RED HAT ENTERPRISE VIRTUALIZATION

redhat

RED HAT ENTERPRISE VIRTUALIZATION VERSUS VMWARE VSPHERE

COMPETITIVE PRICING REVIEW

RED HAT ENTERPRISE VIRTUALIZATION PRICING AT-A-GLANCE

- Purchased via a per-managed socket-pair, per year subscription
- Doesn't include costly "editions" that force you into expensive upgrades for required functionality.
- Red Hat Enterprise Viurtalization costs 50–80% less than competing solutions[2].
- Red Hat Enterprise Virtualization Manager is included with the subscription (no need to purchase separately, deploy as many as you need).
- To determine cost, simply multiply your socket pair total by either $999 (for business-hour support) or $1,499 (for 24x7x365 support).

INTRODUCTION

This document compares the pricing of Red Hat Enterprise Virtualization with the pricing of VMware vSphere 5.5 for server virtualization. Both the Red Hat Enterprise Virtualization subscription pricing and the VMware vSphere 5.5 license and support pricing are explained prior to the detailed pricing comparisons for the use cases of 100 and 300 virtual servers.

As the use cases detailed here reveal, Red Hat Enterprise Virtualization costs 50-80% less than VMware vSphere 5.5. And as our case studies[1] reveal, Red Hat Enterprise Virtualization has provided customers with dramatic cost savings, including Bonhams Auction House, which reduced software licensing and maintenance costs by 50%[2].

PRICING MODELS

You must understand Red Hat and VMware's different pricing models to accurately compare costs across platforms. Typical virtualization solutions include the following components: a hypervisor, a management server, and a management agent. For each component, you must also consider an up-front license fee and a subscription fee for maintenance and support.

To focus on a true cost comparison, a virtualization solution consisting of the hypervisor host and enterprise management system was used. Server hardware costs and virtual server operating system costs are not included since they would be identical for both solutions.

RED HAT ENTERPRISE VIRTUALIZATION

All Red Hat products are offered under a subscription model that includes product access, all updates, and support. Rather than charging high, up-front license costs, Red Hat charges an annual subscription fee that costs the same each year and is based on the level of support you need.

The Red Hat Enterprise Virtualization subscription is priced on a per-socket pair (for each hypervisor) and includes the Red Hat Enterprise Virtualization Manager and the Red Hat Enterprise Virtualization Hypervisor, a bare-metal, small foot-print Kernel-based Virtual Machine (KVM) hypervisor based on the full Red Hat Enterprise Linux kernel. Each managed socket pair on a virtualization host requires one subscription of Red Hat Enterprise Virtualization.

1 www.redhat.com/resourcelibrary/case-studies.

2 *Bonhams Standardizes US I.T. with Red Hat Enterprise Virtualization,* www.redhat.com/resourcelibrary/case-studies/bonhams-standardizes-us-it-with-red-hat-enterprise-virtualization

"Red Hat Enterprise Virtualization provided the stability, reliability, and flexibility we were looking for at about 60% lower costs compared with its closest competitor."

SILVIU POPA
IT DIRECTOR, HIDROCONSTRUCTIA

The subscription pricing for Red Hat Enterprise Virtualization has been designed to simplify the specification and purchasing of your virtualization solution. The straightforward subscription model and single, enterprise-ready edition of Red Hat Enterprise Virtualization make specification and cost forecasting predictable and easy, benefiting both new and existing Red Hat customers.

SUBSCRIPTION	INCLUDES
Red Hat Enterprise Virtualization	•Unlimited nodes of Red Hat Enterprise Virtualization Manager •2 sockets of Red Hat Enterprise Virtualization Hypervisor •Support and updates •No vRAM limits •All Red Hat Enterprise Virtualization features for virtualized servers and desktops (no editions) •Support: Standard (business-hour support) or Premium (24x7x365 support)

To calculate your estimated Red Hat Enterprise Virtualization price:

1. Total the socket pairs of your managed hypervisor server host servers.
2. Choose either Standard or Premium support.
3. Multiply your socket pair total (determined in step 1) by either $999 (for business-hour support) or $1,499 (for 24x7x365 support).

"With Red Hat Enterprise Virtualization, Red Hat has done in five years what some of the industry leaders have taken 10, 11, or 12 years to accomplish. Red Hat Enterprise Virtualization is a product that just works."

FREDY HERNANDEZ
SYSTEMS ADMINISTRATOR, STYLMARK

VMWARE VSPHERE 5.5

The VMware virtualization solution consists of vSphere nodes (hypervisor and vCenter management agent) and the vCenter Management server. Each vSphere node license includes a vCenter Management license. Pricing is based on a per-socket model for the vSphere nodes, and a per-server model for the vCenter Management Server.

The vSphere product is packaged into different editions, including Standard, Enterprise, and Enterprise Plus, that differ by management functionality. Red Hat Enterprise Virtualization compares closest to the VMware vSphere 5.5 Enterprise Edition in terms of functionality.

In addition to the up-front license fees for the per-socket basis, there is also an annual service and support contract called Support and Subscription (or SnS) that entitles the customer to support, patches, and upgrades. The customer must also purchase a VMware vCenter Management server license separately.

While VMware markets its ESXi bare-metal hypervisor as a free product, ESXi does not include support, is limited to 32GB vRAM, and does not support advanced multi-node management. To receive these benefits, you must upgrade to one of the paid editions of vSphere 5.5.

For a typical environment, a VMware vSphere customer will need to purchase the following:

SUBSCRIPTION	INCLUDES
vCenter Management Server license	•1 node of vCenter Management Server •(Management agents and the hypervisor are no included.)
vCenter Management Server support subscription	•Support and updates for the above •Gold (business-hour support) or Platinum (24x7 support)
vSphere 5.5 license (editions include Standard, Enterprise, Enterprise Plus)	•1 socket of ESXi hypervisor •1 socket of vCenter Management Agent
vSphere 5.5 support subscription	•Support and updates for the above •Gold or Platinum support

To calculate your estimated VMware vSphere 5.5 price:

1. Total a minimum of one vCenter Management Server license key.
2. Choose the Edition (Standard, Enterprise, Enterprise Plus) based on features (some features require moving to a more expensive edition) and vCPU/VM limits (Standard supports up to 8 vCPU/VM, Enterprise supports up to 32 vCPU/VM, Enterprise Plus is required for 33-64 vCPU/VM).
3. Total sockets or processors of hypervisor server hosts.
4. Multiply one vSphere license key for each physical processor or socket.

"With the lowest TCO in its class, excellent performance and scalability, and wide ecosystem of hardware and enterprise software, Red Hat Enterprise Virtualization on Intel Xeon processor-based servers is the complete solution for building an infrastructure platform for the future."

SHIJU RAWTHER
VICE PRESIDENT, I.T., CIBIL

PRICING SCENARIOS

For each of these pricing scenarios, the first-year cost of acquiring and supporting the virtualization management and hypervisor software and the three-year cost of ownership are examined. The costs for the hardware and guest operating systems have not been included since they will be the same for both a VMware and a Red Hat Enterprise Virtualization deployment.

100 VIRTUAL MACHINE GUESTS

The following table compares three-year costs for Red Hat Enterprise Virtualization with Premium support (24x7x365) and VMware vSphere 5.5 Enterprise Edition with Platinum support (24x7x365). In this scenario, 100 VMs (10 servers with 20 sockets) are configured for small-to-medium workloads supporting IT and web infrastructure services.

	RED HAT ENTERPRISE VIRTUALIZATION	VMWARE VSPHERE ENTERPRISE EDITION
One-year cost		
Up-front, license fee	0	$62,495
Annual support / subscription cost	$14,990	$15,629
Total first-year cost	**$14,990**	**$78,124**
For the first year (with 24x7x365 support), VMware vSphere Enterprise is more than 5x more expensive than Red Hat Enterprise Virtualization.		
Three-year cost		
First year	$14,990	$78,124
Second year	$14,990	$15,629
Third year	$14,990	$15,629
Total three-year costs	**$44,970**	**$109,382**

Read the "VMware vSphere vs Red Hat Enterprise Virtualization" Sys-Con blog post at **www.sys-con.com/node/2774526.**

The following is a breakout of the above costs:

Red Hat Enterprise Virtualization = **$14,990 total first-year cost**

- Red Hat Enterprise Virtualization, Premium (24x7x365 support): 10 (socket pairs) x $1,499 = $14,990

VMware vSphere Enterprise = **$78,124 total first year-cost**

- VMware vSphere Enterprise: 20 (sockets) x $2,875 = $57,500
- VMware vSphere Enterprise SnS Platinum (24x7x365 support) = 20 (sockets) x $719 = $14,380
- VMware vCenter Server Standard: 1 x $4,995 = $4,995
- VMware vCenter Server SnS Platinum (24x7x365 Support): 1 x $1,249 = $1,249

300 VIRTUAL MACHINE GUESTS

In this scenario, 300 VMs (30 servers with 60 sockets) are configured for a broad range of workloads, including decision support and business processing applications. These workloads often need higher amounts of memory and CPU processing capability.

In this configuration, Red Hat Enterprise Virtualization is compared to the vSphere Enterprise Plus Edition. This vSphere edition offers a full range of features, including 64 vCPU/VM, SR-IOV, and vCloud Director, that is also found in Red Hat Enterprise Virtualization.

	RED HAT ENTERPRISE VIRTUALIZATION	VMWARE VSPHERE ENTERPRISE PLUS EDITION
	One-year cost	
Up-front, license fee	0	$214,695
Annual support /subscription cost	$44,970	$53,689
Total first-year cost	**$44,970**	**$268,384**
For the first year (with 24x7x365 support), VMware vSphere Enterprise Plus is 6x more expensive than Red Hat Enterprise Virtualization.		
	Three-year cost	
First year	$44,970	$268,384
Second year	$44,970	53,689
Third year	$44,970	53,689
Total three-year costs	**$134,910**	**$375,762**

The following is a breakout of the above costs:

Red Hat Enterprise Virtualization = **$44,970 total first-year cost**

- Red Hat Enterprise Virtualization, Premium (24x7x365 support): 30 (socket pairs) x $1,499 = $44,970

VMware vSphere Enterprise Plus = **$268,384 total first-year cost**

- VMware vSphere Enterprise: 60 (sockets) x $3,495 = $209,700
- VMware vSphere Enterprise SnS Platinum (24x7x365 support) = 60 (sockets) x $874 = $52,440
- VMware vCenter Server Standard: 1 x $4,995 = $4,995
- VMware vCenter Server SnS Platinum (24x7x365 support): 1 x $1,249 = $1,249

These pricing scenarios use the following parameters and values:

PARAMETER	VALUE
Server processors	Two processors with 8 cores per processor
Server memory capacity	Supports up to 384GB RAM
Target host utilization	75%
VMs	100 VMs with an average of 2 vCPU and 4 GB vRAM
VMs	300 VMs with an average of 4 vCPU and 8-16 GB vRAM
vCPU/pCore	2-3
vRAM/pRAM	1
Support	24x7x365

SUMMARY

In summary, Red Hat Enterprise Virtualization offers compelling value by matching VMware vSphere 5.5 core functionality at a price that, in some cases, can be 60-80% less expensive.

In addition, the Red Hat subscription model offers benefits to both new and existing Red Hat customers. The simple per-socket-pair management subscription and single enterprise-ready edition of Red Hat Enterprise Virtualization Manager make specification and cost forecasting easy.

WHAT'S NEXT

For more information, visit www.redhat.com/rhev or contact your local Red Hat sales office or Red Hat authorized partner.

REFERENCE

VMware vSphere Pricing, VMware vSphere 5 Licensing, Pricing and Packaging

www.vmware.com/products/vsphere/pricing.html (December, 2013)

Red Hat product offerings, pricing, terms, and conditions are accurate in the United States as of December 2013 and are subject to change. Pricing for non-Red Hat virtualization platforms and guest operating systems are based on published retail or volume license pricing in the United States as of December 2013 and is subject to change.

ABOUT RED HAT

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