Red Hat Virtualization

Product overview

Red Hat® Virtualization is a mature, reliable platform for traditional virtualization workloads built with the foundation to modernize your virtualization, your way. Backed by the powerful Red Hat Enterprise Linux®, Red Hat Virtualization provides ease of use, agility, and more security for virtualized, resource-intensive workloads.

With Red Hat Virtualization, you can:

- Virtualize any Linux or Windows application.
- Standardize compute, storage, and networking resources.
- Improve workload performance, efficiency, and application density.
- Deploy an agile environment to bring products to market faster.
- Build a strategy to containerize your virtual machines with a bridge to Red Hat OpenShift® and OpenShift Virtualization.

Features and benefits

Red Hat Virtualization can be deployed using your existing infrastructure and easily integrates with other Red Hat products to bring modern applications to market faster.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
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<tbody>
<tr>
<td>Centralized management</td>
<td>• Red Hat Virtualization Manager provides a centralized management system with a search-driven graphical user interface.</td>
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<td>• The system dashboard includes a global-use overview of CPUs, memory, storage host resources.</td>
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<td>• Manage and control virtual machines running in Red Hat OpenShift Container Platform directly from Red Hat Virtualization.</td>
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<td>• Red Hat Virtualization Manager, deployed and managed as an appliance, provides built-in high availability for the management plane.</td>
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### Feature

#### Security and hardening
- Secure virtualization (sVirt) and Security-Enhanced Linux (SELinux) technologies, both inherited from Red Hat Enterprise Linux, are incorporated to help secure and harden the hypervisor against attacks aimed at the host or virtual machines (VMs).

#### Highly available resources
- VMs can be configured for high availability in case of host failure.
- Hosts can be configured for power- and storage-based fencing for high availability.
- Red Hat Virtualization fully supports third-party tools through a REST API that backs up, restores, and replicates VMs and infrastructure data.

#### Automation and integration
- Integration with OpenShift Virtualization modernizes virtualized workloads to containers while maintaining visibility of VMs running in both Red Hat Virtualization and Red Hat OpenShift.
- Red Hat Virtualization integrates with OpenStack® to ease traditional workload migration to private clouds or to design applications that span virtual and private cloud environments.
- Integration with Red Hat Ansible® Automation Platform streamlines administration and operations by configuring infrastructure and resources, such as hosts, VMs, networks, and storage.
- Red Hat Virtualization natively supports Red Hat Gluster® Storage, and Gluster storage-node management is available through the Red Hat Virtualization administrator portal.
- Host Red Hat OpenShift Container Platform or the Red Hat OpenStack Platform control plane on Red Hat Virtualization.
- A RESTful API automates management and programming configurations.
- Simple Network Management Protocol (SNMP) allows Red Hat Virtualization Manager to integrate with third-party monitoring systems.

#### Workload management
- An advanced service-level agreement manager allows administrators to define host and VM policies for underlying infrastructure resources, which can also be used to guarantee service quality.
- Additional memory and CPU resources can be added without disrupting applications.
- A resource optimizer automatically balances existing VMs within a cluster.

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“**We see a clear ROI (return on investment) from our use of Red Hat Virtualization, not only from the hardware savings, but also from personnel efficiencies due to how fast we can spin up clusters and deploy virtual machines. And our software licensing costs are dramatically less with Red Hat Virtualization.**”

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Lead Engineer
UNIX/Linux Engineering Group, Qualcomm

“**As an operation that functions 365 days a year with a plane always in the sky, high availability is key for the safety of our operation and ultimately our customers. Red Hat Virtualization now enables us to have a single-pane view to what is going on in the whole environment, which we didn’t have before.**”

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Richard Dawson
UNIX and Linux Infrastructure Consultant, British Airways
## Feature Benefit

### Cross-platform support

- Full support is provided for Red Hat Enterprise Linux 5, 6, 7, and 8.
- Support is available for Windows Server 2008, 2008 R2, 2012 (32- and 64-bit), and 2016, as well as desktop systems Windows 7, 8, 8.1, and 10 (32- and 64-bit).
- Vendor support is provided for SUSE Linux Enterprise Server 10, 11, and 12.

### Migrate from other platforms

- Determine migration effort and risk for modernizing VM workloads with Red Hat Migration and Modernization Solutions and consolidate workloads where they work best for your business—on VMs or containers.
- Red Hat Virtualization Manager—or a command-line tool—can help migrate workloads from VMware vCenter to Red Hat Virtualization.

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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.