# Virtual AGL Reference Platform now available

## VIRTIO-based AGL for cockpit controller ready to be evaluated

**Berlin, September 28, 2021. OpenSynergy announces the release of a reference platform providing a virtual AGL (Automotive Grade Linux) operating system. AGL now supports the open-source standard Virtual I/O Device (VIRTIO), making it compatible with any virtual platform supporting VIRTIO. The software reference platform consists in the virtual, i.e., hardware-independent, AGL Operating System running on top of a pre-configured COQOS Hypervisor SDK, which provides the latest VIRTIO devices. AGL provides the reference hardware for the members. All members of the AGL project can integrate their applications on this reference platform to develop a cockpit controller for evaluation purposes.**

Automotive Grade Linux is a collaborative open-source project developing a fully open Linux-based software stack for the connected car. Many OEMs and Tier1s support the project expecting AGL to become a de facto standard for the automotive industry.

In the last years, AGL has adopted the open-source standard VIRTIO, a device-sharing framework already well established in the cloud environment and now gaining traction in the automotive industry. "We are seeing a consolidation of multiple functions in the cockpit architecture of the future, and as such virtualization is a big priority for Automotive Grade Linux", said Dan Cauchy, Executive Director of AGL. "We are glad to be collaborating with OpenSynergy on technologies such as VIRTIO to bring these capabilities to our community." The VIRTIO standard is maintained by the OASIS Open consortium and allows a maximum of flexibility to OEMs and Tier1s to switch between SoCs and hypervisors to best match their needs.

OpenSynergy's automotive virtual platform COQOS Hypervisor SDK provides the most mature VIRTIO framework, thus optimally supports the virtualization of open-source Operating Systems like Automotive Grade Linux. The now released trial version for AGL provides a configured COQOS Hypervisor SDK on top of which an AGL Operating System can be deployed. AGL members can use the software on the current AGL hardware provided by the AGL collaborative project. The trial version reproduces a Cockpit Domain Controller, i.e. provides two virtual machines: one VM runs the (AGL based) Instrument Cluster and has direct access to the hardware devices; the second VM contains the (AGL based) Infotainment and is fully virtualized, i.e. has access to the underlying hardware, but relying solely on VIRTIO drivers. Although Linux by itself is not a safe operating system yet, customers can create a safe Linux-based Instrument Cluster using this solution. OpenSynergy has developed a guard mechanism that ensures that the instrument cluster displays the safety-relevant telltales correctly. TÜV SÜD has confirmed that this safety concept satisfies the safety requirements related to correct rendering telltales up to ISO 26262 ASIL-B. The reference software is now available at OpenSynergy.

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**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

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