

ETAS GmbH

Borsigstraße 14
70469 Stuttgart, Germany
Phone +49 711 3423-2240

Press and Public Relations:
Anja Krahl

anja.krahl@etas.com
www.etas.com

Press Release

ETAS and Lynx Software Technologies collaborate to deliver safe and secure ECU platform technology to support the needs of next generation connected and autonomous vehicles

- The RTA-BSW AUTOSAR software from ETAS, Embedded Security by ESCRIPT, and the LynxSecure Separation Kernel Hypervisor from Lynx bring the best of the safety and security worlds together for the automotive industry
- The next generation of connected and autonomous vehicles requires powerful domain controllers/vehicle computers (DC/VC ECUs) to be introduced into the EE architecture
- The DC/VC ECUs will use powerful microprocessors with richer, more adaptive software platforms – but they still have challenging safety, security, and real-time requirements; AND, they must also integrate with the classic platforms
- The solution offered by bringing together ETAS, ESCRIPT, and Lynx offers the trusted safety and secure software foundation required by DC/VC ECUs

Stuttgart, March 14, 2017 – ETAS and Lynx Software Technologies unveiled a new collaboration that brings the automotive safety-critical world together with the highest levels of security to meet the demanding needs of the next generation of connected and autonomous high-performance automotive systems. The embedded world Exhibition&Conference in Nuremberg provides the first demonstration of this unrivalled technology integration.

ETAS will provide and support the LynxSecure Separation Kernel for the automotive market. In addition, ETAS is supporting LynxSecure with a version of the AUTOSAR basic software solution RTA-BSW and the ESCRYPT embedded security solution to run within the lightweight isolated virtual machine containers of LynxSecure. This combination forms a complete platform designed to address real-time use cases which demand the highest level of safety and security.

The LynxSecure Separation Kernel allows the powerful microprocessor-based hardware to be partitioned and isolated into different virtual machines allowing software applications to co-exist while providing freedom from interference. The LynxSecure Separation Kernel technology also offers the unique LynxSecure Application virtual machine containers. These bare-metal virtual machines are highly efficient allowing application code to run directly on the microprocessor without the need for a guest operating system.

The demonstrator shown in partnership with Lynx at their embedded world booth illustrates how the highly efficient LynxSecure Application bare-metal virtual machine technology is used to integrate the classic AUTOSAR environment provided by the ETAS RTA-BSW. This demo illustrates how existing AUTOSAR software can be integrated into a powerful DC/VC ECU, while providing the necessary safety, security, and freedom from interference that the most demanding applications require. It can be seen how the safety-critical LynxSecure Application partition running RTA-BSW and associated AUTOSAR application software continues to function flawlessly, even when other virtual machine partitions are restarted.

The LynxSecure Application virtual machine containers will also be used to host the critical security components in strongly isolated partitions. This will allow security services such as intrusion detection, firewalls, key management, etc. to be separated from the rest of the system while providing a smaller trusted code-base footprint which is the foundation for ensuring the highest levels of security.

About RTA Solutions

ETAS RTA Solutions has a long and trusted heritage of supporting the automotive industry with series production platform software. ETAS has offered the smallest and fastest automotive operating system for the last 20 years. Today, RTA Solutions provides a complete AUTOSAR basic software stack, RTA-BSW. The RTA Solutions basic software components have been deployed in more than 1.2 billion ECUs to date with millions of new ECUs being produced each week.

About LynxSecure

The LynxSecure Separation Kernel Hypervisor brings unique protection characteristics to intelligent devices, gateways, and cloud infrastructure. It combines military-grade security with hard real-time scheduling, offering unique differentiation against traditional virtualization solutions. The separation kernel and "Type-0" hypervisor is an award-winning bare-metal architecture, designed from the ground up, that differentiates from type 1 hypervisors by removing the un-needed functionality from the "security sensitive" hypervisor mode, yet virtualizes guest OSes in a tiny stand-alone package. LynxSecure provides an independent runtime environment and libraries to build high-assurance LynxSecure Applications (LSAs) that run directly on the CPU cores without relying on the assistance of a guest operating system. LSAs are extremely useful for computing environments that require assurance that application logic is correct. By removing the complex dependencies on an operating system, verifying correctness of these high-assurance applications becomes drastically simpler.

Contact:

ETAS GmbH

Anja Krahl
Senior Manager
Press and Public Relations
+49 711 3423-2240
anja.krahl@etas.com

ETAS North American Contact:

Claudia Hartwell
Senior Manager
Marketing and Communications
+1 734 302-2026
claudia.hartwell@etas.com

ESCRYPT GmbH - Embedded Security

Bianka Ansperger
Marketing Manager
+49 234 43870-213
bianka.ansperger@escrypt.com

Lynx Software Technologies Inc.

Kirsten Nelson
Director Marketing Communications
+1 408 979 3900
knelson@lynx.com

Lynx European Media Contact:

Peter van der Sluijs
Neesham Public Relations
+44 (0) 1296 628180
peter@neesham.co.uk

About ETAS

ETAS provides innovative solutions for the development of embedded systems for the automotive industry and other sectors of the embedded industry. As a systems provider, ETAS supplies a multifaceted portfolio that covers the range from integrated tools and tool solutions to engineering services, consulting, training, and support. Security solutions in the area of embedded systems are offered by the ETAS subsidiary ESCRYPT. Established in 1994, ETAS GmbH is a 100-percent subsidiary of the Bosch Group, with international subsidiaries and sales offices in Europe, North and South America, and Asia.

Further information can be found at www.etas.com

About ESCRYPT - Embedded Security

ESCRYPT - Embedded Security is the leading system provider for embedded security worldwide. With locations in Germany, the UK, Sweden, the USA, Canada, China, Korea, and Japan we have security specialists available to help with current security topics such as secure M2M communication, IT security in the Internet of Things, protection of e-business models, and automotive security and they develop highly secure, worldwide valued products and solutions which are tailored to the specific requirements of embedded systems and the relevant IT infrastructure and are tested and proven a million times in automotive series production. ESCRYPT is a subsidiary of ETAS GmbH, a wholly owned subsidiary of the Bosch Group.

Further information can be found at www.escrypt.com

About Lynx Software Technologies

Lynx Software Technologies, a world leader in the embedded software market, is committed to providing the highest levels of safety and security in its RTOS and virtualization products. The latest product in the portfolio, the award-winning LynxSecure offers a secure separation kernel and embedded hypervisor that forms a platform for the development of highly secure systems. Since it was established in 1988, Lynx Software Technologies has created technology that has been successfully deployed in thousands of designs and millions of products made by leading automotive, communications, avionics, aerospace, medical, and transportation companies. Lynx headquarters are located in San Jose, CA.

Further information can be found at www.lynx.com