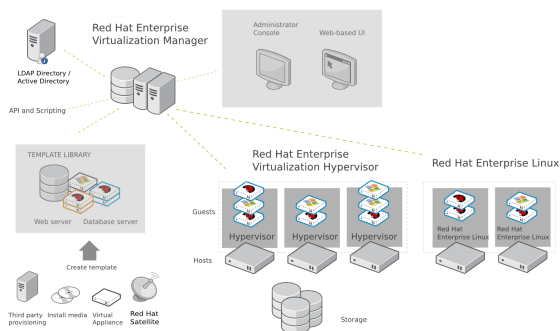# RED HAT ENTERPRISE VIRTUALIZATION FOR SERVERS: DATASHEET

RED HAT ENTERPRISE VIRTUALIZATION FOR SERVERS

Red Hat Enterprise Virtualization for Servers is an end-to-end virtualization solution, with use cases for both servers and desktops, that is designed to enable pervasive datacenter virtualization, and unlock unprecedented capital and operational efficiency. Red Hat Enterprise Virtualization for Servers builds upon the Red Hat Enterprise Linux platform that is trusted by millions of organizations around the world for their most mission-critical workloads, and consists of the following two components:

- **Red Hat Enterprise Virtualization Manager for Servers:** A feature-rich server virtualization management system that provides advanced capabilities for hosts and guests, including high availability, live migration, storage management, system scheduler, and more.

- **Red Hat Enterprise Virtualization Hypervisor:** A modern hypervisor based on KVM which can deployed either as a standalone bare metal hypervisor (included with Red Hat Enterprise Virtualization for Servers), or as Red Hat Enterprise Linux 5.4 and later (purchased separately) installed as a hypervisor host.

FEATURES AND BENEFITS

Robust virtualization management features

- ✓ **Live Migration:** Dynamically move virtual machines between hosts with no service interruption.

- ✓ **High Availability:** Virtual machines automatically restart on another host in the case of host failure.

- ✓ **System Scheduler:** Balance workloads in the datacenter by dynamically live-migrating virtual machines based on resource usage and policy.

- ✓ **Power Saver:** During off-peak hours, concentrates virtual machines on fewer physical hosts to allow some host s to be powered down to achieve power savings.

- ✓ **Maintenance Manager:** Perform maintenance on hosts without guest downtime.

- ✓ **Image Manager:** Create new virtual machines based on templates.

- ✓ **Thin Provisioning:** Allows creation of desktops and servers based on templates by storing only differences between new instances and the base template, saving storage space.

Record-breaking performance[1]

- ✓ **1 million messages per second on a single host**

- ✓ **600 active workload VMs on a single 32 core 1 TB server**

- ✓ **Sub-200 ms latency**

- ✓ **Up to 95% of bare metal performance for real world enterprise applications**

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1   See Library under **http://www.redhat.com/rhev/server** for the latest Red Hat Enterprise Virtualization for Servers performance whitepapers and datasheets.

Scalability

✓ **Host: Up to 256 cores, 1 TB RAM**

✓ **Guest: Up to 16vCPU, 256 GB RAM**

✓ **Clusters: Over 50 hosts per cluster**

✓ **Predictable, scalable performance for enterprise workloads like SAP, Oracle, Apache, etc.**

Robust, proven security model

✓ **Built on SELinux security infrastructure developed in conjunction with US National Security Agency**

✓ **Provides industry leading guest-host and guest-guest isolation**

Advanced features

✓ **Memory page sharing, NUMA support, Power Management, Advanced Scheduling Capabilities**

Guest operating system support

✓ **Paravirtualized network and block drivers for highest performance**

✓ **Red Hat Enterprise Linux Guests (32 bit and 64 bit): RHEL 3, RHEL 4, RHEL 5**

✓ **Microsoft Windows Guests (32 bit and 64 bit): Windows 2003 server, Windows 2008 server, Windows XP.**

Hardware support

✓ **All 64-bit x86 servers that support Intel VT or AMD-V technology and are certified for Red Hat Enterprise Linux 5 are certified for Red Hat Enterprise Virtualization.**

✓ **Red Hat Enterprise Virtualization supports NAS/NFS, Fibre Channel and iSCSI storage topologies.**

PRICING AND PACKAGING

Red Hat Enterprise Virtualization for Servers is available as a subscription including Red Hat Enterprise Virtualization Manager for Servers and the Red Hat Enterprise Virtualization bare metal hypervisor. Optionally, Red Hat Enterprise Virtualization can manage Red Hat Enterprise Linux (purchased separately) deployed as hypervisor nodes.

Red Hat's simple subscription price structure provides 40%-80% lower cost compared to other solutions for the same feature set. The subscription model allows customers to take advantage of future/road-map infrastructure advancements at no incremental cost.

SYSTEM REQUIREMENTS

Hypervisor Hosts

64-bit capable x86 servers supporting Intel VT or AMD-V hardware virtualization technology and certified for Red Hat Enterprise Linux 5.x.

Must be running the Red Hat Enterprise Virtualization bare metal Hypervisor (included with Red Hat Enterprise Virtualization) or optionally Red Hat Enterprise Linux 5.4 or later (purchased separately).

Management Server

x86 server running US English Language version of Windows Server 2003 R2 with SP2, .Net 3.5 or later, Application Server role installed. Windows Server 2008 not supported.

Management Console

x86 desktop or server running Windows XP SP2 or later, Windows Vista, Windows 7, Windows Server 2003 or later, and Internet Explorer 6-8.

WHAT NEXT?

For more information, please go to **http://www.redhat.com/virtualization** or contact your local Red Hat Enterprise Virtualization reseller.

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