

# Red Hat OpenStack Administration with exam (CL211)

ID CL211 Price 4,057.— €(excl. tax) Duration 5 days

## Course Overview

Build advanced skills for performing Red Hat OpenStack Platform day 2 operations and management of hybrid cloud infrastructure

Red Hat OpenStack Administration II: Day 2 Operations for Cloud Operators with exam (CL211) is designed for cloud operators, service administrators, and automation engineers who operate and manage a full-featured hybrid and private cloud-computing environment using Red Hat OpenStack Platform. You will learn how to manage, monitor, troubleshoot, and scale a Red Hat OpenStack Platform infrastructure. This course focuses on using the OpenStack Client command-line user interface to configure metrics, policies, and architecture in order to support enterprise cloud applications and daily operations.

This course is based on Red Hat OpenStack version 16.1, and Red Hat Enterprise Linux version 8.2. The [Red Hat Certified Specialist in Cloud Infrastructure Exam \(EX210\)](#) is included in this offering.

## Note on the exam:

The subscription duration of 365 days starts upon order submission. Cancellation of individual exam sessions is not allowed. Exam session fees are nonrefundable. Non-Cancelable components: No part of any Bundles that includes both non-cancelable and cancelable components may be canceled.

## Who should attend

- Cloud operators responsible for managing daily operations and automation.
- Infrastructure architects interested in or responsible for maintaining a large-scale private or hybrid cloud.

## Prerequisites

- Participants are recommended to be a Red Hat Certified Engineer (RHCE), Red Hat Certified Specialist in Ansible Automation, or have equivalent experience.

- For candidates that have not earned an RHCE or equivalent, confirmation of the correct skill-set knowledge can be obtained by taking our free assessment to gauge whether this offering is the best fit for your skills.
- Successful completion of [Red Hat OpenStack Administration I: Core Operations for Domain Operators \(CL110\)](#) or equivalent experience

## Course Objectives

### Impact on the organization

This course is intended to develop the skills needed for the daily operation of a private cloud. A private cloud can reduce costs through fine-grained resource control, simplifying regulatory compliance, and permitting easier integration with legacy systems. Using the skills taught in this course, cloud operators will be able to manage and operate hybrid cloud Red Hat OpenStack Platform infrastructure.

Customer organizations will find this version to be easier to install and manage while handling more diverse types of cloud and legacy workloads with an expanding portfolio of flexible resource configuration. Enhancements in the RHOSP 16 version address evolving customer requirements for enterprise cloud infrastructures:

- Industry-popular Ansible Automation for installation, upgrading, and patching.
- Open Virtual Networking (OVN), an advanced SDN framework evolved from Open vSwitch.
- Hyperconverged technology, combining storage and compute resources for lower latency and higher performance.

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

You will learn how to operate and manage a Red Hat OpenStack Platform installation using all of the common core features and

services used by enterprise private/hybrid cloud customers. Successful attendees will be able to monitor, troubleshoot, and automate operations handling compute, storage, networking, deployment, and application support resources and services tailored to their enterprise needs.

## Course Content

- Managing overcloud service containerization technology.
- Providing metrics for performance tuning and governance.
- Monitoring and troubleshooting Open Virtual Networking (OVN) network flow.
- Configuring Identity service using an external Red Hat IdM store.
- Managing the core control plane, including Pacemaker.
- Customizing images, with techniques for multiple use cases.
- Managing block and object storage back-ends.
- Managing compute nodes, including tuning and hyperconverged.
- Troubleshooting Red Hat OpenStack Platform.

## Detailed Course Outline

### Navigate the Red Hat OpenStack Platform architecture

Describe the undercloud and overcloud architecture and service components.

### Operate the control plane

Describe and manage the critical core services of the Red Hat OpenStack Platform control plane.

### Manage infrastructure security

Protect the Red Hat OpenStack Platform infrastructure by securing service component files and endpoints.

### Manage user security

Configure secure user privileges using domain-based identity management, scoped roles, and project organization.

### Manage application deployment resources

Create and manage the common, shared deployment resources including custom images, flavors, and metadata services.

### Manage storage

Describe and manage storage architecture and components, with an emphasis on Red Hat Ceph Storage back ends.

### Manage networking

Create, manage, and troubleshoot data center and virtual network infrastructure.

### Manage compute node operations

Describe the architecture and management processes for normal and hyperconverged compute nodes. Perform common operational tasks for compute nodes to support workload uptime and scaling.

### Monitor Red Hat OpenStack Platform operations

Describe the monitoring framework and architecture to gather, store, and use operational metrics.

### Automate cloud applications

Implement and deploy complex and scalable applications using automation technologies.

### Troubleshoot operations

Describe and practice the tools and methods for diagnosing and troubleshooting issues encountered during deployment and management operations.

### Comprehensive review

Review tasks from Red Hat OpenStack Platform Administration II: Day 2 Operations for Cloud Operators.

# About Fast Lane



Fast Lane is a global, award-winning specialist in technology and business training as well as consulting services for digital transformation. As the only global partner of the three cloud hyperscalers- Microsoft, AWS and Google- and partner of 30 other leading IT vendors, Fast Lane offers qualification solutions and professional services that can be scaled as needed. More than 4,000 experienced Fast Lane professionals train and advise customers in organizations of all sizes in 90 countries worldwide in the areas of cloud, artificial intelligence, cyber security, software development, wireless and mobility, modern workplace, as well as management and leadership skills, IT and project management.

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