RED HAT CLOUD INFRASTRUCTURE

DATASHEET

RED HAT CLOUD INFRASTRUCTURE AT A GLANCE

- Use one solution as your needs evolve—from traditional virtualization to private cloud, hybrid cloud, and public cloud.

- Build a private cloud based on datacenter virtualization, traditional workloads, and hybrid deployment models.

- Migrate workloads and applications easily and dynamically across all infrastructures.

- Get choice and interoperability without vendor lock-in.

- Add scalable cloud capabilities inside your datacenter to bring public cloud workloads back in house.

- Rely on top virtualization benchmarks for performance and scalability.[1]

- Oversee and orchestrate your entire cloud infrastructure from a single console.

- Use integrated life-cycle management that ensures automated provisioning, configuration management, and software management of Red Hat Enterprise Linux and any RPM-based application.

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OVERVIEW

Red Hat® Cloud Infrastructure helps you build and manage a complete private Infrastructure-as-a-Service (IaaS) cloud based on datacenter virtualization and management technologies for traditional workloads. It also provides an on-ramp to a highly scalable, public cloud-like infrastructure based on OpenStack®. With Red Hat Cloud Infrastructure, you can deliver services faster, increase your IT department's value, reduce total cost of ownership (TCO), and improve manageability.
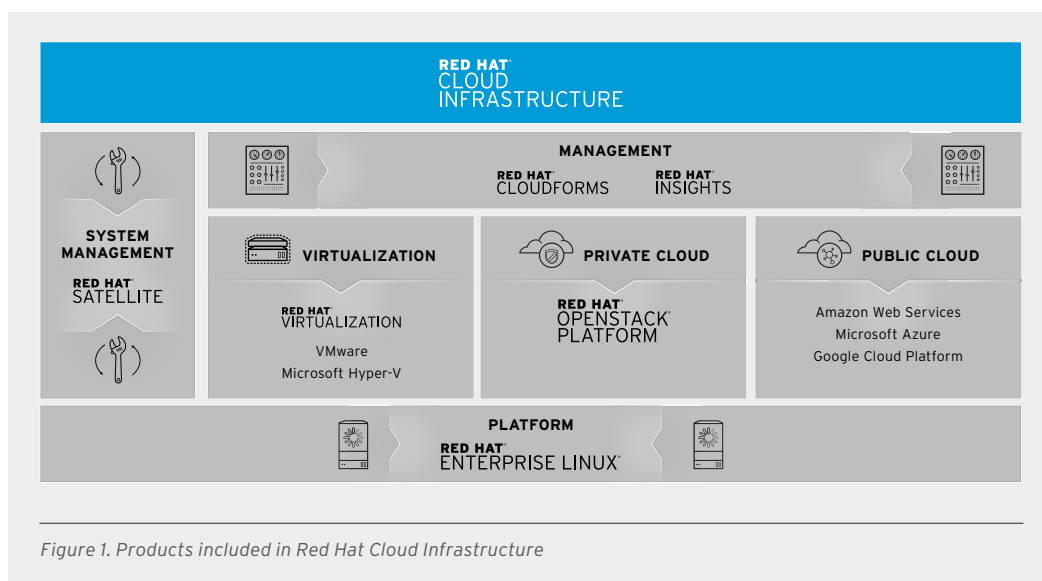
Figure 1. Products included in Red Hat Cloud Infrastructure

Red Hat Cloud Infrastructure is a single-subscription offering that integrates the following products:

Red Hat Satellite: A system management platform that provides life-cycle management for Red Hat Enterprise Linux® on both host and tenant operating systems within Red Hat Cloud Infrastructure. This includes provisioning, configuration management, software management, and subscription management. Working in concert with Red Hat CloudForms®, it ensures lower TCO, reduced complexity, and greater control.

Red Hat CloudForms: An open hybrid cloud management platform that provides visibility and control over existing independent virtual infrastructures. With CloudForms, you can deploy, monitor, and manage cloud services across multiple virtualization platforms—such as Red Hat Virtualization and VMware vSphere—as well as on Red Hat OpenStack Platform and an increasing number of public cloud platforms like Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform.

1 http://www.stackalytics.com

Red Hat Insights: A proactive systems management service that provides predictive analytics and failure detection for all components of Red Hat Cloud Infrastructure.

Red Hat Virtualization: A complete datacenter virtualization product for Linux and Windows workloads that lets you build an agile, secure, and highly scalable virtualization foundation with the necessary features for traditional enterprise application workloads.

Red Hat OpenStack Platform: A massively scalable IaaS product that delivers an open, flexible, and enterprise-ready private cloud foundation—optimized for, and integrated with Red Hat Enterprise Linux.

Red Hat Enterprise Linux: An enterprise Linux operating system that also forms the basis of Red Hat Virtualization at the hosted operating system layer. In addition, a customer can opt to purchase Red Hat Cloud Infrastructure with unlimited guests.

Red Hat Cloud Infrastructure solution can also use Red Hat Ceph® Storage, an open, scalable, flexible, software-defined storage system. Red Hat Ceph Storage is designed for commodity hardware and benefits OpenStack deployments because of its seamless integration with OpenStack's modular architecture and storage components. Red Hat Ceph Storage is available as an optional separate purchase.

CUSTOMER BENEFITS

Based entirely on open source solutions, Red Hat Cloud Infrastructure provides hybrid IT capabilities, allowing enterprises to optimize and modernize existing traditional infrastructure and workloads, implement new cloud-native workloads, and manage hybrid cloud environments.

Red Hat Cloud Infrastructure provides proven technology components that act in concert to provide public cloud capabilities and efficiencies, access to fully supported, production-ready open source cloud innovation, and shared services with a common management platform across a private or hybrid cloud infrastructure. With this solution, you can deploy any combination of these fully integrated components the way you need them today, and change them in the future. Red Hat Cloud Infrastructure is designed to work with your existing infrastructure, offering you choice and control of your direction—without vendor lock-in.

More specifically, this solution meets the needs for private cloud or hybrid cloud infrastructures by providing:

Public cloud-like capabilities in an on-premise private cloud. It mirrors public cloud scalability, elasticity, and flexibility, while helping to improve security compliance and reduce threats and data breaches.

Accelerated service-delivery. IT services are provisioned in an automated and rapid way that improves governance and management and reduces work time, potential human error, and governance subversion.

Hybrid IT management. It can manage on-premise Red Hat OpenStack Platform cloud and traditional Red Hat Virtualization environments, as well as non-Red Hat technologies, such as VMware and Microsoft Hyper-V, and in off-premise environments like AWS, Microsoft Azure, and Google Cloud Platform. This ability helps with intelligent workload placement, a reduction in IT sprawl, and overall cost efficiency.

Traditional virtualization replacement. It offers choice to replace existing costly, proprietary virtualization tools with open, scale-up virtualization with Red Hat Virtualization or scale-out IaaS cloud with Red Hat OpenStack Platform.

Standardized and automated. It provides a private cloud based on the common platform of Red Hat Enterprise Linux. Introducing a standard operating environment (SOE) based on Red Hat Enterprise Linux and Red Hat Satellite can improve cost efficiency and simplify management for server patching and updates.

TECHNICAL SPECIFICATIONS

System requirements include:

- **Red Hat Virtualization Manager:** Recommended 1-2 quad core x86_64 processors, 16GB RAM, 50GB disk, 1 Gbps Ethernet network interface controller (NIC).

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

- **Red Hat OpenStack Platform 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. 2GB RAM, 50GB available disk space, 2 x 1 Gbps network interface cards.
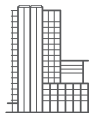
ABOUT RED HAT

Red Hat is the world's leading provider of open source software solutions, using a community-powered approach to reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.

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