



WHITEPAPER

# RED HAT ENTERPRISE VIRTUALIZATION FOR DESKTOPS: COMPETITIVE PRICING GUIDE

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## AT A GLANCE

- Buy RHEV for Desktops in convenient annual subscription packs of twenty-five desktops
- No costly “Editions” or “add-ons” that force you into expensive upgrades to get features you need. You get it all!
- RHEV Manager included with subscription - no need to purchase separately; deploy as many times as you need
- Manage and deliver Windows and Linux desktops at your discretion
- Manage and deliver desktop and server virtual machines from the same management console
- Just add up the number of desktops you want, add up the number of server sockets needed to run those desktops, choose your SLA, and go!

This document compares the pricing of Red Hat Enterprise Virtualization for Desktops (RHEV) with the pricing of VMware View 5 for desktop virtualization. Both the RHEV for Desktops subscription pricing and the VMware View 5 license and support pricing are explained prior to the detailed pricing comparison for the use cases of 100 virtual desktops. As the analysis reveals, a RHEV for Desktops solution costs 75-80% less than VMware View 5 solution. Or, in other words, VMware can be more than five times more expensive. To focus on a true cost comparison, this analysis only considered the virtualization solution consisting of the hypervisor host and enterprise management system. Server hardware costs and virtual server operating system costs are not included since they would be identical for both solutions.

## RED HAT ENTERPRISE VIRTUALIZATION FOR DESKTOPS PRICING

Red Hat Enterprise Virtualization uses a very different pricing model than VMware. It is important to understand these differences to accurately compare costs across platforms.

With most desktop virtualization solutions, you may have the following basic elements: hypervisor, management server, and user portal. For each one of these elements, there can typically be an upfront license fee and an annual subscription fee for maintenance and support.

All Red Hat products are offered under an annual subscription model that includes product access, all updates/patches, and product support. Rather than charging high, upfront 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. Additionally, all features and functionality are included into each product and free from “add-on” or “edition” feature costs. Red Hat Enterprise Virtualization for Desktops includes the RHEV management system, an integrated connection broker, the self-provisioning user portal, the SPICE remote network protocol, and all desktop features, such as desktop pools, templates, thin provisioning, and more.



The Red Hat Enterprise Virtualization for Desktops annual subscription pricing is an add-on to the Red Hat Enterprise Virtualization for Servers product subscription. With most desktop virtualization solutions, you may have the following basic elements: hypervisor, management server, and management agent. For each one of those elements, there is typically an upfront license fee associated, as well as an annual subscription fee for maintenance and support.

A subscription agreement for **Red Hat Enterprise Virtualization for Servers** is based on the number of utilized CPU server sockets. For example, one managed socket on a virtualization host requires one subscription of Red Hat Enterprise Virtualization for Servers.

A subscription agreement for **Red Hat Enterprise Virtualization for Desktops** is based on the concurrent number of virtual desktops (sold in packs of 25 desktops).

Thus, the total price of Red Hat Enterprise Virtualization for Desktops includes the number of desired concurrent desktops and the quantity of server sockets used to host those desktops. Each virtualization host that is fully licensed for Red Hat Enterprise Virtualization for Desktops is entitled to run the included Red Hat Enterprise Virtualization Hypervisor, a bare-metal hypervisor based on the full Red Hat Enterprise Linux kernel. Furthermore, since RHEV for Desktops is an add-on to RHEV for Servers, a purchase includes an entitlement to run both server and desktop operating systems, allowing customers to provide a single purchase to consolidate two separate workload types.

The Red Hat Enterprise Virtualization Manager provides system-wide management over both desktop and server guest virtual machines, combined into one simple graphical administration interface. There are no separate management products or charges associated with running both Server and Desktop guest virtual machines. As a result, there is no need to deploy an architecture that separates desktops from servers into independent clusters or datacenter's due to pricing or licensing. All workload types can be run simultaneously across any host server, system wide.

The subscription pricing and licensing 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
<b>Red Hat Enterprise Virtualization for Servers</b>	<ul style="list-style-type: none"><li>• Unlimited nodes of RHEV Manager</li><li>• 1 socket of RHEV-H hypervisor</li><li>• Support and updates</li><li>• No vRAM limits</li><li>• Entire RHEV for Servers feature set (no Editions)</li></ul>



<b>Red Hat Enterprise Virtualization for Desktops</b>	<ul style="list-style-type: none"><li>• Unlimited nodes of RHEV Manager</li><li>• 25 desktop guests</li><li>• Support and updates</li><li>• No vRAM limits</li><li>• Entire RHEV for Desktops feature set (no Editions)</li></ul>
<b>Red Hat Enterprise Virtualization Support</b>	<ul style="list-style-type: none"><li>• Included in above base subscription</li><li>• Standard (Business hours) or Premium (24 x 7) level</li></ul>

**Step-by-step process to calculate RHEV for Desktops pricing:**

1. Count number of concurrent desktops desired (in packs of 25).
2. Count number of sockets of hypervisor server hosts needed to run desired quantity of desktops.
3. Choose support level (Standard or Premium).
4. Buy RHEV for Server subscriptions for the number of hypervisor host server sockets, and buy RHEV for Desktops subscriptions for the number of desktops.

**VMWARE VIEW 5 PRICING**

VMware View 5 is sold in two editions: Enterprise or Premier. Each is sold as a bundled solution that includes several solution components, depending on which version you buy. Licensing is also per concurrent desktop and includes VMware vSphere Desktop (both versions), VMware vCenter for Desktops (management server), and VMware View Manager (both versions). Additionally, many solution components are also sold as independent desktop add-ons, usually for existing VMware vSphere customers. These bundles can be purchased in license packs of 10 or 100 desktops.

Along with the first announcement of vSphere 5 pricing changes in July 2011, VMware also announced it would be offering a standalone option to purchase vSphere 5 Desktop edition. vSphere Desktop provides the full capabilities of vSphere Enterprise Plus, but is limited to desktop operating workloads only. Unlike vSphere 5, vSphere Desktop does not have any vRAM limitations or restrictions of any kind. Licensing costs are based on the number of powered-on desktop virtual machines and are only sold in packs of 100 desktops. Please refer to the vSphere 5 section in this document to learn more about vSphere Enterprise Plus edition and vSphere 5 licensing costs and limitations.

**Definitions**

In order to better understand the pricing, let's first define what each edition actually is:

**View 5 Enterprise Bundle:** The basic product bundle, intended for new customers who want to run virtualized desktops.



**View 5 Enterprise Add-on:** Intended for existing vSphere customers who want to also run virtualized desktops.

**View 5 Premier Bundle:** The advanced product bundle, intended for new customers.

**View 5 Premier Add-on:** The advanced product bundle, intended for existing vSphere customers who want to run virtualized desktops with all features and components.

**View 5 Premier Upgrade:** The advanced product bundle upgrade for View 5 Enterprise edition customers

Component	View 5 Enterprise Bundle	View 5 Enterprise Add-on	View 5 Premier Bundle	View 5 Premier Add-on	View 5 Premier Upgrade
vSphere Desktop	✓		✓		
vCenter Server Standard Desktop	✓		✓		
View Manager	✓	✓	✓	✓	
View Composer			✓	✓	✓
Local Mode (Offline VDI)			✓	✓	✓
vShield Endpoint			✓	✓	✓
ThinApp			✓	✓	✓
Persona Management			✓	✓	✓
Pricing (per concurrent connection)	\$150	\$90	\$250	\$190	\$100



### **Step-by-step process to calculate RHEV for Desktops pricing:**

1. Choose View bundle edition. Existing vSphere customers choose the appropriate Add-on
2. Choose quantity of desktops
  - Must buy a minimum of 100 desktops (first purchase)
3. Purchase new vCenter Management server (Existing vSphere customers only)
4. Choose level of Support (Basic 12x5 or Production 24x7)
5. Buy additional View desktop packs of 10 or 100 desktops as you grow

### **UNDERSTANDING THE FINE PRINT**

#### **1. vSphere Desktop standalone:**

As noted previously, vSphere Desktop can be purchased independently of vSphere or View. vSphere Desktop provides the full capabilities of vSphere Enterprise Plus with no vRAM limitations, but is limited to desktop operating systems and workloads only. Licensing is based on “per powered on virtual machines” and is only sold in packs of 100 desktops for \$6,500 (or \$65 per desktop).

A closer look at the standalone vSphere Desktop offering reveals that it does NOT include any type of management server. This means, an additional purchase of vCenter Server is required to manage your desktop environment--or a third-party vendor can be utilized. The additional purchase of vCenter Server could range from \$2,040 for up to three host servers (one year of 12x5 support), all the way up to \$6,244 per instance (one year of 12x5 support), depending on customer requirements. 24x7 support is even more expensive.

Additionally, the vCenter Server that is included in the View Bundle is restricted from being used to manage Server virtual machines on a vSphere implementation and is limited to manage only desktop virtual machines. Thus, customers will always require two separate management platforms for servers and desktops.

#### **2. “Add-on's” still need management!**

Many customers are existing vSphere customers and may want to expand their virtualized infrastructure to include desktop operating systems and workloads. While these customers can simply purchase the View 5 add-on licenses, the licenses do NOT include a management server. In fact, looking more closely at the add-on purchase, licensing restrictions prevent existing vSphere customers from being able to utilize existing vCenter Servers to manage desktop environments. Thus, existing vSphere

customers must purchase a second vCenter Server to manage their desktops, even if they already have vCenter for vSphere. The result of this additional requirement forces customers to maintain two independent environments of hosts and management servers. As Cloud computing becomes more pervasive, restricting business from combining both infrastructures into a single management offering is costly, inflexible, and much more difficult for IT to maintain.

### **3. Support must be purchased separately!**

Remember, that any purchases of View 5 bundles also require the additional purchase of support and subscription (SnS). Starter kits can be purchased, which essentially include the base license for 10 desktops, plus 21 percent of the total product purchase for one year of 12x5 SnS and 25 percent for one year of 24x7 SnS. Three support SKUs are available at a discounted rate.

### **4. First-time purchases include restrictions!**

Per VMware's purchasing restrictions, the first time you purchase either of the View bundles (Enterprise or Premier), you **MUST** purchase at least one pack of 100 desktops. While VMware offers SKUs for packs of either 10 or 100, the first purchase must be 100 desktops. Subsequent purchases for that same SKU can be either 10 or 100.

Also available are Starter Kits, which bundle 10 desktops plus SnS. Either the starter kit or a direct product SKU in the quantity of 100 must be licensed as the initial purchase.



## PRICING SCENARIO

Here we show a Red Hat-to-VMware price comparison for a new customer looking to virtualize 100 desktops, with 12x5 business-hour support.

	RHEV FOR DESKTOPS	VMWARE VIEW 5 ENTERPRISE BUNDLE	VMWARE VIEW 5 ENTERPRISE ADD-ON <sup>1</sup>
<b>Total Number of Servers (4 sockets each)</b>	2	2	2
<b>Total Number of Processors</b>	8	8	8
<b>Total Number of Virtual Desktops</b>	100	100	100
<b>Virtualization Software License Costs (One Time)</b>	\$0.00	\$15,000	\$8,540 (plus vSphere costs)
<b>Virtualization Software Annual Support and Subscription Costs</b>	\$3,496	\$3,150	\$1,793
<b>Total First Year Costs</b>	\$3,496	\$18,150	\$10,333
<b>Three Year Costs</b>	\$10,488	\$24,450	\$13,919

## SUMMARY

In conclusion, Red Hat Enterprise Virtualization for Desktops offers incredible value over VMware, by providing an infrastructure that offers a combined virtual Server and Desktop infrastructure, support to host and deliver both Windows and Linux environments, and provides a centralized, single point of management for all workload types, delivered at up to 70-80% less than VMware View 5.

The Red Hat subscription model offers benefits to both new and existing Red Hat customers, and the straightforward per-concurrent desktop subscription, along with the single enterprise-ready Red Hat Enterprise Virtualization Manager make specification and cost forecasting easy.

<sup>1</sup> Add-on costs are ONLY for the View product and do not include the costs of pre-existing vSphere infrastructure. Add-ons can only be used by existing vSphere customers.



To help you compare, Red Hat has developed an online TCO calculator and configurator for Red Hat Enterprise Virtualization. For more information, go to <http://www.redhat.com/rhev/desktop/cost> and click on CALCULATE YOUR SAVINGS.

Red Hat product offerings, pricing, terms and conditions are accurate as of January 2012 and are subject to change and local pricing. 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 January 2012 and is subject to change and local pricing.

### WHAT'S NEXT

For more information, please go to <http://www.redhat.com/rhev/desktop> or contact your local Red Hat sales office or Red Hat authorized reseller.

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#### ABOUT RED HAT

Red Hat, the world's leading provider of open source solutions and an S&P 500 company, is headquartered in Raleigh, NC with more than 70 offices spanning the globe. Red Hat provides high-quality, affordable technology with its operating system platform, Red Hat Enterprise Linux, together with cloud, virtualization, applications, management, storage and service-oriented architecture (SOA) solutions, including Red Hat Enterprise Virtualization and JBoss Enterprise Middleware. Red Hat also offers support, training and consulting services to its customers worldwide.

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