



Secure Digital Cloud Platforms

Kubernetes introduction training



kubernetes



Check Point®
SOFTWARE TECHNOLOGIES LTD.

Our Kubernetes enablement educational offering includes live and remote options for every student profile. The workshops are adaptative for each Kubernetes adoption stage from the basics (“What is a Kubernetes Pod?”) to advanced scenarios, kubernetes networking configuration, cluster troubleshooting and kubernetes security.

Our workshops are delivered by cloud-native experts in microservers, CI/CD, DevOps and, of course, Kubernetes. Our instructors also hold CKA and CKAD certifications by “Linux Foundation”, “CNGF” and Check Point Cloud Security certifications.

Scope:

- Course level: Introductory

Course duration:

- 2 days

Target Audience:

- Individuals planning to deploy applications and create application environments on Kubernetes.
- Developers, systems operations professionals, and solution architects and security engineers getting started with Kubernetes.
- Executives and business decision makers evaluating the potential of Kubernetes and Check Point to address their business needs.
- Prerequisites: Familiarity with the Linux command line, web servers, and text editors.



Kubernetes introduction - Day 1

Module 0: Container and container security market status insight and outlook

Module 1: Microservices introduction

- What are microservices
- How to create microservices
- Pros & cons

Módulo 4: Docker introduction

- Installation and settings
- Core concepts
 - Client
 - Daemon
 - Registry
- Architecture
- VM vs Container
- Docker objects
 - Dockerfile
 - Images
 - Layers
 - Docker containers
- Networking
- Volumes
- Security
- Docker Compose
 - How to install
- Best Practices
- Docker swarm (intro)

Module 2: Containers Intro

- Cgroups
- Namespaces

Module 3: Containers runtimes

- OCI
- Runc and Containerd



Kubernetes introduction - Day 2

Module 1: Introduction

- About Kubernetes
- History

Module 2: Kubernetes Architecture

- Master Node
 - api-server
 - the scheduler
 - controller manager
 - etcd
- Worker Node
 - kubelet
 - kube-proxy
 - Container runtime

Module 3: Objects

- Pods
- Namespaces
- Labels
- Services
 - ClústerIP
 - NodePort
 - LoadBalancer
- Volumes
 - Persistent Volumes and Persistent Volume Claims
 - Projected volumes
 - ConfigMaps
 - Secrets
 - Downward API (in detail)

Module 4: Advanced controlleres

- ReplicaSet
- Deployment
- DaemonSet
- StatefulSet
- Job/Cronjob

Módulo 5: Ingress

- Ingress Controller
- Ingress Rules

Module 6: Check Point Dome9 for Kubernetes

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For additional information on our trainings, dates availability or any other query you can reach us at:

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