



## Attack Detection, Policy Enforcement and Real-Time Analytics

Integrated security solutions are the only way to reliably protect connected vehicles against cyber attacks. These have to take into account every possible risk scenario that might conceivably occur during the entire life cycle of the vehicle. Therefore, it is essential to obtain an overview at any time of the actual security conditions of vehicles in operation.

### Reliable real-time detection and policy enforcement

ESCRYPT's Intrusion Detection and Prevention Solution provides reliable protection against cyber attacks on vehicles in the field.

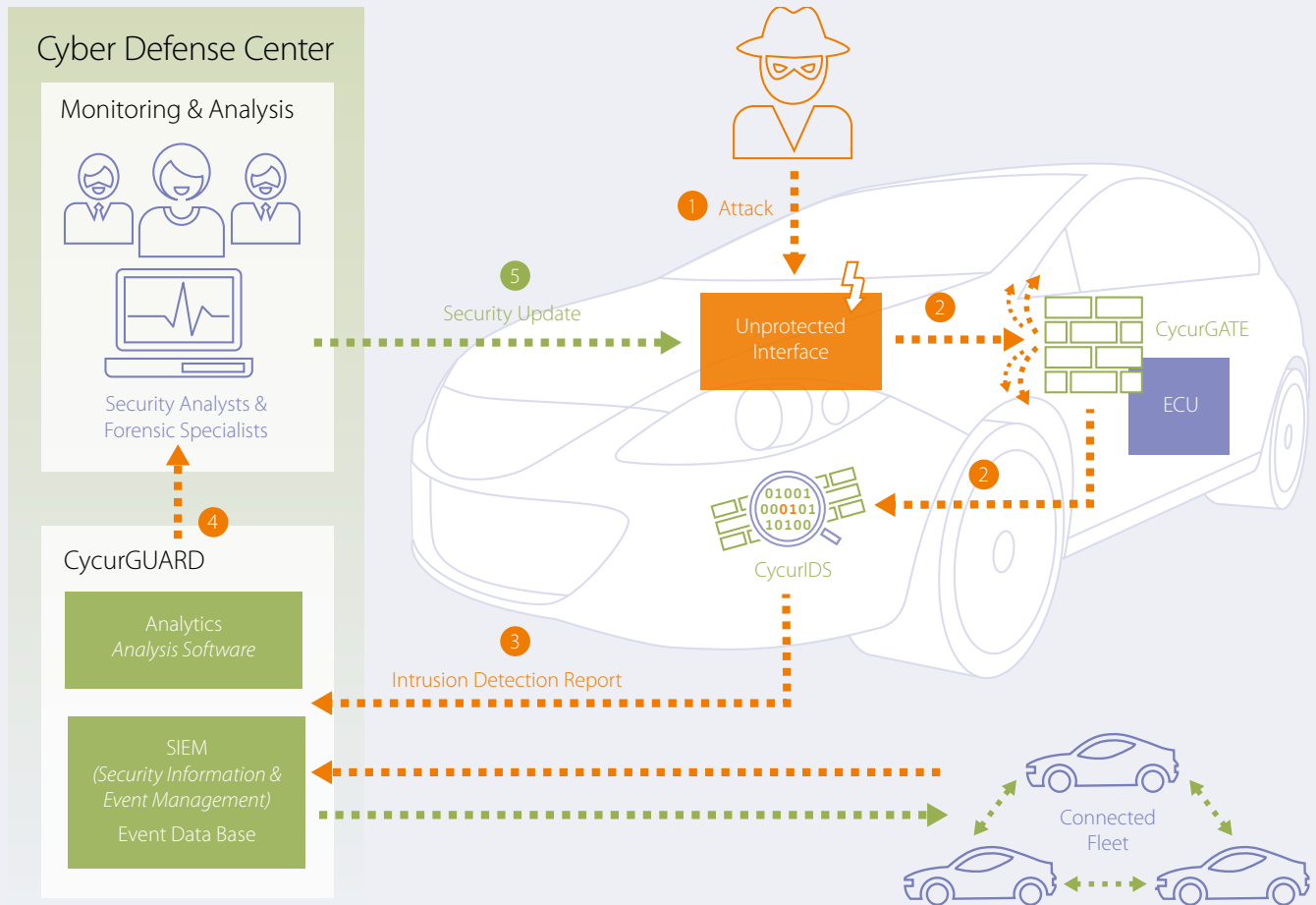
The central embedded component of the turn-key solution, **CycurIDS**, recognizes anomalies within the in-vehicle communication, based partly on known attack patterns and partly on comparisons of the current communication to the anticipated communication behavior. CycurIDS thus provides powerful real-time detection to prevent malicious communication from reaching the vehicle's safety-critical systems without being recognized.

**CycurGATE**, the firewall for various in-vehicle network technologies (CAN, Ethernet) can easily be integrated into existing systems. It blocks attempts to send commands to individual ECU's or to the entire network, based on communication policy enforcement, i.e. white list based approach (allowing only explicitly described communication flows) amended by black listing (to prevent known attacks). As an intrusion prevention measure the relevant rule set of the firewall can be updated with new and revised rules.

### Cyber defense backend – big data for automotive security

CycurIDS sees the security events on a single automobile – **CycurGUARD** enables analysis of data from your entire connected fleet to identify emerging threats. With the monitoring back-end product based on big data analysis technologies, ESCRYPT offers an integrated solution for collecting and analyzing anomaly reports of vehicles in operation. CycurGUARD reliably identifies acute threats referring to an extensive and continually growing database of known attack patterns. Using ad-hoc or pre-built reports helps to evaluate the safety and security of the connected fleet, identify changes, focus resources on problem areas, and get ahead of developing threats.

## Intrusion Detection and Prevention



### Your benefits

- Ready-to-use software solution for attack detection for current E/E architectures
- Reliable real-time identification of actual attacks
- Enables timely defense against attacks and thus avoids costly recalls
- Avoids warranty claims
- Complies with statutory and regulatory requirements for data security in the vehicle
- Overview of the security of individual vehicle models in the field
- Enables focused and thus more efficient further development of security concepts

### Our services at a glance

- Solution consulting
- Security solution design
- Customized implementation (process, software, hardware)
- Managed security services and maintenance
- Training, support and certification services