Red Hat Training and Certification

CL210
Red Hat OpenStack Administration II: Day 2 Operations for Cloud Operators

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 (CL210) 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

Course content summary

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- 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.

Audience for this course

- 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 for this course

- Be a Red Hat Certified Engineer (RHCE), Red Hat Certified Specialist in Ansible Automation, or demonstrate equivalent experience.
- Attend Red Hat OpenStack Administration I: Core Operations for Domain Operators (CL110), or demonstrate equivalent experience.

Outline for this course

- **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.

Impact on the individual

Course attendees 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 reference https://www.redhat.com/en/services/training/cl110-red-hat-openstack-administration-i?section=overview