Kubernetes Security

Hardening and Securing Clusters and Workloads

Kubernetes has established itself as the de facto standard for operating containerized applications. However, as it becomes more widespread, the need to secure Kubernetes clusters against attacks and misconfigurations is also increasing.

In this Kubernetes security course, you will learn about key security aspects of Kubernetes - from securing individual pods and access control using RBAC to network security, auditing and the protection of sensitive data.

We use practical exercises and lab environments to teach you how Kubernetes can be operated securely - both at the infrastructure level and with regard to application operation.

After completing the course, you will be able to:

- **Configure Kubernetes clusters securely**
- **Define and enforce security policies with Kyverno**
- **Monitor and analyze security-related processes**
- **integrate vulnerability assessment tools into their DevSecOps processes**

Course Contents

- Kubernetes security architecture and threat model
- Pod security standards & admission control with Kyverno
- Access control with RBAC and namespace isolation
- Policy validation with Kyverno
- Securing secrets and ConfigMaps (including Vault integration)
- Network segmentation with network policies
- Hardening container images (CIS benchmark, Trivy)
- Auditing and monitoring with Kubernetes audit logs and Falco
- Use of security tools such as kube-bench, kube-hunter, Trivy
- Hands-on labs: analysis, hardening, policy creation

E-Book The detailed digital documentation package, consisting of an e-book and PDF, is included in the price of the course.

Target Group

The course is aimed at administrators, DevOps engineers and platform operators who already use Kubernetes or want to secure it.

Prerequisites

You should have basic knowledge of Kubernetes, in particular:

- Experience in working with `kubectl` and YAML resources
- Familiarity with the concepts of pods, deployments and services
- A solid understanding of containerization with Docker or Podman

You can acquire this knowledge in the courses Kubernetes - Orchestration in Detail and Kubernetes Advanced - Complex Deployments, Network Configuration and Interfaces.

This Course in the Web

You can find the up-to-date information and options for ordering under the following link: www.experteach-training.com/go/**KUSE**

Reservation

On our Website, you can reserve a course seat for 7 days free of charge and in an non-committal manner. This can also be done by phone under +49 6074/4868-0.

Guaranteed Course Dates

To ensure reliable planning, we are continuously offering a wide range of guaranteed course dates.

Your Tailor-Made Course!

We can precisely customize this course to your project and the corresponding requirements.

Training		Prices, excl. of V.A.T.
Classes in Germany	**2 Days**	**€ 1,595**
Online Training	**2 Days**	**€ 1,595**

Date/course venue — Course language German

20/10-21/10/25 HY Frankfurt	09/03-10/03/26 HY Online
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