

Module Title : **CL210-Red Hat OpenStack Administration II**

Duration : **4 days**

Overview

The focus of this course is managing Red Hat OpenStack Platform using the unified command-line interface, managing instances, and maintaining an enterprise deployment of OpenStack. This course also teaches the management and customization of an enterprise deployment of OpenStack (overcloud) and how to manage compute nodes with Red Hat OpenStack Platform director (undercloud).

Exam competencies covered in the course include:

- Expanding compute nodes on Red Hat OpenStack Platform using the undercloud.
- Managing images, networking, and block storage.
- Providing orchestration and auto-scaling (scale-out and scale-back).
- Building a customized image.

Course content summary

- Build and customize an image
- Write a Heat template
- Diagnose and troubleshoot OpenStack issues holistically
- Manage Ceph storage in an OpenStack environment
- Scale compute nodes
- Migrate instances
- Scale stacks automatically

Audience

This course is designed for Linux® system administrators, cloud administrators, and cloud operators.

Prerequisites

- [Red Hat OpenStack Administration I \(CL110\)](#) course or equivalent experience
- [Red Hat Certified System Administrator \(RHCSA\)](#) certification or equivalent experience

Outline

Course introduction

Introduce and review the course.

Manage an enterprise OpenStack deployment

Manage the undercloud, the overcloud, and related services.

Manage internal OpenStack communication

Administer the Keystone identity service and the advanced message queueing protocol (AMQP) messaging service.

Build and customize images

Build and customize images.

Manage storage

Manage Ceph and Swift storage for OpenStack.

Manage resilient compute resources

Add compute nodes, manage shared storage, and perform live instance migration.

Manage and troubleshoot

Manage and troubleshoot virtual network infrastructure.

Manage resilient compute resources

Add compute nodes, manage shared storage, and perform live instance migration.

Troubleshoot OpenStack issues

Diagnose and troubleshoot OpenStack issues and services.

Monitor cloud metrics for autoscaling

Monitor and analyze cloud metrics for use in orchestration autoscaling.

Orchestrate deployments

Deploy Heat stacks that automatically scale.

Recommended next exam or course

Red Hat Certified System Administrator in Red Hat OpenStack exam (EX210)

Demonstrate your ability to build and manage private clouds using Red Hat OpenStack Platform.

Red Hat OpenStack Administration III (CL310)

Learn to deploy, manage, and configure Red Hat Ceph Storage and Red Hat OpenStack Platform.

Red Hat OpenStack Administration III with exam (CL311)

Learn to deploy, manage, and configure Red Hat Ceph Storage and Red Hat OpenStack Platform and demonstrate your skills and knowledge to become a Red Hat Certified Engineer in Red Hat OpenStack.

Outcomes

Impact on the organization

This course is intended to develop the skills needed to troubleshoot and manage the life cycle of a private cloud. Control of the life cycle is important for organizations seeking to manage costs according to their own schedule, and having advanced administrators reduces downtime.

Red Hat has created this course in a way intended to benefit our customers, but each company and infrastructure is unique, and actual results or benefits may vary.

Impact on the individual

As a result of attending this course, students should be able to manage the life cycle of Red Hat OpenStack Platform.

Students should be able to demonstrate the following skills:

- Understand the concepts of undercloud, overcloud, and Heat templates.
- Manage internal Red Hat OpenStack Platform communication.
- Build custom disk images.
- Manage Ceph and Swift.
- Troubleshoot an SDN infrastructure.
- Manage resilient compute resources.
- Troubleshoot general Red Hat OpenStack Platform issues.
- Monitor cloud metrics.
- Deploy Heat stacks.