# RED HAT ENTERPRISE LINUX OPENSTACK PLATFORM

DATASHEET



#### IN BRIEF

Red Hat Enterprise Linux OpenStack Platform delivers a production-ready foundation to create, deploy, and scale a secure and reliable public or private OpenStack cloud.

#### **READY FOR OPENSTACK?**

As a community project,
OpenStack is being
developed and changing
quickly. Red Hat removes
risk by providing long-term
stability through an enterprise
software life cycle and provides
world-class, production-level
support from a trusted
technology partner.

Looking for an on-ramp to OpenStack that will allow you to use your existing investments in virtualization while moving to the cloud?

Consider Red Hat Cloud Infrastructure. Learn more at www.redhat.com/rhci.

For more information on OpenStack, visit www.openstack.org.

For more information on Red Hat Cloud solutions, visit www.redhat.com/products/ cloud-computing.



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# PRODUCT OVERVIEW

Red Hat® Enterprise Linux® OpenStack® Platform combines the power of Red Hat Enterprise Linux with Red Hat OpenStack technology to deliver a scalable and secure foundation for building an open private or public cloud.

OpenStack depends on Linux to provide the operating environment for the OpenStack services, access to hardware resources, and third-party drivers for integration with existing or new systems. Additionally, OpenStack is dependent on its underlying Linux to provide system-wide performance, scalability, and data security, while often also providing an operating system for the guest applications running in these virtual environments.

If your organization is considering an OpenStack deployment, then it matters not just which OpenStack distribution you choose, but also which Linux offering you choose. Red Hat has pioneered the co-engineering of Linux and OpenStack together, recognizing the critical interdependencies between the two. Red Hat Enterprise Linux OpenStack Platform delivers an integrated and optimized foundation designed to stand up to the rigors of a production-level OpenStack cloud.

## **FEATURES AND BENEFITS**

By choosing Red Hat Enterprise Linux OpenStack Platform, you can take advantage of the fast pace of innovation in the OpenStack project while maintaining a stable platform for production deployment. With Red Hat Enterprise Linux OpenStack Platform, you can concentrate on developing your customizations and code on top of OpenStack, while Red Hat maintains the core OpenStack code and the underlying Linux platform on which it depends.

## DEPLOY OPENSTACK WITH CONFIDENCE

OpenStack release compatibility	Each release of Red Hat Enterprise Linux OpenStack Platform aligns with a community release (e.g., Juno), including all the core and incubating projects that are associated with the community release. Red Hat maintains strict API compatibility so that any code developed against a particular OpenStack release will run on its corresponding Red Hat Enterprise Linux OpenStack Platform release.
Enterprise hardened	Red Hat patches, fixes bugs, tests, and certifies each OpenStack release running on Red Hat Enterprise Linux OpenStack Platform for broad hardware and software compatibility and performance.

## OPENSTACK TECHNOLOGY LEADERSHIP FROM RED HAT

Red Hat has been a top code contributor to the OpenStack project for the past four releases, according to project statistics compiled by Bitergia http://bitergia.com/report/

## BUILD YOUR OPENSTACK CLOUD ON THE INDUSTRY-LEADING HYPERVISOR FROM RED HAT

The Red Hat Enterprise
Virtualization hypervisor,
based on KVM technology,
holds the top scores in the
industry-standard SPECvirt
hypervisor benchmark for performance, density, and scalability.
Learn more at spec.org/virt\_
sc2013/results/ and spec.org/
osg/virt\_sc2010/results

Enterprise software life cycle	Red Hat Enterprise Linux OpenStack Platform provides a stable branch release of OpenStack and Linux that is supported by Red Hat for a three-year production phase—well beyond the six-month release cycle of community OpenStack. Red Hat delivers security fixes, bug fixes, performance enhancements, and even backporting some features from future releases without disrupting your production environments.
Expansive ecosystem	Red Hat has built the world's largest certified OpenStack partner ecosystem for Red Hat Enterprise Linux OpenStack Platform. Starting with the inherited certified ecosystem of Red Hat Enterprise Linux—which includes thousands of certified servers and third-party software—a new OpenStack-specific certification track introduces partners that provide compute, storage, networking, ISV software, and services to ensure the same level of broad support and compatibility that customers enjoy today in the Red Hat Enterprise Linux ecosystem.
Enterprise management	Optionally, Red Hat CloudForms provides enterprise management over Red Hat Enterprise Linux OpenStack Platform and provides configuration management, service catalog, life-cycle management, monitoring, reporting, and more. Additionally, Red Hat has an open API and a growing ecosystem of third-party cloud management tools.
Technology leadership	Red Hat is a top code contributor and long-time leader in both the OpenStack community and the broader Linux community, participating in thousands of critical open source projects that come together in Red Hat Enterprise Linux OpenStack Platform. Red Hat is better suited to support you in your OpenStack deployment than any other vendor in the business.
Security	You can rely on the SELinux military-grade security and container technologies of Red Hat Enterprise Linux to prevent intrusions and protect your data when running in public or private OpenStack clouds.
Performance	Red Hat Enterprise Linux OpenStack Platform uses the Red Hat Enterprise Virtualization hypervisor to provide superior performance to your OpenStack workloads.  Red Hat Enterprise Virtualization hypervisor, based on KVM, holds record-breaking performance scores on the industry standard SPECvirt_sc2013 benchmark, including the only published eight-socket scores in the industry.

#### **RED HAT CERTIFIED TRAINING**

Get your IT team OpenStack trained and certified with our lab-intensive courses and performance-based exams. Learn more at redhat.com/en/ services/training/openstack

#### **PROFESSIONAL CONSULTING SERVICES**

Red Hat offers a portfolio of consulting offerings for Red Hat's cloud technology solutions, including:

- Consulting Discovery Sessions
- Consulting Assessments
- Consulting Smart Start and much more!

Learn more at redhat.com/consulting

# Integrated stack

Red Hat Enterprise Linux OpenStack Platform helps relieve deployment and management burdens through its software integration with Red Hat's proven portfolio of cloud infrastructure products.

- Deploy Red Hat Enterprise Linux as virtual machines to gain performance, security, and operational advantages that no other vendor can deliver.
- Deploy Red Hat Enterprise Virtualization and share the image storage and networking functionality services to ensure data consistency and compliance across traditional scale-up and new scale-out workloads.
- Deploy Red Hat CloudForms to provide unified operations management over Red Hat Enterprise Linux OpenStack Platform, Red Hat Enterprise Virtualization, and other non-Red Hat cloud solutions.
- Deploy Red Hat Inktank Ceph storage server as an add-on to manage your block, object, and image storage. (Ceph clients are integrated and included within the platform.)
- Deploy OpenShift by Red Hat using OpenStack's new Heat orchestration tool to build your own Platform-as-a-Service (PaaS).

With Red Hat Enterprise Linux OpenStack Platform, your organization can use the most widely deployed enterprise Linux operating system optimized for and integrated with an OpenStack distribution designed to deliver high performance, high supportability, and enterprise life cycles for your production environments.

## **TECHNICAL SPECIFICATIONS**

Red Hat Enterprise Linux OpenStack Platform will run on any server platform certified for Red Hat Enterprise Linux. In addition, the following minimums are required for specific server roles:

#### Compute nodes

- 64-bit x86 processor with support for the Intel 64 or AMD64 CPU extensions, and the AMD-V or Intel VT hardware virtualization extensions enabled.
- A minimum of 2GB of RAM is recommended.
- A minimum of 50GB of available disk space is required. 1TB is recommended for practical use. See documentation for more details.
- 2 x 1 Gbps network interface cards.

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## Controller nodes

- 64-bit x86 processor with support for the Intel 64 or AMD64 CPU extensions.
- A minimum of 2GB of RAM is recommended.
- A minimum of 50GB of available disk space is required, and more for nodes providing block storage services. 1TB is recommended for practical use. See documentation for more details.
- 2 x 1 Gbps network interface cards.

# Red Hat Enterprise Linux OpenStack Platform installer

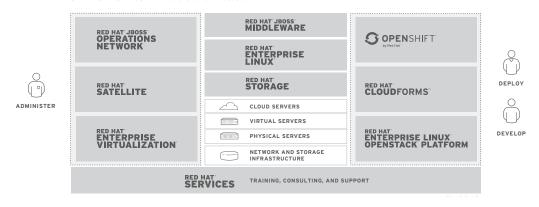
- Red Hat Enterprise Linux 7 host
- A minimum of 4GB of RAM is required



## **ABOUT RED HAT**

Red Hat is the world's leading provider of open source solutions, using a community-powered approach to provide reliable and high-performing cloud, virtualization, storage, Linux, and middleware technologies. Red Hat also offers award-winning support, training, and consulting services. Red Hat is an S&P company with more than 70 offices spanning the globe, empowering its customers' businesses.

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