Kaspersky Automotive Secure Gateway

SOFTWARE

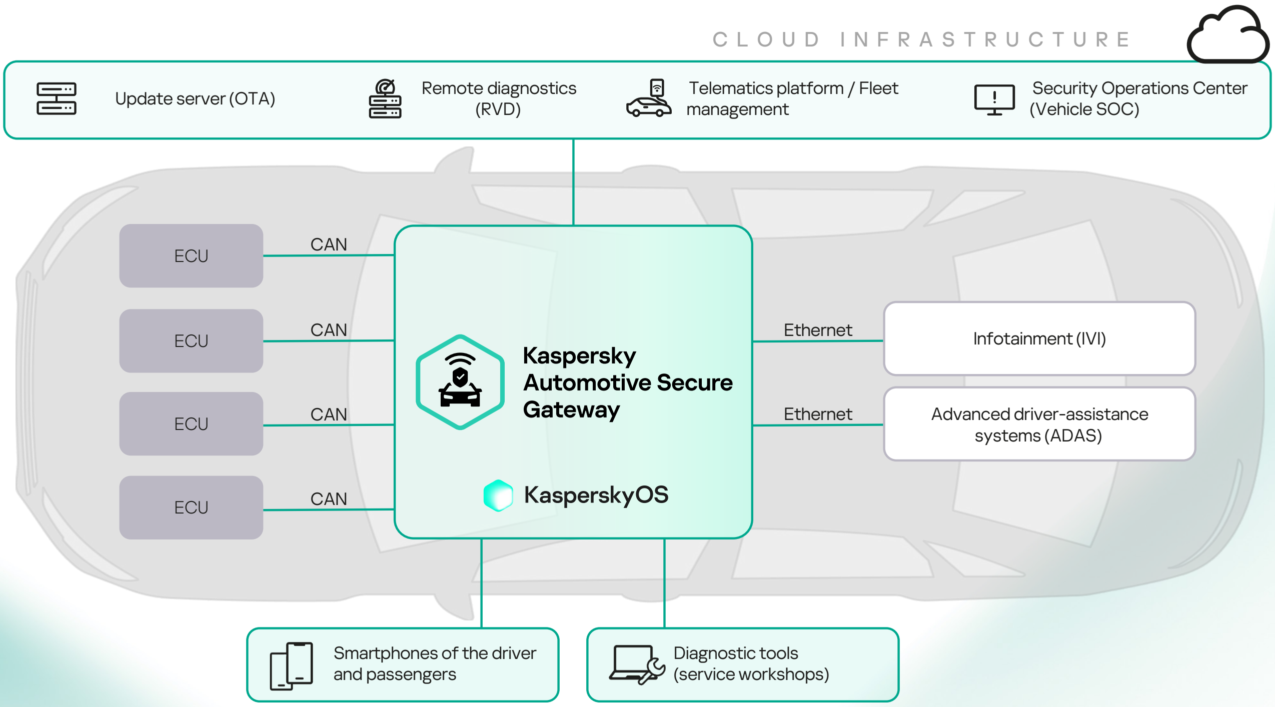
Key benefits

- Automotive grade
- Compliance
- Secure by Design

Solution for connected vehicle manufacturers and ECU developers. Let Kaspersky take care of the cybersecurity so that you can focus on the product functionality

Kaspersky Automotive Secure Gateway (KASG) is specialized software that is designed for high-performance controllers of connected vehicles and combines the functions of a telematic control unit (TCU) and a gateway. The solution provides secure and reliable communication between electronic units of the E/E architecture and between these units and the connected vehicle cloud and diagnostic devices.

This software can be used to implement security controls and a range of business functions, including remote diagnostics, over-the-air ECU updates, and other telematic services.


CLOUD INFRASTRUCTURE
Update server (OTA)
Remote diagnostics (RVD)
Telematics platform / Fleet management
Security Operations Center (Vehicle SOC)
ECU
CAN
ECU
CAN
ECU
CAN
ECU
CAN
Kaspersky Automotive Secure Gateway
KasperskyOS
Ethernet
Infotainment (IVI)
Ethernet
Advanced driver-assistance systems (ADAS)
Smartphones of the driver and passengers
Diagnostic tools (service workshops)

Cyber Immunity and security

Strict isolation of vehicle system components and secure updates, including over-the-air updates and remote diagnostics throughout the life cycle of the vehicle.

Compliance with standards

The solution helps manufacturers meet the requirements of UN cybersecurity regulations R.155/R.156 and complies with the international regulatory frameworks for functional safety (ISO 26262) and cybersecurity (ISO/SAE 21434). The solution includes an SDK for building secure ECU applications on KasperskyOS.

kaspersky

Problems covered by the solution

Cyber Immunity and security

- Authentication and access control for auto functions
- Trusted environment and secure data storage
- Trusted time server
- Online cybersecurity monitoring

Compliance: automotive industry standards and regulations

- ISO 26262
- ISO/SAE 21434
- UN R155, UN R156
- Uptane

Reducing costs throughout the entire vehicle life cycle

- Functions of multiple ECUs combined into one
- Reduced maintenance costs and vehicle recalls
- Reducing the trusted codebase with a Cyber Immune approach

Kaspersky approach to cybersecurity

Kaspersky Cyber Immunity

Fundamentally new approach to creating secure-by-design IT solutions. The overwhelming majority of types of attacks on a Cyber Immune system are ineffective and unable to impact its critical functions.

Cyber Immunity can be achieved by using KasperskyOS and following a specific development methodology.

KasperskyOS

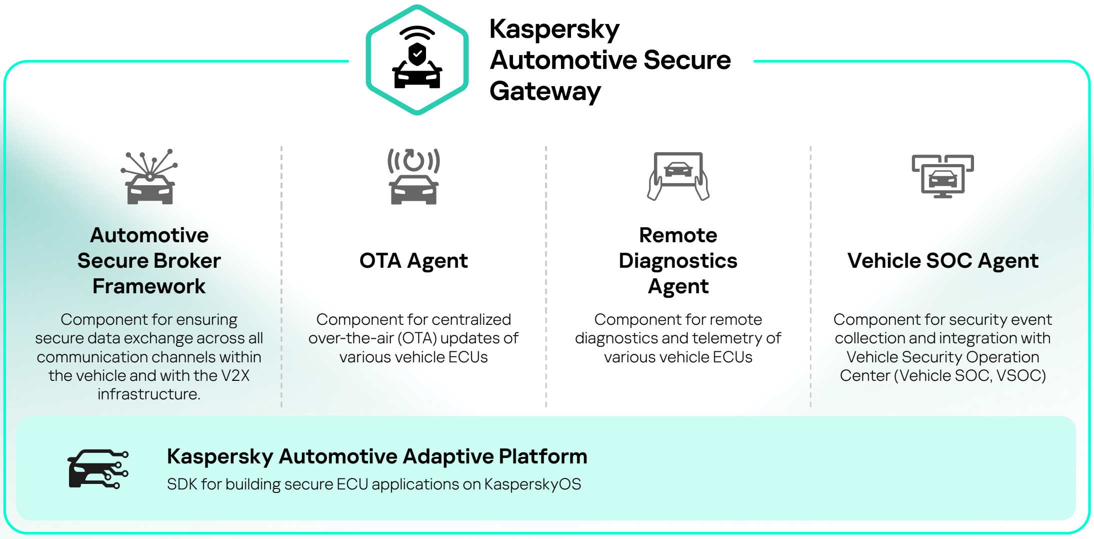
Microkernel operating system for industries with high information security requirements.

KasperskyOS is based on a combination of different security approaches. Due to its distinctive architecture, KasperskyOS creates an environment in which it is safe to run untrusted and potentially vulnerable programs.

Kaspersky Automotive Secure Gateway

KasperskyOS-enabled software transforms the gateway ECU as a central hub of security and trust for all interconnected in-vehicle ECUs, enhancing defense against cyber threats.

Solution components



Kaspersky Automotive Secure Gateway

Automotive Secure Broker Framework

Component for ensuring secure data exchange across all communication channels within the vehicle and with the V2X infrastructure.

OTA Agent

Component for centralized over-the-air (OTA) updates of various vehicle ECUs

Remote Diagnostics Agent

Component for remote diagnostics and telemetry of various vehicle ECUs

Vehicle SOC Agent

Component for security event collection and integration with Vehicle Security Operation Center (Vehicle SOC, VSOC)

Kaspersky Automotive Adaptive Platform

SDK for building secure ECU applications on KasperskyOS

Additional information

Request an expert consultation to learn more about Kaspersky Automotive Secure Gateway

https://os.kaspersky.com/solutions/kaspersky-automotive-secure-gateway

os.kaspersky.com
www.kaspersky.com

KasperskyOS

kaspersky cyber immunity