Red Hat

5 ways to turn a mandatory upgrade into a modernization strategy

For many organizations, a forced infrastructure upgrade creates a decision point: Maintain the status quo or invest in a platform that welcomes the future. Consider 5 ways to take control of your modernization strategy with Red Hat® OpenShift® Virtualization.

1   Simplify the migration path to a cloud-native future

OpenShift Virtualization provides the virtualization functionality of Red Hat OpenShift and makes the transition from existing virtualization platforms predictable and nondisruptive. With OpenShift Virtualization, organizations can mitigate the risks of a virtual machine (VM) migration while maintaining business continuity. Key benefits include:

▸ **Guided migrations:** Use the included migration toolkit for virtualization to assess, map, and migrate VMs from existing source providers to Red Hat OpenShift.

  ▸ Use Red Hat Ansible® Automation Platform to automate the configuration of migrated VMs and orchestrate post-migration tasks, reducing the burden and risk of manual work for IT teams.

▸ **Minimal downtimes:** Maintain critical applications across the full IT landscape while migrating VM workloads to Red Hat OpenShift (with a brief cutover period).

▸ **Preserved investments:** Run existing VMs without code changes or refactoring, allowing a more rapid migration with the option to explore modern operational practices.

2   Modernize applications at any pace

Infrastructure upgrades can be resource-intensive events. OpenShift Virtualization breaks the pattern of disruptive

replatforming by allowing organizations to keep their existing applications while unlocking the capabilities needed for future modernization.

OpenShift Virtualization supports a long-term modernization strategy by offering:

▸ **Unified operational capabilities:** Use cloud-native tooling such as GitOps, continuous integration and continuous delivery (CI/CD) pipelines, and Red Hat OpenShift Service Mesh with VMs immediately, granting them the same operational efficiency and automation as containerized workloads.

▸ **Access to a cloud-native infrastructure:** Establish a clear, incremental path to a modern architecture. As business needs arise, consider refactoring VMs into microservices or integrating AI workloads.

3   Eliminate isolated teams with unified management

Running separate platforms for VMs and containers can create operationally isolated team structures with duplicate tools, distinct security models, and fragmented visibility. OpenShift Virtualization offers a unified approach, allowing IT teams to:

▸ **Collapse standalone infrastructures:** Manage VMs and containers in a single console, providing a unified platform for the full application landscape.

▸ **Standardize security policies:** Apply rigorous security context constraints and network policies to diverse workload types such as VMs, containers, and serverless applications.

4   Maximize existing infrastructure investments

When faced with an infrastructure upgrade, many organizations must go through the process of updating their existing hardware and firmware combination. Based on Red Hat Enterprise Linux®, Red Hat OpenShift offers broad infrastructure support and options to help optimize the IT environment and maintain strategic control:

▸ **Bare-metal deployments:** Maximize performance and reduce the "hypervisor tax" by running Red Hat OpenShift directly on your hardware.

▸ **Flexible hardware options:** Use existing hardware to deploy your workloads on Red Hat OpenShift through a large partner ecosystem of certified hardware.

▸ **Maximized density with hosted control planes:** Reduce infrastructure costs by decoupling the control plane from the worker nodes for improved isolation and efficient management of resources.

▸ **Hybrid cloud portability:** Move VMs across the hybrid cloud to Amazon Web Services (AWS), Microsoft Azure, IBM Cloud, or Google Cloud without changing operational tooling or converting VM formats.

5   Close the skills gap with trusted support

Transitioning to a new platform should not mean starting from scratch with your workforce. OpenShift Virtualization is built on kernel-based virtual machine (KVM) technology, a standard in the Linux ecosystem, and is backed by Red Hat's enterprise support ecosystem. IT teams can confidently support their new, modern environment with:

▸ A dedicated virtualization admin console,[1] offering an interface that aims to manage, monitor, and perform VM tasks.

▸ AI-powered assistance, answering common questions and translating VMware concepts as needed to reduce the learning curve and increase Day 1 productivity.

▸ A vast ecosystem of certified partners, ensuring that backup, monitoring, and security tools continue to work in an interoperable capacity with your organization's new environment.

Establish a plan for a modern virtualization future

1. **Assess your organization's migration readiness.** Generate a no-cost, automated migration readiness report for VMware workloads through the migration advisor.

2. **Kickstart the migration journey.** For at-scale migrations, the Virtualization Migration Assessment offers hands-on guidance through Red Hat Consulting to define a clear roadmap and timeline for migrating VMs off of your organization's existing provider.

3. **Simplify the transition.** Learning resources are available to help virtualization administrators map their existing knowledge of virtualization features across storage, networking, compute, and observability to Red Hat OpenShift.

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1   OpenShift. "Ease the virtualization admin transition to Red Hat OpenShift Virtualization." YouTube, 13 Feb. 2026.

About Red Hat

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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