Red Hat OpenStack III: Networking & Foundations of NFV (CL310VT)

Modality: Virtual Classroom

Duration: 5 Days

About this course:

Manage Red Hat OpenStack networking for performance tuning

Red Hat OpenStack Administration III: Networking & Foundations of NFV (CL310) teaches network engineers, network operators, cloud operators, and cloud administrators how to manage and tune Red Hat® OpenStack Platform for network performance.

This course can also help you prepare for the Red Hat® Certified Engineer (RHCE®) in Red Hat OpenStack exam (EX310).

This offering is based on Red Hat OpenStack version 10.0 and Red Hat Enterprise Linux 7.4.

Course Objective:

You will learn how to manage the OpenStack networking service (Neutron) with network functions virtualization to enhance network performance. You will configure distributed virtual routers, Open vSwitch with Data Plane Development Kit datapath, and IPv6 networking in OpenStack. You will also deploy software-defined networking with OpenDaylight.

- Network functions virtualization (NFV)
- Distributed virtual router (DVR)
- Open vSwitch with Data Plane Development Kit (OVS-DPDK) datapath
- IPv6 networking
- Single-root I/O Virtualization (SR-IOV)[*]
- Software-defined networking (SDN) with OpenDaylight (ODL)
- VLAN, VXLAN, and GRE networks

***SR-IOV** is covered in the course as a lecture and a video. The specification is not covered as a hands-on exercise because it requires special hardware.

Audience:

- This course is designed for network engineers, network operators, cloud administrators, and cloud operators.

Prerequisite:

- Become a Red Hat® Certified System Administrator (RHCSA), or demonstrate equivalent experience
- Complete the Red Hat® Certified System Administrator in Red Hat OpenStack exam

Course Outline:

Manage networks in Linux

Administer network interfaces, bridges, and virtual networking devices.

Manage OpenStack networking agents

Manage the L2, L3, DHCP, and other OpenStack networking agents.

Deploy IPv6 networks

Set up IPv6 networks in OpenStack.

Provision OpenStack networks

Provision tenant networks and provider networks.

Implement distributed virtual routing

Enable distributed virtual routing (DVR) to provide scaling and performance.

Tune NFV performance

Tune OpenStack networking performance.

Implement NFV data paths

Execute network functions virtualization (NFV) data paths.

Build software-defined networks with OpenDaylight

Create software-defined networks with OpenDaylight (ODL).

Comprehensive review of Red Hat OpenStack Administration III

Configure advanced networking on Red Hat® OpenStack Platform.