

## **Cybersecurity Breaches and Private Law – Taking Stock and Looking Ahead**

**Title:** Connected Vehicles Cyber Security - Challenges and Solutions

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**Abstract:**

In the last 6-7 years, vehicle cyber security became a hot topic, so much so that newspapers regularly publish articles describing frightening cyber-attack scenarios on vehicles. There are, in fact, good reasons for this, but how did this happen? There are two main root causes:

Fast computerization of the vehicle.

Wireless connectivity that is being introduced into modern vehicles.

Together, these two factors mean, that various phenomena that security professionals encountered in the IT world in the last 20 years, primarily – the ability of the adversary to gain control over a platform and execute his/her code on it, can now migrate to the vehicle domain. The consequences of an attacker gaining control over one's PC/Smartphone are extremely unpleasant. But when it comes to one's vehicle, the consequences might be even more severe.

In the talk I will describe: the developments that led to the current vehicle cyber security problem, what is a vehicle electrical architecture and how it operates all modern vehicles, what are the warnings/alerts that the automotive industry has been (and still is) receiving from the academia WRT the vehicle cyber security problem, what risks lie ahead if no action is taken, and how automakers can respond in order to address these new challenges.