

# Securing the Connected Car

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## Abstract

Connecting cars and extending Internet into vehicles is an emerging trend. Internet access can be used for many different kinds of applications, like web and media access, but also for performing vehicle administrative tasks like remote diagnostics and software downloads. However, connecting the car will put new requirements on the security of the vehicle.

The in-vehicle network was not designed with security in mind. So far, it has been a closed network with known communication and the main focus has been to ensure the safety of the vehicle. By allowing remote access to the embedded computers and the in-vehicle network, the vehicle has to be properly secured. Also, the vehicle may not be limited to only have Internet access, but may also communicate with other vehicles, the roadside infrastructure, or even your own mobile phone.

In this presentation, we will look at the current state of the research in securing the connected car. First, the environment of the connected car will be introduced. Then, we will then look at current research – what are the problems currently being addressed, and what solutions have been found so far. And finally, we will identify problems that have not been solved so far, to see what new research challenges they bring for the future.