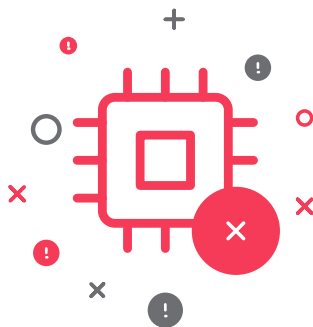




xCarbon

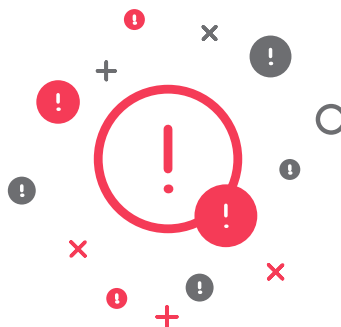
Say Goodbye to System Overhauls With Our Lightweight, Precise, and Frictionless IDS/IPS

Building an IDS/IPS In-House Sounds Good, But Maintaining It Is a Hassle



High Footprint Anxiety

Maintaining effective detection rule updates for proactive defense is challenging. Poorly crafted rules can disrupt network traffic and prolong detection times. This strains already resource-tight electronic control units (ECUs), potentially impacting system reliability.



False Alert Overload

Dealing with high volumes of false alarms daily necessitates either investing in additional manpower or implementing filtering mechanisms to minimize inaccuracies. But this introduces additional complexity into the system design.

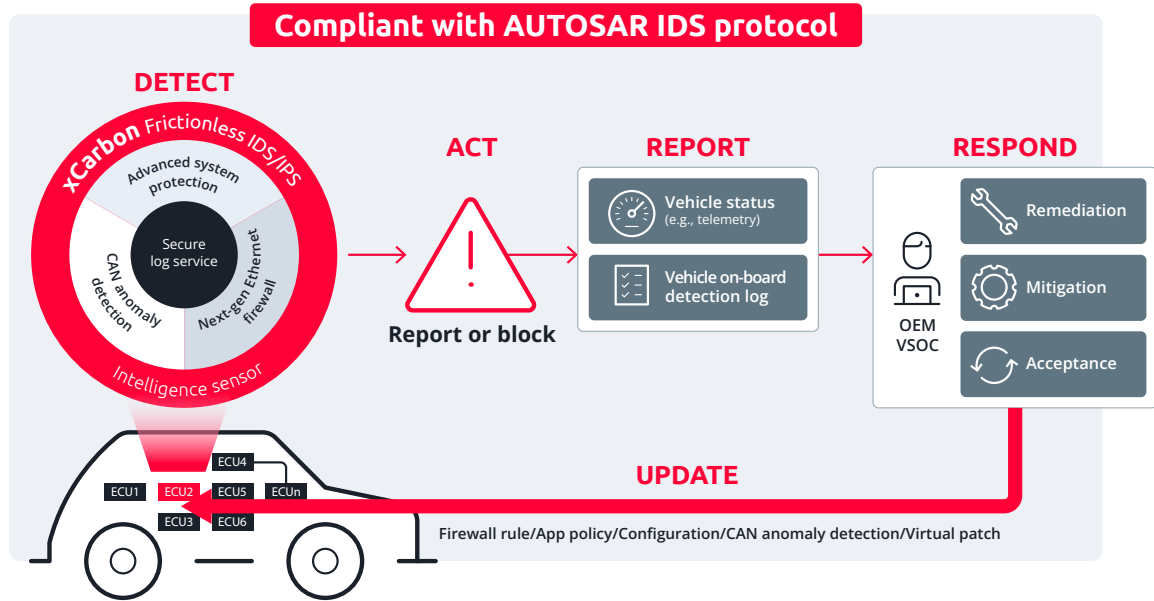


Escalating Transmission Costs

Transmitting data from over a million vehicles to the cloud can trigger data transmission costs to soar to as much as US\$2.1M per month,* potentially becoming an overwhelming financial load. How to minimize sending unnecessary security events to the vehicle security operations center (VSOC) becomes a major consideration.

*Source: [AECC](#)

Lightweight, Precise, and Frictionless IDS/IPS



Key Benefits

- **Flexible Design:** Experience a lightweight, modular, and configurable design that adapts to various ECU and EEA needs.
- **Precise Detection:** Benefit from unique threat expert rules that minimize false positives, ensuring accurate threat detection.
- **Cost Efficiency:** Enjoy a reduction in transmission costs by up to 60%, optimizing your operational expenses.
- **Long-Term Support:** Rely on dedicated experts for ongoing support throughout the entire life cycle of your vehicle.

Feature Highlights

- **Next-gen Ethernet firewall.** Identify suspicious events in Ethernet (e.g., DoS attacks, malicious payloads) and network vulnerabilities.
- **CAN anomaly detection.** Detect malicious CAN messages, such as messages with abnormal IDs, frequencies, and payloads caused by attacks.
- **Advanced system protection.** Our host-based IDS can detect abnormal system activities to ensure system integrity and block unauthorized applications from running on an ECU or service-oriented architecture (SOA).
- **Frictionless integration.** xCarbon supports various operating systems, including Embedded Linux, Android Automotive OS, QNX, Red Hat In-Vehicle Operating System, and Wind River VxWorks. It is also edge AI- and edge computing-ready.
- **Readiness for risks in software-defined vehicles (SDVs).** Our award-winning xCarbon not only provides container security but also supports operations within virtual machine (VM) environments.
- **Unique virtual patch technology.** xCarbon can deploy virtual patches, providing you with an average of 102 days of protection while awaiting the availability of a vendor patch.
- **Automated detection and response at the edge.** xCarbon enables you to build your own detection and response capabilities based on different scenarios.

