The GENIVI Alliance is developing open source software and standards for connected cars. In February, the group announced an agreement with Internet of Things (IoT) standards body the Open Connectivity Foundation (OCF) to co-develop open standards for vehicle connectivity and vehicle data exchange, including communication between smart homes, cars and other IoT devices.

Steve Crumb, the GENIVI Alliance’s executive director, spoke to Aftermarket Business World about the agreement.

Can you explain the genesis of the agreement between GENIVI and OCF?

The genesis of the GENIVI/OCF agreement was a result of some excellent product collaboration on vehicle-to-smart-home connectivity that started in early 2016. GENIVI produces a connected vehicle standard called Remote Vehicle Interaction (RVI) and that caught OCF’s attention as a means of establishing interactions between a vehicle and their smart home gateway. After just a couple of months of work, a demonstrator had been created, and since then we've worked together on several other examples that have been shown at various events like the 2017 Consumer Electronics Show. GENIVI and OCF are very like-minded in that we both work with open source software.

What will GENIVI gain through this collaboration?

GENIVI wants to deliver open software based on open standards that can be adopted by the entire automotive industry. If only one or two automakers adopt the approach, it’s really not going to impact the industry as it should. The potential for automakers and application developers to have a single method of specifying and obtaining vehicle data is huge, likely saving millions of dollars and making the development of applications worth the effort.

Can you describe some of the potential applications of connected cars interacting with smart home and other technology?

A typical example might be that when a connected car gets in the vicinity of a connected home, messages can be sent to the home to set the temperature at a preferred level, turn on lights, and even fire up the sound system with a preferred playlist. The opposite can be true when the driver leaves for the day. You also have personal devices like wearables that can be factored in as well.

What challenges remain for widespread adoption of this type of technology?

Certainly, broad adoption is one of the biggest challenges. The automotive industry, especially in software, has a long history of being very secretive and closed about their solutions. Solutions built
in the open and freely available are, for no clear reason considered inadequate and thus overlooked and this hurts broad adoption. Another challenge is security. The GENIVI Security Team and a host of other organizations are working very diligently to understand those threats, to train developers in sound coding techniques, and to help automakers and their suppliers recover quickly when a vulnerability is identified.