

BEAM

CONNECTIVITY

Beyond the AV Bill: the
cybersecurity and data regulations
you can't ignore

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Beyond the AV Bill: new cyber and data rules

Global rules landing now



UNECE R155/CSMS



UNECE R156/SUMS



RED Article 3.3



EU Data Act

What you'll get from this talk



Clear summary and some food for thought

Why it matters



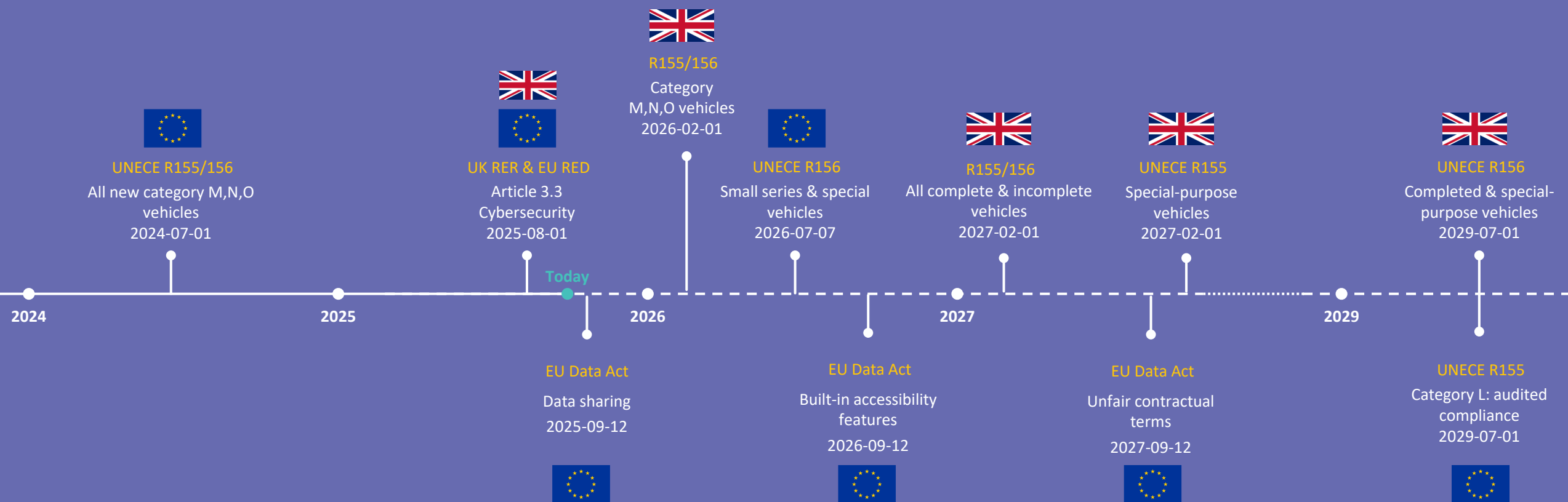
Compliance = resilience

Beam Connectivity in one line



Cyber-secure connectivity platform + data + APIs

2024–2029: UK and EU deadlines that matter



Type approval aligns with UNECE regulations starting 2026 (except for category L)



Full alignment with UNECE via WVTa starting 2024, plus new data ownership & sharing rules

The cyber compliance stack: R155, R156 and RED



Cybersecurity management system (CSMS)

Mandates proactive risk management throughout the vehicle lifecycle.
Standard: ISO/SAE 21434



Software update management system (SUMS)

Ensure secure and safe updates, e.g. over-the-air (OTA)
Standard: ISO 24089



RER / RED



Network protection

Prevent devices from harming or misusing communication networks.
Standard: NIST Cybersecurity Framework



Data privacy and user control

Prevent devices from harming or misusing communication networks.
Standard: GDPR



Fraud prevention

Prevent devices from harming or misusing communication networks.
Standard: ??



DATA ACT

THE PATH TO
THE DIGITAL DECADE

- Data access and sharing
- Product design requirements and transparency
- Data sharing with public sector bodies
- Legal certainty and contractual fairness

**INTERNATIONAL
STANDARD**

**ISO
20078-1**

Second edition
2021-11

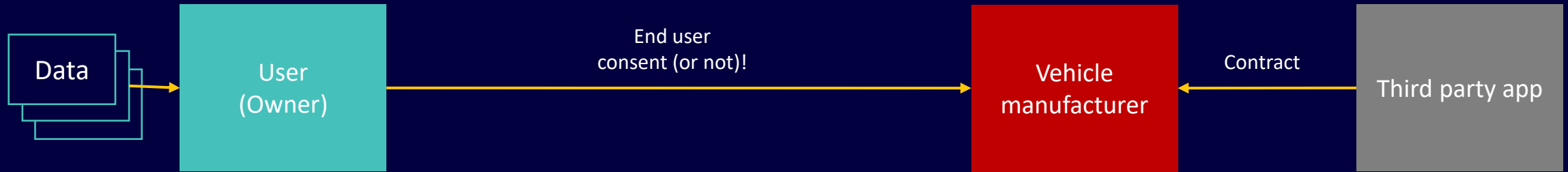
**Road vehicles — Extended vehicle
(ExVe) web services —**

Objectives:

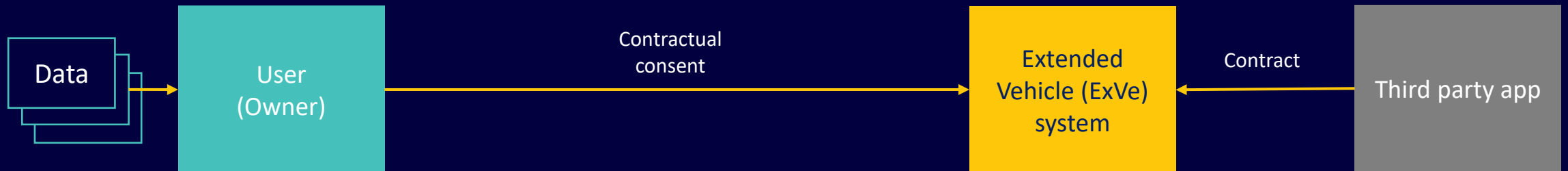
- Interoperability
- Security
- Access control
- Resource management

EU Data Act: from OEM as gatekeeper to the user in control

Legacy model



EU-compliant model



Extended Vehicle is a platform for innovation and value creation

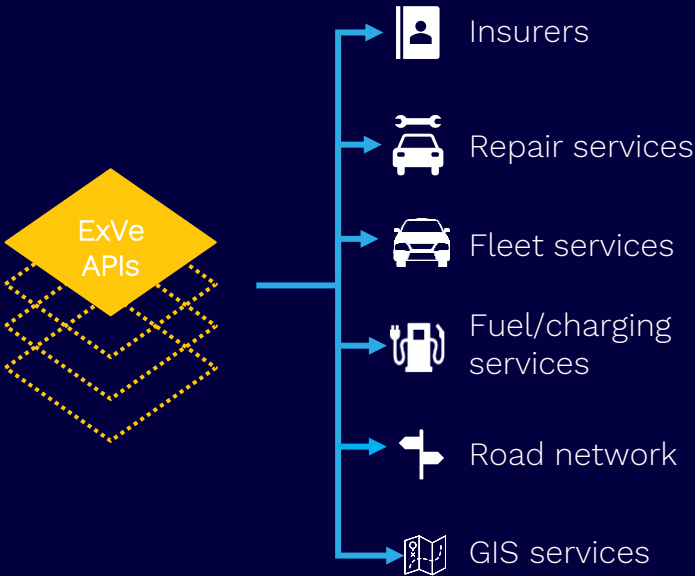
Data points / raw data



Data packages/ pre-defined use case



Potential 3rd party customers



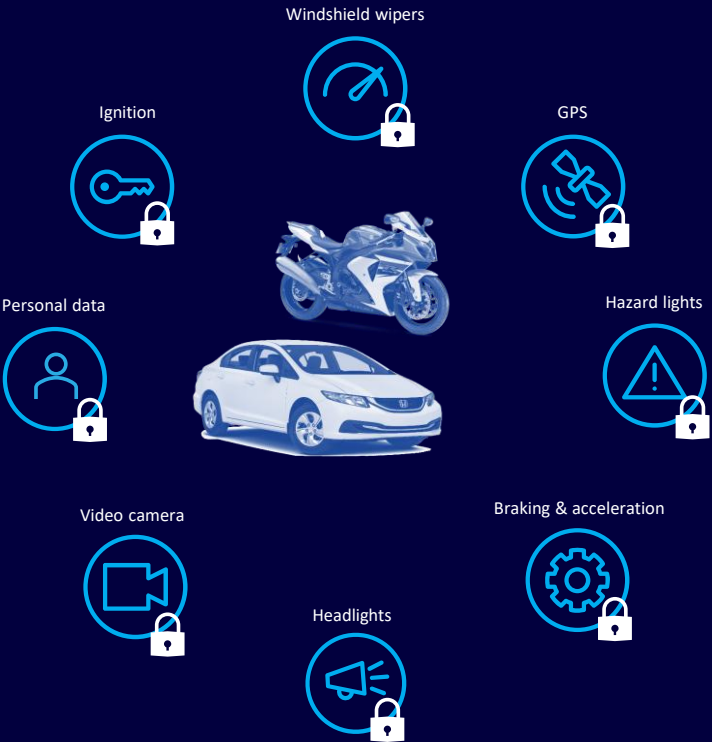
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Monetization potential

Extended Vehicle is a platform for innovation and value creation, *as long as it is cyber resilient!*

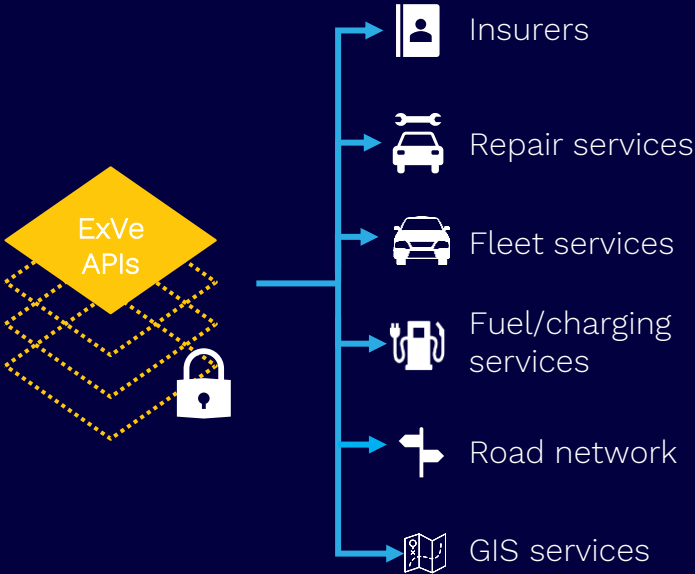
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Potential 3rd party customers

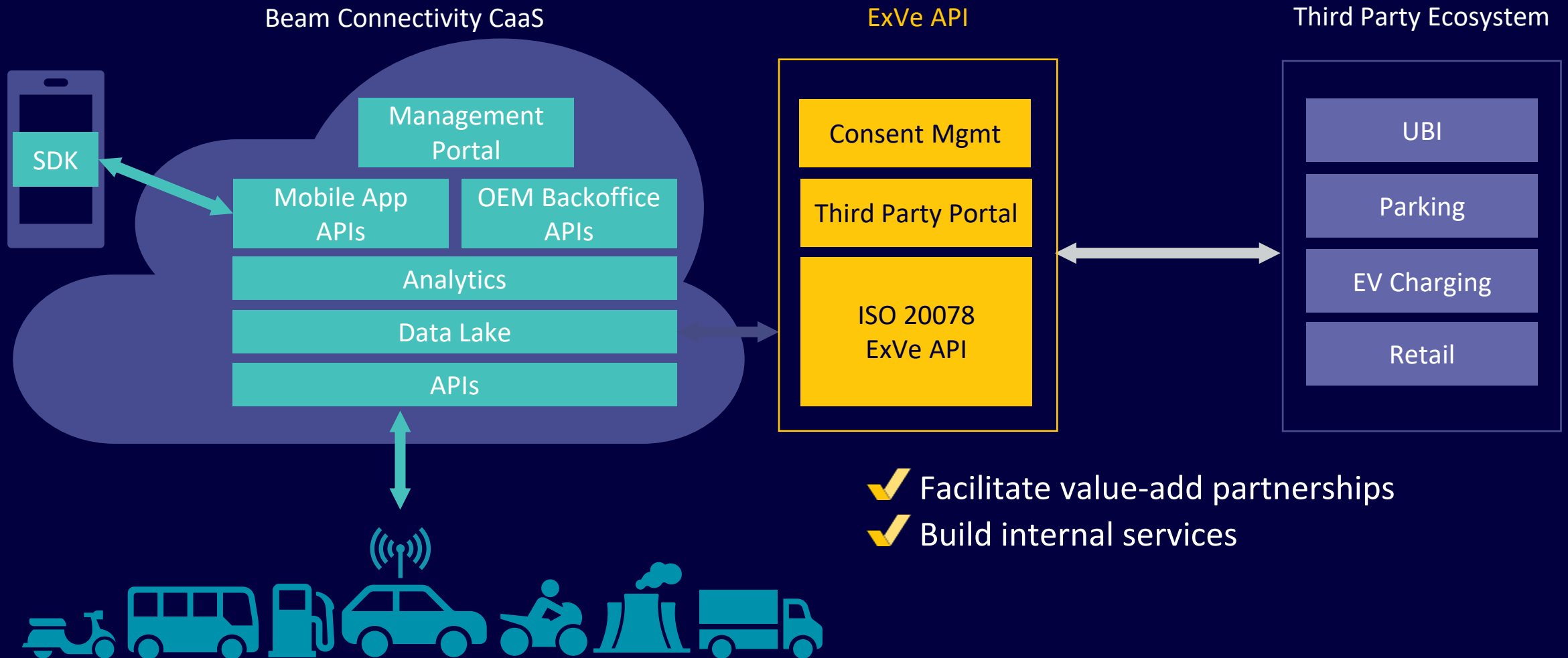


Attractiveness to cyber criminals

Connectivity-as-a-Service from Beam Connectivity: secure by design



Now enhanced with an **Extended Vehicle API** for EU Data Act compliance



Backed by our leading-edge connected system cybersecurity R&D

AutoCHERI

Prototype secure-by-design TCU for
lifecycle resilience



SecureTCU

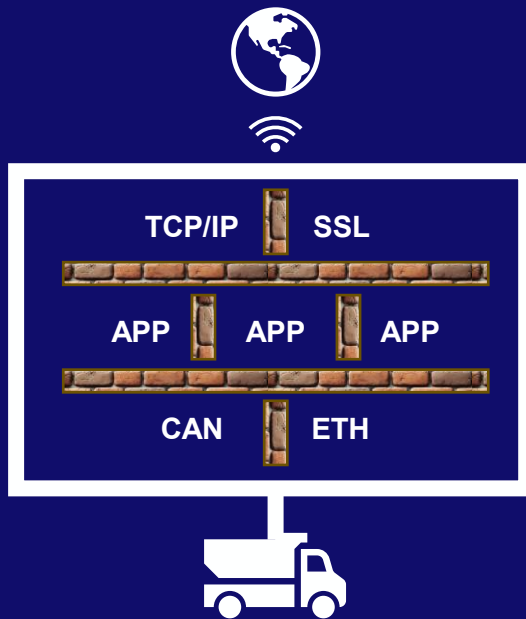
Closed-loop risk management solution in
teleoperations use case



Backed by our leading-edge connected system cybersecurity R&D

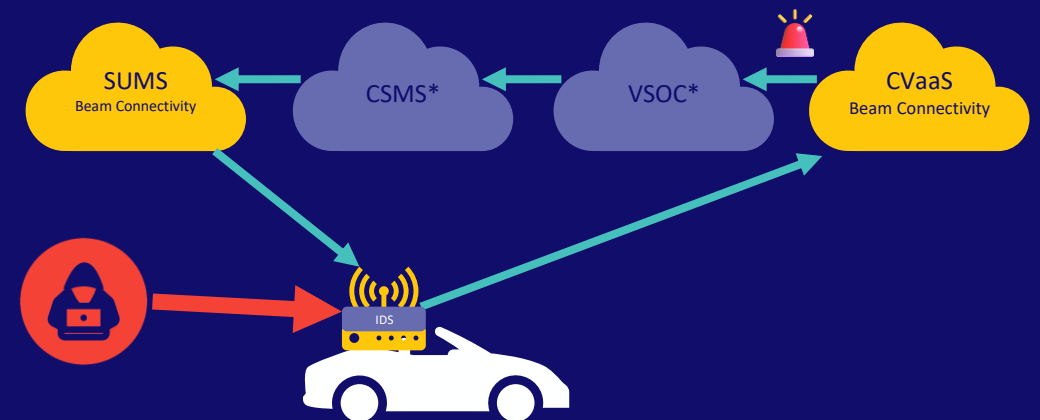
AutoCHERI

Prototype secure-by-design TCU for
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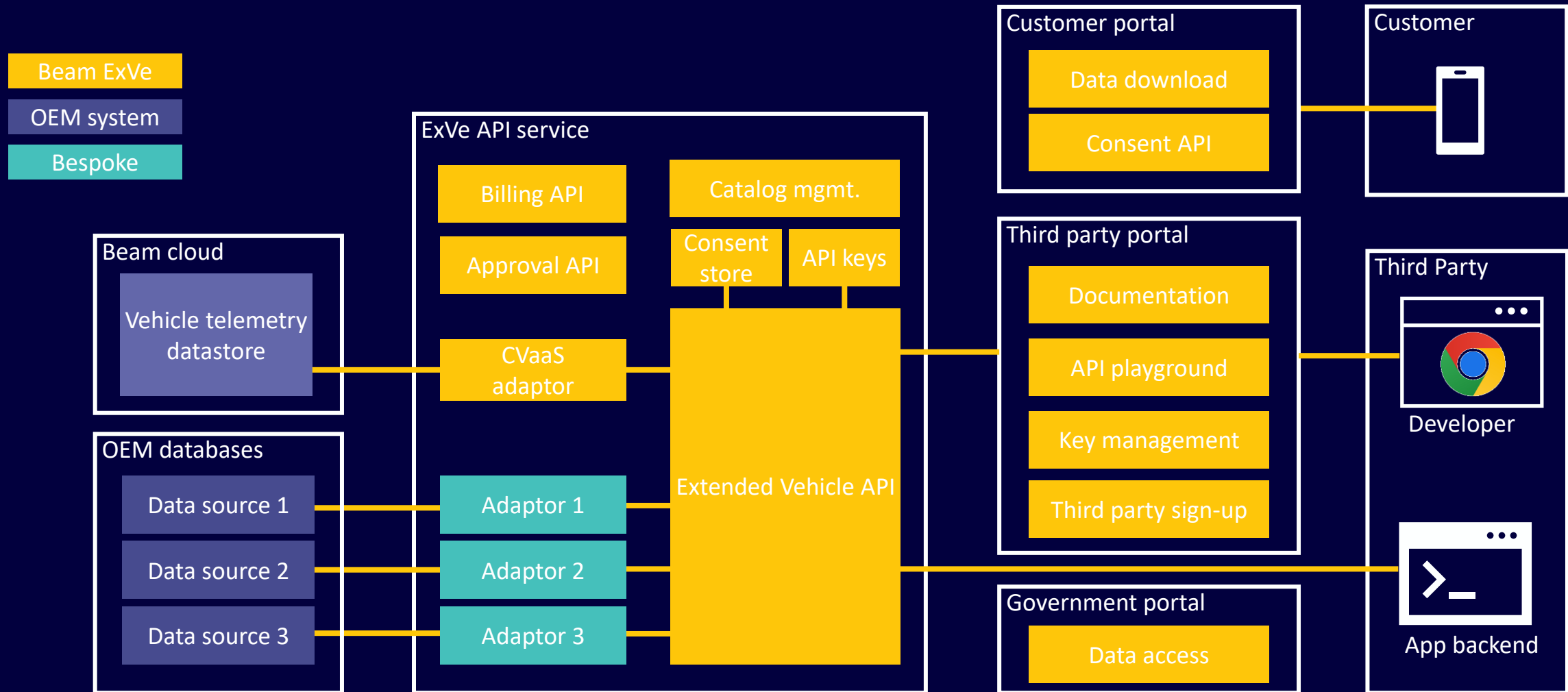


SecureTCU

Closed-loop risk management solution in
teleoperations use case



We built all this... so you don't have to!



BEAMCONNECTIVITY

APIDocs

My Account

CVaaS API

Drive the future of mobility with
real-time vehicle data insights

Get Started

BEAMCONNECTIVITY

Extended Vehicle

Extended Vehicle API

Introduction

This REST API provides vehicle data to an Accessing Party. The endpoints follow the ISO20078 standard, and provide data

Learn more →

Containers

2 items

Learn more →

System

1 item

Learn more →

Discovery

3 items

Learn more →

Extended Vehicle

Containers

EV Core Telemetry for all vehicles

EV Core Telemetry for all vehicles

GET /v1/containers/ev_core

EV Core contains resources that would typically be common between EV containers. This may include:

- Battery SoC
- Vehicle range
- Vehicle odometer
- Vehicle speed
- Vehicle location
- Displayed faults
- Physical battery lock

Responses

< 200 401 403 404 422 429 >

Successful Response

APPLICATION/JSON

Schema Example (from schema)

Extended Vehicle

Discovery

List all available vehicles

List all available vehicles

GET /v1/discovery/vehicles

Provides a list of known vehicles that the requesting Accessing Party has been granted access to.

Responses

< 200 401 403 404 422 429 >

Successful Response

APPLICATION/JSON

Schema Example (from schema)

To find out more email hello@beamconnectivity.com





Thank you!

Contact us

beamconnectivity.com

hello@beamconnectivity.com

