Key benefits

- An integrated platform, including container host, Kubernetes, application life-cycle management, and storage, using any infrastructure
- Greater value from operations and development teams, with the ability to easily deploy storage in container-based environments
- Storage that is validated, integrated, tested, and supported with Red Hat OpenShift Container Platform
- Simpler installation and upgrades, leading to faster application development cycles and more frequent software deployments
- Portability across hybrid cloud and multicloud environments, resulting in lower IT operations costs

Overview

Red Hat® OpenShift® Container Storage is persistent software-defined storage integrated with and optimized for Red Hat OpenShift Container Platform. It runs anywhere Red Hat OpenShift does: on-premise or in the public cloud. Built on Red Hat Ceph® Storage, the Rook operator for Kubernetes storage orchestration, and NooBaa multicloud object gateway technology, the platform offers tightly integrated, persistent data services for OpenShift and the hybrid multicloud. Dynamic, stateful, and highly available container-native storage can be provisioned and de-provisioned on demand as an integral part of the OpenShift administrator console.

Red Hat OpenShift Container Storage

Red Hat OpenShift Container Storage is engineered, tested, and qualified to work with Red Hat OpenShift Container Platform on any infrastructure (Figure 1). Together, these technologies provide everything needed for hybrid cloud, enterprise container, and Kubernetes development and deployment. This certification removes the guesswork from running Red Hat OpenShift across multiple platforms while providing data storage functionality, data services, and data protection that enterprises require.

Figure 1. Red Hat OpenShift Container Storage is engineered, tested, and qualified to work with Red Hat OpenShift Container Platform.
Tight integration with Red Hat OpenShift Container Platform

Red Hat OpenShift Container Storage 4 is created for container-based environments and is tightly integrated with Red Hat OpenShift Container Platform. Support for the Rook storage orchestrator for Kubernetes makes storage simpler to install and manage as a part of the container-based application life cycle. With this innovation, Red Hat can provide support for the entire container-based environment, including cloud-native container management, scheduling, and orchestration, yielding:

• **Enterprise-class storage for Kubernetes.** Enterprise applications require storage with enterprise capabilities. For a stateful app to exhibit high availability, its data must first be highly available. Red Hat OpenShift Container Platform supports important features like replication, allowing application data to be placed across different availability zones.

• **A cloud-like experience, everywhere.** Circumstances are constantly changing, favoring one cloud provider over another, or in-house deployment versus the public cloud. Organizations need the ability to move quickly to take advantage of favorable pricing or respond to other business pressures. Red Hat OpenShift Container Storage provides software-defined storage that lets organizations deploy their apps and storage as needs dictate, and then adjust as they move forward.

• **Increased developer productivity.** Cloud developers want to innovate without arbitrary limitations. Traditional storage has been an impediment to cloud development, requiring separate and time-consuming arrangements. Red Hat OpenShift Container Storage provides common functionality across all cloud platforms, simplifying life for developers.

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1 Refer to the latest Red Hat OpenShift Container Storage 4 release notes for supported platforms.
## Features and benefits

<table>
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<tr>
<th>Benefit</th>
<th>Features and details</th>
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<tbody>
<tr>
<td>Portability</td>
<td>Offers easy cross-cloud data placement and access, along with hybrid and multicloud data protection for enterprise applications. Consistent OpenShift management tools work across clouds, whether on-premise or public. The multicloud object gateway provides data federation across multiple private and public clouds.</td>
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| Simplicity   | Fully integrates with Red Hat OpenShift Container Platform for Day 1 and Day 2 installation and management. A single unified platform supports:  
  - Block storage for databases and messaging.  
  - Shared file storage for continuous integration and data aggregation.  
  - Object storage for archival, backup, and media storage.  
  Storage nodes are members of the OpenShift cluster. Red Hat OpenShift Container Storage nodes are managed through the OpenShift administrator console via the Rook Kubernetes storage orchestrator. |
| Scalability  | Supports traditional and emerging OpenShift workloads, allowing easy data sharing across geographic locations and platforms, and scales to orders of magnitude more persistent volumes (PVs) per OpenShift Container Storage cluster than previous releases. |

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## About Red Hat

Red Hat is the world’s leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.