MANAGING VIRTUAL MACHINES WITH RED HAT OPENSHIFT VIRTUALIZATION (DO316)

Course Code: 821724

DO316 - Create and manage virtual machines on OpenShift using the Red Hat OpenShift Virtualization operator.

Managing Virtual Machines with OpenShift Virtualization teaches the essential skills required to create and manage virtual machines (VM) on OpenShift using the Red Hat OpenShift Virtualization operator. This course does not require previous knowledge of containers and Kubernetes.

This course provides:

- Skills required to create, access, and manage VMs on OpenShift clusters.
- Skills required to control usage and access of cpu, memory, storage, and networking resources from VMs using the same Kubernetes features that would also control usage and access to these resources for containers.
- Sample architectures to manage High Availability (HA) of VMs using standard Kubernetes features and extensions from OpenShift Virtualization.
- Strategies to connect VMs on OpenShift to data center services outside of their OpenShift cluster, such as storage and databases.
- Strategies to migrate VMs from compatible hypervisors to OpenShift Virtualization by using the Migration Toolkit for Virtualization operator.

Following course completion, hands-on lab access will remain available for up to 45 days for any live course that includes a virtual environment.

What You'll Learn

After completing this course, learners should be able to:

- Create VMs from installation media and disk images.
- Access text and graphical consoles of a VM.
- Connect to VMs using Kubernetes networking (services, ingress, and routes).
- Provision storage to VMs using Kubernetes storage (PVC, PV, and storage classes).
- Start, pause, and stop VMs.
- Clone and snapshot VMs.

- Create and seal golden VM images.
- Connect VMs to external and extra networks (outside of the Kubernetes pod and service networks).
- Provision load balancer services for VMs and then use the services to enable SSH access to VMs.
- Connect VMs to host storage and external storage.
- Create VMs from predefined and custom VM Templates and InstanceTypes.
- Migrate VMs from compatible hypervisors.
- Back up and restore VMs by using OADP and command-line tools .

Who Needs to Attend

This course is intended for

- Virtual Machine Administrators who want to virtualize workloads from traditional Hypervisors to OpenShift Virtualization.
- Platform Engineers, Cloud Administrators, and System Administrators who want to support virtualized workloads, either independently from or in the same OpenShift cluster as containerized workloads.

Prerequisites

Recommended:

- Red Hat OpenShift Administration I: Operating a Production Cluster (DO180)
  - Linux skills are not required to manage OpenShift clusters and OpenShift Virtualization but managing individual Linux VMs requires Linux sysadmin skills provided by:
- Red Hat System Administration I (RH124) and Red Hat System Administration II (RH134) for managing the OS inside a Linux VM.
  - For candidates that have not earned an RHCSA or equivalent, confirmation of the correct skill set knowledge can be obtained by passing the online skills assessment at Red Hat Skills Assessment

MANAGING VIRTUAL MACHINES WITH RED HAT OPENSHIFT VIRTUALIZATION (DO316)

Course Code: 821724

CLASSROOM LIVE	$7,640 CAD	5 Day

Classroom Live Outline

Introduction to OpenShift Virtualization.

- Describe the features and use cases of OpenShift Virtualization.

Run and access Virtual Machines

- Create, manage, inspect, and monitor virtual machines in Red Hat OpenShift Virtualization.

Configure Kubernetes network for Virtual Machines.

- Configure standard Kubernetes network objects and external access for VMs and virtual machine-backed applications.

Connect Virtual Machines to external networks.

- Configure node networking to connect virtual machines and nodes to networks outside the cluster.

Configure Kubernetes storage for Virtual Machines

- Manage storage and disks for VMs in Red Hat OpenShift.

Virtual Machine template management.

- Create and manage templates to provision virtual machines.

Advanced virtual machine management.

- Import, export, snapshot, clone, and live migrate a virtual machine and initiate node maintenance.

Configure Kubernetes high availability for Virtual Machines

- Configure Kubernetes resources to implement high availability for virtual machines.

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VIRTUAL CLASSROOM LIVE	$7,640 CAD	5 Day

Virtual Classroom Live Outline

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Jan 19 - 23, 2026 | 11:00 AM - 5:00 PM EST

Mar 9 - 13, 2026 | 11:00 AM - 5:00 PM EDT

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MANAGING VIRTUAL MACHINES WITH RED HAT OPENSHIFT VIRTUALIZATION (DO316)

Course Code: 821724

ON-DEMAND	$6,495 CAD

On-Demand Outline

Introduction to OpenShift Virtualization.

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