OpenStack Administration II: Deploy Control Plane Services and Manage Data Plane Nodes

Course code: CL270

OpenStack Administration II: Deploy Control Plane Services and Manage Data Plane Nodes (CL270) is designed for administrators of Red Hat OpenStack who want to enhance their skills in deploying and managing Red Hat OpenStack Services on OpenShift. Participants will learn the processes, tools, and technologies to set up a functional OpenStack cluster, and to manage and troubleshoot data plane nodes to host cloud user workloads. Through hands-on practice and real-world scenarios, attendees will install prerequisite operators and create custom resources effectively. In addition, attendees will develop troubleshooting skills for managing OpenStack compute nodes by using the External Data Plane Management (EDPM) automation engine.This course is based on Red Hat OpenStack Services on OpenShift 18.

Who is the course for

Platform engineers, cloud administrators, and system administrators who are responsible for the administration of Red Hat OpenStack clusters, and who must be able to deploy and maintain them.

What we teach you

- Assessing and comparing a data center environment with commonly used architectures, and preparing to perform an installation of Red Hat OpenStack Services on OpenShift.
- Installing the OpenStack operator and assessing the health of its dependent operators.
- Inspecting the network and storage resources that are available in an environment, and deploy an OpenStack control plane.
- Configuring RHEL servers with the required resources to be added as data plane nodes.
- Deploying the custom resources for a node set and a data plane, and verifying that the data plane can handle a test user workload.
- Adding and removing data plane nodes from a node set, and verifying the services that are running in the node.
- Configuring the resources of an RHOSO cluster to support cloud user workloads.

Required skills

- Take our free assessment
- to gauge whether this offering is the best fit for your skills.
- Red Hat Certified Engineer (RHCE) certification, or equivalent skills in Ansible automation and RHEL administration is recommended.
- The OpenStack Administration: Control Plane Management course
- (CL170), or equivalent experience with the basic administration of Red Hat OpenStack Services on OpenShift.

Course outline

Preparing to Deploy a RHOSO Cluster

- Assess and compare a data center environment with commonly used architectures, and prepare to perform an installation of Red Hat OpenStack Services on OpenShift (RHOSO).

The OpenStack Operator

- Configure prerequisite operators and resources, and install the OpenStack operator.

Deploying a RHOSO Control Plane

- Configure the OpenShift custom resources that are required to deploy an OpenStack control plane, and then deploy the control plane.

Preparing RHEL Servers for Data Plane Deployment

- Configure RHEL Servers with the required resources to be added as data plane nodes.

Deploying a RHOSO Data Plane

- Create the custom resources for a node set and a data plane, and verify that the data plane can handle a test user workload.

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Managing Data Plane Node Sets

- Add and remove data plane nodes from a node set, and troubleshoot, fix, and verify the services that are running in a node.

Preparing a RHOSO Cluster for User Workloads

- Configure the resources of a RHOSO cluster to support cloud user workloads.

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