

ETAS and Lynx Software Technologies Collaborate

ETAS and Lynx Software Technologies are collaborating to deliver safe and secure ECU platform technology to support the needs of next-generation connected and autonomous vehicles. This new collaboration brings experience in the development of safety-critical applications for the automobile industry together with the highest levels of cyber security. Next-generation connected and autonomous vehicles require powerful domain controllers (DC-ECUs) and vehicle

computers (VC-ECUs) to be introduced into the EE architecture. The DC/VC ECUs will use powerful microprocessors with richer, more adaptive software platforms. They still have challenging safety, security, and real-time requirements and they must also integrate with the classic platforms. This solution offers the trusted safe and secure software foundation required by DC/VC ECUs.

STMicroelectronics, ETAS, and ESCRYPT: Secure Applications for Connected Cars

The cooperation with STMicroelectronics (New York Stock Exchange: STM), a leading manufacturer of semiconductors for electronics applications, aims at delivering a complete platform comprising microcontrollers, software tools, and security solutions that accelerates development of new automotive control units for the connected car age. Using the platform, suppliers will be able to create secure ECUs that ensure a high level of protection for vehicle owners' privacy, OEMs' intellectual property, and ECU functional integrity as vehicles become remotely accessible via various networks.

The joint solution leverages STMicroelectronics' SPC58 series of power-efficient and real-time-capable automotive microcontrollers, which feature a built-in Hardware Security Module (HSM) as well as multiple state-of-the-art CAN FD interfaces, plus LIN, FlexRay, and Ethernet with time-stamping. It also includes secure elements, or embedded SIMs (Subscriber Identity Modules), for protection against Internet-based attacks on ECUs and gateways. ESCRYPT is contributing its expertise in secure ECU communication, including distribution of over-the-air software updates, and provides firmware and middleware for ECU developers to utilize the SPC58 HSM. Together, the HSM and ESCRYPT's security technologies handle all the necessary authentication of trusted sources and prevention of access by unauthorized agents. The solution leverages ETAS' proven RTA software products that support ECU code development. RTA-BSW (Basic Software) is complemented by ISOLAR-A and ISOLAR-EVE tools for authoring and testing a full ECU software stack in a virtual environment.

ESCRYPT Collaborates with Renesas Electronics

Renesas Electronics Corporation, a premium supplier of advanced semiconductor solutions, is collaborating with ETAS subsidiary ESCRYPT on a new platform solution that facilitates security integration in complex automotive applications for autonomous driving. The new joint hardware/software platform solution comprises Renesas' RH850/P1x-C series of automotive safety microcontrollers (MCUs) that combine functional safety, security, and vehicle control network technologies on a single-chip, with ESCRYPT's CycurHSM security software stack for hardware security modules. As a result, highly complex automotive security solutions are realized and development times reduced. In addition, the new platform solution serves as a stepping stone to achieve autonomous driving by accelerating the integration of safety and security functions.

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