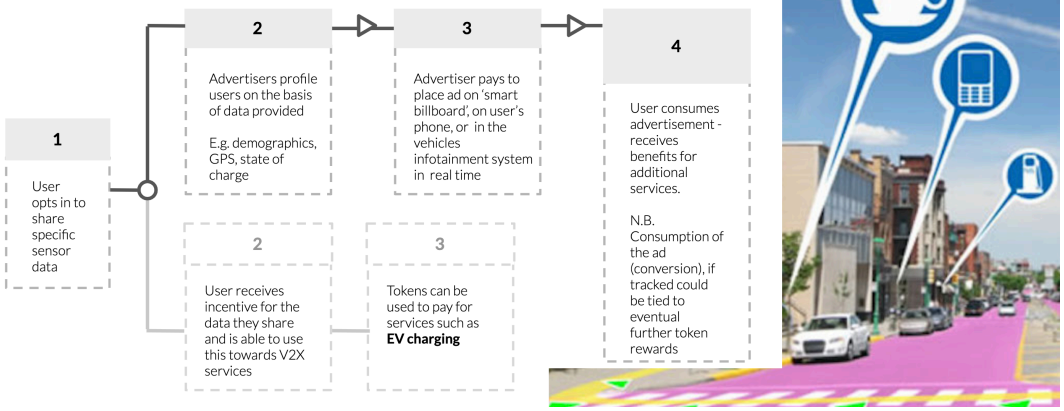
TrustedIoTAlliance

SMART E-MOBILITY CHALLENGE

Data Sharing and Monetization

Real Time Advertising for EV Charging



TURNING A VEHICLE INTO AN ECONOMIC PLATFORM

Consumer expectations and fierce market competition have led to margins becoming increasingly thinner for manufacturers of consumer and commercial vehicles. These actors realize now more than ever, that the value of their goods no longer rests on the basic functions they provide, but rather on the types and qualities of user experiences they can offer: extra horse-power on demand, ability to share usage, selling data streams to third parties - to name a few.

Increasingly, manufacturers are exploring ways to capture this value by turning a vehicle into a mini-economic platform that facilitates value exchange. Usage of that platform must be controlled so that value creation and consumption are neither impeded, nor corrupted, for the tenants that interact on it.

Our R&D in policy-based access control, distributed ledger technology, and embedded systems has led to the development of FROST Technology for fully programmable sharing ecosystems and flexible usage control on a vehicle's compute systems. FROST can thus provide consumers with novel, on-demand services whilst enabling manufacturers to tap into additional revenue streams.

BUSINESS VALUE

In this scenario, a vehicle is turned into a kind of economic platform where users are able to exert fine-grained control over data access permissions, thereby allowing them to create rich and complex data sharing scenarios and in turn monetize these exchanges through token incentives.

XAIN.

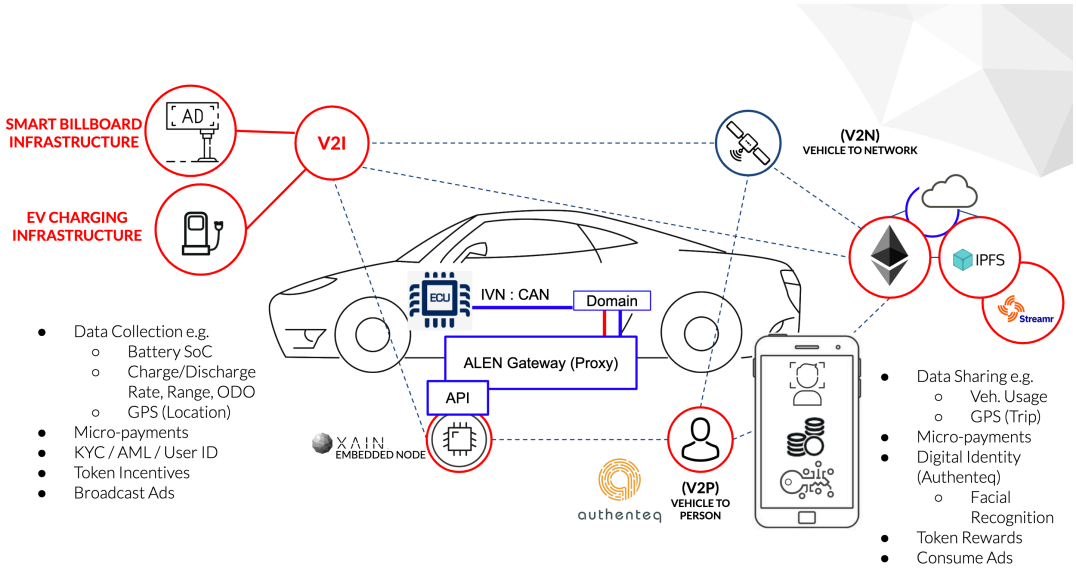
Users receive tokens via a pseudonymous network address and are able to reuse these tokens to access services at reduced rates, thus achieving frictionless value exchange between the involved network participants

User data is not stored on the central server but directly sent to the data buyer, thus no third parties need to be involved in the token transaction and access may be revoked at any time

Vehicle Sensor Data can be shared OTA or via Smart Infrastructure such as an EV charging stations, even if there is no connectivity

Advertisers are able to target customers based on demographic profiles enriched with data that users have opted into sharing

HIGH LEVEL SYSTEM ARCHITECTURE



KEY INNOVATIONS

- Innovative combination of DLT, V2X Tech, and Access Control on Micro-Controllers.
- Trustworthy controls of data and resource sharing and delegation around vehicle usage.
- Interoperable through APIs with blockchains, distributed databases, and payment systems.
- Users can declare policies that enforce usage and sharing controls as well as payment aspects, meeting the needs of any specific ecosystem.

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