

Red Hat OpenShift Administration II: Operating a Production Kubernetes Cluster (DO280)

Duration: 4 days

Audience: Professionnel TI

Who is this training for?

System administrators, system and software architects, developers, cluster operators, and site reliability engineers who want to install, configure, and operate Red Hat OpenShift Container Platform clusters

Training objectives

- Describe the architecture and processes for installing and updating a Red Hat OpenShift Container Platform cluster
- Diagnose and resolve issues deploying containerized applications
- Configure authentication using local users
- Apply access control mechanisms to projects using role-based access control
- Expose applications to external clients using TLS encryption
- Configure network policies to isolate services and applications
- Plan application deployment using labels and selectors
- Manage and limit compute resource usage using quotas and limits
- Administer a cluster and its applications using the web console
- Install and manage Kubernetes operators from the web console

Summary

This course provides the ability to configure, manage, and troubleshoot Red Hat OpenShift Container Platform instances in a production context. It is hands-on, hands-on and helps you validate the installation of a cluster, ensure its day-to-day operation, and troubleshoot issues related to the deployment of containerized applications.

Course outline

Red Hat OpenShift Container Platform Solution Description

- Describe the Red Hat OpenShift Container Platform (RHOCP) solution architecture Verify the health of a cluster
- Describe how to install OpenShift and verify the health of a newly installed cluster Configure authentication and authorization
- Configure authentication with the HTPasswd identity provider and assign roles to users and groups Configure the application security
- Limit application permissions by using security context constraints and protect access credentials by using secrets Configuring OpenShift networking for applications
- Troubleshoot OpenShift software networking issues and configure network policies Controlling pod scheduling
- Choose the nodes on which pods run Cluster updates description
- Describe the method Updating a cluster Managing a cluster using the web console
- Managing a Red Hat OpenShift cluster using the web console

Approach and methodology

- Lectures
- Demonstrations
- Guided practical work

Prerequisites

- Hold the Red Hat Certified System Administrator (RHCSA) certification or equivalent content in Red Hat Enterprise Linux systems administration
- Have completed Red Hat OpenShift I: Containers and Kubernetes (DO180) or equivalent content in containers, Kubernetes, and OpenShift basics

Recommendations

Solid foundation in Linux and system administration Understanding of container concepts (Docker) and Kubernetes Experience with cloud or DevOps environments (asset) Knowledge of networking and application security basics