

CL310

Red Hat OpenStack Administration III: Networking & Foundations of NFV

Course overview

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.

Course content summary

- 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 for this course

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

Prerequisites for this course

- Become a Red Hat® Certified System Administrator (RHCSA), or demonstrate equivalent experience
- Complete the Red Hat® Certified System Administrator in Red Hat OpenStack exam (EX210), or demonstrate equivalent experience

Outline for this course

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.

Recommended next exam or course

Red Hat Certified Engineer in Red Hat OpenStack exam (EX310)