



SOLUTION BRIEF

Commvault Backup & Recovery for Red Hat OpenShift Virtualization

Enterprise-Grade Protection for Virtual Machines and
Containers on OpenShift

ENTERPRISE-GRADE PROTECTION FOR VIRTUAL MACHINES AND CONTAINERS ON OPENSIFT

Modern enterprises are modernizing infrastructure while continuing to run mission-critical virtual machines (VMs). As organizations adopt Red Hat OpenShift as a strategic control plane for containers and cloud-native workloads, many are also running VMs on Red Hat OpenShift Virtualization.

Red Hat OpenShift Virtualization enables organizations to preserve existing virtualization investments while embracing modern management principles. It allows teams to run and manage virtual machines and containers together on a unified Kubernetes-based platform. However, consolidating infrastructure is only part of the journey. Production environments require enterprise-grade backup, recovery, and cyber resilience to operate with confidence.

Commvault Backup & Recovery for Red Hat OpenShift Virtualization is designed to provide unified, enterprise-grade protection for virtual machines and containerized workloads running on OpenShift, helping organizations modernize while supporting recovery depth, governance, and operational reliability.

THE MODERNIZATION CHALLENGE

Organizations are converging virtualized and containerized workloads onto Red Hat OpenShift to simplify infrastructure and standardize operations. Yet this convergence introduces new data protection challenges:

- Maintaining consistent RPOs and RTOs across VMs and containers
- Avoiding fragmented backup strategies for different workload types
- Managing platform transitions from traditional hypervisors to OpenShift
- Protecting business-critical workloads from ransomware and operational disruptions
- Preserving compliance and governance standards in hybrid environments

Snapshot-only approaches and siloed backup tools may not provide the recovery depth, scale, and governance required for production VM workloads. Enterprises need a unified approach that supports both modern and traditional applications running on OpenShift.

MIGRATION CONTINUITY FROM VMWARE TO OPENSIFT

Infrastructure modernization often includes migrating workloads from traditional hypervisors to Red Hat OpenShift Virtualization. During these transitions, backup and recovery standards must remain consistent.

Commvault enables organizations to:

- Protect VMware VMs prior to migration
- Apply enterprise-grade Commvault protection to OpenShift Virtualization VMs immediately after migration

This continuity can help reduce disruption, support recovery standards, and minimize the risk of backup vendor reevaluation during platform transitions.

A UNIFIED APPROACH TO PROTECTION AND RECOVERY

Commvault extends its proven Kubernetes protection capabilities on Red Hat OpenShift to include virtual machines running on Red Hat OpenShift Virtualization. Organizations can protect both containerized workloads and VMs through a single, consistent platform.

Key capabilities include:

Unified Protection for VMs and Containers

Protect OpenShift Virtualization VMs and Kubernetes applications together using a single policy model and centralized control plane. Automatic discovery of virtual machines through OpenShift APIs reduces manual configuration and aligns protection with platform governance.

Production-Ready VM Recovery

Restore virtual machines in-place or out-of-place to support recovery, migration, testing, and disaster recovery scenarios. Recovery includes VM configurations, enabling rapid restoration of applications and services.

Network-Optimized Restore

Accelerate large-scale recoveries and reduce recovery windows with optimized restore performance and resource-aware operations that align with OpenShift governance models.

Granular File-Level Restore

Recover individual files and folders from OpenShift Virtualization VMs with support for agent-based and agentless file restore, supporting operational flexibility and minimizing downtime.

Application-Consistent Snapshots

Support transactional integrity for databases and stateful applications using pre- and post-job hooks for application-aware protection.

Support applies to validated Red Hat OpenShift Virtualization deployments across supported infrastructure environments, as outlined in Commvault product documentation.

ENTERPRISE GOVERNANCE AND CYBER RESILIENCE

Converging workloads on OpenShift does not reduce enterprise requirements for governance, compliance, and cyber resilience.

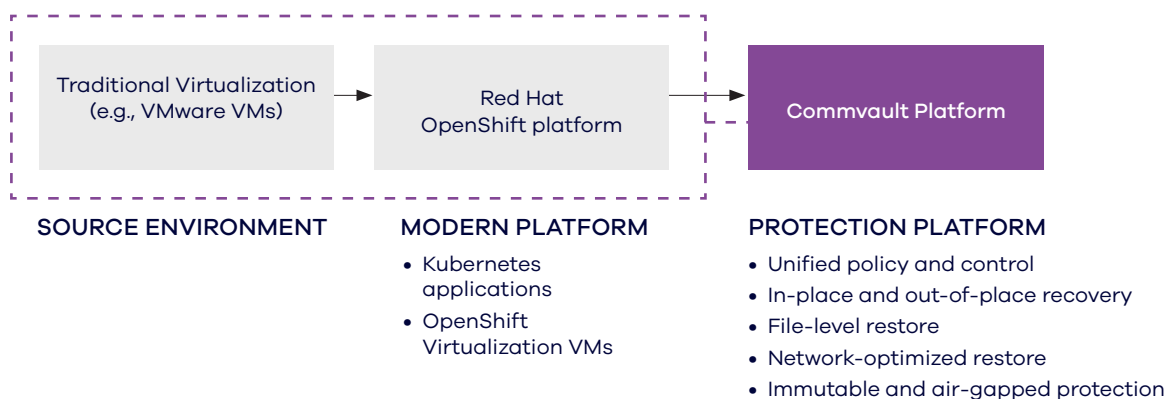
Commvault provides:

- Air-gapped and immutable backup options
- Long-term retention and compliance controls
- Centralized visibility across hybrid and multi-cloud environments
- Resource- and quota-aware operations aligned with OpenShift APIs

By unifying protection for VMs and containers, organizations can simplify operations while strengthening resilience against ransomware, outages, and destructive events.

ARCHITECTURE OVERVIEW

Unified VM and Container Protection on OpenShift



WHY COMMVAULT FOR OPENSIFT VIRTUALIZATION

In enterprise OpenShift environments, organizations require more than basic backup. They require recovery depth, operational predictability, and platform-aligned integration.

Commvault is designed to provide:

- Unified protection across traditional VMs, OpenShift Virtualization VMs, Kubernetes applications, and cloud workloads
- Deep VM recovery capabilities beyond snapshot-only approaches
- Predictable restore performance at enterprise scale
- Integration aligned with Red Hat OpenShift APIs, RBAC, and storage integrations
- Scalable VM protection across diverse enterprise storage environments supported by OpenShift
- Governance-ready operations for regulated and security-conscious environments

By extending enterprise-grade protection to OpenShift Virtualization, Commvault is designed to help organizations modernize infrastructure while supporting recovery standards expected in mission-critical environments.

STRENGTHENING THE RED HAT ECOSYSTEM

Commvault and Red Hat collaborate to support enterprise customers modernizing infrastructure with OpenShift.

“By collaborating with Commvault, we’re enabling enterprise-grade data protection for Red Hat OpenShift Virtualization workloads, giving users greater confidence as they run and scale their essential virtualized applications,” said Ashesh Badani, Senior Vice President and Chief Product Officer, Red Hat.

Together, Commvault and Red Hat aim to provide organizations with a unified, resilient foundation for running and protecting both virtualized and containerized workloads.

TAKE THE NEXT STEP

To learn more about **Commvault Backup & Recovery for Red Hat OpenShift Virtualization**, visit [commvault.com](https://www.commvault.com) or contact your Commvault representative.

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