

Meeting Notes 2022

- [Jan 12 , 2022](#)
- [Jan 19 , 2022](#)
- [Jan 26, 2022](#)
- [Feb 2, 2022](#)
- [Feb 16 , 2022](#)
- [Mar 2, 2022](#)
- [Mar 16, 2022](#)
- [Mar 30, 2022](#)
- [Apr 27, 2022](#)
- [May 25 2022](#)
- [May 25 2022](#)
- [Jul 6 2022](#)
- [Jul 20 2022](#)
- [Aug 03 2022](#)
- [Aug 31 2022](#)
- [Sep 28 2022](#)
- [Oct 12 2022](#)
- [Oct 26 2022](#)
- [Nov 9 2022](#)

Jan 12 , 2022

Attendees:

- Jerry Zhao - Panasonic
- Walt Miner - Linux Foundation
- Scott Murray - Konsulko
- Mikhail Golubev - Open Synergy
- Hiroyuki Ishii - Panasonic
- Nedeljko Miljevic - AVL

Agenda

- RFQ
 - [Walt Miner](#) will send the evaluation criteria matrix to Jerry within today or tmr. After double checked by Jerry, [Walt Miner](#) will send out the RFQ to candidate companies within this week and set deadline before next EG (cancel 22 Dec 2021 and set a special call on 12 Jan 2022)
 - DDL for candidates to response to RFQ: 10 Jan 2022


Jan 19 , 2022

Attendees:

- Jerry Zhao - Panasonic
- Walt Miner - Linux Foundation
- Scott Murray - Konsulko
- Mikhail Golubev - Open Synergy
- Hiroyuki Ishii - Panasonic
- Nedeljko Miljevic - AVL

Agenda

- Non-virt VirtIO RFQ
 - There will be interview for candidates on 26 Jan 2022
 - [François-Frédéric Ozog](#), [Mikhail Golubev](#), [Vasyl Vavrychuk](#) please kindly join as a reviewer
 - [François-Frédéric Ozog](#) mentioned that there is ongoing work inside Linaro for non-HV virtio on cortex-R
 - [François-Frédéric Ozog](#) is it possible to ask your engineer in the future Virt-EG call? Maybe something like 09 Feb 2022
- [Nedeljko Miljevic](#) shared AVL work with virtualized AGL
 - [Nedeljko Miljevic](#) please kindly upload your slides here (or send to [Jerry](#), [Jiancong Zhao](#))

- Presentation uploaded  Unknown Attachment

Jan 26, 2022

Non-public session for RFQ interview

Feb 2, 2022

Non-public session for RFQ interview

Feb 16, 2022

Attendees:

- Jerry Zhao - Panasonic
- Walt Miner - Linux Foundation
- Scott Murray - Konsulko
- Mikhail Golubev - Open Synergy
- Hiroyuki Ishii - Panasonic
- Nedeljko Miljevic - AVL

Agenda

- Non-virt VirtIO RFQ
 - There will be interview for candidates on 26 Jan 2022
 - "Company A" was elected by EG member scoring.
 - Walt is working with the order system of LF.
 - Target is enable them to start work from March
 - After completing the order system work, official result announcement will be sent to the candidates.
- Embedded World
 - AGL Booth is still open for CFP
 - Okay to change demo contents from last ALS
 - François-Frédéric Ozog is interested. The booth can be applied from <https://events.linuxfoundation.org/agl-at-embedded-world/>
 - **Deadline to Submit: April 1, 2022**
 - OpenSynergy and Linaro will represent Virt-EG to attend this event.
- OSS solution for IPC
 - Linaro has an internal project for cross processor channel. Can be virtio base (even not hypervisor part)
 - Big processor provide filesystem (virtio-9fs). Cortex-R has networking /TSN interface to the main system. Cortex-R owns GPU. (camera processing)
 - currently gpu is passthrough but research in high performance virtio-gpu
 - also some research and work on split gpu resources for different containers
 - VirtIO use in container.
 - After Linaro has some real progress in implementaion, some workshop can be arranged in AGL (invite interested TMA engineer asked for OSS solution for IPC communication)
- Update of White Paper
 - https://www.automotivelinux.org/wp-content/uploads/sites/4/2018/06/agl_software_defined_car_jun18.pdf
 - Michele Paolinocan find the Google Doc for this white paper.
 - https://docs.google.com/document/d/1HpYzClh0nDEocsUHb17X0DxiehsAbCgyWE-P2Wk_RNU/edit
- Discussion of Virt-EG Roadmap for 2022 starting from 02 Mar 2022

Mar 2, 2022

Attendees:

- Jerry Zhao - Panasonic
- Walt Miner - Linux Foundation
- Scott Murray - Konsulko
- Mikhail Golubev - Open Synergy
- Hiroyuki Ishii - Panasonic
- Nedeljko Miljevic - AVL
- Binghua - Qualcomm
- Harunobu Kurokawa - Renesas
- Francois Ozog - Linaro
- Bill Mills - Linaro

Agenda

- Non-virt VirtIO RFQ
 - Walt is handling with the application system of Linux Foudnation, it is in the state of "out for signature", but not knowing the exact meaning.
 - Walt Miner will push on the process of Legal and also the system progress.
 - In the end of week, Walt Miner will update again the status. On the hand, if the application status is still blocked, Michele Paolino would like to offer to start some work first.
- Feature List of 2022
 - The original deadline is 08 Mar 2022, but it can be postponed for 2weeks or more. Other EG discussion is also in slow progress
 - For Virt-EG, some members are under the impact of Ukraine crisis. (some ukraine and russian engineers)

- Virt-EG will arrange a session to discuss specifically about the Feature list in next EG 16 Mar 2022
- Virt-EG is calling for member input before next EG on 16 Mar 2022 :
<https://confluence.automotivelinux.org/pages/resumedraft.action?draftId=52560793&draftShareId=2fa29ff8-e917-440a-904f-b4553a9c7fe9&>
- Linaro 2022 Roadmap

? Unknown Attachment

- François-Frédéric Ozog and Bill shared Linaro's roadmap in 2022
- A virtio based solution to enable IPC between Cortex-A and Cortex-X under development in Linaro may lead to operation opportunity.
 - Nedeljko Miljevic may be interested in applying this into their virtual AGL ADAS development.
 - Another aspect of VirtIO application in multi-ECU case may also fit Nedeljko Miljevic's interest. More information can be found at
 - A possible demo can be created with this solution among EG members
- François-Frédéric Ozog is calling for Mikhail Golubev and Michele Paolino to join in a collaboration for standardizing device assignment of hypervisors

Mar 16, 2022

Attendees:

- Jerry Zhao - Panasonic
- Walt Miner - Linux Foundation
- Scott Murray - Konsulko
- Mikhail Golubev - Open Synergy
- Hiroyuki Ishii - Panasonic
- Nedeljko Miljevic - AVL
- Binghua - Qualcomm
- Harunobu Kurokawa - Renesas
- Francois Ozog - Linaro
- Bill Mills - Linaro

Agenda

- Non-virt VirtIO RFQ
 - Walt is handling with the application system of Linux Foundation, it is in the state of "out for signature", but not knowing the exact meaning.
 - Walt Miner will push on the process of Legal and also the system progress.
 - In the end of week, Walt Miner will update again the status. On the hand, if the application status is still blocked, Michele Paolino would like to offer to start some work first.
- Feature List of 2022
 - The original deadline is 08 Mar 2022, but it can be postponed for 2 weeks or more. Other EG discussion is also in slow progress
 - Virt-EG will arrange a session to discuss specifically about the Feature list in next EG 16 Mar 2022
 - Virt-EG is calling for member input before next EG on 16 Mar 2022 :
<https://confluence.automotivelinux.org/pages/resumedraft.action?draftId=52560793&draftShareId=2fa29ff8-e917-440a-904f-b4553a9c7fe9&>

Mar 30, 2022

Attendees:

- Jerry Zhao - Panasonic
- Walt Miner - Linux Foundation
- Scott Murray - Konsulko
- Mikhail Golubev - Open Synergy
- Hiroyuki Ishii - Panasonic
- Nedeljko Miljevic - AVL
- Binghua - Qualcomm
- Harunobu Kurokawa - Renesas
- Francois Ozog - Linaro
- Bill Mills - Linaro

Agenda

- Non-virt VirtIO RFQ
 - Walt is handling
- Feature List of 2022
 - No opposed ideas about the feature list proposal.
 - Linaro started a project to run a QEMU which holds Cortex-A, Cortex-R, Cortex-M on graviton. Inter-core communication will be enabled by OpenAMP
 - Use case: testing

- vECU level 3 (this stage) vECU level 4 (full emulation of SoC): in QEMU, different SoC types can be supported
- OpenAMP is based on VirtIO (non-hv version) virtio-blk, virtio-9fs
- RTOS: Zephyr will be used.
- Cortex-A: Current one is Yocto-Linux. AGL is considered but the problem is that current AGL doesn't support OpenAMP [blocked URL](#)
After this project is open sourced, evaluate again how to support it in the AGL UCB [François-Frédéric Ozog](#) [Jerry, Jiancong Zhao](#)
- Embedded World 2022 AGL Booth Application Deadline to be 01 Apr 2022
 - OpenSynergy has already applied.
 - Linaro is under consideration. [François-Frédéric Ozog](#) please don't miss the deadline.

Apr 27, 2022

Attendees:

- [Jerry, Jiancong Zhao](#) - Panasonic
- [Walt Miner](#) - Linux Foundation
- [Scott Murray](#) - Konsulko
- [Mikhail Golubev](#) - Open Synergy
- [François-Frédéric Ozog](#) Linaro
- [Mikhail Golubev](#) Virtual Open Systems

Agenda

- TSC Feature List
 - Tomorrow there will be TSC meetings to talk about the AGL Feature List
 - Virt-EG and Container-EG items are ranked highest
 - VIRT001 - VirtIO on Hypervisor
 - VirtIO on cloud-native
- F2F SAT Meeting in May
 - <https://wiki.automotivelinux.org/agl-distro/may2022-f2f>
 - May 17~18 8am ~ 15am CEST
 - [Mikhail Golubev](#) and [Michele Paolino](#) will join the second day session
 - [Walt Miner](#) will arrange the virtualization session on May 18
 - From Linaro, [Leonardo Garcia](#) will also evaluate whether to join or not virtualization related topic is on May 18
 - [Mikhail Golubev](#) will check if any onsite demo is available
 - [Michele Paolino](#) will prepare some presentation for a discussion about non-hv virtio
 - Virt-EG reserve 2 hours including
 - general intro of virt-EG activities
 - deep dive in virtio on hv env (probably with some demo by OpenSynergy) by [Mikhail Golubev](#)
 - deep dive in virtio on non-hv env by [Michele Paolino](#)
- Non-virt VirtIO Development
 - [2022 - Common Device I/F between Virt-AGL and Non-Virt AGL](#)
 - [Michele Paolino](#) will provide slides for the F2F meeting and share in the next Virt-EG
 - [Mikhail Golubev](#) will check internally about vhost-user (and its transport layer) and communicate with [Michele Paolino](#) before next EG 04 May 2022
- Multi-ECU VirtIO Development
 - [Nedeljko Miljevic](#) is on the preliminary research on the topic and will get back to EG after something is done.
 - Linaro ([François-Frédéric Ozog](#), [Leonardo Garcia](#)) is working on extending OpenAMP to realized non-hv communication with virtio between cortex-A and cortex-R
- Feature List of 2022
 - No opposed ideas about the feature list proposal.
 - Linaro started a project to run a QEMU which holds Cortex-A, Cortex-R, Cortex-M on graviton. Inter-core communication will be enabled by OpenAMP
 - Usecase: testing
 - <https://wiki.automotivelinux.org/agl-distro/may2022-f2f>

May 25 2022

Attendees:

- [Jerry, Jiancong Zhao](#) - Panasonic
- [Walt Miner](#) - Linux Foundation
- [Scott Murray](#) - Konsulko
- [Mikhail Golubev](#) - Open Synergy
- [François-Frédéric Ozog](#) Linaro
- [Leonardo Garcia](#) - Linaro
- [Michele Paolino](#) - Virtual Open Systems
- [Alex Bennée](#) - Linaro

Agenda

- F2F Workshop in Berlin last week
 - Good meetings
 - Perhaps round table for each day
- AMM cancelled/postponed for July. Having a session in JP two weeks after ELC Euro (Week 48 - Nov. 26~29?)
- SOAFEE/ARM is sending email to Jerry asking about if AGL is interested in a cloud-native AGL collaboration with them
 - using AGL as a profile for infotainment use case for the SOAFEE cloud-native platform.
 - they propose to have some collaborative PoC, if possible
 - so basically, this can be led by container-EG and virt-EG

☐ [Walt Miner](#) to ask Steering Committee about the above collaboration
[blocked URL](#)

- Non-hypervisor VirtIO progress
 - Present document in the workshop. No big comments so far.
 - Prototype for virtio-rng in QEMU is under work.
 - Some financial questions to [Walt Miner](#) need response.
 - Updated design document to be reviewed again by [Mikhail Golubev](#) 08 Jun 2022
 - [2022 - Common Device I/F between Virt-AGL and Non-Virt AGL](#)
- VirtIO Discussion
 - Linaro is working on virtio & vhost-user integration with Xen
 - virtio-can
 - ID is already reserved in the OASIS specification.
 - No standard way except socket CAN interface.
 - What's the current status of virtio-can
 - the draft specification is already on the mailing list open for comments
 - <https://markmail.org/thread/hdxj35fsthyplkt>
 - code:
 - the socket can interface is used
 - hopefully, to be public soon
 - testing with emulation at the moment. not real hw testing.
 - the qemu with vhost-user is using in the OpenSynergy's backend solution. Linaro is also considering this option.
 - other device to be OASIS standard soon
 - virtio-video
 - virtio-camera
 - libcamera is also under work (unify interfaces)
 - should virtio-camera be a virtual hook of libcamera? open question
 - virtio-wayland
 - is it needed?
 - corsvm is working for some virtualization around wayland (virtio-wayland)
 - <https://chromium.googlesource.com/chromiumos/platform/crosvm/+b14ce22a1bab381d94be94b67c756ad7dc908f8b/README.md>



Virtio Wayland

Virtio Wayland support requires special support on the part of the guest and as such is unlikely to work out of the box unless you are using a Chrome OS kernel along with a `termina` rootfs.

To use it, ensure that the `XDG_RUNTIME_DIR` environment variable is set and that the path `$XDG_RUNTIME_DIR/wayland-0` points to the socket of the Wayland compositor you would like the guest to use.

- Currently, virgl <=> gfxstream are some typical solutions for virtio-gpu to use

May 25 2022

Attendees:

- [Jerry, Jiancong Zhao](#) - Panasonic
- [Walt Miner](#) - Linux Foundation
- [Scott Murray](#) - Konsulko
- [Mikhail Golubev](#) - Open Synergy
- [François-Frédéric Ozog](#) - Linaro
- [Leonardo Garcia](#) - Linaro
- [Michele Paolino](#) - Virtual Open Systems
- [Alex Bennée](#) - Linaro

Agenda

- AMM cancelled for July. Having a session in JP two weeks after ELC Euro (Week 48 - Nov. 29 week)
 - Intend to have a one-day session (F2F workshop) in Week 37 - Dublin on Monday (working with event team)
 - F2F workshop in Sep 27~29 in Tokyo at Panasonic Center (tentative)
 - Week 48: A smaller event than the workshop (integration session). Preparation for CES and ALS.

- Only ALS and CES are confirmed.
- SOAFEE/ARM is sending email to Jerry asking about if AGL is interested in a cloud-native AGL collaboration with them
 - using AGL as a profile for infortainment use case for the SOAFEE cloud-native platform.
 - they propose to have some collaborative PoC, if possible
 - so basically, this can be led by container-EG and virt-EG
- [Walt Miner](#) to ask Steering Committee about the above collaboration
blocked URL
- Non-hypervisor VirtIO progress
 - Present document in the workshop. No big comments so far.
 - Prototype for virtio-rng in QEMU is under work.
 - Some financial questions to [Walt Miner](#) need response.
 - Updated design document to be reviewed again by [Mikhail Golubev](#) 08 Jun 2022
 - [2022 - Common Device I/F between Virt-AGL and Non-Virt AGL](#)
 - Working with a prototype for the kernel driver
 - request comment from kernel upstream without patch first (but provide details as much as possible)
 - able to establish the communication between virtio-frontend virtio-mmio virtio-loopback transport
 - Review the updated design document in next EG 22 Jun 2022
- Hypervisor VirtIO progress
 - virtio-bt already committed in meta-agl-dev and now being reviewed by AGL reviewers ([Jan-Simon Moeller](#) and [Scott Murray](#)) and wait for merging to meta-agl
 - <https://gerrit.automotivelinux.org/gerrit/c/AGL/meta-agl-devel/+27472>
 - headset (HFP) profile is not available in the Lamprey
 - If need to pair speaker, then need to hack the profile
 - currently seems that only one device is able to be paired
 - [Scott Murray](#) will check the code and point out which to check to [Vasyl Vavrychuk](#)
 - <https://git.automotivelinux.org/apps/agl-service-bluetooth/commit/binding?id=5c95eff5ed022a30cd1194fe99744727691d3a48>

Jul 6 2022

Attendees:

- [Jerry, Jiancong Zhao](#) - Panasonic
- [Walt Miner](#) - Linux Foundation
- [Scott Murray](#) - Konsulko
- [Mikhail Golubev](#) - OpenSynergy
- [Nedeljko Miljevic](#) - AK
- [Leonardo Garcia](#) - Linaro
- [Michele Paolino](#) - Virtual Open Systems
- [kazuki kuzu](#) - Panasonic

Agenda

- Embedded World
 - About 18000 visitors
 - Next to be held in March
 - another one in Shanghai
 - AGL Booth
 - function safety for AGL is a big question
 - ELISA
 - Zephyr going to be small
 - talked with NXP for the support (NXP Goldbox BSP support for AGL)
 - Goldbox: network (V2X)
 - Greenbox: vehicle control (battery)
 - <https://www.nxp.com/design/development-boards/automotive-development-platforms/greenbox-3-real-time-development-platform:GREENBOX-3>
- 2023 CES
 - Old Version New Version:
- VirtIO BE
 - missing in VirtIO BE OSS solutions
 - KVM, Xen community may not interest to push OSS implementation for automotive devices (CAN, BT and others)
 - Linaro Strados
 - <https://linaro.atlassian.net/wiki/spaces/STR/overview>
 - [Leonardo Garcia](#) to give a presentation on what the current status for Strados is (especially what kind of devices have already been supported open-source)
- Non-HV VirtIO Implementation
 - Decision has been made to lower priority in the upstreaming activities for kernel implementation (virtio-loopback) and first go ahead with userspace implementation (virtio-loopback adapter) in order to catch up with the Demo events (Dec: ALS, Sep: AGL F2F Workshop)
 - A separate technical discussion should be set by [Michele Paolino](#) to talk about solutions to solve guest memory mapping with [Jerry](#), [Jiancong Zhao](#), [Mikhail Golubev](#), [Maciej](#) and [kazuki kuzu](#) by 20 Jul 2022

Jul 20 2022

Attendees:

- [Jerry, Jiancong Zhao](#) - Panasonic
- [Walt Miner](#) - Linux Foundation
- [Scott Murray](#) - Konsulko
- [Mikhail Golubev](#) - OpenSynergy
- [Nedeljko Miljevic](#) - AK
- [Leonardo Garcia](#) - Linaro
- [Michele Paolino](#) - Virtual Open Systems
- [kazuki kuzu](#) - Panasonic

Agenda

- ELC will be held in Dublin in 12 Sep 2022
 - <https://events.linuxfoundation.org/open-source-summit-europe/about/embedded-linux-conference/>
- AGL F2F Workshop will be held in Tokyo Panasonic Center 27 Jul 2022 ~ 29 Jul 2022
 - Training session in 29 Sep 2022 Good chance to have a hands on session for virtualization: 1hr
 - can have hardware 5~10 restrict the member
 - [Jerry, Jiancong Zhao](#) check with Panasonic Hardware Team the availability of AGL RefHW
 - [Jan-Simon Moeller](#) to check availability of Raspberry Pi 4 KVM enabled. In the tutorial, at least virtio-blk, net and gpu to be included.
 - to check availability of QEMU options
 - [Jerry, Jiancong Zhao](#) and [kazuki kuzu](#) to work out rough plan of tutorials for virtualization
- [Leonardo Garcia](#) will present their progress in the OSS virtio
- [Michele Paolino](#) status about virtio in non-virt
 - virtio-loopback demonstration web page : <http://www.virtualopensystems.com/en/solutions/demos/virtio-loopback-agl-lf/>
 - initial version of transport driver
 - Release before November
 - [Michele Paolino](#) to prepare September demo/presentation plan and to be discussed in next EG on 03 Aug 2022
- [Vasyi Vavrychuk](#) update about virtio in virt
 - adding HFP support for sound. Already have had some prototypes on other platform.
 - patches to be added to virtio-snd driver and in progress to be upstreamed to Linux Kernel
 - need emulation of control on Renesas which lacks of some support in HW
 - HFP is not working with kingfish (pipewire related issue)
 - if demo is needed, better to use USB bluetooth but it is not related to the virtio-snd driver extension (virtio-bt already done)

Aug 03 2022

Attendees:

- [Jerry, Jiancong Zhao](#) - Panasonic
- [Walt Miner](#) - Linux Foundation
- [Scott Murray](#) - Konsulko
- [Mikhail Golubev](#) - OpenSynergy
- [Nedeljko Miljevic](#) - AK
- [Leonardo Garcia](#) - Linaro
- [Michele Paolino](#) - Virtual Open Systems
- [kazuki kuzu](#) - Panasonic

Agenda

- ELC will be held in Dublin from 13 Sep 2022 to 16 Sep 2022
 - <https://events.linuxfoundation.org/open-source-summit-europe/about/embedded-linux-conference/>
 - A F2F workshop will be also held on 12 Sep 2022
 - Jerry will be absent due to another business trip.
- AGL Hybrid Workshop in the end of September
 - Hybrid event
 - location: Tokyo Panasonic Center
 - time: 27 Sep 2022 ~ 29 Jul 2022
 - **Visa requirements for entering JP due to covid need to be checked if anyone would like to join onsite**
 - <https://wiki.automotivelinux.org/agl-distro/sep2022-f2f>
 - Training session in 29 Sep 2022 Good chance to have a hands on session for virtualization: 1hr
- [Leonardo Garcia](#) will present their progress in the OSS virtio backend
 - primarily worked with platform device but multi-media device support are also on the roadmap.
 - [Leonardo Garcia](#) to give a tutorial to EG member on how to build and use AGL together with the OSS backend from Linaro on 31 Aug 2022
- [kazuki kuzu](#) to introduce the plan of Hands-on session of Virt-EG
 - estimated maximum member to be 10
 - Jerry suggested to take a survey on attendance before the event to have better planning
- [Michele Paolino](#) status about virtio in non-virt
 - virtio-loopback demonstration web page : <http://www.virtualopensystems.com/en/solutions/demos/virtio-loopback-agl-lf/>
 - initial version of transport driver
 - Release before November

- [Michele Paolino](#) shared September demo/presentation plan 03 Aug 2022
 - Jerry propose for the early stage work it is okay to put on public repository on VOS but after guarantee maturity then move to the AGL UCB
 - Bring a presentation to introduce the background and goal of the project, current status & demo, and future plan in the September Workshop
 - a review in EG is necessary before the event
- [Vasyl Vavrychuk](#) update about virtio in virt
 - pushed some changes for video player and waiting for check

Aug 31 2022

Attendees:

- [Jerry, Jiancong Zhao](#) - Panasonic
- [Walt Miner](#) - Linux Foundation
- [Scott Murray](#) - Konsulko
- [Mikhail Golubev](#) - OpenSynergy
- [Nedeljko Miljevic](#) - AK
- [Leonardo Garcia](#) - Linaro
- [Michele Paolino](#) - Virtual Open Systems
- [kazuki kuzu](#) - Panasonic

Agenda

- ELC will be held in Dublin from 13 Sep 2022 to 16 Sep 2022
 - <https://events.linuxfoundation.org/open-source-summit-europe/about/embedded-linux-conference/>
 - A F2F workshop will be also held on 12 Sep 2022
 - Jerry will be absent due to another business trip.
- AGL Hybrid Workshop in the end of September
 - Hybrid event
 - location: Tokyo Panasonic Center
 - time: 27 Sep 2022 ~ 29 Sep 2022
 - **Visa requirements for entering JP due to covid need to be checked if anyone would like to join onsite**
 - <https://wiki.automotivelinux.org/agl-distro/sep2022-f2f>
 - Training session in 29 Sep 2022 Good chance to have a hands on session for virtualization: 1hr
 - Training Session for whole AGL
 - Getting started with AGL builds
 - Introduction to AGL architecture
 - Creating services in AGL
 - Write your first AGL Flutter App
 - Creating HTML5 apps for AGL
 - Using a Vehicle Signal System to connect AGL to the CAN bus via Socket CAN
 - Getting started with Virtual AGL with VirtIO
 - Serial or Parallel
- [Leonardo Garcia](#) will present their progress in the OSS virtio backend
 - primarily worked with platform device but multi-media device support are also on the roadmap.
 - <https://huawei-events.de/download-b4ba3f7a620705915d6252dccb9dacade55f78042b62bf447f5f8139eb63ccbb>
 - [Leonardo Garcia](#) to give a tutorial to EG member on how to build and use AGL together with the OSS backend from Linaro on 31 Aug 2022
 - Stratos: CAN and video waiting for SPEC fix.
 - <https://linaro.atlassian.net/wiki/spaces/STR/overview>
- [kazuki kuzu](#) to introduce the plan of Hands-on session of Virt-EG
 - estimated maximum member to be 10
 - Jerry suggested to take a survey on attendance before the event to have better planning
- [Michele Paolino](#) status about virtio in non-virt
 - virtio-loopback demonstration web page : <http://www.virtualopensystems.com/en/solutions/demos/virtio-loopback-agl-1f/>
 - initial version of transport driver
 - Release before November
 - [Michele Paolino](#) shared September demo/presentation plan 03 Aug 2022
 - Jerry propose for the early stage work it is okay to put on public repository on VOS but after guarantee maturity then move to the AGL UCB
 - Bring a presentation to introduce the background and goal of the project, current status & demo, and future plan in the September Workshop
 - a review in EG is necessary before the event
 - [Michele Paolino](#) to prepare the public repository and doc/slides to be shown in the F2F workshop 21 Sep 2022
 - share the public repository asap so that EG member started review offline. 21 Sep 2022
- [Vasyl Vavrychuk](#) update about virtio in virt
 - pushed some changes for video player and waiting for check
 - [Vasyl Vavrychuk](#) and [Mikhail Golubev](#) to work on slides related to virtio in virt part.

Sep 28 2022

Attendees:

- [Jerry, Jiancong Zhao](#) - Panasonic
- [Walt Miner](#) - Linux Foundation
- [Jan-Simon Moeller](#) - Linux Foundation
- [Scott Murray](#) - Konsulko
- [Michele Paolino](#) - Virtual Open Systems
- [kazuki kuzu](#) - Panasonic
- [Timos Ampelikiotis](#) - Virtual Open Systems
- [Binghua Duan](#) - Qualcomm

Agenda

- AGL Hybrid Workshop in the end of September
 - Hybrid event
 - location: Tokyo Panasonic Center
 - time: 27 Sep 2022 ~ 29 Sep 2022
 - **rescheduled to 18.10.2022 -20.10.2022 (tentative!)**
 - **Visa requirements for entering JP due to covid need to be checked if anyone would like to join onsite**
 - <https://wiki.automotivelinux.org/agl-distro/sep2022-f2f>
 - Training session in 20 Oct 2022 Good chance to have a hands on session for virtualization: 1hr15min
 - It will be on both on-site and online (through Zoom sharing and camera) video will be uploaded later
 - [kazuki kuzu](#) will upload the slides for the plan of Virt EG training
 - [AGL Hands-On in Panasonic Center.pptx](#)
 - Enable a guest AGL with KVM on AGL Ref HW
 - Unified HMI with AGL
- ALS (Automotive Linux Summit Japan - Dec)
 - ALS: Dec 5~6
 - Joint Session with Container & Mesh EG
 - Title: Cloud-Native Automotive Edge: AGL for Software-defined Vehicles
 - Abstract:
Cloud-native has been a hot topic in the automotive world along with the increasing needs for Software-defined Vehicles, which enables OEMs/Tier1s to develop software decoupled from the limitations of hardware. In this session, AGL Virtualization Expert Group and Container and Mesh Expert Group will jointly give a presentation on how AGL is approaching Software defined Vehicles, including defining the standard device virtualization framework "VirtIO" across automotive cloud & edge, and laying the groundwork for micro-service orchestration for on-board automotive systems.
 - [Walt Miner](#) to check in the ALS AGL booth if any space for Virt-EG & Container-EG Joint demo (1m length)
 - Non-virt VirtIO session by [Michele Paolino](#)
 - Title: *virtio-loopback: an Hardware Abstraction Layer (HAL) for non-virtualized environments.*
 - Abstract:
virtio-loopback is a virtio Hardware Abstraction Layer (HAL) for non-virtualized environments drafted by Virtualization Expert Group (EG-VIRT). The objective of virtio-loopback is to abstract hardware dependencies for the AGL framework/applications in a way that user space programs can be run unmodified on real hardware, virtualized systems and in the cloud. During this presentation we will go through the design and results of the virtio-loopback implementation activity.
- [Leonardo Garcia](#) will present their progress in the OSS virtio backend
 - primarily worked with platform device but multi-media device support are also on the roadmap.
 - <https://huawei-events.de/download-b4ba3f7a620705915d6252dccb9dacade55f78042b62bf447f5f8139eb63ccbb>
 - [Leonardo Garcia](#) to give a tutorial to EG member on how to build and use AGL together with the OSS backend from Linaro on 31 Aug 2022
 - Stratos: CAN and video waiting for SPEC fix. Working for next year.
 - [Alex Bennée](#) to consider use AGL and give some demo for AGL Events.
 - <https://linaro.atlassian.net/wiki/spaces/STR/overview>
 - we presented rust-vmm at KVM Forum 2022: https://static.sched.com/hosted_files/kvmforum2022/2c/Rust-virtio-backends.pdf
 - will add link to video once up on YT
 - Project Stratos Will have a meeting on 14 Oct 2022 (16:00) to discussing about virtio-camera problems including cloud-native ([Mikhail Golubev](#) [Michele Paolino](#))
 - Event link: [Project Stratos Call](#)
 - Meeting Minutes (when done): <https://linaro.atlassian.net/wiki/spaces/STR/pages/28771778789/2022-10-14+Project+Stratos+Meeting+notes>
- [kazuki kuzu](#) to introduce the plan of Hands-on session of Virt-EG
 - estimated maximum member to be 10
 - Jerry suggested to take a survey on attendance before the event to have better planning
- [Michele Paolino](#) status about virtio in non-virt
 - <https://git.virtualopensystems.com/virtio-loopback>
 - [Alex Bennée](#) [Mikhail Golubev](#) please kindly review the above work for virtio-rng on non-virt environment/
 - has already got the rng working tested on QEMU but not on HW
 - Have a session to present in ALS individually CFP submitted
- [Vasyi Vavrychuk](#) update about virtio in virt
 - pushed some changes for video player and waiting for check
 - [Vasyi Vavrychuk](#) and [Mikhail Golubev](#) to work on slides related to virtio in virt part.

Oct 12 2022

Attendees:

- [Jerry, Jiancong Zhao](#) - Panasonic
- [Walt Miner](#) - Linux Foundation
- [Jan-Simon Moeller](#) - Linux Foundation
- [Scott Murray](#) - Konsulko
- [Michele Paolino](#) - Virtual Open Systems
- [kazuki kuzu](#) - Panasonic
- [Timos Ampelikiotis](#) - Virtual Open Systems
- [Binghua Duan](#) - Qualcomm

Agenda

- AGL Hybrid Workshop in the end of September
 - Hybrid event
 - location: Tokyo Panasonic Center
 - time: 27 Sep 2022 ~ 29 Jul 2022
 - **rescheduled to 18.10.2022 -20.10.2022 (tentative!)**
 - **Visa requirements for entering JP due to covid need to be checked if anyone would like to join onsite**
 - <https://wiki.automotivelinux.org/agl-distro/sep2022-f2f>
 - Overall Virtualization & Containerization Related Session Plan
 - 11:00~11:05 (5min) Agenda for the whole virtualization&containerization series - Jerry
 - 11:05~12:00 (1hr) Guest Speech: Software Defined Vehicle and OSS as key enabler for SDV - SBD Automotive (Automotive Consulting Firm)
 - 12:00~13:00 (1hr) lunch
 - 13:00~15:30 (2.5hr) Technology Enablers for SDV developed in AGL
 - 13:00~14:15 (75min) Virt-EG Sessions about VirtIO by AGL. If we can get 90 min, it will be more preferred
 - General Introduction of whole EG activities by Jerry - 5min
 - VirtIO on HV by OpenSynergy - 15min: presentation incl. demo
 - VirtIO on Non-HV by Virtual Open System - 15min: presentation incl. demo
 - VirtIO on Multi-ECU (Unified HMI) by Panasonic - 15min: presentation incl. demo
 - VirtIO on cloud - PASJ Jerry 5min - short previous note for CES demo
 - Jerry to add Francois work for the virtualized AGL /w virtio on MacBook
 - Q&A 20min
 - 14:15~14:30 (15min) Break
 - 14:30~15:30 (1hr) Container-EG sessions about containers/service mesh by AWS
 - 15:30~16:00 (30min) Break
 - 16:00~17:00 (1hr) Guest Speech: Software Defined AGL by ARM/SOAFEE
 - Training session in 20 Oct 2022 Good chance to have a hands on session for virtualization: 1hr15min
 - It will be on both on-site and online (through Zoom sharing and camera) video will be uploaded later
 - [kazuki kuzu](#) upload the slides for the plan of Virt EG training
 - [AGL Hands-On in Panasonic Center.pptx](#)
 - Enable a guest AGL with KVM on AGL Ref HW
 - Unified HMI with AGL
- ALS (Automotive Linux Summit Japan - Dec)
 - ALS: Dec 5~6
 - Joint Session with Container & Mesh EG
 - Title: Cloud-Native Automotive Edge: AGL for Software-defined Vehicles
 - Abstract:

Cloud-native has been a hot topic in the automotive world along with the increasing needs for Software-defined Vehicles, which enables OEMs/Tier1s to develop software decoupled from the limitations of hardware. In this session, AGL Virtualization Expert Group and Container and Mesh Expert Group will jointly give a presentation on how AGL is approaching Software defined Vehicles, including defining the standard device virtualization framework "VirtIO" across automotive cloud & edge, and laying the groundwork for micro-service orchestration for on-board automotive systems.
 - [Walt Miner](#) to check in the ALS AGL booth if any space for Virt-EG & Container-EG Joint demo (1m length)
 - Non-virt VirtIO session by [Michele Paolino](#)
 - Title: *virtio-loopback: an Hardware Abstraction Layer (HAL) for non-virtualized environments.*
 - Abstract:

virtio-loopback is a virtio Hardware Abstraction Layer (HAL) for non-virtualized environments drafted by Virtualization Expert Group (EG-VIRT). The objective of virtio-loopback is to abstract hardware dependencies for the AGL framework/applications in a way that user space programs can be run unmodified on real hardware, virtualized systems and in the cloud. During this presentation we will go through the design and results of the virtio-loopback implementation activity.

Oct 26 2022

Attendees:

- [Jerry, Jiancong Zhao](#) - Panasonic
- [Walt Miner](#) - Linux Foundation
- [Jan-Simon Moeller](#) - Linux Foundation
- [Scott Murray](#) - Konsulko
- [Michele Paolino](#) - Virtual Open Systems
- [kazuki kuzu](#) - Panasonic
- [Timos Ampelikiotis](#) - Virtual Open System
- Oles P - Open Synergy
- [Denys Dmytryenko](#) - Konsulko

- ~~Binghua Duan - Qualcomm~~

Agenda

- F2F Workshop Slides
 - https://wiki.automotivelinux.org/_media/eg-virt/agl-f2f-202210/aglf2f_oct19_virtualization.pdf
- UnifiedHMI Demonstration
 - [AGL_UnifiedHMI_Demo.mp4](#)
- Architecture & Code review for the non-virt VirtIO
 - 2022/11/9 Special Review Session
 - [Jerry, Jiancong Zhao](#) to check the meeting availability of OpenSynergy and Linaro for the review.
 - [Jerry, Jiancong Zhao](#) to announce design freeze at tomorrow SAT and call for last round review.
 - [Mikhail Golubev](#)
 - [Alex Bennée](#)

Nov 9 2022

Attendees:

- [Jerry, Jiancong Zhao](#) - Panasonic
- [Walt Miner](#) - Linux Foundation
- ~~[Jan Simon Moeller](#) - Linux Foundation~~
- [Scott Murray](#) - Konsulko
- [Michele Paolino](#) - Virtual Open Systems
- [kazuki kuzu](#) - Panasonic
- [Timos Ampelikiotis](#) - Virtual Open System
- Oles P - Open Synergy
- [Denys Dmytryenko](#) - Konsulko
- [Bernard Craddock](#)

Agenda

- Next Virt-EG on 24 Nov 2022
- F2F Workshop Slides
 - https://wiki.automotivelinux.org/_media/eg-virt/agl-f2f-202210/aglf2f_oct19_virtualization.pdf
- UnifiedHMI Demonstration
 - [AGL_UnifiedHMI_Demo.mp4](#)
 - <https://github.com/Panasonic-Automotive/remote-virtio-gpu>
- Architecture & Code review for the non-virt VirtIO
 - 2022/11/9 Special Review Session
 - [Jerry, Jiancong Zhao](#) to check the meeting availability of OpenSynergy and Linaro for the review.
 - [Jerry, Jiancong Zhao](#) to announce design freeze at tomorrow SAT and call for last round review.
 - [Alex Bennée](#) , [Maciej Szymaski](#) joined review
 - [Michele Paolino](#) will upload the slides used for the review to call for more member review.
 - [Michele Paolino](#) will share the next-step plans in the 24 Nov 2022
- ALS Demo
 - Jerry will show a cloud-native AGL demo on the AGL booth.
 - Jerry will write an email to Walt about display and ethernet requiremen