

SOLUTIONS FOR

**SOFTWARE-DEFINED VEHICLES**

GUARDKNOX ENABLES NEXT GENERATION E/E ARCHITECTURES

The automotive industry is racing towards software-defined vehicles (SDVs) - a vehicle whose features and functions are primarily enabled through software, a result of the ongoing transformation of the vehicle from a product that is mainly hardware-based to a software-centric, electronic device on wheels. This transition will enable OEM and Tier 1s to dynamically adapt and evolve the vehicle platform and lifecycle using OTA updates.

Current vehicle architectures cannot support SDVs, which is a major driving factor for the consolidation of hardware through next-generation \*E/E architectures.

For example, in a Zonal Architecture, computing capacities are physically and geographically grouped in the vehicle, thereby reducing the increasingly complex and heavy cable harnesses in modern vehicles.

\*E/E - Electrical/Electronic Architecture

**GuardKnox is an autotech company developing products that address the key challenges in the next-generation E/E architecture and enable the software-defined vehicle.**



with subsidiaries in the US & Germany



**PRODUCTS**

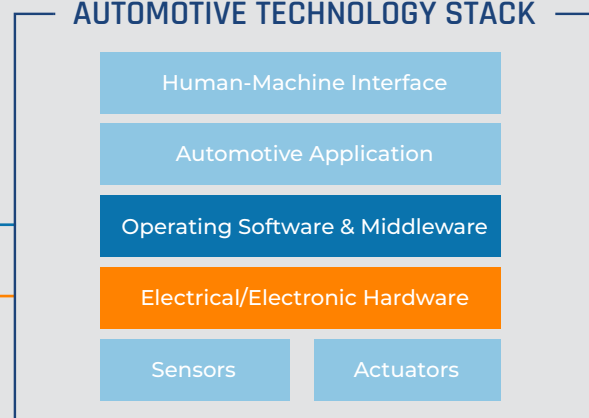
**SOA FRAMEWORK**

Automotive software middleware and developer tool suite to orchestrate software components for all automotive domains along the entire software lifecycle

**COMMENGINE™**

Ultra-fast, multi-protocol firmware (IP core) for a comprehensive secure automotive routing and switching solution

**AUTOMOTIVE TECHNOLOGY STACK**





**INVESTORS**



and an esteemed group of private individuals

## PRODUCTS

GuardKnox's deep technological and automotive expertise has led to innovative customer-focused solutions. Its products are key enablers for next generation E/E architecture, addressing elements of the automotive HW/SW stack.

	SOA Framework	CommEngine™
<b>Use Cases</b>	<b>Management of SW deployment</b> in heterogeneous and distributed architectures (HEDS) (e.g. different HW and OS across different ECUs, DCUs, etc.)	Routing in future Zonal Architectures with <b>deterministic latency and high-throughput</b> requirements.
<b>Technology</b>	Built on an established and <b>field-proven standard</b> . Compatible with other established frameworks.	Dedicated and <b>highly optimized HW implementation of all switching and routing tasks</b> to circumvent the disadvantages of previous SW-based approaches.
<b>Benefits</b>	The SOA Framework is a <b>comprehensive SW lifecycle management solution</b> for the next generation of SDVs <b>addressing all automotive use cases</b> and helping to <b>reduce the time-to-market</b> by a dedicated developer toolchain.	The CommEngine enables the move to <b>next-generation centralized E/E architectures</b> by guaranteeing high-throughput and low-latency switching/routing performance with <b>high functional flexibility</b> while remaining cost-effective.
<b>Competitive Differentiation</b>	The SOA Framework is the only middleware that provides <b>full lifecycle management</b> of SWCs in a HEDS. It provides developer <b>support along the entire development cycle</b> and is the only <b>domain agnostic</b> solution.	The CommEngine leads the competition with <b>optimal power, performance and area/cost</b> achieved by dedicated HW that handles security and routing of <b>10Gbps</b> of in-vehicle networking.
<b>Demo Videos</b>	 <a href="#">WATCH SOA FRAMEWORK DEVELOPER TOOL SUITE DEMO</a>	 <a href="#">WATCH COMMENGINE ROUTING AND SWITCHING TOOLS DEMO</a>



## THE GUARDKNOX SECURE GATEWAY

is an ECU that scrutinizes all in-vehicle communication in real-time across all interfaces and standards without impacting connectivity or bandwidth while providing all central gateway functions at the same time.

Embedded within the gateway is our patented **CommEngine™** network accelerator for ultra-low latency and **SOA Framework Suite** for comprehensive software lifecycle management. It is built according to the highest automotive cybersecurity and safety standards, ISO 21434 and ISO 26262 up to ASIL D. It provides OEMs the necessary evidence to comply with the requirements for UNECE R155 going into effect this July.



[CLICK HERE TO SEE OUR CHASSIS DEMO VIDEO](#)



[CLICK HERE TO WATCH OUR SECURE GATEWAY VIDEO](#)