

## Hypervisor for central computing units in the car

COQOS Hypervisor supports new high performance NXP S32G processor

**Berlin, January 6th, 2020. Berlin, January 6th, 2020. OpenSynergy has ported its virtualization platform COQOS Hypervisor SDK on the new NXP® Semiconductors' S32G vehicle network processor, allowing consolidation of functionalities on top of hardware designed for the next generation of gateways and vehicle central network units. OpenSynergy Portfolio Manager Jonathan Siegel is convinced that "hypervisor technology is unfolding vast possibilities for carmakers looking to swiftly integrate applications with different safety and security levels on top of powerful domain controllers."**

The automotive industry is evolving gateways from simple "data routers" to powerful central computing units that are able to integrate multiple functionalities. The new generation of such domain controllers requires a new and more powerful type of hardware. The newly announced NXP S32G fulfils this new computing requirement. Using OpenSynergy's COQOS Hypervisor SDK virtualization platform, the NXP S32G supports the safe integration of multiple application stacks (Adaptive AUTOSAR, Classic AUTOSAR, GENIVI, etc.) on different operating systems (AUTOSAR RTOS, FreeRTOS, Linux, etc.). OpenSynergy's hypervisor technology guarantees the freedom from interference between each virtual machine running an OS.

At the core of COQOS Hypervisor SDK lays COQOS hypervisor, which complies to the ISO 26262:2018 ASIL B (certified by TÜV SÜD). This type-1 hypervisor adds a layer of protection to applications, which need to be secured from outside malicious threats. COQOS hypervisor has been designed as a low-complexity component and provides properties particularly important in the gateway domain, such as low latency and suspend-to-RAM. Its small footprint not only allows for higher efficiency, but provides a reduced surface of attack to the outside world. Additionally to efficiency and security considerations, COQOS Hypervisor SDK embraces open standards for device sharing (VIRTIO), which allows for a rapid porting of the different Operating Systems onto a single processor.

Siegel explains: "NXP and OpenSynergy are extending their already deep cooperation by porting COQOS Hypervisor SDK to the S32G family. COQOS Hypervisor SDK perfectly complements NXP new SoC S32G, enabling a safe, secure and swift consolidation of functionalities onto a single vehicle central network unit. This, in turn, allows OEMs and Tier 1 suppliers to reduce both hardware costs and complexity of the vehicle architecture."

# PRESS RELEASE

## **About OpenSynergy**

OpenSynergy provides embedded software products for the next generation of vehicles. Our hypervisor and communication products pave the way for an integrated driving experience.

The virtualization platform COQOS Hypervisor SDK supports the convergence of software-based vehicle functions with different requirements on safety and security. It is designed for multi-display cockpit controllers, smart antennae or powerful domain controllers using a mix of AUTOSAR technology and open solutions, such as Linux and Android.

OpenSynergy's communication stacks allow the wireless connection between the car and the cloud or between the car and mobile devices. OpenSynergy's Blue SDK is the reference Bluetooth implementation for many OEMs around the world.

Our engineering services complement the products.

Read more on [www.opensynergy.com](http://www.opensynergy.com)

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