

# Vehicle Security Operations Center (VSOC)

## Secure connected vehicle fleets

Increasing connectivity and automation of vehicles in combination with new regulations and standards like UNECE WP.29 and ISO/SAE 21434 will require OEMs and suppliers to monitor incidents and risks of their vehicle fleets over the entire life cycle. The threat landscape for connected vehicles is constantly evolving. Consequently, the security level of vehicles degrades over time as security measurements become ineffective and attackers learn to circumvent them.

This erosion of the security level concerns all building blocks of a connected vehicle fleet: the vehicles themselves as well as the corresponding vehicle backend services. Detailed knowledge on the security status and potential attacks is paramount. Two activities establish this knowledge and keep it up to date: threat detection and threat intelligence.



### Threat detection

Timely detection and competent analysis of ongoing attacks to establish the appropriate measurements to maintain the security level.



### Threat intelligence

Acquisition and collection of knowledge on known practicable attack patterns that may harm the security level of the connected vehicle.

ESCRYPT develops and operates a Vehicle Security Operations Center (VSOC) for connected fleets that enables manufacturers and fleet operators to establish a life cycle of continuous security improvements. This managed security service ensures permanent monitoring to identify rising security threats, establishes dedicated incident response, and keeps the security level stable over the entire life cycle.

We offer exactly the service you need to respond to the continuously evolving threat landscape for connected vehicles and to fulfil upcoming worldwide regulations, such as UNECE WP.29 and ISO/SAE 21434. With ESCRYPT you have a competent partner at your side covering in-vehicle intrusion detection (IDS) and vehicle backend expertise with dedicated SOC services.

## Our managed security service in detail



### Open architecture approach

ESCRYPT's VSOC follows an open architecture approach and integrates all sensors in the vehicle that provide information relevant for cybersecurity monitoring. This includes: network-based intrusion detection for the CAN bus with ESCRYPT's CycurIDS, automotive ethernet firewalls with ESCRYPT's CycurGATE, host-based intrusion detection for Linux, QNX, and Android ECUs and support for the complex distributed IDS architectures of modern E/E architectures.



### SOC services

ESCRYPT collaborates with NTT Security, a leading Security Operations Center (SOC) services provider worldwide. The partnership unites NTT's operational excellence and expertise in the area of SOC as a service with ESCRYPT's deep automotive security know-how and trained automotive security analysts and specialized ESCRYPT automotive security forensic experts. This provides customers a proven SOC tooling, infrastructure and incident response handling.



### Threat detection and response

ESCRYPT's monitoring backend product CycurGUARD collects and analyzes anomaly reports of vehicles in operation by interlocking of automated and manual analysis. Automatic classification of events and automated processing of known attack patterns are combined with the manual alert validation of automotive security forensic experts to identify emerging threats. This achieves event-based threat hunting, incident support and proactive response with network threat containment.

## Your benefits

- ✓ Advanced security analytics by ESCRYPT's automotive forensic experts and security analysts
- ✓ Continuous monitoring of attacks in the field by market-ready and mature ESCRYPT and NTT solution components
- ✓ Combination of years of expertise and distinctive operational excellence from IT security by NTT and automotive cybersecurity expertise by ESCRYPT
- ✓ 10 established Security Operations Center ensure worldwide coverage and are available 24/7
- ✓ Availability of as-a-service solution including operation, monitoring, and response
- ✓ Integration of and openness to all types of in-vehicle intrusion detection systems (IDS)

## Any questions?

Please contact us any time.

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