



**Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

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**Skontaktuj się z nami**

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**Kod:**                      **Czas trwania:**                      **Cena netto:**

VMW\_KFCO              32 Hours (4 days)              zł7,400.00

## Description

This four-day course is the first step in learning about Containers and Kubernetes Fundamentals and Cluster Operations. Through a series of lectures and lab exercises, the fundamental concepts of containers and Kubernetes are presented and put to practice by containerizing and deploying a two-tier application into Kubernetes.

## Cel szkolenia

By the end of the course, you should be able to meet the following objectives:

- Build, test, and publish Docker container images
- Become familiar with YAML files that define Kubernetes objects
- Understand Kubernetes core user-facing concepts, including pods, services, and deployments
- Use kubectl, the Kubernetes CLI, and become familiar with its commands and options
- Understand the architecture of Kubernetes (Control plane and its components, worker nodes, and kubelet)
- Learn how to troubleshoot issues with deployments on Kubernetes
- Apply resource requests, limits, and probes to deployments
- Manage dynamic application configuration using ConfigMaps and Secrets
- Deploy other workloads, including DaemonSets, Jobs, and CronJobs
- Learn about user-facing security using SecurityContext, RBAC, and NetworkPolicies

## Uczestnicy

Anyone who is preparing to build and run Kubernetes clusters

## Wymagania wstępne

- Linux concepts and command line proficiency
- General networking proficiency

## Program szkolenia

<b>1. Course Introduction:</b> <ul style="list-style-type: none"> <li>• Introductions and objectives</li> </ul>	<b>2. Containers:</b> <ul style="list-style-type: none"> <li>• What and Why containers</li> <li>• Building images</li> <li>• Running containers</li> <li>• Registry and image management</li> </ul>	<b>3. Kubernetes Overview:</b> <ul style="list-style-type: none"> <li>• Kubernetes project</li> <li>• Plugin interfaces</li> <li>• Building Kubernetes</li> <li>• Kubectl CLI</li> </ul>	<b>4. Beyond Kubernetes Basics:</b> <ul style="list-style-type: none"> <li>• Kubernetes objects</li> <li>• YAML</li> <li>• Pods, replicas, and deployments</li> <li>• Services</li> <li>• Deployment management</li> <li>• Rolling updates</li> <li>• Controlling deployments</li> <li>• Pod and container configurations</li> </ul>
<b>5. Kubernetes Networking:</b> <ul style="list-style-type: none"> <li>• Networking within a pod</li> <li>• Pod-to-Pod Networking</li> <li>• Services to Pods</li> <li>• ClusterIP, NodePort, and LoadBalancer</li> <li>• Ingress controllers</li> <li>• Service Discovery via DNS</li> </ul>	<b>6. Stateful Applications in Kubernetes:</b> <ul style="list-style-type: none"> <li>• Stateless versus Stateful</li> <li>• Volumes</li> <li>• Persistent volumes claims</li> <li>• StorageClasses</li> <li>• StatefulSets</li> </ul>		<b>7. Additional Kubernetes Considerations:</b> <ul style="list-style-type: none"> <li>• Dynamic configuration</li> <li>• ConfigMaps</li> <li>• Secrets</li> <li>• Jobs, CronJobs</li> </ul>

## 8. Security:

- Network policy
- Applying a NetworkPolicy
- SecurityContext
- runAsUser/Group
- Service accounts
- Role-based access control

## 9. Logging and Monitoring:

- Logging for various objects
- Sidecar logging
- Node logging
- Audit logging
- Monitoring architecture
- Monitoring solutions
- Octant
- VMware vRealize® Operations Manager™

## 10. Cluster Operations:

- Onboarding new applications
- Backups
- Upgrading
- Drain and cordon commands
- Impact of an upgrade to running applications
- Troubleshooting commands
- VMware Tanzu™ portfolio overview

## Terminy

Na żądanie. [Prosimy o kontakt](#)

## Dodatkowe informacje

Jeśli interesują Cię inne szkolenia tego producenta - skontaktuj się z nami.