THALES
Building a future we can all trust

Thales Automotive
Detect and Respond

Powered by **software république**

A comprehensive cybersecurity monitoring solution for connected cars

Only a decade ago, cyber threats to vehicles were primarily isolated incidents, where hackers needed direct access to the car to compromise its system.

However, the landscape of automotive cybersecurity has dramatically evolved. Today, cybersecurity threats have become more remote and scalable. Malicious actors now possess the capability to remotely launch large-scale attacks, posing a profound risk not only to individual vehicles but also to entire fleets globally.

This shift reinforces the need for stringent cyber regulations pertaining to connected vehicles, ensuring safety and security on the roads, such as UNCE WP.29 and ISO/SAE 21434. Consequently, car manufacturers require solutions that not only align with these regulations but also simplify their seamless implementation while reducing their operation costs.

The rise of this new threat landscape underscores the need for innovative, robust, and fleet-wide cybersecurity solutions like **Thales Automotive Detect and Respond**.

This reactive on-board & off-board cyber protection solution provides robust security for connected cars and stands as a fortress against cyber threats, ensuring that your vehicles are shielded by the finest technology in the industry.

Experience the peace of mind that comes with state-of-the-art protection designed to combat evolving digital threats. Thales Detect and Respond guarantees reliable and unbroken journeys in the vast expanse of connected mobility.

Thales Automotive Detect and Respond

Designed for connected vehicles by the Software République consortium, Thales Automotive Detect and Respond is an on-board and off-board cyber threat monitoring solution, supported by automotive Cyber Threat Intelligence and specifically built for cyber detection by using AI and Machine Learning.
This state-of-art solution was co-developed and is under implementation by a major European car manufacturer.
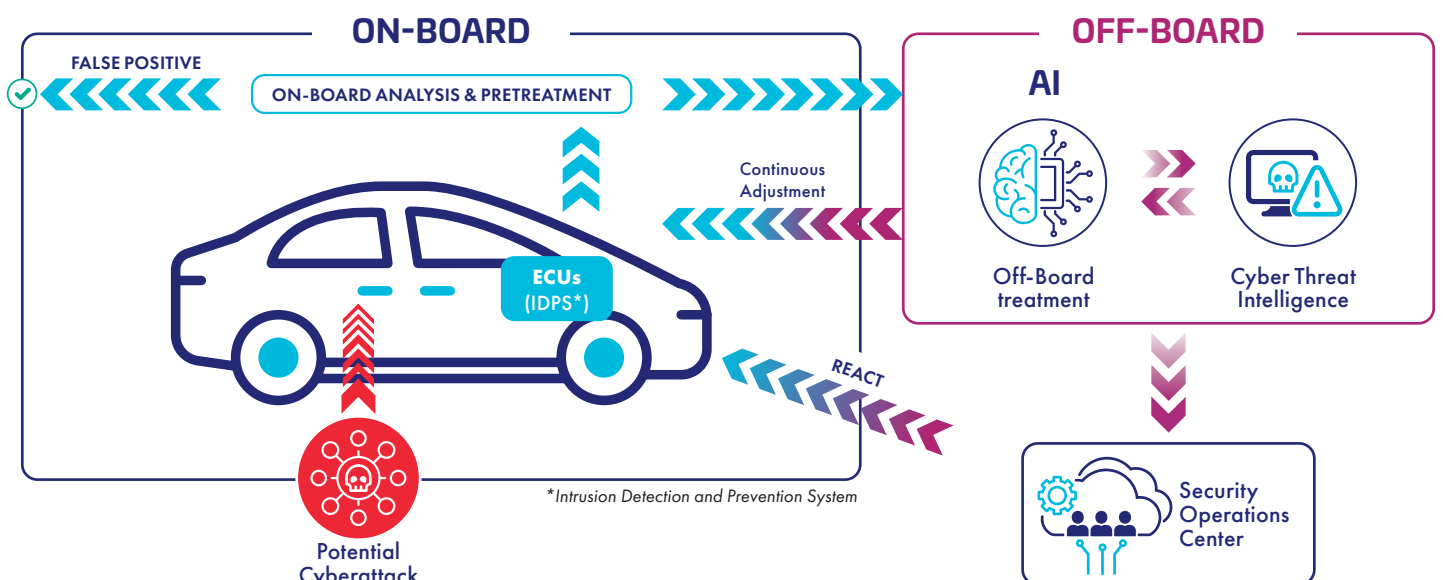
Merging high value expertise and a comprehensive answer to protect connected vehicles

Cyber Threat Intelligence for automotive	Design with OEM constraints	Onboard Intrusion Detection & Prevention System	Optimized data upload	Specific Design IA/ML

How it works

Thales Automotive Detect and Respond offers a comprehensive approach to combating cyber threats, encompassing detection, analysis, treatment, and reaction.

Our solution integrates both onboard and offboard elements, offering a simplified deployment process and streamlined implementation for enhanced cybersecurity. The solution is constantly updated to protect against the ever-evolving cyber threats.

ON-BOARD

FALSE POSITIVE

ON-BOARD ANALYSIS & PRETREATMENT

ECUs (IDPS*)

Continuous Adjustment

REACT

Potential Cyberattack

*Intrusion Detection and Prevention System

OFF-BOARD

AI

Off-Board treatment

Cyber Threat Intelligence

Security Operations Center

Key benefits

1/ High- quality detection

ON-BOARD

- Onboard components designed with OEM teams
- More relevant detections sent to SOC*

OFF-BOARD AI/ MACHINE LEARNING

- 1st detection level based on hacker attack steps
- 2nd detection level based on historical behaviour of the systems

* Security Operations Center

2/ Operation cost efficiency

- Integration in existing SOC and in OEM cloud
- Optimized network and data costs
- Increased # of detections without significant network cost rising

3/ Lifetime performance

Dedicated automotive threat intelligence team
- Based on Automotive MITRE** framework
- Feeding new detection rules over life cycle

** MITRE : Global reference Cybersecurity attack framework

4/ Safe reaction

- Ergonomic Interface to SOC
- Recommendations in case of threat detection

Why is Thales Automotive Detect and Respond unique?

HIGH VALUE CYBER DETECTIONS	EFFICIENT COST-VALUE RATIO
Dedicated automotive threat Intelligence for state-of-threat protection	**Limited OEM operation cost (CPU, low data tranfser)**
IA/ML advanced detections to detect known and unknown intrusions	**Easy to integrate in vehicle** thanks to lightweight-versatile onboard libraries. Cover **future and legacy** vehicle architecture.
Continuous improvement and upgradabilit thanks to onboard-offboard architecture. Reconfiguration of detections.	**Easy to integrate in existing SOC**
Compliant with **current regulations**: ISO/SAE 21434 and UNCECE WP.29	**Lower cost** of **car recalls** due to security
	Cost efficiency of Buy vs Make

THALES | software république

An open innovation ecosystem shaping the mobility of tomorrow

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