Red Hat OpenShift

Gain business value with Red Hat OpenShift Virtualization

Boost business value with an application platform

By migrating virtual machines workloads to Red Hat OpenShift Virtualization, you can:

- Preserve existing virtualization investments.
- Reduce costs by consolidating workloads.
- Increase revenue with modern applications.
- Improve operational efficiency.
- Lower risk and increase confidence.

Virtualization offers real benefits for modern businesses

Virtualization tools and technologies are essential to datacenter operations. By deploying workloads on virtual machines, modern IT organizations can lower costs, reduce downtime, increase resiliency, boost efficiency, and meet sustainability goals. Even so, technologies like Kubernetes provide additional ways to optimize resource use, increase application portability, expand scalability, and reduce costs associated with traditional virtualization platforms. As a result, many organizations now use both virtual machines and containers to deploy critical workloads in on-site datacenters and public cloud environments.

Red Hat offers technologies that help you gain more business value from your virtualization investments by consolidating virtual machines and containers on a trusted, consistent, and comprehensive application platform. You can migrate your virtual machines from traditional virtualization platforms to a modern, robust application platform for both cost savings and innovative opportunities. We also offer tools to simplify your move between platforms and improve migration speed and success.

Migrate virtual machines to a consistent, robust application platform

A cohesive management experience for virtual machines and containers can help you streamline operations, reduce complexity, and improve overall efficiency. With effective resource allocation, simplified monitoring, and consistent scaling, an integrated platform can increase the performance and reliability of your critical applications while reducing infrastructure costs. However, migrating virtual machines to a modern application platform can be challenging without the right tools and technologies. Advanced migration tools and expert support can simplify transition processes, minimize downtime, and ensure that both traditional virtual machine workloads and cloud-native, container-based applications operate consistently and correctly in the same environment.

Included with Red Hat® OpenShift® and based on the Kernel-based Virtual Machine (KVM) and Kubevirt open source projects, Red Hat OpenShift Virtualization lets you create, migrate, and manage virtual machines on a consistent, comprehensive, and trusted platform for application modernization and cloud-native innovation. Powered by containers, Kubernetes, and DevSecOps capabilities, Red Hat OpenShift provides a foundation for rapidly building, deploying, and running both traditional and cloud-native applications at scale and with security across hybrid, multicloud, and edge environments. Included with Red Hat OpenShift self-managed and Red Hat OpenShift Service on AWS subscriptions, OpenShift Virtualization simplifies migration of Linux® and Microsoft Windows virtual machines with comprehensive tools and automation capabilities.

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Meet your business goals with Red Hat OpenShift

Across industries, Red Hat OpenShift delivers real business value. In fact, organizations that adopt Red Hat OpenShift can experience:

- Up to 636% return on investment over 5 years.[1]
- 20% higher DevOps and development team productivity.[1]
- 29% faster application development lifecycles.[1]
- US$21.6 million in higher annual revenue.[1]

By migrating virtual machines from traditional virtualization platforms and running them on Red Hat OpenShift, you can get the most from your existing virtualization investments while taking advantage of cloud-native architectures, streamlined operations and management, new development approaches, and reduced platform costs. Plus, to ensure your migration goes smoothly, the migration toolkit for virtualization simplifies and speeds the process of moving existing virtual machines to OpenShift Virtualization at scale, saving you time and minimizing potential errors. And with Red Hat Ansible® Automation Platform, you can further automate migration processes and Day 2 operations at scale to ensure a smooth transition for your critical virtualized workloads.

Preserve your existing investments

Over the past decades, IT organizations have made substantial investments in virtual machine technologies and virtualized workloads. As organizations now move towards more modern solutions for new applications, many aim to preserve these existing investments while integrating new management principles and technologies into their hybrid and multicloud environments.

OpenShift Virtualization helps you maximize your current technology investments by simplifying and speeding migration of traditional virtual machines to a scalable modern application platform. With a comprehensive, intuitive toolset, it lets you migrate your existing virtual machine workloads to an enterprise-grade platform efficiently and in less time.

Reduce cost with a consolidated platform

Maintaining multiple platforms for virtual machines and containers can lead to increased operational costs and lower availability for critical workloads. By standardizing on a single platform, you can improve consistency across key applications and services while reducing infrastructure and administration costs.

OpenShift Virtualization lets you efficiently deploy and manage both migrated and new virtual machines—along with containers and serverless functions—from a unified interface. Because OpenShift Virtualization delivers a consistent experience across on-site resources, public cloud instances, and edge devices, you can manage applications in complex hybrid and multicloud environments using a single administration framework and simplify the workday for your entire team. With Red Hat OpenShift, operations teams can optimize critical infrastructure and use up to 22% fewer virtual machines,[1] reducing both platform costs and administrative work.

Increase revenue with modern applications

Cloud-native applications are critical for delivering innovative products, scaling efficiently, and enhancing customer experiences. By adopting and deploying modern tools and technologies, you can gain new opportunities to increase revenue, capitalize on emerging markets, and foster long-term growth.

With Red Hat OpenShift, you can develop new cloud-native services and incorporate emerging technologies like artificial intelligence (AI) while modernizing your virtualized workloads and infrastructure on your own schedule to support your business in rapidly evolving markets. Modern development processes, principles, and tools—integrated into Red Hat OpenShift—help you build innovative products using a cloud-native approach to boost revenue across your organization. In fact, organizations that adopt

1 IDC Executive Summary, sponsored by Red Hat. "The Business Value of Red Hat OpenShift." Document #US47539121. March 2021.

Red Hat OpenShift to support application modernization experience US$21.6 million in higher annual revenue.[1] And by integrating containerized, microservices-based applications with traditional virtualized workloads, you can deliver flexible, agile digital solutions that adapt to meet changing user demands.

Speed time to value with improved operational efficiency

Delivering virtualized applications and infrastructure using modern, cloud-native practices can increase operational efficiency and flexibility. This approach not only reduces overhead costs but also lets you adapt to changing demands and efficiently scale your operations.

Self-service capabilities and continuous integration/continuous deployment (CI/CD) pipeline integrations in Red Hat OpenShift streamline virtual machine migration, deployment, and management across hybrid and multicloud environments. By integrating virtual machines and advanced, automated pipelines on Red Hat OpenShift, you can speed development of virtualized and container-based applications with a consistent set of tools and processes. Red Hat OpenShift also simplifies administration and troubleshooting tasks with a single console to improve operational efficiency across your organization. And with advanced virtual machine backup and restore capabilities, it increases the availability and reliability of your critical workloads.

You can also take advantage of OpenShift Service on AWS—a fully managed cloud service—to offload ongoing platform management and get started in less time. Jointly engineered, operated, and supported by Red Hat and AWS, OpenShift Service on AWS is a turnkey application platform that helps you boost operational efficiency and refocus on innovation. Our site reliability engineering (SRE) team automates the deployment and management of your clusters so your staff can concentrate on application development and strategic initiatives. Migration planning assistance and managed cluster installation and verification speed deployment. Additionally, you can access Kubernetes experience without retraining or moving existing staff or hiring new members, so your teams can being using the platform right away.

Lower risk and operate confidently

Successfully planning, deploying, and maintaining a virtualized environment requires specialized skills and knowledge. Expert support and guidance, backed by extensive virtualization experience and in-depth platform knowledge, can lower risk and increase confidence as you migrate, deploy, and manage virtual machines. With multiple tiers of support to meet your organization's needs, Red Hat can help you keep your virtualized environments up and running—and if an issue arises, quickly restore services—with OpenShift Virtualization.

Plus, with OpenShift Virtualization on OpenShift Service on AWS, managed upgrades, patching, and threat monitoring and remediation reduce costly downtime and maintain reliability and security. A single path to support through Red Hat or AWS helps you resolve issues with less hassle. Although your teams are responsible for managing OpenShift Virtualization on top of OpenShift Service on AWS, our SRE and support staff are still available to answer questions and provide expertise about migrating, running, and managing virtual machines on the platform.

"Red Hat OpenShift is the clear leader in enterprise Kubernetes. And while the virtualization market leaders can run Kubernetes on their virtualized infrastructure, only Red Hat OpenShift can run our whole virtualization environment within its Kubernetes container platform."[2]

Tayfun Deniz
Director of Infrastructure Management, sahibinden.com

See customer success in action: sahibinden.com

To maintain its market-leading position against competition from start-ups and global retailers, Turkish classified listing and e-commerce platform sahibinden.com decided to modernize its IT infrastructure and work approaches. The company began a 3-phase project to migrate its existing virtual machines into container workflows with Red Hat OpenShift, running in a private cloud environment across its 2 datacenters. With this new architecture and DevOps workflows, sahibinden.com has decreased system reliability incidents by 97%, improved developer productivity and time to market, and enhanced its reputation for technology innovation.

Read the customer success story to learn how sahibinden.com delivers reliable retail services faster with OpenShift Virtualization.

Learn more

Try Red Hat OpenShift and OpenShift Virtualization for free with a 60-day trial. You can access a self-supported subscription to Red Hat OpenShift, as well as certified operators like OpenShift Virtualization and Developer Hub and Red Hat Customer Portal for documentation and information. Start your trial today.

For current Red Hat OpenShift customers, the Red Hat Level Up Program provides no-cost access to Red Hat OpenShift with OpenShift Virtualization for your team, department, or organization initiatives. Designed for pilot projects and production workloads, this program comes with expert guidance and a fully supported, 1-year subscription. Get started with the Red Hat Level Up Program.

2 Red Hat case study. "sahibinden.com delivers reliable retail services faster with Red Hat OpenShift." March 2022.

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 develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. A trusted adviser to the Fortune 500, Red Hat provides award-winning support, training, and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners, and communities, helping organizations grow, transform, and prepare for the digital future.

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