

OpenShift 4 Administrator Training

OPENSIFT CONTAINER PLATFORM

3 days (21 hours)

Introducing OpenShift for Administration

OpenShift is the essential application for boosting productivity. In fact, with this tool, [application development increases by 66%](#) over the entire lifecycle. Users of this technology report a 35% reduction in working time.

As a result, the OpenShift platform needs fewer resources for the test and production phases, thanks to containerization.

The result is a reduction in development and infrastructure costs of at least a third. It's a powerful tool for managing high-quality applications. With our training, you'll learn how to deploy clusters, manage resources, optimize security, and perform continuous updates in production environments.

You'll also be trained in user management, monitoring, problem , and process automation in OpenShift.

This course will use the latest stable release of the project: [OpenShift 4.17](#)

Objectives

- Good understanding of Docker and Kubernetes
- Deploy applications locally and in the cloud
- Mastering OpenShift administration

Target audience

- System administrators
- Network administrators
- System architects
- Engineers
- DevOps

Prerequisites

- Master Linux system administration
- Have the knowledge to understand the architecture used by OpenShift
- [Test My Knowledge](#)

RedHat OpenShift Administrator training program

DAY 1 - Introduction

- Back to the Kubernetes basics
- DeploymentConfig and Route with practical exercises
- POD placement, affinity, antiaffinity, taints
- EXO placement/taints

DAY 2 - Administration and security

- Notion Operator / intro OperatorSDK
- Manage functional metrics (have them in Prometheus and retrieve them easily)
- Thanos monitoring architecture
- Stateful application architecture and best practices for Openshift
- Notions MachineSets with point, availability zones
- RBAC
- SCCs
- EXO RBAC
- Application auto-scaling and practical exercises

DAY 3 - Deployment and troubleshooting

- Rolling Update on StatefulSet
- Rollback Pause Resume Canary
- AB testing using rollout
- AB testing manual
- DEVs investigation tools K9S / Troubleshooting basics
- Ephemeral containers
- Troubleshooting: debugging an application from A to Z

MODULE ON REQUEST FOR IN-HOUSE USE ONLY :

CONTINUOUS INTEGRATION METHODOLOGY AND MICROSERVICES ARCHITECTURE

- Principles of continuous integration, the continuous integration server
- Microservices
- Jenkins reminder
- Using Jenkins to set up a complete DevOps pipeline

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.