Red Hat OpenShift Administration III: Scaling Kubernetes Deployments in the Enterprise (DO380)

ID DO380 **Price** 3,740.— €(excl. tax) **Duration** 4 days

Course Overview

Plan, implement, and manage OpenShift clusters at scale

Red Hat OpenShift Administration III: Scaling Kubernetes Deployments in the Enterprise (DO380) expands upon the skills required to plan, implement, and manage OpenShift® clusters in the enterprise. You will learn how to configure and manage OpenShift clusters at scale to address increasing and special demands from applications and ensure reliability, performance, and availability.

This course is based on Red Hat® OpenShift Container Platform 4.14.

Who should attend

- Primary: Platform Engineers, System Administrators, Cloud Administrators, and other infrastructure-related IT roles who are responsible for implementing and managing infrastructure for applications.
- Secondary: Enterprise Architects, Site Reliability Engineers (SRE), DevOps Engineers, and other application-related IT roles who are responsible for designing infrastructure for applications.

This course is part of the following Certifications

Red Hat Certified Specialist in MultiCluster Management (RHCS-MCM)
Red Hat Certified Specialist in OpenShift Automation and Integration (RHCS-OSAI)

Prerequisites

- Complete Red Hat OpenShift Administration II: Configuring a Production Cluster (DO280) and become a Red Hat Certified Specialist in OpenShift Administration.
- Complete Red Hat System Administration II (RH134) and become a Red Hat Certified System Administrator.
- Recommended, but not required: become a Red Hat

Certified Systems Engineer or a Red Hat Certified Specialist in Ansible Automation. Basic knowledge about writing and running Ansible playbooks is required.

Course Objectives

Impact on the organization

This course supports IT operations teams that are in the prepare and expand stages of their Container Adoption Journey. The curriculum enables companies to innovate faster, scale based on customer demand, and proactively manage a growing number of OpenShift clusters that host cloud-native and cloud-compatible applications.

Impact on the individual

- This course builds upon the essential skills required to configure and manage an OpenShift 4.x cluster, teaching the enhanced skills needed to operate production environments at scale, including:
- Configure pools of cluster nodes with special configurations, and ensure that only the workloads that are intended for those pools are scheduled on those nodes.
- Configure enterprise authentication and group management with legacy LDAP and cloud-native OpenID Connect (OIDC) identity management systems.
- Deploy, manage, and query OpenShift logging and configure log forwarding to external log aggregators and Security Information and Event Management (SIEM) systems.
- Automate cluster configuration and application deployment by using OpenShift GitOps.
- Troubleshoot application and cluster performance and availability issues by using OpenShift Monitoring.
- Configure and automate application-level backups using OpenShift APIs for Data Protection (OADP).

Course Content

- Manage OpenShift cluster operators and add operators.

- Implement GitOps workflows using Jenkins.
- Integrate OpenShift with enterprise authentication.
- Query and visualize cluster-wide logs, metrics, and alerts.
- Backup and restore application settings and data with OpenShift APIs for Data Protection (OADP).
- Manage machine sets and machine configurations.

Detailed Course Outline

Authentication and Identity Management

Configure OpenShift clusters to authenticate by using LDAP and OIDC enterprise identity systems and to recognize groups that those systems define.

Backup, Restore, and Migration of Applications with OADP

Backup and restore application settings and data with OpenShift APIs for Data Protection (OADP).

Cluster Partitioning

Configure a subset of cluster nodes to be dedicated to a type of workload.

Pod Scheduling

Configure workloads to run on a dedicated set of cluster nodes and prevent other workloads from using those cluster nodes.

OpenShift GitOps

Deploy OpenShift GitOps for managing clusters and applications.

OpenShift Monitoring

Troubleshoot performance and availability issues with applications and clusters.

OpenShift Logging

Deploy OpenShift logging and query log entries from workloads and cluster nodes.

About Fast Lane

Fast Lane is a global, award-winning specialist in technology and business training as well as consulting services for digital transformation. As the only global partner of the three cloud hyperscalers- Microsoft, AWS and Google- and partner of 30 other leading IT vendors, Fast Lane offers qualification solutions and professional services that can be scaled as needed. More than 4,000 experienced Fast Lane professionals train and advise customers in organizations of all sizes in 90 countries worldwide in the areas of cloud, artificial intelligence, cyber security, software development, wireless and mobility, modern workplace, as well as management and leadership skills, IT and project management.

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