

# **RED HAT CLOUD SUITE FOR APPLICATIONS**

DATASHEET

#### AT A GLANCE

Red Hat Cloud Suite:

- Provides a single platform to deploy and manage applications.
- Offers choice and interoperability without vendor lock-in.
- •Includes top virtualization benchmarks for performance and scalability.

With this combined solution, you can:

- •Meet evolving needs-from traditional virtualization to laaS to PaaS.
- Build a private cloud based on datacenter virtualization, traditional workloads, and hybrid deployment models.
- Easily migrate workloads and applications dynamically across all infrastructures.
- Add scalable cloud capabilities inside your datacenter to bring public cloud workloads back in-house

Traditional workloads aren't going anywhere, but cloud computing's fast and efficient service delivery offers benefits that are impossible to ignore. Businesses that can create reusable microservices, use containers for portability, and automate development and management processes have a distinct competitive advantage.

The organizations that succeed will be the ones that can maintain and improve the necessary aspects of their traditional infrastructure, and move appropriate workloads to modern cloud-based platforms. Whether resources are traditional, public, or private, they can be managed together in an elegant and integrated way.

Red Hat® Cloud Suite for Applications provides everything your organization needs to build and manage a private cloud, including both Infrastructure-as-a-Service (laaS) and Platform-as-a-Service (PaaS). This combination of enterprise cloud offerings gives your organization integrated tools and platforms (see Figure 1) that support virtual machine and container-based application workloads.

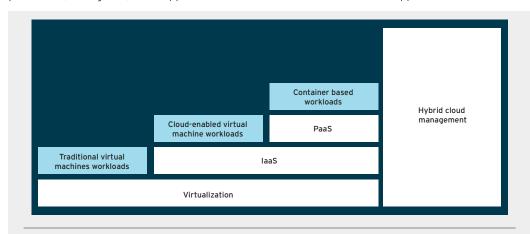


Figure 1. Red Hat Cloud Suite for Applications architectural overview.

Organizations can increase developer productivity through automation and standardized container-based application development using OpenShift Enterprise by Red Hat. At the same time, they can accommodate virtual machine-based workloads (including the infrastructure required to run OpenShift Enterprise by Red Hat) with a massively scalable Red Hat Enterprise Linux OpenStack® Platform-based infrastructure, managed in a common framework using Red Hat CloudForms and Red Hat Satellite.

Built on the trusted foundation of Red Hat Enterprise Linux®, Red Hat Enterprise Linux OpenStack Platform helps you implement a massively scalable open private cloud to deploy and efficiently manage traditional enterprise workloads and the new class of cloud-architected workloads while increasing speed of service delivery.



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#### **AWARDS**



Red Hat Cloud linfrastructure, winner of IDG's TechWorld Award for best cloud solution 2013

Red Hat CloudForms, "Best of VMworld 2014" finalist award in the "Private Cloud Computing Technologies" category



Red Hat CloudForms, 2014 editor's choice award for best virtualization automation product from *Virtualization Review* 



OpenShift by Red Hat, InfoWorld's 2015 Technology of the Year Award, identifying the best and most innovative products in the IT landscape

## ONE SUBSCRIPTION, MANY BENEFITS

Red Hat Cloud Suite for Applications is a single subscription that includes the following products:

## OpenShift Enterprise by Red Hat

An on-premise, private PaaS solution that lets your development and operations teams collaborate and deliver applications faster to meet your enterprise's growing demands.

# Red Hat Enterprise Linux OpenStack Platform

A massively scalable laaS solution that delivers an open and flexible private cloud foundation—optimized for and co-engineered with Red Hat Enterprise Linux.

#### Red Hat CloudForms

An open hybrid cloud management solution that provides visibility of and control over existing heterogeneous virtual infrastructures. It lets you deploy, monitor, and manage cloud services across virtualization products (e.g., Red Hat Enterprise Virtualization, VMware vSphere, and Microsoft System Center Virtual Machine Manager), Red Hat Enterprise Linux OpenStack Platform, and an increasing numbers of public cloud platforms. CloudForms also provides management of OpenShift Enterprise.

#### Red Hat Enterprise Virtualization

A complete datacenter virtualization product for Linux and Windows workloads that helps you build an agile, secure, and highly scalable virtualization foundation with the features needed for traditional enterprise application workloads.

## Red Hat Satellite

Red Hat Satellite server is an easy-to-use, advanced life-cycle and configuration management platform for Red Hat Enterprise Linux. It provides tools to efficiently deploy, update, and manage systems.



# FEATURES, USE CASES, AND CAPABILITIES

FEATURE CATEGORIES BY USE CASE	CAPABILITIES
Managed Platform-as-a-Service	
Increased developer agility	<ul> <li>Give developers self-service, on-demand application stacks.</li> <li>Write applications in Java, Ruby, Node.js, Python, PHP and more.</li> <li>Instantly boot popular application frameworks using pre-created code repository templates.</li> <li>Add services like private relational and NoSQL database instances.</li> <li>Easily add your own language, database, or middleware components (extensible architecture).</li> <li>Launch and manage applications using powerful command-line client tools and a web management console.</li> </ul>
Operational efficiency	<ul> <li>Scale applications automatically.</li> <li>Manage the entire development life cycle including continuous integration and release management, dependency and build management, backups, multiple development environments (dev/test/prod), and more.</li> </ul>
Application portability	<ul> <li>Certify application containers built using Red Hat Enterprise Linux. Red Hat Container Certification ensures they will operate seamlessly across certified container hosts.</li> <li>Provide native Docker support (OpenShift Release 3 now in beta).</li> </ul>
Foundation for an open private cloud	i
Standards	Meet private cloud use cases based on datacenter virtualization, traditional workload, and hybrid deployment models.
Capacity	<ul> <li>Increase your private cloud environment's capacity using open virtualization technologies (at a much lower cost). Unify cloud capacity and existing proprietary virtualization capacity.</li> <li>Deploy a standards-based private cloud, built on Red Hat Enterprise Linux OpenStack Platform.</li> </ul>
Support	• Access enterprise support from Red Hat for all components of this solution.



FEATURE CATEGORIES BY USE CASE	CAPABILITIES	
Cost-effective managed virtualization		
Open	• Enjoy choice and interoperability with no proprietary lock-in.	
Leading performance	<ul> <li>Use the technology with top virtualization benchmarks for performance and scalability on the SPECvirt_sc2013 benchmark¹.</li> </ul>	
Hybrid	• Use a centralized administration console to unify management for multiple hypervisor and cloud technologies.	
Foundation for an open hybrid cloud		
Hybrid	• Manage hybrid capabilities across vendors and between public and private cloud environments.	
Foundation for your future private cloud		
Future planning	• Adopt OpenStack and container technology on your timeline, when your applications and workloads are ready.	

## THE COMBINED POWER OF IAAS AND PAAS

By using OpenShift Enterprise and Red Hat Enterprise Linux OpenStack platform together, you can:

- Improve your IT more rapidly. IT shops that standardize on Java EE can move legacy applications to the cloud without re-writing or re-architecting.
- Improve infrastructure and operational efficiency. System component redundancy allows for high availability.
- Increase developer agility. Enhance the productivity of your application developers by removing tedium and delay from server, operating system, and middleware provisioning through on-demand and self-service application stack access.
- Greater architectural security and efficiency. Linux kernel technologies like Security-Enhanced Linux (SELinux) and Control Groups (CGroups) provide a highly secure, scalable, and efficient containerization approach for multi-tenancy within a single operating system instance.
- Maximize choice and agility. Developers can choose between Java, Ruby, Node.js, Python, PHP, and Perl. This means they can choose the right tool for the job, and make a different choice for each project, as needed.

<sup>1</sup> All benchmark comparisons based on benchmark addressing performance evaluation of datacenter servers used in virtualized server consolidation at www.spec.org/virt\_sc2010/ as of November 1, 2013. SPEC® and the benchmark name SPECvirt\_sc® are registered trademarks of the Standard Performance Evaluation Corporation.



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# 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 80 offices spanning the globe, empowering its customers' businesses.

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# **TECHNICAL SPECIFICATIONS**

Red Hat Enterprise Virtualization Manager: Recommended 1-2 quad core x86\_64 processors, 16 GB RAM, 50 GB disk, 1 Gbps Ethernet NIC.

Red Hat Enterprise Virtualization Hypervisor: 1 CPU with Intel® 64 or AMD64 CPU extensions, and AMD-VTM or Intel VT® hardware virtualization extensions, 2 GB RAM, 10 GB local disk storage, 1 GB Ethernet NIC.

Red Hat CloudForms 3.0: Delivered as a virtual appliance in Open Virtual Format (OVF) for either Red Hat Enterprise Virtualization 3.0 or later, or VMware vSphere.

Red Hat Satellite 6: 64-bit architecture, RHEL 6.5 or later, a minimum of two CPU cores, minimum of 8GB memory but ideally 12GB. During installation, any additional yum repositories other than those specified in the Red Hat Satellite installation documentation must be disabled.

Red Hat Enterprise Linux OpenStack Platform controller 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. 2 GB RAM, 50 GB available disk space, 1 Gbps Network Interface cards.

OpenShift by Red Hat: The following hardware requirements apply to all hosts, whether configured as a broker or as a node. The hardware requirements are applicable to both physical and virtual environments.

- AMD64 or Intel® 64 architecture
- Minimum 1 GB of memory
- Minimum 8 GB of hard disk space
- Network connectivity



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