CL261

Red Hat Ceph Storage for OpenStack and Exam

Course description

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

Red Hat Ceph Storage for OpenStack and Exam (CL261) 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.

The Red Hat Certified Specialist in Ceph Cloud Storage (EX260) exam is included in this offering. This course is based on Red Hat Ceph Storage version 5.0.

Recommended training

- 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.

Outline for this course

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.