Accelerate modern virtualization

Migrate and modernize VMs with Red Hat OpenShift and Portworx

Overview

Red Hat and Portworx by Pure Storage provide a compelling alternative to traditional virtualization with long-term benefits.

An evolving virtualization landscape

Organizations find themselves at a crossroads with their virtualization strategies. While virtualization remains crucial for running critical workloads, the rise of cloud computing, evolving application development practices, and marketplace shifts are challenging traditional approaches. These challenges, such as unsustainable costs, limited innovation, and the complexity of migrating to the cloud, necessitate a fresh perspective. Red Hat and Portworx offer a powerful alternative that addresses these challenges, providing a robust path for modernizing infrastructure and data management while retaining and optimizing existing virtual machine (VM) workloads.

A platform for modern virtualization

Portworx and Red Hat® OpenShift® provide enterprises with a smarter approach to virtualization—one that can simplify management, scale on demand, and save costs. This joint solution supports both VMs and containers, eliminating the need for separate stacks and isolated operations. Built-in automation, data protection, and disaster recovery (DR) tools reduce administrative burden while improving application uptime and resilience. Whether supporting legacy workloads or launching cloud-native initiatives, teams can operate with confidence, flexibility, and speed. Organizations can benefit from a lower total cost of ownership (TCO), improved developer productivity, and a platform designed for hybrid and multicloud deployments today and ready for the future.

Red Hat OpenShift Virtualization[1] is included in Red Hat OpenShift, providing a modern platform for running and deploying VM workloads. It simplifies the migration and management of traditional VM-based applications onto a consistent and comprehensive hybrid cloud platform. It helps preserve existing virtualization investments while allowing organizations to embrace hybrid cloud infrastructure and modern management and development principles.

Portworx Enterprise helps organizations reimagine virtualization by extending advanced storage and data management across both traditional virtualization and cloud-native workloads on a modern application platform, Red Hat OpenShift. Portworx addresses core requirements around automation, high availability, and DR through a single, streamlined platform that runs on top of any on-premise or public cloud infrastructure. With Portworx, organizations can use their existing infrastructure investments while embracing a new, modern development platform that supports both VMs and containers.

Business benefits

- **Lower TCO:** Portworx and Red Hat OpenShift help enterprises avoid the high costs associated with traditional virtualization stacks. By consolidating infrastructure and simplifying operations, organizations can significantly reduce both capital and operational expenses while modernizing their IT.

> "We are pleased to collaborate with Portworx to bring their expertise and data management capabilities to Red Hat OpenShift Virtualization Engine as an optimized offering, making it even easier for organizations to deploy and manage virtualized workloads."
>
> **Ashesh Badani**
> Red Hat,
> Chief Product Officer

1 *OpenShift Virtualization is a feature of Red Hat OpenShift.*

"Red Hat is the perfect partner for our mission as more companies are looking to go cloud-native. Many companies are leveraging Portworx with OpenShift to not only migrate and manage their workloads, but also power innovative application development. We are proud of the success from this Red Hat partnership and look forward to what the next year holds."

Ajay Singh
Chief Product Officer,
Pure Storage

- **Streamlined operations and efficiency:** Portworx and OpenShift support more efficient management of both VMs and containers through a unified platform. This streamlined approach reduces complexity, minimizes manual processes, and accelerates deployment times—empowering IT teams to deliver services more efficiently and reliably. Instead of needing to move everything to cloud-native, enterprises can continue to run applications in VMs on Kubernetes, while refactoring or creating net new cloud-native applications based on their existing resources and transformation timelines.
- **Flexible, hybrid-ready deployment:** With support for on-premise, public cloud, and hybrid environments, the solution offers comprehensive deployment flexibility. Enterprises can run applications and manage data wherever it makes the most business sense, providing scalability, resilience, and freedom from infrastructure lock-in. Instead of needing to move everything to cloud-native, enterprises can continue to run applications in VMs on Kubernetes, while refactoring or creating net new cloud-native applications based on existing resources and transformation timeline.

Technical benefits

A unified platform for VMs and containers

Portworx and Red Hat deliver a single, Kubernetes-native platform to manage both VMs and containers side by side. This reduces complexity, simplifies infrastructure management, and allows organizations to modernize at their own pace while maintaining operational continuity for legacy and cloud-native workloads.

Enterprise data services

Portworx Enterprise enhances Red Hat OpenShift by providing a platform that delivers highly performant storage with built-in high availability, comprehensive DR, and automated storage and data management operations for VMs and containers. This includes synchronous and asynchronous DR, multicluster replication, ransomware protection, automated backups—providing resilient, security-focused, and high-performance operations for business-critical applications.

Accelerated migration and scalability

Red Hat's migration toolkit for virtualization and proven Portworx reference architectures[2] offer a lower-risk path to migrate existing VMs to OpenShift. Enterprises can take advantage of the combined power of the toolkit and Portworx live migration capabilities to simplify the initial migration process to OpenShift Virtualization and streamline the operational workflow for long-term migration and scalability requirements.

2 *Portworx reference architectures include the Portworx on Red Hat OpenShift Bare Metal Reference Architecture and the Portworx on Red Hat OpenShift Bare Metal: OpenShift Virtualization Addendum.*

Learn more

Red Hat OpenShift Virtualization and Portworx offer a powerful and flexible solution for organizations seeking to modernize their virtualization strategies. By providing a unified platform for managing both VMs and containers, along with robust data management and migration tools, the solution helps organizations to streamline operations, protect critical data, and accelerate application deployment. This strategic combination empowers organizations to embrace new technologies while maintaining and optimizing their existing VM investments.

Ready to learn more? Download the technical solution overview.



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Red Hat helps customers standardize across environments, develop cloud-native applications, and integrate, automate, secure, and manage complex environments with award-winning support, training, and consulting services.

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