

ESCRYPT 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 requires 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.

ETAS develops and operates the ESCRYPT 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 fulfill upcoming worldwide regulations, such as UNECE WP.29 and ISO/SAE 21434. With ETAS 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

The ESCRYPT 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 CysurIDS-CAN, automotive Ethernet firewalls and IDS with ESCRYPT CysurGATE and ESCRYPT CysurIDS-ETH, 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

ETAS cooperates with leading IT security service providers on the commissioning, infrastructure, and services of a security operations center (SOC). In this way, it pools the skills and expertise for SOC-as-a-Service with its own specialist automotive know-how and portfolio. We have taken the existing SOC infrastructure and expanded it with trained automotive security analysts and specialized forensics experts, turning it into a highly professional, market-ready, and holistic solution.



Threat detection and response

ETAS' monitoring backend product ESCRYPT CysurGUARD 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 with ESCRYPT VSOC

- Advanced security analytics by automotive forensic experts and security analysts
- Many years' operational experience from the SOC provider's IT security experts joined with ETAS' extensive expertise in vehicle cybersecurity
- Availability of as-a-service solution including operation, monitoring, and response
- Continuous monitoring of attacks in the field through market-ready and mature components that have been combined in collaboration with the SOC provider to form a complete and integrated solution
- Worldwide coverage and 24/7 availability
- Integration of and openness to all types of in-vehicle intrusion detection systems (IDS)