



RED HAT TRAINING

Red Hat Openstack Administration II

Master advanced Red Hat OpenStack Platform administration. Learn to manage and troubleshoot your OpenStack environment for robust cloud solutions.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

Red Hat OpenStack Administration II (CL210) is a comprehensive intermediate-level course designed for experienced Linux administrators who need to manage complex Red Hat OpenStack Platform deployments. This course builds upon the foundational knowledge gained in Red Hat OpenStack Administration I (CL110), diving deeper into advanced operational tasks, troubleshooting, and optimization techniques. Participants will learn to confidently handle the intricate aspects of a production-grade OpenStack environment, focusing on stability, performance, and scalability.

This training covers crucial aspects such as implementing high availability for control plane services, advanced networking configurations using Neutron, integrating robust storage solutions like Ceph, and mastering troubleshooting methodologies for common OpenStack challenges. You will gain hands-on experience with advanced features of Nova, Neutron, Cinder, Glance, Keystone, and Heat, preparing you to tackle real-world deployment and management scenarios in large-scale cloud infrastructures. The course emphasizes practical skills essential for maintaining a resilient and efficient OpenStack cloud.

By completing this course, you will be equipped to design, implement, and maintain a robust Red Hat OpenStack Platform, contributing significantly to your organization's cloud strategy. The skills acquired are directly applicable to enhancing operational efficiency, ensuring service continuity, and optimizing resource utilization in private or hybrid cloud environments. This certification significantly boosts career prospects for professionals aspiring to lead and manage enterprise-level cloud infrastructure.

Duration	2 hours
Level	Intermediate
Vendor	Red Hat

COURSE CURRICULUM

01 Module 1: Advanced OpenStack Service Management & HA

- Review of Red Hat OpenStack Platform architecture and control plane services
- Implementing high availability for core services (Keystone, Glance, Cinder, Nova, Neutron)
- Configuring and managing Pacemaker and Corosync for cluster resource management
- Monitoring OpenStack service health and resource utilization
- Backup and recovery strategies for OpenStack components

02 Module 2: Enhanced Networking with Neutron

- Advanced Neutron agent configuration and network types (OVN, ML2/OVS)
- Configuring VPN-as-a-Service (VPNaaS) for secure connectivity
- Deploying Firewall-as-a-Service (FWaaS) for network security policies
- Implementing Load Balancing-as-a-Service (LBaaS) for application traffic distribution
- Troubleshooting complex Neutron networking issues and network segmentation

03 Module 3: Integrated Storage Solutions

- Integrating Ceph storage with OpenStack for Cinder, Glance, Nova, and Swift
- Advanced Cinder volume management, snapshots, and replication strategies
- Optimizing Swift object storage for scalability and performance
- Storage performance tuning and troubleshooting in an OpenStack environment
- Managing different storage backends and drivers

04 Module 4: OpenStack Performance & Troubleshooting

- Diagnosing and resolving common OpenStack component failures and bottlenecks
- Advanced log analysis and service state inspection across multiple components
- Performance monitoring using Ceilometer and Gnocchi
- Optimizing compute (Nova) and network (Neutron) performance
- Debugging OpenStack services and API interactions

05 Module 5: Orchestration & Automation with Heat

- Advanced Heat template development, including nested stacks and custom resources
- Automating complex application deployment and scaling with Heat
- Integrating Heat with other OpenStack services and external tools
- Utilizing configuration management for instances (cloud-init, Ansible integration)
- Managing software deployments and updates through orchestration

06 Module 6: Security and Compliance in OpenStack

- Implementing granular access controls and policies with Keystone
- Securing OpenStack services and API endpoints through best practices
- Network security best practices (advanced security groups, firewall rules)
- Auditing and logging for compliance and security forensics
- Instance security considerations, including image hardening and secure boot

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **OpenStack Cloud Engineer**
- > **Senior Cloud Infrastructure Administrator**
- > **DevOps Cloud Automation Specialist**

FREQUENTLY ASKED QUESTIONS

Q: What prerequisite knowledge or certifications are recommended before enrolling in Red Hat OpenStack Administration II?

This course is specifically designed for individuals who have successfully completed Red Hat OpenStack Administration I (CL110) or possess equivalent hands-on experience in deploying and managing basic OpenStack environments. A strong foundation in Linux command-line operations, networking concepts (TCP/IP, routing, firewalls), and general cloud computing principles is essential to derive maximum benefit from this advanced curriculum.

Q: How does this course enhance my ability to manage complex, production-grade OpenStack deployments?

Red Hat OpenStack Administration II significantly enhances your capabilities by focusing on advanced topics crucial for production environments, such as implementing high availability for critical control plane services, mastering intricate network configurations (e.g., VPN, Firewall, Load Balancing as a Service), integrating robust storage solutions like Ceph, and performing in-depth troubleshooting. You will gain the skills to build, maintain, and optimize highly resilient, scalable, and secure private or hybrid cloud infrastructures.

Q: What specific practical skills will I gain that are directly applicable to a Senior Cloud Infrastructure Administrator role?

Upon completion, you will possess practical expertise in deploying and managing highly available OpenStack services, configuring advanced Neutron features, integrating and managing Ceph storage, utilizing Heat for complex infrastructure orchestration, performing comprehensive diagnostics and troubleshooting of cloud components, and securing OpenStack environments. These skills are critical for designing, implementing, and maintaining enterprise-level cloud platforms and are highly sought after for senior cloud roles.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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