

The 3rd STAMP Workshop in Japan

Title

Analysis report for Connected Car using STAMP/STPA

Speaker, Authors

Deloitte Tohmatsu Risk Service Hayashi, Hiroshi

Abstract

Cybersecurity Assessment / Penetration Test for connected car is very frequently discussed.

TARA (Threat Analysis and Risk Assessment) is one of the most frequently used method. STAMP/STPA is also be very effective method from the point that the Connected Car is one of the system.

We would like to report the example analysis of Virtual Car Key System, one of the function for connected Car.

Virtual Car Key is a function which enables lock/unlock the car, power on / off the vehicle system using smartphones. This is one of the most important function to realize new connected car, for example the use case of Car sharing. To assess this function, we have to consider not only in-vehicle system but also out car system includes smartphone as an IT device.

We analyzed virtual car key system based on common functional requirements, free from each implementations, using STAMP/STPA. IPA STAMP STPA workbench and prototype of MRC-IOT from Tokyo Denki University are used for this analysis.

Keywords

- (1) Cyber Security
- (2) IoT
- (3) Virtual Car Key
- (4) Connected Car
- (5) IPA STAMP/STPA Workbench