





## GENIVI ALLIANCE AND OPEN CONNECTIVITY FOUNDATION COLLABORATE ON OPEN STANDARDS IN VEHICLE CONNECTIVITY

The GENIVI Alliance and the Open Connectivity Foundation (OCF) have announced a liaison agreement that will see the two organizations co-develop open standards for vehicle connectivity and vehicle data exchange, including a unified model for secure discovery and exchange of information between smart homes, connected cars and other IoT devices.

The joint effort will also address end-toend security challenges and, according to the two organisations, will be the basis for a growing number of V2X (Vehicle-toeverything) solutions, enabling new opportunities across multiple verticals.

GENIVI and OCF will also closely collaborate with the W3C Automotive Working Group, which develops an Open Web Platform API specification, to expose vehicle data to web application developers.

At CES 2017, the two organizations demonstrated a smart home gateway that featured vehicle-to-smart-home connectivity utilizing GENIVI Remote Vehicle Interaction (RVI), Vehicle Signal Specification (VSS) and OCF's loTivity technologies (see the Connected Car magazine video of this demo on p6-7 of this issue). The demonstration displayed various approaches on how connected vehicles can interact with IoT and the smart home.

Joonho Park, executive director of OCF commented, "OCF believes in technology partnerships that will help drive our vision of ensuring secure interoperability for consumers and business, across multiple industry verticals. We are excited about today's announcement which helps us build on our momentum to deliver specifications and open source components that will benefit the entire IoT ecosystem. We've had a productive,

year-long collaboration with GENIVI, resulting in open source contributions to key IoT projects and technology demonstrations at CES 2017 that were received extremely well by attendees."

## QUALCOMM AND LG BRING 5G AND CELLULAR-V2X COMMUNICATIONS TO VEHICLES

Qualcomm Technologies and LG Electronics (LG) have announced coordinated efforts to facilitate testing and adoption of 5G and Cellular-V2X (C-V2X) communications into vehicles. Qualcomm Technologies and LG expect to showcase these next-generation wireless technologies through trials during the first half of 2018. The two companies delivered their first telematics system in 2004.

On the path to 5G, LG is developing advanced automotive connectivity solutions based on Qualcomm Technologies' connected car platform, which features support for Gigabit LTE speeds using the Qualcomm Snapdragon X16 LTE modem, and is complemented by the QCA65x4 Wi-Fi 802.11ac solution. The connected car platform also supports 802.11p/DSRC and C-V2X, based upon 3rd Generation Partnership Project (3GPP) Release 14 specifications.

With a strong evolution path to 5G, C-V2X technology is said to be a key feature for safety conscious and autonomous driving solutions, complementing other Advanced Driver Assistance Systems (ADAS) sensors, such as cameras, radar and LIDAR, to provide information about the vehicle's surroundings, even in non-line-of-sight (NLOS) scenarios. In addition to allowing for 360 degree NLOS, C-V2X is also designed to allow for enhanced situational awareness by detecting and exchanging information using direct communications in the 5.9GHz ITS band with other vehicles, infrastructure and pedestrians' devices, as well as networkbased communications to cloud services

using commercial cellular bands. Compared to current technologies, Qualcomm claims that C-V2X is designed to deliver enhanced V2X direct communication range, reliability, latency and superior NLOS performance. The technology is supported by a broad ecosystem based on 3GPP Release 14 specifications, with trials expected to begin later this year.

## BACK TO THE FUTURE FOR FORD CUSTOMERS

Millions of owners of older Ford cars in the USA stand to benefit from Ford SmartLink, a technology that enables connectivity features normally only available on new modem-equipped vehicles. Using a device that plugs into the OBD II port below the steering wheel, Ford SmartLink will give customers who own 2010 – 2016 model year Ford and Lincoln vehicles that are not equipped with a modem access to:

- Smartphone-based remote start, lock and unlock.
- 4G Wi-Fi hotspot capable of accepting up to eight devices.
- Vehicle health and security alerts.
- Vehicle location assistance.

Stephen Odell, executive vice president, Global Marketing, Sales and Service told Connected Car, "Ford SmartLink will surprise and delight owners of recent model-year vehicles by adding some of today's most popular connectivity features. Offering it through our dealerships is another way to keep us connected with our customers and earn their loyalty."

SmartLink can be obtained at Ford and Lincoln dealerships starting this summer. With more than two years of research and development invested, Ford says that its SmartLink team of engineers, in collaboration with Delphi Automotive and Verizon Telematics, have ensured the technology will work seamlessly with Ford and Lincoln vehicles.