

# AVL AGL Alignment

07.12.2023

**AVL Software and Functions GmbH** 

Internal

### Virtualization via XEN Hypervisor

- Current Status: Running XEN Hypervisor on Renesas devices, based on AGL distribution
- AVL could publish current development code base to AGL open-source community
- Enhancement towards VirtIO needed?
  - E.g. contributing to driver development to enhance current functionality

### • F2F Meeting (07.12.2023) Notes:

Jan: contribution is welcome

Jerry: Linaro virtIO work on Xen backend drivers could have overlap

Scott:

backport xen-recipe would be easier

Multi-config to build the guests of hypervisor, instead of using moulin

meta layer for hypervisor work to be decided till next meeting

Further alignment in the next SDV EG call

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## FEDERATE project: European public funded project to coordinate SDV activities

- The FEDERATE project aims to bring together all relevant stakeholders of the mobility industry, the open source software community, the semiconductor industry, and public authorithies to accelerate the development of an SDV Ecosystem to foster a vibrant European society and to orchestrate the SDV R&D, Development and Innovation activities (reference: www.federate-sdv.eu)
- 29 companies from 7 countries (OEM, Tier1, Tier2, Silicon supplier...)
- FEDERATE is coordinated by AVL

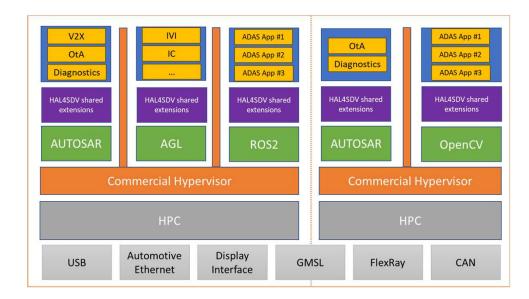
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### HAL4SDV meets AGL

- European Public Funded Project
- Target: Abstract HW from Software
- Participations: 52 companies
  - Big European OEMs: e.g. BMW, Mercedes Benz,
     VW (CARIAD), Renault, Volvo,...
  - Big Tier 1: Bosch, Conti, ZF, ...
  - Tier 2, uC Vendor, Tooling Vendor,...
  - AVL is coordinating the Project together with TTECH



- AVL Use-case: HW-abstraction for mixed critical Server application which includes ADAS, V2X, IVI, OTA application (i.p. AGL applications)
  - Open-Source solutions plays a very important role
  - Alignment between AGL Interfaces and HAL4SDV Middleware
  - Promotion of AGL's VirtIO approach

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## Ajunic meets AGL

- Ajunic as a possible reference HW for AGL ADAS activites
- AVL could provide some kind of Ajunic BSP for as an contribution to AGL open source community
  - Detailed content tbd.



- Two ways to introduce Ajunic in AGL
  - To Submit the bsp, AVL to take care of CI, It is the easier way, no extra requirement Example: there is bsp of a board similar to Beaglebone in the source tree
  - As a Reference board
    - AGL requires 4 boards: One for BSP, one for CI, etc.
    - AGL will take care of test cases for CI



#### AN ADAS ECU SOLUTION FOR AUTONOMOUS DRIVING

#### **AVL Ajunic**

#### THE CHALLENGE

We were looking for an open hardware solution that is adaptable and fits our customers' needs. Now we are the first provider on the market with this kind of solution.

#### THE SOLUTION

AVL's Aiunic is an open development platform which is sustomizable for your application. It ensures a shorter development time while being safe and secure.

Furthermore, it is adaptable for prototype and series production. The platform includes ADAS/AD perceptio fusion and motion control, ground truth data recording and life object detection

#### ADDED VALUE

- Robustly built with automotive qualified components ready to be installed in your vehicle
   Fully customizable hardware and software
- Vise it for your prototype, adaptable as needed according to your requirements for a series solution
   Ready for ISO 26262 conformant solutions.
- Independent dual channel processing and up to triple
- power supply possible

  Software options include Linux, ROS, (classic) AUTOSAR, adaptive AUTOSAR

Discover AVI Aiunic online

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# Other potential collaboration topics

- Container Orchestration
  - More Background needed to find out whether AVL could support here
- Vehicle2Cloud (V2C)
  - Could be a topic for AVL as well (Digitalization department)

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