Anja Krahl
Press and Public Relations

T +49 711 3423-2240
anja.krahl@etas.com

ETAS GmbH
Borsigstraße 24
70469 Stuttgart
Germany

Press Release

ETAS security experts lead development of new AUTOSAR firewall specification
OEMs supported by new feature for uniform configuration of firewalls across the vehicle

− Standardized "Firewall" security module now included in the middleware security portfolio

− Mastering cybersecurity challenges in software-defined vehicles

Stuttgart, Germany, February 1, 2023 – Vehicle architectures are becoming increasingly complex and Automotive Ethernet more and more important. In light of this, AUTOSAR presented a new specification at the feature release end of 2022. Experts from ETAS led the development of this innovation. From now on, the standardized "Firewall" security module will be included in the middleware security portfolio. This makes it easier for OEMs to achieve uniform configuration of firewalls across the vehicle.

The goal of AUTOSAR, the software standard used by leading automotive manufacturers and suppliers alike, is to achieve more control over the growing complexity of the software used in today's vehicles with the help of a middleware specification. AUTOSAR offers a range of modules that can be used in conjunction with vehicle applications – in particular, IT security modules. Experts from ETAS have served on the AUTOSAR partnership's security steering committee for many years. This allowed them to first define the requirements for the new "Firewall" security module. The next step was to develop and standardize the module, and ETAS was instrumental in advancing and managing this process. As a result, the new feature has now been released; it is already available for AUTOSAR Adaptive and will be added to the Classic platform in 2023, too. This new specification means that AUTOSAR fulfills a key requirement for mastering future cybersecurity challenges in highly connected, increasingly software-defined vehicles (SDVs).

ETAS drew on its many years of firewall experience to develop the new security module: the ESCRYPT CycurGATE Automotive Ethernet firewall is already designed with the future vehicle electrical system architecture in mind, and multiple customers have put it through its paces in practice.

"An important aspect of the new specification is the introduction of standard language to describe firewall configuration, which leads to a greatly simplified exchange of requirements with a lower error rate and improved traceability," explains Dr. Michael Peter Schneider, spokesperson for AUTOSAR's Security working group and Lead Technical Officer AUTOSAR Security at ETAS.

"The configuration of the Ethernet firewall and the ESCRYPT Intrusion Detection System (IDS) will be a core activity for future E/E architectures. In the future, having a common language for firewall rules and for connecting to the IDS manager will be immensely helpful – especially for distributed firewalls," adds Dr. Siddharth Shukla, Senior Product Manager, Network Intrusion Detection System (IDS) & Firewall.

About ETAS

Founded in 1994, ETAS GmbH is a wholly owned subsidiary of Robert Bosch GmbH, represented in twelve countries in Europe, North and South America, and Asia. ETAS' portfolio includes vehicle basic software, middleware, development tools, cloud-based operations services, cybersecurity solutions, and end-to-end engineering and consulting services for the realization of software-defined vehicles. Our product solutions and services enable vehicle manufacturers and suppliers to develop, operate, and secure differentiating vehicle software with increased efficiency.

Further information available at www.etas.com

Figures:

Figure 1: Topic image – Automotive Ethernet Firewall

Figure 2: Dr. Michael Peter Schneider
Lead Technical Officer AUTOSAR Security at ETAS

Figure 3: Dr. Siddharth Shukla
Senior Product Manager, Network
Intrusion Detection System (IDS) &
Firewall bei ETAS