

Standardization for hypervisor-based automotive domain controllers

OpenSynergy contributes to VIRTIO

Berlin, June 06, 2019. The company for embedded automotive software OpenSynergy has now become member of the OASIS consortium and will contribute its expertise to the open industry standard VIRTIO. OpenSynergy already supports VIRTIO in its product COQOS Hypervisor SDK. With further extensions, VIRTIO will play a central role in the architecture of automotive devices, such as domain controllers and cockpit controllers, to support an eco-system of compatible software solutions. Regis Adjamah, CEO of OpenSynergy, explains the importance of basing hypervisor platforms on open standards, “OEM’s and Tier-1 suppliers will have greater freedom in choosing the hardware platform, the hypervisor platform and the guest operating system that fits their needs. VIRTIO is the starting point to achieve this goal.”

VIRTIO is an open standard for device virtualization. It provides the transport layer and device models for essential computing devices such as Block Storage, Network, Console, GPU, Input, etc. VIRTIO was originally developed for enterprise virtualization workloads and cloud computing that have high demands on data processing performance. With the increasing amount of data driven workloads in vehicles, OpenSynergy sees a perfect fit in VIRTIO for giving virtual machines the bandwidth they need to fulfill today's requirements.

The standardized device interface of VIRTIO allows multiple compatible implementations for guests and hypervisors. The DMA-like nature of the devices allows for high-performance implementations that can easily compete with hardware assisted I/O virtualization models while still providing ease of implementation and safety. The ubiquity of VIRTIO in cloud and enterprise virtualization environments make drivers readily available in all major operating systems.

The OASIS consortium promotes and maintains worldwide standards for several domains. One of these standards is VIRTIO, the standard for “OASIS Virtual I/O Devices.” OpenSynergy has now become a member of the OASIS consortium and the OASIS Virtual I/O Device (VIRTIO) Technical Committee to support the standards development. Its automotive expertise will extend the existing VIRTIO standard to meet automotive requirements. The company plans to enhance the VIRTIO specification by adding devices essential to the automotive domain (Audio, sensors, Media Acceleration, USB, CAN, etc.).

Moreover, OpenSynergy drives the acceptance of VIRTIO as the lingua franca for device virtualization. This will bring the hypervisor technology to the next level, by allowing it to move guest operating systems among different hypervisors without further modification. This will enable greater flexibility for hardware designers and greater re-use for software platform developers.

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

Contact:

OpenSynergy GmbH

Sabine Mutumba
Director of Marketing

Rotherstr. 20
D-10245 Berlin
Tel.: +49 (0)30.60 98 540-41
Email: marketing@opensynergy.com

PRESS RELEASE