Managing Virtual Machines with Red Hat OpenShift Virtualization

Duration: 4 Days Course Code: DO316 Delivery Method: Company Event

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.

Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

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:

- 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
- 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 VM Templates
- Migrate VMs from compatible hypervisors

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

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

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.

Additional Information:

Technology considerationsAll 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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