Cybersecurity applied to connected mobility

Objective: based on Telefónica's 5G connectivity, and using cryptographic technology, we offer the highest level of data quality through the signature of the messages exchanged in vehicular communications, guaranteeing the anonymity of connected devices and making it impossible to inject illicit data or identity theft, thus creating a trusted mobility ecosystem. All this, complemented by a solution capable of providing connected objects with an identity, creating a digital bind with people. In short, we are taking a key step towards bringing the benefits of connected and digital road safety to society.

Description: for this demonstrator, Telefónica has deployed a platform based on public key infrastructure -PKI- integrated in the cybersecurity node of the European Union, acting as a trusted third party for signing messages in the European V2X ecosystem. This PKI platform allows the provisioning of batches of anonymous certificates (to a vehicle, traffic light and so on) that will be used to electronically sign the messages sent to the rest of the entities in the V2X collaborative environment. This makes Telefonica the first European Telco with a certification authority recognized by the European Commission and linked to the 5G network for V2X communications.

In order to provide identity to the connected things, we have used IDoT solution, based on Public Key Infrastructure and Blockchain, which guarantee the identity of the parties involved, the quality of the data generated and its immutability and traceability. All this, complemented with a management web portal and a mobile application for end users.

Press release
Additional references