Remote Access to In-vehicle data
CITA’s way forward

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We are the world-wide association of authorities and authorized members active in the field of vehicle compliance

We make roads safer and cleaner. Every day. Everywhere. Impartially. Responsibly.
**Who we are? What we do?**

**Ministries and agencies members of CITA**

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<th>Name</th>
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<td>General Directorate of Road Transport Services</td>
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<td>ATTT - Agence Technique des Transports Terrestres</td>
<td>TUNISIA</td>
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<td>Bundesministerium für Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie” (BMK)</td>
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<td>Driver &amp; Vehicle Agency</td>
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<td>Ministero delle Infrastrutture e dei Trasporti</td>
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<td>Ministry of Infrastructure</td>
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<td>NALTEC - Japan National Agency for Automobile and Land Transport Technology</td>
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<td>Norwegian Public Roads Administration</td>
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1. Current situation
2. Requirements
3. Proposed solution for new data transfer regulations
4. Roadmap
Access based on ISO-standardized Webinterface (ISO 20078)

In scope: B2B-use cases

OEM in a gatekeeper position

Situation today: under development
Upcoming use-cases

Breakdown services
Suppliers/spare parts
Insurances
Car repair
Traffic management
Safety Research

Sovereign use-cases
Vehicle safety, security and environmental compatibility has to be ensured over the lifetime of the vehicle and depends increasingly on electronic components as well as on software versions and AI algorithms.

Sovereign use-cases

- Type approval,
- Market surveillance,
- Field monitoring,
- Research,
- Roadworthiness testing, e.g. PTI
- Liability
- ...
Roles of the contracting parties:
- To protect all road users
- To protect the environment
- To protect the privacy of all road users
- To support technological progress

Why are the current solutions not suitable?
- Access only via B2B-contracts with each OEM
- No guarantee for original, trustworthy and unfiltered data
- Limited data sets available
- No E2E-Encrypted data (from car to user/authority)

Conclusion ➔ no concept available that supports sovereign use-cases
What is the solution?

Basic Principles

- Fair and **independent access** through separation of duties
- **Trusted access**
- The **vehicle** defines the **range of data**
- Access to **reference information**
- **Trusted storage** of historic vehicle data (Software information, …)
What is the solution?

Connected Vehicle

OEM-server

Trust Center

Data trustee servers

Various authorized data users

Vehicle owner/driver

Contracting parties / authorities

... and more

Various sovereign use-cases executed by competent authorities
What is a Trust Center / Data Trustee?

**Trust Center**

... independent and trustworthy body that performs access control for in-vehicle data. Both identification of participants in a transaction and authorization of access. Entrusted by national/regional authorities.

**Data Trustees**

... Collect and / or process data from vehicles of different manufacturers and suppliers and make it available to authorized data users in a secure and legally compliant manner, e.g. for PTI or market and field monitoring.
Sovereign use-case: DSSAD

Trust Center

Connected Vehicle

Data trustee for DSSAD-Data

Various authorized data users
- Vehicle owner/driver
- Contracting parties / authorities
- ... and more
Guiding Principle: Separation of duties – the basis of fair access for all participants

- Fair access to in-vehicle data and functions requires an independent governance model.
- Based upon the principle of separation of duties – for all stages (short-, mid and long-term).
- Tasks/roles that need to be carried out independent from each other:
  - Identification of data exchange participants
  - Authorization of access to in-vehicle data and functions
  - Resource provision
- The current model proposed by OEMs (ExVe) defines all these roles to be carried out by the OEM ⇒ lock-in effect causing the OEM to establish a gatekeeper position.
- Solution: separation of duties by handling/managing access to in-vehicle data by a Trust Center.
THANK YOU

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Backup for further discussion
Next Step: Preliminary consideration of presented models

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<th>Extended Vehicle</th>
<th>Secured Extended Vehicle</th>
<th>Third Party Trust Center/Interim</th>
<th>Trust Center/Data Trustee</th>
<th>Secure Onboard Telematics Platform</th>
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