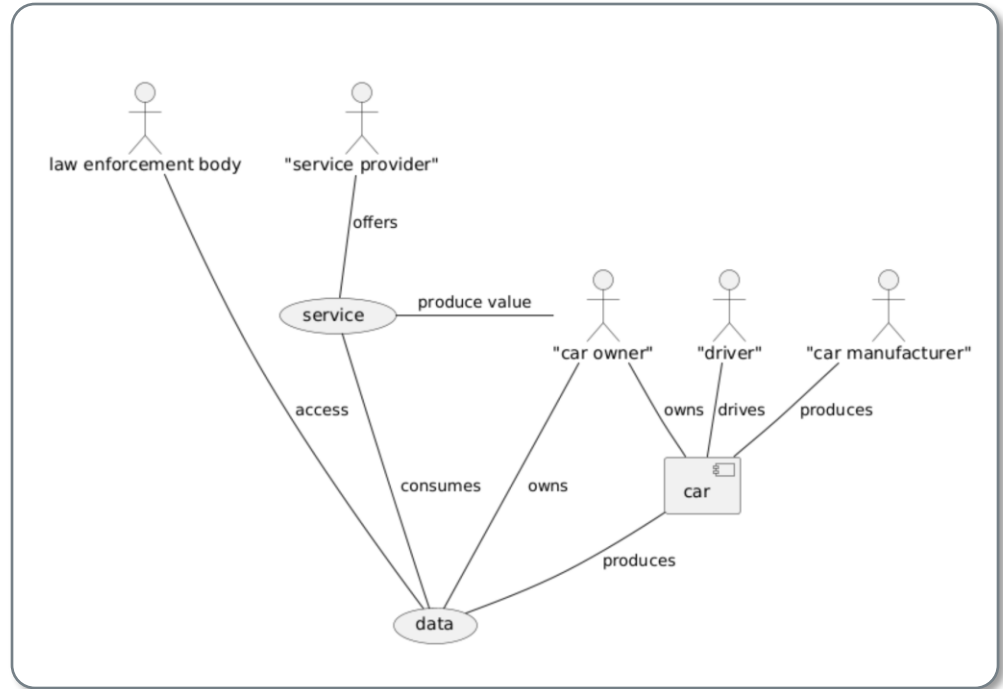
Unlocking Value from Vehicle Data: The Need for Unified Access and Consent

Situation today:

1. Drivers (may own cars and,) produce data
2. Data is stored by the entity who created/deployed the device to the car
3. New data driven businesses require access to the data



As of today, there is no unified way of handling consent, and data access across all parties. Everything is handled individually by the parties involved.



Driving Innovation Through Data and Software-Defined Vehicles: Key Trends and Strategies for 2030

2019

The Rise of Third-Party Services in Mobility (HighMobility, COVESA AMM, 2019)

- The shift towards services by third parties is shaping the mobility experience
- Examples include mobility services like Paydrive, ChargeTrip, and others
- Cars are becoming platforms for third-party service integration, enhancing user experience

2020

Future Trends in Vehicle E/E Architecture (CIV, May 2020)

- Evolution from distributed to centralized and cloud-based vehicle architecture
- Integration of centralized control computers enhances vehicle functionality and data processing
- Increased domain overlap and complexity pave the way for smarter, more connected vehicles

2020

Software as a Revenue Driver for 2030 (Business Cases for SDV, May 2020)

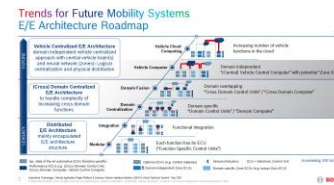
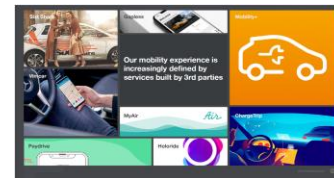
- Innovation in connected vehicles relies on standardized data sets, in-vehicle access, and cloud-to-cloud APIs
- Efficient data integration will reduce friction, creating more value across stakeholders
- Key players include OEMs, Insurance Providers, Smart Cities, and Traffic Infrastructure

2021

The Power of Data in Driving Innovation (GeoTab, Oct. 2021)

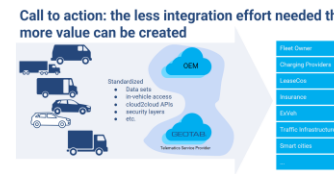
- Software-enabled connected vehicles will drive significant revenue growth by 2030
- EV proliferation will transform business models, with software monetization as a key focus
- Challenges: Automakers must adapt mindsets to prioritize software for profitability

Legislation: Upcoming EU data act will make data collection even more restrictive!



Themes:

- Software, enabled by the connected car, will be the main revenue growth driver by 2030 but only for those who unlock the success formula.
- EV proliferation will trigger major changes to the automotive business model, highlighting the need for software monetization
- Mindset to corporations' main challenge to achieve connected car profitability
- The automotive value chain needs to pivot towards service focus



Addressing Data Access Challenges: Transparency and Efficiency Across Ecosystem Participants

Data producer

1. Is my data protected
2. Multiple logins and passwords for multiple services
3. Enrolling for new services
4. Lawfulness of data acquisition
5. Am I able to access my generated data
6. Can I revoke my consent and the corresponding data is not useable anymore

Data provider

1. Individual contracts with data consumers
2. Relays data privacy information
3. For each service different data requirements may apply
4. Billing manually on individual contracts
5. Labour intensive fulfillment of GDPR or similar requests
6. Vulnerable to lawsuits

Data consumer

1. Many different data sources
2. Contracts based on individual terms
3. No SLA or individually negotiated
4. Pay per use
5. Vulnerable to lawsuits if unlawful data usage is detected

Painpoints: All participants in the eco-system suffer from the in-transparent, difficult, data access.

See also presentation from Commercial Vehicle Expert Group

Framing question

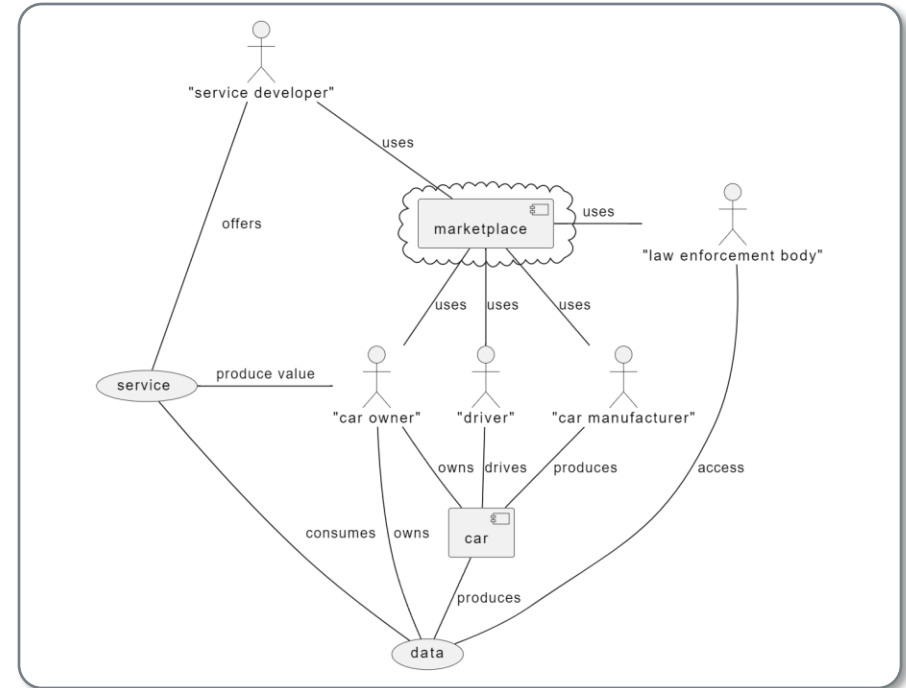
How can COVESA contribute to an ecosystem that allows car manufacturers, drivers (and car owners), 3rd party service providers, and others to offer, monetize, and consume services and data in a:

1. secure,
 2. reliable,
 3. compliant, and
 4. managed
- environment.

Establishing a Unified Data Marketplace: Secure, Consent-Driven Access for All Stakeholders

Desired state

1. Drivers and owners produce data based on consent
2. Data producers can access their data if they wish
3. Data is stored by the entity who created/deployed the device to the car if consented by the owner
4. This entity defines terms and conditions to access the stored data
5. Interfaces allow the access to data protected by "*state of the art*" security measures and access control
6. create a go to-place where all participants can go and explore
7. Everyone can onboard and register for accessing the data according to the predefined terms and conditions
8. Curated/processed datasets, models, and other things can be made available again
9. Law enforcement bodies can request data access



Leveraging Digital Marketplaces: A Blueprint for Data and Service Exchange

The screenshot displays the Kaggle website interface. On the left is a navigation sidebar with options: Create, Home, Competitions, Datasets (highlighted), Models, Code, Discussions, Learn, and More. The main content area features a search bar with the text 'Search datasets' and a 'Filters' button. Below the search bar are several category tabs: All datasets, Computer Science, Education, Classification, Computer Vision, NLP, Data Visualization, and Pre-Trained Model. The 'All datasets' tab is active, showing a grid of dataset cards. Each card includes a title, author name, update date, usability score, file size, and the number of files. For example, the first card is 'Software engineer jobs & Salaries 2024' by Emre Öksüz, updated 3 days ago, with a usability of 10.0 and a size of 23 kB. Below the dataset grid is a 'Music' section with a 'See All' link. This section contains four dataset cards: '1990s Classic Hits (with Spotify Data)', 'Small Guitar Model Dataset (113 Models)', '1980s Classic Hits (with Spotify Data)', and 'Ozzy Osbourne Studio Tracks (with Spotify Data)'. Each card in the Music section includes a cover image, title, author, update date, usability score, file size, and file count.

COVESA as driver for a common eco-system

Context

In COVESA in a common effort to standardize the SDV, all members can contribute to the shape of this ecosystem.

A worldwide distribution of similar nodes (Covesa-marketplace templated) will form the marketplace.

Success factor for the project is to focus on solutions for general problems first.



= COVESA Marketplace instance

Accelerating Business Growth through a Secure, Efficient, and Sustainable Marketplace

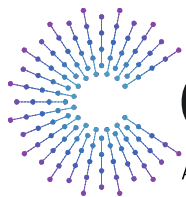
Guiding principles

- It is not the goal to re-invent the wheel
- We need a fast enabler to accelerate the business growth in the service space.
- We build a best of breed SaaS solution, independent from a cloud provider (but utilizing a cloud provider)
- We align our activities with the commercial vehicles expert group



Next Steps/call for action

- 01 Setup of a working group
- 02 Find members which are willing to contribute
- 03 Regular meetings and progress checks
- 04 Collect requirements from Covesa members
- 05 Turn requirements into a specification
- 06 Build a POC where Covesa members can onboard and try out
- 07 Regularly report on AMM's and meetings



COVESA

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endava 

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