

Course : Red Hat OpenShift II administration: Configuring a production cluster (classroom-based)

Official RED HAT DO280 course

Practical course - 4d - 28h00 - Ref. R28

With this course, you'll master the day-to-day administration of clusters hosting internal and external applications. You'll learn how to configure self-service access for cluster users with different roles, deploy applications requiring special permissions and manage the multi-client architecture and operator-based OpenShift add-ons.

Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Deploy applications using manifests, templates, Kustomize and Helm
- ✓ Configure authentication and authorization for users and applications
- ✓ Protect network traffic with network policies and expose applications with appropriate network access
- ✓ Deploy and manage applications using resource manifests
- ✓ Implementing self-service for application developers
- ✓ Manage OpenShift cluster updates and Kubernetes operator updates

Intended audience

Administrateurs système, opérateurs de plateforme, ingénieurs et architectes système.

Prerequisites

Have taken the DO180 course or have equivalent skills in deploying and managing Kubernetes applications using OpenShift and command-line interfaces.

PARTICIPANTS

Administrateurs système, opérateurs de plateforme, ingénieurs et architectes système.

PREREQUISITES

Have taken the DO180 course or have equivalent skills in deploying and managing Kubernetes applications using OpenShift and command-line interfaces.

TRAINER QUALIFICATIONS

The experts who lead the training courses are specialists in the subjects covered. They are approved by the publisher and certified for the course. They have also been validated by our teaching teams in terms of both professional knowledge and teaching skills for each course they teach. They have at least three to ten years of experience in their field and hold or have held positions of responsibility in companies.

ASSESSMENT TERMS

Assessment of targeted skills prior to training.

Assessment by the participant, at the end of the training course, of the skills acquired during the training course.

Validation by the trainer of the participant's learning outcomes, specifying the tools used: multiple-choice questions, role-playing exercises, etc.

At the end of each training course, ITTCERT provides participants with a course evaluation questionnaire, which is then analysed by our teaching teams. Participants also complete an official evaluation of the publisher.

An attendance sheet for each half-day of attendance is provided at the end of the training course, along with a certificate of completion if the participant has attended the entire session.

Certification

This course prepares you for certification as a "Red Hat Certified Specialist in OpenShift Administration" (RHCOSA) by taking exam EX280.

[Comment passer votre examen ?](#)

Practical details

Teaching methods

Training in French. Official course material in digital format and in English. Good understanding of written English.

Course schedule

1 Module 1 - Declarative resource management

- Deploy and update applications from resource manifests set up for target environments.

2 Module 2 - Deploying packaged applications

- Deploy and update applications from resource manifests for sharing and distribution.

3 Module 3 - Authentication and authorization

- Configure authentication with HTTPasswd and assign roles to users and groups.

4 Module 4 - Network security

- Protect network traffic between applications inside and outside the cluster.

5 Module 5 - Exposure of non-HTTP/SNI applications

- Expose applications to external access without using an input controller.

6 Module 6 - Implementing self-service for developers

- Set up clusters for secure self-service access for developers from multiple teams.
- Prohibit self-service if projects must be provisioned by the operations team.

7 Module 7 - Kubernetes operator management

- Install and update operators managed by Operator Lifecycle Manager and Cluster Version Operator.

8 Module 8 - Application security

- Run applications requiring privileges at the host operating system or Kubernetes level.

TEACHING AIDS AND TECHNICAL RESOURCES

The teaching resources used are the publisher's official materials and practical exercises.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training course.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you have specific accessibility requirements? Contact Ms FOSSE, disability advisor, at the following address: psh-accueil@orsys.fr so that we can assess your request and its feasibility.

9 Module 9 - OpenShift updates

- Upgrade an OpenShift cluster and minimize downtime for deployed applications.