

# RHCE OPENSTACK

## Red Hat OpenStack Administration III (CL310)

Learn to deploy, manage, and configure storage and OpenStack The Red Hat OpenStack Administration III (CL310) course provides extensive hands-on training for experienced system administrators in how to use the distributed storage features of Red Hat® Ceph Storage and the networking capabilities of OpenStack® Neutron. Students will set up a Ceph environment and its configuration as a back end for OpenStack, and configure and use the advanced features of OpenStack Neutron.

### COURSE OUTLINE:

#### **Unit 1. Introduction to Red Hat Ceph Storage**

Introduce Red Hat Ceph Storage architecture, components, and attributes.

#### **Unit 2. Describe Red Hat Ceph Storage components and features**

Describe the components and features of Red Hat Ceph Storage.

#### **Unit 3. Deploy and access Red Hat Ceph Storage**

Create snapshots and clones for Red Hat Ceph Storage.

#### **Unit 4. Create snapshots and clones**

Manage snapshots and clones of a Ceph Block Device (RBD).

#### **Unit 5. Ceph with the Glance image service**

Integrate Ceph with the Glance image service, the Cinder block storage service, and the Nova compute service.

#### **Unit 6. Introduce networking fundamentals**

Explain standard networking concepts and OpenStack Neutron networking concepts and services.

#### **Unit 7. Implement virtual bridging**

Install and manage virtual network bridges.

#### **Unit 8. Implement virtual network devices**

Create and deploy virtual network devices.

#### **Unit 9. Implement network namespaces**

Manage network interfaces manually (using the ip command) and persistently.

#### **Unit 10. Manage neutron services**

Verify and manage the configuration of Neutron networking service.

#### **Unit 11. Provisioning project networks**

Provision project networks using VXLAN tunnels, GRE tunnels, and VLANs.

#### **Unit 12. Implementing load-balancer-as-a-service (LBaaS)**

Implement LbaaS.

#### **Unit 13. Troubleshoot Neutron networking services**

Diagnose and troubleshoot issues with the Neutron networking service.

#### **Unit 14. Comprehensive Review**

Review tasks from the Red Hat OpenStack III course.

