Chapter 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.

- Describe OSD configuration scenarios and create BlueStore OSDs using ceph-volume.

- Describe and compare replicated and erasure coded pools, and create and configure each pool type.

- Describe Cephx and configure user authentication and authorization for Ceph clients.

Chapter 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.

- Administer and update the cluster CRUSH map used by the Ceph cluster.

- Describe the purpose and modification of the OSD maps.

Chapter 6, Providing Block Storage Using RADOS Block Devices

Configure Red Hat Ceph Storage to provide block storage for clients using RADOS block devices (RBDs).

- Provide block storage to Ceph clients using RADOS block devices (RBDs), and manage RBDs from the command line.

- Create and configure RADOS block devices snapshots and clones.

- Export an RBD image from the cluster to an external file and import it into another cluster.

Chapter 7, Expanding Block Storage Operations

Expand block storage operations by implementing remote mirroring and the iSCSI Gateway.

- Configure an RBD mirror to replicate an RBD block device between two Ceph clusters for disaster recovery purposes.

- Configure the Ceph iSCSI Gateway to export RADOS Block Devices using the iSCSI protocol, and configure clients to use the iSCSI Gateway.

Chapter 8, Providing Object Storage Using a RADOS Gateway

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

- Deploy a RADOS Gateway to provide clients with access to Ceph object storage.

- Configure the RADOS Gateway with multisite support to allow objects to be stored in two or more geographically diverse Ceph storage clusters.

Chapter 9, Accessing Object Storage Using a REST API

Configure the RADOS Gateway to provide access to object storage using REST APIs.

- Configure the RADOS Gateway to provide access to object storage compatible with the Amazon S3 API, and manage objects stored using that API.