ĺп GENIVI® Android/QNX surface sharing PoC October 10, 2018

Sergey Klevitskiy

Software Engineer, Harman

This work is licensed under a Creative Commons Attribution-Share Alike 4.0 (CC BY-SA 4.0) GENIVI is a registered trademark of the GENIVI Alliance in the USA and other countries. Copyright © GENIVI Alliance 2018.

Summary

Goal:

Implement prototype of the digital cockpit HMI to prove surface sharing approach for sending IVI graphics content from Android to QNX system over network



PoC Details

- HW: Intel NUC(x86) + Samsung S3 Tab
- Cluster is built on top of the QNX v7 RTOS
- Cluster HMI is Qt/HCAT based
- Using Android SW stack & MapBox SDK for Navigation simulation
- Gigabit ethernet

Cluster compositor

- QNX screen compositor
- Qt Wayland compositor
- Qt 3D Studio presentation



Cluster Scene





PoC architecture

Two IDC channels: Control Commands channel and Surface Cast Channel







PoC architecture cont.





Navigation use case





Thank you!

Visit GENIVI at <u>http://www.genivi.org</u> or <u>http://projects.genivi.org</u> Contact us: <u>help@genivi.org</u>

GENIVI

This work is licensed under a Creative Commons Attribution-Share Alike 4.0 (CC BY-SA 4.0) GENIVI is a registered trademark of the GENIVI Alliance in the USA and other countries. Copyright © GENIVI Alliance 2018.