

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.



HQ in **TLV**
with subsidiaries in the US & Germany



30+
Patents



Pioneering new tech **since 2016**



85
Employees worldwide



Raised **\$50M**

PRODUCTS

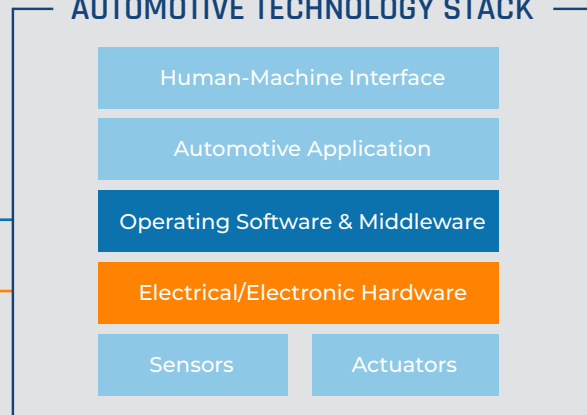
SOA FRAMEWORK

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





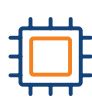

PRODUCTS

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™
Description	Automotive software middleware and developer tool suite for the SDV orchestrating software components (SWCs) for all automotive domains along the entire SW lifecycle .	Fast, single-chip, integrated IP core, automotive secured routing and switching solution.
Use Cases	Management of SW deployment in heterogeneous and distributed architectures (HEDS) (e.g. different HW and OS across different ECUs, DCUs, etc.)	Routing in future Zonal Architectures with deterministic latency and high-throughput requirements.
Technology	Built on an established and field-proven standard . Compatible with other established frameworks.	Dedicated and highly optimized HW implementation of all switching and routing tasks to circumvent the disadvantages of previous SW-based approaches.
Benefits	The SOA Framework is a comprehensive SW lifecycle management solution for the next generation of SDVs addressing all automotive use cases and helping to reduce the time-to-market by a dedicated developer toolchain.	The CommEngine enables the move to next-generation centralized E/E architectures by guaranteeing high-throughput and low-latency switching/routing performance with high functional flexibility while remaining cost-effective.
Competitive Differentiation	The SOA Framework is the only middleware that provides full lifecycle management of SWCs in a HEDS. It provides developer support along the entire development cycle and is the only domain agnostic solution.	The CommEngine leads the competition with optimal power, performance and area/cost achieved by dedicated HW that handles security and routing of 10Gbps of in-vehicle networking.

 [CLICK HERE TO WATCH OUR PRODUCT DEMO VIDEO](#)

BENEFITS OF ZONAL ARCHITECTURE

Enabled by CommEngine™	Enabled by SOA Framework	Enabled by Both
 <p>Decreasing complexity of wiring harness</p>	 <p>Lifetime monetization of vehicle</p>	 <p>Improved redundancy</p>
 <p>Increasing silicon consolidation and integration</p>	 <p>Decoupling of HW and SW</p>	 <p>Facilitation of secure OTA updates</p>