PRESS Release

**Kernkonzept‘s L4Re Secure Separation Kernel VS 1.0.0 approved for NATO SECRET**

Dresden, July 21, 2025 – The German Federal Office for Information Security (BSI) has granted the L4Re Secure Separation Kernel VS 1.0.0 approval for the classification level NATO SECRET.

With the approval for the NATO SECRET classification level, the L4Re Secure Separation Kernel VS 1.0.0 can now be used in security-critical applications within the NATO area. The approval paves the way for trustworthy communication and the protection of sensitive information on a multinational level. The L4Re Secure Separation Kernel VS 1.0.0 is the first and currently the only separation kernel approved for both secrecy levels VS GEHEIM and NATO SECRET.

“This approval is further proof of Kernkonzept's expertise in the development of IT security solutions for classified information. Our European and international customers and partners can now extend the scope of their products to NATO SECRET classified information”, says Dr. Michael Hohmuth, CEO of Kernkonzept.

A separation kernel provides strict isolation between different security domains or classification levels within a computer system. The main task of the separation kernel is to ensure that the flow of information and interactions between these domains are protected and secure. Through strong isolation mechanisms, it prevents unauthorized access, data leaks or interference between sensitive components. This is particularly important in scenarios where several levels of security or information with different levels of confidentiality are being processed on the same hardware.

The successfully completed NATO SECRET evaluation procedure of the BSI is particularly relevant for government authorities and companies in the defense sector, as accordingly classified data may only be processed with the approval for NATO SECRET.

“With the NATO SECRET approval for the L4Re Secure Separation Kernel VS 1.0.0, we offer an important building block for IT security in mission-critical environments in the NATO area,” says Dr. Adam Lackorzynski, founder and CTO of Kernkonzept GmbH. “This means that international customers with NATO-classified information now also have access to a secure operating system in the form of L4Re.”

To prevent attacks and technical malfunctions, the L4Re Secure Separation Kernel VS 1.0.0 was developed strictly according to the principle of “security by design” from the very beginning. With the very small Trusted Computing Base (TCB) and the capability-based mandatory access control (MAC), the L4Re Secure Separation Kernel VS 1.0.0 provides a high level of security which can be implemented directly.

L4Re technology has been used for many years in various IT and VS security products with NATO SECRET approval for the strict separation of sensitive information, networks or critical security functions. Since the beginning of 2024, Kernkonzept GmbH, a medium-sized, owner-managed company, has been the only provider of VS IT solutions with a GEHEIM-approved separation kernel.

About Kernkonzept

Kernkonzept is a specialist in secure and safe virtualization and operating-system technology.  
Our customers develop complex software products for safety-, security-, and mission-critical applications that often require certification or accreditation.

Built on our open-source L4Re technology – a scalable, microkernel-based operating system and hypervisor platform – we deliver system solutions with a minimal attack surface, real-time capabilities, and robust virtualization support, up to our product L4Re Secure Separation Kernel VS 1.0.0 that is accredited up to GERMAN GEHEIM and NATO SECRET, as well as the L4Re Secure Separation Kernel CC 1.0.1 that is certified with the Common Criteria EAL 4+ standard.

By leveraging our certified and field-proven technology, our customers can significantly reduce the time, cost, and risk involved in certifying their own products – accelerating their path to market.

Our deeply experienced operating system engineers tailor these solutions to meet the demands of safety-critical markets like automotive, as well as high-assurance security, cloud servers, and embedded systems. We are dedicated to supporting our customers with comprehensive, customized architectural consulting and engineering services to drive their success. Kernkonzept GmbH is based in Dresden, Germany.

Website: [www.kernkonzept.com](http://www.kernkonzept.com)  
github: <https://github.com/kernkonzept>   
BSI: <https://www.bsi.bund.de/DE/Themen/Oeffentliche-Verwaltung/Zulassung/Liste-zugelassener-Produkte/liste-zugelassener-produkte_node.html>

Kernkonzept contact  
Katrin Kahle, Head of Product  
Tel: +49 351 41 88 3232  
Email: [katrin.kahle@kernkonzept.com](mailto:katrin.kahle@kernkonzept.com)