RED HAT CEPH STORAGE FOR OPENSTACK (CL260)

Course Code: 821456

CL260 - 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 version 5.

Following course completion, hands-on lab access will remain available for up to 45 days for any live course that includes a virtual environment.

What You'll Learn

After completing this course, learners should be able to:

- 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 Needs to Attend

- This course is intended for storage administrators and cloud operators who want to learn how to deploy and manage Red Hat Ceph Storage for use by servers in an enterprise data center or within a Red Hat OpenStack Platform

environment.

- Developers writing applications who use cloud-based storage will learn the distinctions of various storage types and client access methods.

Prerequisites

- Red Hat Certified Engineer (RHCE) certification, Red Hat Certified Specialist in Ansible Automation certification, or equivalent experience.
- For candidates that have not earned an RHCE or equivalent, confirmation of the correct skill set knowledge can be obtained by passing the online skills assessment at Red Hat Skills Assessment
- Some experience with storage administration is recommended but not required.

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VIRTUAL CLASSROOM LIVE	$4,400 USD	5 Day

Virtual Classroom Live Outline

1. **Introducing Red Hat Ceph Storage architecture**
   - Describe Red Hat Ceph Storage architecture, including data organization, distribution and client access methods.
2. **Deploying Red Hat Ceph Storage**
   - Deploy a new Red Hat Ceph Storage cluster and expand the cluster capacity.
3. **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.
4. **Creating object storage cluster components**
   - Create and manage the components that comprise the object storage cluster, including OSDs, pools, and the cluster authorization method.
5. **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.
6. **Providing block storage using RADOS Block Devices**
   - Configure Ceph to provide block storage for clients by using RADOS block devices (RBDs).
7. **Providing object storage using a RADOS Gateway**
   - Configure Ceph to provide object storage for clients by using a RADOS Gateway (RGW).
8. **Providing file storage with CephFS**
   - Configure Ceph to provide file storage for clients using the Ceph File System (CephFS).
9. **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.

10. **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.
11. **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.
12. **Comprehensive review**
    - Review tasks from Cloud Storage with Red Hat Ceph Storage.

Virtual Classroom Live Labs

Labs provided by RedHat - Following course completion, hands-on lab access will remain available for up to 45 days for any live course that includes a virtual environment.

Jul 28 - Aug 1, 2025 | 11:00 AM - 5:00 PM EDT

Sep 29 - Oct 3, 2025 | 11:00 AM - 5:00 PM EDT

Dec 8 - 12, 2025 | 11:00 AM - 5:00 PM EST

RED HAT CEPH STORAGE FOR OPENSTACK (CL260)

Course Code: 821456

ON-DEMAND	$3,740 USD

On-Demand Outline

1. **Introducing Red Hat Ceph Storage architecture**
   - Describe Red Hat Ceph Storage architecture, including data organization, distribution and client access methods.
2. **Deploying Red Hat Ceph Storage**
   - Deploy a new Red Hat Ceph Storage cluster and expand the cluster capacity.
3. **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.
4. **Creating object storage cluster components**
   - Create and manage the components that comprise the object storage cluster, including OSDs, pools, and the cluster authorization method.
5. **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.
6. **Providing block storage using RADOS Block Devices**
   - Configure Ceph to provide block storage for clients by using RADOS block devices (RBDs).
7. **Providing object storage using a RADOS Gateway**
   - Configure Ceph to provide object storage for clients by using a RADOS Gateway (RGW).
8. **Providing file storage with CephFS**
   - Configure Ceph to provide file storage for clients using the Ceph File System (CephFS).
9. **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.

10. **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.
11. **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.
12. **Comprehensive review**
     - Review tasks from Cloud Storage with Red Hat Ceph Storage.

On-Demand Labs

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PRIVATE GROUP TRAINING	4 Day

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.