

Red Hat Ceph Storage for OpenStack

Category: Cloud Platforms | **Vendor:** Red Hat

Duration: 32.00 hours (4 days)

26.0 CPD Hours

Rating: ★ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Build, expand and maintain cloud-scale, clustered storage for your applications with Red Hat Ceph Storage

Cloud Storage with Red Hat Ceph Storage (CL260) is designed for storage administrators and cloud operators who deploy Red Hat Ceph Storage in a production data center environment or as a component of a Red Hat OpenStack Platform or OpenShift Container Platform infrastructure. Learn how to deploy, manage, and scale a Ceph storage cluster to provide hybrid storage resources, including Amazon S3 and OpenStack Swift-compatible object storage, Ceph-native and iSCSI-based block storage, and shared file storage. This course is based on Red Hat Ceph Storage 5.0.

Following course completion, you will receive a 45-day extended access to hands-on labs for any course that includes a virtual environment.

About This Course

- Deploy and manage a Red Hat Ceph Storage cluster on commodity servers.
- Perform common management operations using the web-based management interface.
- Create, expand, and control access to storage pools provided by the Ceph cluster.
- Access Red Hat Ceph Storage from clients using object, block, and file-based methods.
- Analyze and tune Red Hat Ceph Storage performance.
- Integrate Red Hat OpenStack Platform image, object, block, and file storage with a Red Hat Ceph Storage cluster.
- Integrate OpenShift Container Platform with a Red Hat Ceph Storage cluster.

Who Should Attend

- This course is intended for storage administrators and cloud operators who want to learn how to deploy and manage Red Hat Ceph Storage on servers in an enterprise data center or within a Red Hat OpenStack Platform or OpenShift Container Platform environment.
- Developers writing applications that use cloud-based storage will learn the distinctions of various storage types and client access methods.

Prerequisites & Entry Requirements

General Prerequisites:

- Take our free assessment to gauge whether this offering is the best fit for your skills.
- Red Hat Certified System Administrator (RHCSA) certification, or equivalent experience.
- For candidates that have not earned an RHCSA or equivalent, confirmation of the correct skill set knowledge can be obtained by taking the online skills assessment.
- Some experience with storage administration is recommended but not required.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Impact on the organization

Reliable and performant data storage is a critical component for enterprise application and infrastructure solutions. Software-defined storage offers organizations the flexibility to grow their data storage requirements while enabling applications to operate at cloud-scale. Red Hat Ceph Storage leverages commodity hardware to create distributed and scalable storage volumes that are both fault-tolerant and provide access via object, block, and file data levels. Successful planning, deployment and operation of a storage cluster can be achieved through completion of Cloud Storage with Red Hat Ceph Storage course.

Impact on the individual

As a result of attending this course, students will be able to deploy, operate, and manage a Red Hat Ceph Storage cluster. Students will learn why Red Hat Ceph Storage is the standard, integrated cloud storage solution for Red Hat Cloud Platforms. Developer students will learn to implement each available storage type and method offered by Red Hat Ceph Storage, and be able to choose the correct type and method for their enterprise storage scenarios and applications. Administrators and operators will be able to perform Ceph cluster management, including configuration, daily operations, troubleshooting, performance tuning, and scaling.

Detailed Course Outline

Introducing Red Hat Ceph Storage architecture

Describe Red Hat Ceph Storage architecture, including data organization, distribution and client access methods.

Deploying Red Hat Ceph Storage

Deploy a new Red Hat Ceph Storage cluster and expand the cluster capacity.

Configuring a Red Hat Ceph Storage cluster

Manage the Red Hat Ceph Storage configuration, including the primary settings, the use of monitors, and the cluster network layout.

Creating object storage cluster components

Create and manage the components that comprise the object storage cluster, including OSDs, pools, and the cluster authorization method.

Creating and customizing storage maps

Manage and adjust the CRUSH and OSD maps to optimize data placement to meet the performance and redundancy requirements of cloud applications.

Providing block storage using RADOS Block Devices

Configure Ceph to provide block storage for clients by using RADOS block devices (RBDs).

Providing object storage using a RADOS Gateway

Configure Ceph to provide object storage for clients by using a RADOS Gateway (RGW).

Providing file storage with CephFS

Configure Ceph to provide file storage for clients using the Ceph File System (CephFS).

Managing a Red Hat Ceph Storage cluster

Manage an operational Ceph cluster using tools to check status, monitor services, and properly start and stop all or part of the cluster. Perform cluster maintenance by replacing or repairing cluster components, including MONs, OSDs, and PGs.

Tuning and troubleshooting Red Hat Ceph Storage

Identify the key Ceph cluster performance metrics and use them to tune and troubleshoot Ceph operations for optimal performance.

Managing Cloud Platforms with Red Hat Ceph Storage

Manage Red Hat cloud infrastructure to use Red Hat Ceph Storage to provide image, block, volume, object, and shared file storage.

Comprehensive review

Review tasks from Cloud Storage with Red Hat Ceph Storage.

Skills You Will Learn:

Impact on the organization

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Frequently Asked Questions

Q: What delivery options are available for Red Hat Ceph Storage for OpenStack?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
 - Traditional Instructor-Led Classroom Training (ILT)
 - On-site delivery at your offices anywhere in United Kingdom
 - Private dedicated courses customized for your team
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Q: How many CPD hours does this course provide?

The 4-day Red Hat Ceph Storage for OpenStack course provides up to 26.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Red Hat Ceph Storage for OpenStack training?

The training takes place over 4 day(s), with each day lasting approximately 32.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Red Hat Ceph Storage for OpenStack?

Yes, we provide corporate training, dedicated training, and closed classes for Red Hat Ceph Storage for OpenStack. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Red Hat Ceph Storage for OpenStack, Cloud Computing, CL260

Q: Why choose Nexus Human for Red Hat Ceph Storage for OpenStack?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Red Hat Ceph Storage for OpenStack training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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