

Red Hat Powers New Generation of High-Performance Virtualization Based on Open Standards with Red Hat Virtualization 4

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KVM-based virtualization platform designed to streamline the virtualization of traditional workloads while providing a more secure and scalable foundation for hybrid cloud and container-based workloads

RALEIGH, N.C.--(BUSINESS WIRE)-- Red Hat, Inc. (NYSE: RHT), the world's leading provider of open source solutions, today announced the general availability of Red Hat Virtualization 4, the newest release of its Kernel-based Virtual Machine (KVM) -powered virtualization platform. Red Hat Virtualization 4 challenges the economics and complexities of proprietary virtualization solutions by providing a fully-open, high-performing, more secure, and centrally managed platform for both Linux- and Windows-based workloads. It combines a powerful updated hypervisor, advanced system dashboard, and centralized networking for users' evolving workloads. Built on Red Hat Enterprise Linux, Red Hat Virtualization 4 is designed to easily integrate with existing IT investments while providing a foundation for emerging technology deployments, including containerized and cloud-native applications.

While virtualization remains a key element of datacenter infrastructure, customer needs around the technology are rapidly evolving. Enterprises just embarking on a virtualization deployment may want a complete, agile platform that embraces efficiency and open standards of interoperability, while enterprises who have already deployed virtualization technologies may become increasingly concerned about their investment due to costs, performance limitations, or incompatibility. Red Hat Virtualization 4 is designed to address these emerging scenarios with a platform built on open standards, providing a powerful, flexible solution for new deployments and helping existing virtualization users migrate to an open, extensible solution.

Red Hat Virtualization 4 includes both a high-performing hypervisor (Red Hat Virtualization Host) and a web-based virtualization resource manager (Red Hat Virtualization Manager) for management of an enterprise's virtualization infrastructure. Specifically, Red Hat Virtualization 4 introduces new and enhanced capabilities around:

- Performance and extensibility
- Management and automation
- Support for OpenStack and Linux containers
- Security and reliability
- Centralized networking through an external, third-party API

Performance and Extensibility

Red Hat Virtualization 4 introduces a new powerful and smaller footprint hypervisor co-engineered with Red Hat Enterprise Linux 7.2. The new hypervisor helps streamline the installation of system packages and driver updates, simplify the deployment of modern technologies, and provide better hardware support configuration management integration. Additionally, Red Hat Virtualization can now be installed via Anaconda, the common installer for both Red Hat Enterprise Linux and Red Hat Virtualization hypervisor.

The new platform also includes support for advanced network functionality, helping to simplify the process of adding and supporting third party network providers via a new open API. This feature allows for the centralization and simplification of network management systems by enabling Red Hat Virtualization Manager to communicate with external systems to define networking characteristics that can be applied to a virtual machine's network interfaces.

Management and automation

To improve overall virtualization management, Red Hat Virtualization 4 offers an advanced system dashboard that provides a comprehensive view of virtualized resources and infrastructure. This enables administrators to better diagnose and remediate problems before they impact operations. Additional automation functionality includes:

- A storage image uploader, which provides a browser-based interface to upload existing KVM Virtual Machine files directly or via a remote URL, placing the image in the storage domain without requiring third party tools.
- Advanced live migration policies to enable users to fine-tune granular migration characteristics of hosts, down to an individual VM or cluster level, enabling faster operations and overall performance.

OpenStack and Linux containers

While virtualization as a technology is mature, Red Hat Virtualization 4 provides key support features for Linux container-based workloads as well as OpenStack private and hybrid cloud deployments. For containers, Red Hat Virtualization 4 supports Red Hat Enterprise Linux Atomic Host as a configurable guest system and allows guest agents to be run as, and report on, containers on the Atomic Host VM.

Red Hat Virtualization 4 also provides native support for Red Hat OpenStack Platform Neutron. This enables organization to streamline shared services and minimize their operational footprint by deploying services more seamlessly across traditional and cloud-enabled

workloads.

A More Secure Virtualization Environment

These newly-introduced features in Red Hat Virtualization 4 complement the security assets brought to Red Hat Virtualization through its base in Red Hat Enterprise Linux. Red Hat Virtualization 4 includes and supports sVirt, which applies Mandatory Access Control (MAC) for greater VM and hypervisor security. This helps to improve overall security and harden the physical and virtual environment against vulnerabilities that could be used as an attack vector against the host or other VMs.

Red Hat Virtualization is also integrated with Red Hat Satellite, Red Hat's systems management solution. Red Hat Virtualization standardizes infrastructure and virtual machine guest provisioning through existing Red Hat Satellite 6 implementations. It also provides visibility into the host and virtual machine errata details to ensure patch compliance across a physical and virtual environment.

Availability

Red Hat Virtualization 4 is available as a standalone offering, as an integrated offering with Red Hat Enterprise Linux, and as part of [Red Hat Cloud Suite](#) as part of a comprehensive solution. Existing subscribers can upgrade to Red Hat Virtualization 4 through the [Red Hat Customer Portal](#).

Supporting Quotes

Gunnar Hellekson, director, product management, Linux and Virtualization, Red Hat

"Our customers continue to rely on virtualization as a vital part of their datacenter modernization efforts while also using it to help bridge to new cloud-native and container-based workloads. Red Hat Virtualization provides the economics, performance and agility needed across both traditional and new infrastructure initiatives."

Gary Chen, research manager, Software Defined Compute, IDC

"While virtualization remains a key underpinning for the modern datacenter, customer needs are rapidly evolving to demand more than simply virtualizing traditional workloads. Modern virtualization platforms need to address these standard scenarios while making way for the emergence of virtualized containers and cloud computing, key aspects that Red Hat Virtualization can address in an open, extensible fashion."

Paulo Dutra, Data Processing Center manager, Caja de Valores

"Red Hat Virtualization has enabled us to streamline our operations and automate our disaster recovery process, reducing our risk from manual intervention and helping to cut our system recovery time in half. Without Red Hat Virtualization, we would not have been capable of managing the number of servers we projected, and we were able to add more virtual machines without additional monetary investment."

Scott Farrand, vice president, Platform Software, HPE

"Customer needs are continuing to evolve and their infrastructure has to keep pace. Red Hat's enhancements provide HPE's customers better cost and performance with multiple ways to deploy and use this technology in an open source environment."

Thomas Wenninger, chief operating officer, IT-Services and head of IT Infrastructure, Universität Salzburg

"Partnering with Red Hat to build our PLUS Web Services project has enabled us to extend the benefits of a flexible, private cloud platform to more than 20,000 of our students and employees and consolidate 30 department sites and computer centers into a single cloud infrastructure. Through a combination of Red Hat Virtualization and Red Hat's management solutions, we received extensive support for the design and implementation of our new private cloud. The open interfaces of Red Hat's Infrastructure-as-a-Service solutions enabled our cloud solution to maintain compatibility with major standards and prevent vendor lock-in for the future."

Bob Zuber, director of product management, Lenovo Data Center Group

"Red Hat Virtualization 4 provides a robust set of enterprise features that help us deliver maximized performance and a lower total cost of ownership. And the cross-platform scalability for both Linux and Windows workloads enables us to meet the diverse needs of our customers. When coupled with the industry-leading reliability of our servers, a Red Hat Virtualization 4 on Lenovo solution adds maximum reliability to the performance and cost of ownership benefits."

Additional Resources

Learn more about [Red Hat Virtualization 4](#)

Learn more about the [engineering journey](#) to Red Hat Virtualization 4

Read how [Caja de Valores](#) is using Red Hat Virtualization

Read Gartner's 2016 Magic Quadrant for x86 Server Virtualization, where Red Hat Virtualization was [named a "Visionary"](#)

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Forward-Looking Statements

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