



Enterprise Computing Solutions - Education Services

TRAINING OFFERING

Vous pouvez nous joindre ici

Email: training.ecs.fr@arrow.com
Phone: 01 49 97 50 00

CODE: DURÉE: PRIX H.T.:

VMW_KFCO 32 Hours (4 Jours) €2,760.00

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.

Objectifs

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

Audience

Anyone who is preparing to build and run Kubernetes clusters

Prérequis

- Linux concepts and command line proficiency
- General networking proficiency

Programme

1. Course Introduction:
 - Introductions and objectives
2. Containers:
 - What and Why containers
 - Building images
 - Running containers
 - Registry and image management
3. Kubernetes Overview:
 - Kubernetes project
 - Plugin interfaces
 - Building Kubernetes
 - Kubectl CLI
4. Beyond Kubernetes Basics:
 - Kubernetes objects
 - YAML
 - Pods, replicas, and deployments
 - Services
 - Deployment management
 - Rolling updates

- Controlling deployments
- Pod and container configurations

5. Kubernetes Networking:

- Networking within a pod
- Pod-to-Pod Networking
- Services to Pods
- ClusterIP, NodePort, and LoadBalancer
- Ingress controllers
- Service Discovery via DNS

6. Stateful Applications in Kubernetes:

- Stateless versus Stateful
- Volumes
- Persistent volumes claims
- StorageClasses
- StatefulSets

7. Additional Kubernetes Considerations:

- Dynamic configuration
- ConfigMaps
- Secrets
- Jobs, CronJobs

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

Dates de session

| Date | Lieu | Time Zone | Langue | Type | Garanti | PRIX H.T. |
|-------------|-------------------|-----------|--------|-----------------------|---------|-----------|
| 23 Feb 2026 | Virtual Classroom | CET | French | Instructor Led Online | | €2,760.00 |
| 24 Aug 2026 | Virtual Classroom | CEDT | French | Instructor Led Online | | €2,760.00 |

Informations Complémentaires

Cette formation est également disponible sous forme de formation sur site. Veuillez nous contacter pour en savoir plus.