

Training:

Docker, Kubernetes & Security in Enterprise Environments

Date of the online training: **November 04-05, 2021**

Overview

Container, Microservices, Kubernetes - all of those terms heavily dominate modern application development teams and processes. This training will explain the key technologies behind those terms and focus on the following main questions:

- How strong and reliable are the isolation capabilities of Docker/Linux/OS containers?
- How do containers affect typical application and network architectures?
- How does Kubernetes affect application deployments and workflows?
- How is "security" integrated into those paradigms?
- What additional attack surface and security challenges are introduced by the changed development landscape and additional tools?

All agenda topics will be supported by practical exercises and/or demos. At the end of the training, each attendee will have knowledge about the described buzzwords and tools and understand how they impact application architectures, development, and security posture. Additionally, a fully functional Kubernetes cluster is built, as well as relevant security measures implemented and discussed.

Who should visit the training and why?

IT Security Professionals who want to:

- understand the technology behind the recent and common buzzwords listed above
- be able to evaluate the isolation capabilities of container solutions
- get ideas on how to integrate security into typical DevOps environments and continuous workflows

Software Architects and Developers who want to:

- learn about potential security vulnerabilities in common practices and tools
- understand the concerns of the security people
- improve their development chain by adding automated security checks

Due to the large amount of tools and technologies, this training will not be able to cover security aspects of every single technology in detail. However, we're happy to receive specific questions before the training to potentially prepare additional material and you will get an overview how to approach unknown/new technologies from a security perspective.

Prerequisites

The attendees should have:

- basic knowledge of the Linux bash and a command line-based text editor (e.g. nano or vim)
- a system with WLAN and an SSH client (i.e. PuTTY) which is able to connect via SSH to systems in the Internet.
- For the exercises, we provide the needed infrastructure in a cloud environment which the attendees can connect to via SSH.

About the Trainer

Kevin Kelpen is a senior IT security consultant and researcher at ERNW Enno Rey Netzwerke GmbH. His daily work covers a broad range of areas including in-depth security assessments and traditional consulting. During his research time, he enjoys tackling technical problems for assessing the security of complex systems from high-level cloud services down to their underlying hypervisors. From an academic perspective, he holds a M.Sc. degree in IT Security from Technical University of Darmstadt.

Florian Bausch studied Digital Forensics and wrote his Master's Thesis about the forensic analysis of Ceph distributed storage. Since 2019 he has been working for ERNW Research GmbH as pentester and incident analyst.

Sebastian Sartor is an IT security consultant and researcher at ERNW Enno Rey Netzwerke GmbH. During his studies he primarily focused on network security and continued to do so at ERNW, where amongst many other tasks he performs Cloud and Kubernetes security assessments. He holds an M.Sc. degree in IT security from Technical University of Darmstadt.

Booking

Recommended online booking of trainings through:

[/https://tickets.ernw.de/troopers/tr21training/](https://tickets.ernw.de/troopers/tr21training/)

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Need assistance? Don't hesitate to call us. We are fluent in English and German.
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