

ESCRYPT AUTOSAR security consulting service



The ESCRYPT AUTOSAR security consulting service provides expertise in securing the vehicle using existing AUTOSAR modules and supports customers in adding their own features to AUTOSAR.

AUTOSAR for holistic vehicle protection

On the way to connected, automated driving, the number of security relevant in-vehicle functions is increasing. This means it is becoming more important than ever to have more elaborate security measures and a high security level in place for vehicle platforms.

AUTOSAR has extended its security portfolio by more and more components and nowadays incorporates various security applications, making it the ideal technological answer to the increasing security requirements. ESCRYPT's AUTOSAR security consulting service provides expertise in securing vehicles using existing AUTOSAR modules and supports customers bringing their own features into AUTOSAR.

AUTOSAR as enabler for the UN-R 155

AUTOSAR enables an adequate solution for regulations like UN-R 155 and paves the way for implementing the new security requirements relevant to type approval.

Our expertise

ETAS is a member of the AUTOSAR consortium since many years and we have successfully completed numerous projects with various OEMs and Tier1s regarding AUTOSAR security consulting.

Available AUTOSAR security building blocks

AUTOSAR incorporates various security applications, for instance for securing in-vehicle communication and for protecting confidential data. However, due to their different architectures, AUTOSAR Classic and AUTOSAR Adaptive offer partly identical and partly different security applications.

- Crypto stack for access to cryptographic primitives and key management
- Secure communication via TLS, IPSec and SecOC
- Secure diagnostic access via the UDS services 0x27 (Secure Access) and 0x29 (Authentication)
- Access protection to critical resources via Identity & Access Management
- Detection and reporting of security events via IdSM
- Secure updates of individual applications or the whole platform parallel
- Authenticated software by continuing the chain of trust within Trusted Platform

	AUTOSAR Classic R20-11	AUTOSAR Adaptive R20-11
Crypto stack	✓	✓
Secure communication	✓	✓
Secure diagnostics	✓	✓
Identity and access management	✗	✓
Intrusion detection	✓	✓
Secure updates	✗	✓
Trusted platform	✗	✓

ESCRYPT AUTOSAR security consulting – service overview



AUTOSAR security concepts

This consulting service supports you in the review of existing and the design of new security architectures using AUTOSAR security modules, e.g. the creation of security concepts for secure in-vehicle communication using SecOC/TLS/IPSec.

Our AUTOSAR experts support you in identifying the correct usage of existing AUTOSAR security modules and offer:

- Analysis of your use case, current environment and architectures
- Identification of corresponding AUTOSAR security modules (e.g. IdSM for distributed IDS)
- Support for correct usage of the AUTOSAR modules (e.g. AUTOSAR IDS sensors, IdSM filter chain configuration etc.)

Our AUTOSAR security consulting service encompasses design and requirements engineering of security modules according to your application that make use of the AUTOSAR interfaces, e.g. the design of a SecOC Freshness Manager including requirements engineering.



Strategic AUTOSAR consulting & consortial work

- AUTOSAR experts compare your requirements with the AUTOSAR specification and identify the missing aspects by performing a gap analysis
- We offer independent representation in the AUTOSAR consortium according to your individual strategy
- We perform strategic consulting towards new developments, especially with regards to currently ongoing specification activities within AUTOSAR



Your benefits

- **Field-proven industry standard:** AUTOSAR has been used in the industry for over a decade.
- **Not reinventing the wheel:** we provide expertise in securing the vehicle using existing AUTOSAR modules and we can support you in bringing your own features into AUTOSAR.
- **Prepare in time for the new regulations:** use AUTOSAR security building blocks to achieve adequate security.
- **Proven expert knowledge:** benefit from our years of experience in AUTOSAR, the AUTOSAR consortium and automotive security.