# **AA SIG "All Hands" Meeting Minutes**

All-hands is not run regularly at the moment.

Please join the specific Audio-HAL and VHAL calls for information (parent page). Reports likely also at GENIVI All Member Meeting (May 4-7, 2021)

### **Previous minutes**

# 29 September 2020 Meeting

### Participants:

• Chief, Suhasini, Piotr, Stefan, Guru, Johan, Stephen L, Gunnar, Philippe

#### Minutes

### Status report

- AASIG status report is here
- Stefan presents the status of the VHAL demo implementation for MS3 (virtual tech summit)
- Stefan: we expect BMW to deliver the permission scheme for accessing the graphql
- Gunnar provides an update of the demo packaging and the manifest
- Gunnar presents the status of the Audio HAL demo implementation for MS3

#### virtual tech summit

- short introduction of the tech summit schedule to Chief
- the schedule is here

### 28 July 2020 Meeting

#### Participants:

• Stefan, Stephen L, Suhasini, Philippe

#### Minutes

### Status report

- AASIG status report is here
- · Philippe delivers the status report

### 30 June 2020 Meeting

### Participants:

• Chief, Alexander, Maria, Johan, Stefan, Stephen L, Gunnar, Philippe

#### Minutes

#### Status report

- AASIG status report is here
- Philippe delivers the status report
- Gunnar delivers the update on new project opportunities and the Common Vehicle Interface Initiative

# 26 May 2020 Meeting

### Participants:

· Alexander, Johan, Stefan, Philippe

### Minutes

#### Status report

- AASIG status report is here
- Philippe delivers the status report

### 28 April 2020 Meeting

· AASIG status report is here

### Participants:

- · Alexander, Wassim, Charnjiv, Nadim, Gerald, Guru, Piotr, Stefan, Gunnar, Philippe
- guest: Richard
- apologies: Sachin, Blake

#### Minutes

#### Introduction

- Richard introduces himself and explains his interest is in running multiple instances of Android Automotive inside a vehicle, he is in working on a
  proof-of-concept to investigate and identify whether some parts could be made common among the instances, for instance at the HAL level, our
  objective is to run the business logic on a virtual machine on a hypervisor
- · Charnjiv: do you intend to have this certified ?
- Richard: no, it is not intended, it is proof-of-concept work

#### Status report

- · Philippe introduces then the status report and hands over the presentation of the technical parts to Alex, Stefan and Wassim
- VHAL / Vehicle Data APIs
  - o slide #3 graphql
    - code is at: https://github.com/GENIVI/vss-graphql
    - Alex: shows the readme on graphql and the docker setup
    - Alex: example can be used on firefox and chrome and allow you to play around with the grammar
    - Alex: we need to scope down the number of signals for the propf-of-concept
    - Alex: IMHO we miss in VSS some concepts we have in graphql, we need to extend the VSS specification
    - Gunnar: asks Alex to provide details on what is missing in VSS
    - Alex: shows a wiki page comparing the syntax of types, lists, arrays, enumerations in VSS and graphql, the comparison will be provided offline
    - Gunnar: ITSM this relates to the tooling that makes the translation from (VSS) vspec to graphql, has the tool been published as well?
    - Alex: I need to ask Daniel and Adnan about publishing the tool
  - o slide #4 VSS feeder
    - code is at: https://github.com/GENIVI/vss-feeder
    - Stefan: explains the VSS feeder will receive inputs from a vehicle simulator
  - o slide #4 authentication service
    - code is at: https://github.com/stefanwysocki/aasig\_dev\_platform/tree/develop/vendor/genivi/modules/VssAuthenticationService
    - Stefan: explains the status of the implementation, the low-hanging fruit are identified as TODOs in the code
- Audio HAL
  - o slide #5 audio system level options
    - Wassim: explains that the "final" design will not be one of the two extreme options of having all audio control in or out Android Automotive (AA provides sources and sinks only or AA controls the complete audio system), the solution will be somewhere inhetween
  - o slide #6 raw streams management
  - Wassim: explains how we intend to manage raw streams in a proof-of-concept (as compared to what Android Automotive does)
- Project roadmap
  - Philippe: explains what both projects are expected to cover at the upcoming virtual tech summit workshops, in particular the proof-of-concept feature content planning for each milestone and the technical readiness of the work in order to decide when and how to reaching out Google

### Virtual technical summit

- · quick recap on the agenda
- registration link: https://www.eventleaf.com/geniviVTS (free of charge)

### 31 March 2020 Meeting

· AASIG status report is here

### Participants:

 Stephen (Renesas), Piotr, Stefan, Adam Konopa (TietoEVRY), Jinhyuk Jung, Charnjiv (Mercedes-Benz), Nadim (mobis), Berhnard (ARM), Gunnar, Steve, Philippe (GENIVI)

### Minutes

#### Status report

Philippe delivers the status report

### 25 February 2020 Meeting

• AASIG status report is here

### Participants:

Maria (Bosch), Johan (Melco), Stephen (Renesas), Piotr, Stefan (TietoEVRY), Steven (General Motors), Charnjiv (Mercedes-Benz), Wassim (BMW), Gunnar, Steve, Philippe (GENIVI)

Minutes

### Status report

- Philippe delivers the status report
- slide #4
  - o Philippe: the light brown box on the right is the IVI unit running Android Automotive, the blank box on the left is to the external data server
  - OPhilippe: explains the rationale for the External Data Server (EDS) PoC, currently the number of vehicle properties defined by Google is very limited as compared to the many vehicle data OEMs are considering for their connected vehicles, this External Data Server PoC intends to validate the concept of accessing the vehicle dataset as described by W3C VSS from apps using a web socket, the actual values of the vehicle signals will be queried / updated thanks to a VSS feeder that will connect to the rest of the vehicle using for instance Some/IP
  - Philippe: the other blank boxes contain the list of work items to be realized for implementing the PoC
- slide #5
  - Gunnar: explains which execution platforms will be used by the PoC, the embedded targets are the ones available in the GENIVI test farm (Renesas R-Car H3 and NXP)
- slide #6
  - Philippe: presents the 4 PoCs identified by the team, priorities attached to PoCs indicate only the preferences of the GENIVI team for developing the PoCs
    - the priorities do not indicate whether one PoC architectural design is recommed for a production project
    - Internal Data Server PoC is only a variant of the External Data Server where the VSS server is inside the Android Automotive framework
    - SomeIP stack inside the Framework PoC relates to a Some/IP running in Android Automotive, we could expect software vendors to show this for instance at the Spring AMM
    - Google VHAL + OEM Extensions inside PoC relates to the coexistence at VHAL level of the implementation of the Google vehicle properties and the access to the extended data set needed by OEMs
  - we expect currently that the project participants will volunteer for taking over some of the work items listed for the External Data Server PoC. the ownership of work items are to be added in this wiki page (link shown on the slide)
  - we expect to have a partial demo of the EDS PoC by Spring AMM
  - Philippe: presents also the roadmap, the rationale for the Go to Google miletstone is to make sure we have worked out a sufficiently comprehensive implementation of the first PoC before recontacting Google
- slide #7
  - Philippe: explains the expected content of the Spring AMM technical tracks
  - o for the AASIG team, we expect reports and demos and also a discussion on additional topics to be investigated by the team
  - of for instance, we start now analysing whether there is an opportunity to launch a new project on LBS (Location Based Services) in the AASIG, the rationale is that some OEMs would like to plug their own navigation software instead of Google Maps
  - the other topics that are expected to be presented at the AMM are listed in the slide, it is time to make proposals which are welcome and will be reviewed by the so-called program committee made of the PMO participants and GENIVI marketing team
- recap
  - o all participants are invited to volunteer for taking over the work items of the External Data Server PoC

### 28 January 2020 Meeting

· AASIG status report is here

### Participants:

• Charnjiv (Chief), Alexander, Stephen, Markku, Piotr, Johan, Nadim, Jinhyunk, Guru, Gunnar, Philippe, Steve

#### Minutes

#### Status report

- Philippe delivers the status report
- slide 3 CES
  - Transportation track: the panel "Vehicle as a Market Place" is advertized today because one of the panelists was the COO of ConnectedTravel, a start-up company which has a particular interesting in in-vehicle payment, we in GENIVI are currently initiating a BoF (Birds-Of-a-Feather) group with ConnectedTravel, as far the AASIG is concerned, there might be a part of the in-vehicle payment domain relevant for Android Automotive
- slide 4 Management
  - LBS: at the tech summit last November, Windriver said the question of Location-Based Services (LBS) in Android Automotive is worth being looked at. Philippe is setting up a call with PSA Navigation Expert (who is the main author of GENIVI LBS work) and Windriver
- slide 5 Vehicle HAI
  - Next week's F2F meeting will focus on security design and implementation approaches for the VHAL part of the agenda
  - The objective of the F2F is to progress on the detailed design of the architectural design concepts we identified (look at this slide deck) and select a couple of implementation approaches in order to intiate the development of PoCs in the rest of Q1 and Q2, 2020.
  - Question to OEMs & system integrators: are REST/Web sockets a required technology for connecting Android Auto with the rest of the vehicle system?
  - Compatibility of Android and non-Android systems: GENIVI developed last year a model-to-model transformation tool (so-called FARACON) to transform Franca into ARXML (and vice versa) for connecting Linux-based systems and Adaptive Autosar systems, based on this experience, we intend to investigate a similar model-to-model transformation process for connecting Android Automotive systems and other systems like Adaptive Autosar or Classic Autosar systems
- slide 6 Audio HAL
  - Audio HAL project has now a populated backlog (so-called list of prioritized topics)
  - Next week's F2F meeting will focus on source management in Android Automotive and audio management features that could be commonalized in a so-called Audio HAL
  - if time allows, Gunnar intends to introduce the work done on the Automotive Virtual Platform Specification (AVPS) in GENIVI and explain the objective of the work item dedicated to standard audio interfaces which is in the workplan for the version 2 of AVPS.
- slide 7 AASIG Reference Platform

- Tieto should deliver in the coming days an example of a service implementing VSS in Android Automotive, the code will be kept inside vendor/genivi repo for the time being
- Gunnar re-iterates his request for trying the AASIG reference platform and the test farm
- slide 8 Dissemination
  - Philippe: Automotive World (AW) agreed to host a series of GENIVI Webinars, first Webinar will be about the Automotive Virtual Platform Specification (AVPS)(scheduled next week).
  - Philippe: We would like to deliver a webinar on the AASIG work in late Q1/early Q2. Since we got a recurrent question from the community about whether Google knows about the GENIVI AASIG work, we need to discuss when and how to reach out Google
  - o Reaching out Google
    - question to participants: do you feel ready to go to Google on the VHAL concepts ?
    - Johan: we are not ready with the concept(s) yet
    - Alex: same opinion, we need some implementation showing it works, we need a tree of properties slightly bigger than the Google ones, we need to push further the standardization in W3C
    - Philippe: what is the maturation duration in your opinion ? 3-month, 6-month, 12-month
    - Gunnar: even next week if we do good work in the F2F meeting? We should find there an agreement on what we need to implement
    - Alex: our objective should be to have something to show for the Summer
    - Alex: Tieto, Visteon and BMW had a discussion last week that showed we need to open our mind and identify alternate approaches
    - Gunnar: IMHO we cannot wait for every details to be nailed down before talking to Google
    - Alex: I would like to participate more in the VSS standardization work, the objective is to show that the VSS tree is growing bigger than the Google properties
    - Johan: reminds us that if we do things outside Android Automotive, Google will likely not care about it
    - Johan: when we are concrete enough, I can share a contact in Google AA team
  - o GENIVI Spring AMM
    - Steve explains the GENIVI Spring AMM will be scheduled in Germany in the 2nd week of May
    - technical content will cover all the active projects and BoF activities
    - Philippe: we will start asking the projects for their contribution very soon in order to get a reasonably baked agenda at the end of February

### 26 November 2019 Meeting

· AASIG status report is here

#### Participants:

- Stephen, Markku, Johan, Gunnar, Piotr, Stefan, Pontus, Guru, Giovanni, Viet-Ahn, Gerald, Philippe
- · Apologies: US participants because of Thanksgiving

#### Minutes

#### status report

- Philippe delivers the status report
- slide 6
  - Johan: I started to work on the Renesas HW, but got no response from Renesas yet on whether I can get the code for the Salvatore-x board
  - o Stephen: we will take this offline
- slide 7
  - link to Vehicle HAL and vehicle software system level architectural concepts: look there, this includes the latest discussions at the tech summit
  - o discussion on the organization of the F2F on Vehicle HAL
    - (added offline): December seems to be a little bit early due to the Christmas period approaching, it seems more reasonable to schedule it in January, BMW proposed to host the F2F in Munich, Germany
    - F2F meeting organization date planning look here
- slide 8 link to Audio HAL introduction: look there

### Ascender technology

- Gunnar gives a short introduction of the "Android in Cloud" technology from the start-up Ascender
- Johan: I have an interest in a presentation of the technology

### 29 October 2019 Meeting

- AASIG status report is here
- Minutes in Word

### 24 September 2019 Meeting

- · AASIG status report is here
- Minutes in Word

### 27 August 2019 Meeting

· Presentation on Android & SomelP is here

# 23 July 2019 Meeting

• Reminder that all individuals should fill in the poll (rather a sign-up list for projects): https://dudle.inf.tu-dresden.de/aasig/

Minutes in Word

# 9 July 2019 Meeting

Summary page for planning Android Development Platform

Minutes in Word

JIRA issue tracker (please request a login from GENIVI staff)

# 25 June 2019 Meeting

Slide Deck

Slide Deck on Graphics Sharing / Distributed HMI project (GSHA) - Android related topics

Summary page for planning Android Development Platform

Minutes in Word

# 11 June 2019 Meeting

Slide Deck

Minutes in Word

# 15 May 2019 Project Kickoff Meeting at GENIVI AMM

Slide Deck