

Managing Virtual Machines with Red Hat OpenShift Virtualization

Duration: 90 Days **Course Code: DO316** **Delivery Method: Elearning (Self-paced)**

Overview:

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.

Note: This course is offered as a four day in person class, a five day virtual class or is self-paced. Durations may vary based on the delivery. For full course details, scheduling, and pricing, select your location then "get started" on the right hand menu.

e-Learning

Interactive self-paced content that provides flexibility in terms of pace, place and time to suit individuals and organisations. These resources also consist of online books, educational podcasts and vodcasts, and video-based learning.

Target Audience:

- Virtual Machine Administrators interested in moving virtualized workloads from traditional Hypervisors to OpenShift Virtualization
- Kubernetes Administrators (Cluster Administrators, Clusters Engineers) interested in supporting containerized and virtualized workloads in the same OpenShift cluster
- Site Reliability Engineers interested in using GitOps and Ansible Automation to manage Virtual Machines on OpenShift

Objectives:

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| ■ Create VMs from installation media and disk images | ■ Connect VMs to external and extra networks (outside of the Kubernetes pod and service networks) |
| ■ Access text and graphical consoles of a VM | ■ Provision load balancer services for VMs and then use the services to enable SSH access to VMs |
| ■ Connect to VMs using Kubernetes networking (services, ingress, and routes) | ■ Connect VMs to host storage and external storage |
| ■ Provision storage to VMs using Kubernetes storage (PVC, PV, and storage classes) | ■ Create VMs from VM Templates |
| ■ Start, pause, and stop VMs | ■ Migrate VMs from compatible hypervisors |
| ■ Clone and snapshot VMs | |

Prerequisites:

- DO180 - Red Hat OpenShift Administration I: Operating a Production Cluster

Follow-on-Courses:

- DO280 - Red Hat OpenShift Administration II: Configuring a Production Cluster
- DO322 - Red Hat OpenShift Installation Lab
- DO380 - Red Hat OpenShift Administration III: Scaling Deployments in the Enterprise
- RH124 - Red Hat System Administration I
- RH295 - Red Hat Enterprise Linux Automation with Ansible and exam

Content:

Introduction to OpenShift Virtualization	Connect Virtual Machines to external networks	Advanced Virtual Machine management
Describe the features and use cases of OpenShift Virtualization.	Configure node networking to connect virtual machines and nodes to networks outside the cluster.	Snapshot, clone, and live migrate a virtual machine and initiate node maintenance.
Run and access Virtual Machines	Configure Kubernetes storage for Virtual Machines	Configure Kubernetes high availability for Virtual Machines
Create, manage, inspect, and monitor virtual machines in Red Hat OpenShift Virtualization.	Manage storage and disks for VMs in Red Hat OpenShift.	Configure Kubernetes resources to implement high availability for virtual machines.
Configure Kubernetes network for Virtual Machines	Virtual Machine template management	
Configure standard Kubernetes network objects and external access for VMs and virtual machine-backed applications.	Create and manage templates to provision virtual machines.	

Additional Information:

Technology considerations All deliveries require access to ROLE for the remote classroom environment. There is no local ILT version of the DO316 classroom

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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