## Summary

In this chapter, you learned:

- Red Hat Ceph Storage can provide a unified storage back end for OpenStack services that consume block, image, object, and file-based storage.
- OpenStack Glance can use Ceph RBD images to store the operating system images that it manages.
- OpenStack Cinder can also use RADOS block devices to provide block-based storage for virtual machines that run as cloud instances.
- The RADOS Gateway can replace the native OpenStack Swift storage by providing object storage for applications that use the OpenStack Swift API, and integrates its user authentication with OpenStack Keystone.
- Red Hat OpenShift Data Foundation is an operator bundle that provides cloud storage and data services to Red Hat OpenShift Container Platform; it is composed of the ocs-storage, NooBaa, and Rook-Ceph operators.
- Rook-Ceph is a cloud storage orchestrator that installs, monitors, and manages the underlying Ceph cluster in the OpenShift Data Foundation bundle operator. Rook-Ceph provides the required drivers to request storage to the cluster.
- PersistentVolumeClaims are an OpenShift resource type that represent a request for a storage object. They contain the StorageClass which describes the PersistentVolume that should bind to it.
- Access modes describe the mount capabilities of a PersistentVolume on pods.