CEPH126

Red Hat Ceph Storage Architecture and Administration with exam

Course overview

Red Hat Ceph Storage Architecture and Administration with exam (CEPH126) is designed for storage administrators or cloud operators who intend to deploy Red Hat Ceph Storage to their production data center environment or OpenStack installation.

Course content summary

Deploying and managing a Red Hat Ceph Storage cluster on commodity servers using Ansible.

Creating, expanding, and controlling access to storage pools provided by the Ceph cluster.

Accessing Red Hat Ceph Storage from clients using object, block, and file-based methods.

Analyzing and tuning Red Hat Ceph Storage performance.

Integrating OpenStack image, object, block, and file storage with a Red Hat Ceph Storage cluster.

Audience and prerequisites

Audience for this course

This course is intended for storage administrators, cloud operators, and cloud developers 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.

Prerequisites for this course

Be certified as a Red Hat Certified System Administrator (RHCSA), or demonstrate equivalent experience

Some experience with storage administration is recommended, but not required.

Outline for this course

Prepare for Red Hat Ceph Storage

Identify challenges faced by traditional storage and explain how Ceph addresses them.

Deploy Red Hat Ceph Storage

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

Configure Red Hat Ceph Storage

Manage how Ceph stores data with pools, configure Red Hat Ceph Storage using its configuration file, and configure users for Ceph clients that may access the Ceph storage cluster.

Provide block storage with RBD

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

Provide object storage with RADOSGW

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

Provide file storage with CephFS

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

Configure the CRUSH map

Adjust the CRUSH map—which controls how data is stored, replicated, and distributed across OSDs in the Ceph cluster—in order to optimize resiliency and performance.

Manage and update the cluster maps

Explain how the monitor and OSD maps are managed in order to maintain cluster operation, quorum, and consistency.

Manage a Red Hat Ceph Storage cluster

Check Ceph cluster status, troubleshoot Ceph daemon problems, and upgrade Ceph software.

Tune and troubleshoot Red Hat Ceph Storage

Identify the key performance metrics for a Ceph cluster and use them to help tune and troubleshoot the operating system and Ceph software for optimal performance.

Integrate Red Hat Ceph Storage with OpenStack

Configure an OpenStack cloud to use Ceph to provide image, block, object, and file storage.