

# Bosch contributes Vehicle Edge and IoT Event Analytics to the Common Vehicle Interface Initiative (CVII)

The fundamental shift from a hardware-based to a software-centric IoT device on wheels requires a rethink to address customer needs. Today, customer value is driven by software features such as infotainment as well as driver assistance and intelligent connectivity features rather than by mechanical functions. This presents a towering challenge, as no company is going to be able to transform the automotive industry on its own. Companies have to collaborate within the automotive ecosystem and build synergies with partners. This is why we believe that open standards and open source, as a model for collaborative development, offer a faster path towards new and rapid innovations.

As part of the CVII, Bosch has contributed and is working on the Vehicle Edge and IoT Event Analytics open-source projects.

[IoT Event Analytics](#) is an efficient stream processing and complex event processing (CEP) engine based on a publish/subscribe system. It can run inside a vehicle to (pre)process data and in the backend. IoT Event Analytics platform already includes SDKs for Node.js, Python, and CPP to implement "talents" extend and use the platform. A Visual Studio Code plugin helps you to get productive fast.

The [Vehicle Edge](#) is a software stack for vehicle computers. It acts as a bridge to signals and services from field buses and other ECUs. The Vehicle Edge stack combines various software components and is built around the [IoT Event Analytics](#) platform. Vehicle signals are abstracted using the [GENIVI VSS](#) data model. These VSS signals are made available to vehicle-agnostic applications running in the IoT Event Analytics platform via the [KUKSA.val](#) server implementing the [W3C VISS](#) standard.

Bosch supports the GENIVI and CVII goal of establishing an industry-wide common vehicle data language and invites the open source community to use and further develop the [Vehicle Edge](#) and [IoT Event Analytics](#). In the CVII we look forward to sharing best practices across the industry and to further fruitful discussions and software contributions.

Join the CVII by participating in [any of the active subprojects](#).

For further information regarding the [IoT Event Analytics](#) or [Vehicle Edge](#) you can contact [Lars-Erich-Kiefer](#), [Christian Kerstan](#) or [Sebastian Schildt](#)