

RED HAT® ENTERPRISE VIRTUALIZATION

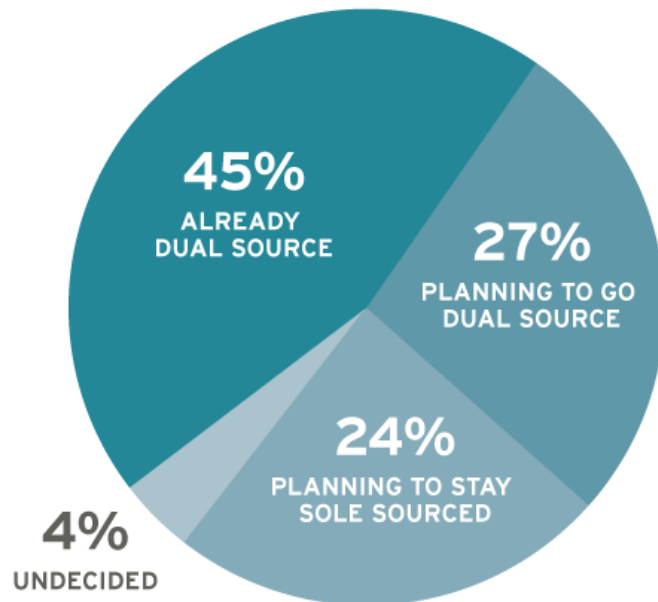
**YOUR STRATEGIC
VIRTUALIZATION ALTERNATIVE**

**Greg Lissy
Director, Red Hat Virtualization Business**

**James Rankin
Senior Solutions Architect**

THE VIRTUALIZATION MARKET HAS CHANGED

Do you plan to utilize more than one virtualization vendor for your virtualization initiatives?



SOURCE: 2011 IDG Research study for Red Hat based on 78 qualified CIO Peer2Peer Research Panel members.

“The release of Red Hat Enterprise Virtualization 3.0 signals that 2012 will be the year that IT managers at organizations of all sizes have real choices to make when it comes to virtualizing workloads in the data center”

eWEEK.COM

RHEV 3.0 Sets Stage for VMware Challenge, eWeek Labs, February 28, 2012

OPEN VIRTUALIZATION ALLIANCE PROVES DEMAND FOR AN OPEN ALTERNATIVE



Empowered by Innovati



Over 200 OEMs, ISVs and Service Providers committed to an Open Virtualization Alternative

RHEV: STRATEGIC ALTERNATIVE TO VMWARE

RHEV COMPLETE VIRTUAL INFRASTRUCTURE SOLUTION



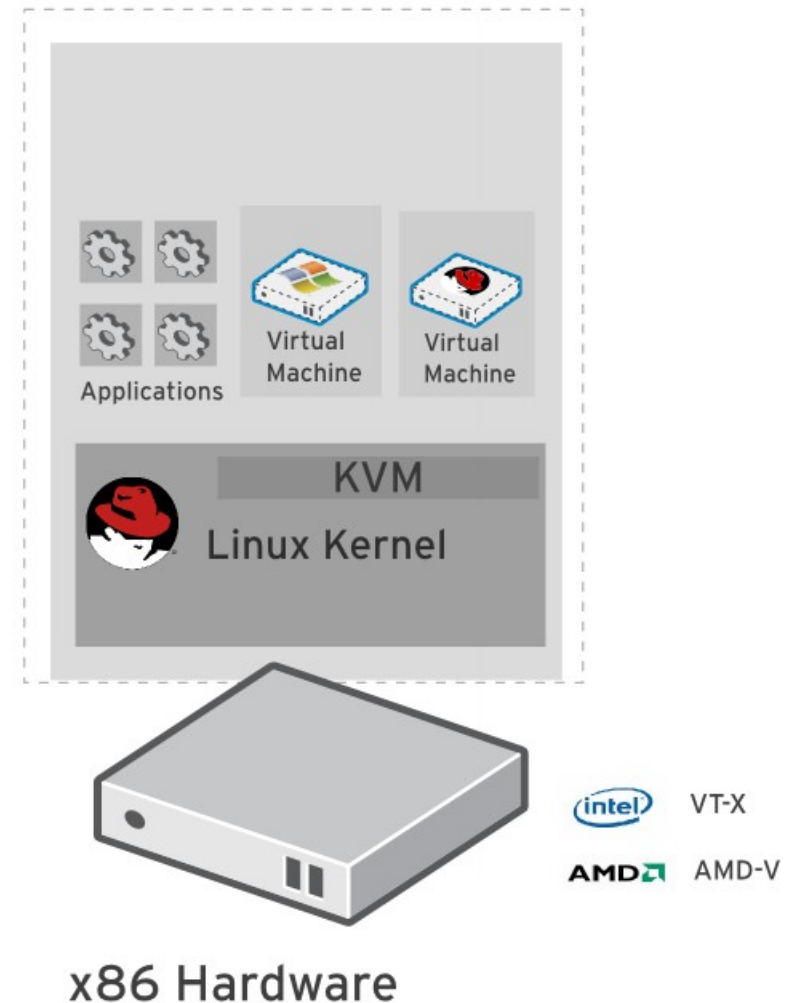
RED HAT ENTERPRISE VIRTUALIZATION



- Enterprise grade, centralized management and hypervisor for server and desktop virtualization
- Industry leading performance, scalability and security infrastructure
- Ecosystem of thousands of hardware and software vendors
- 50–70% lower cost compared to other solutions

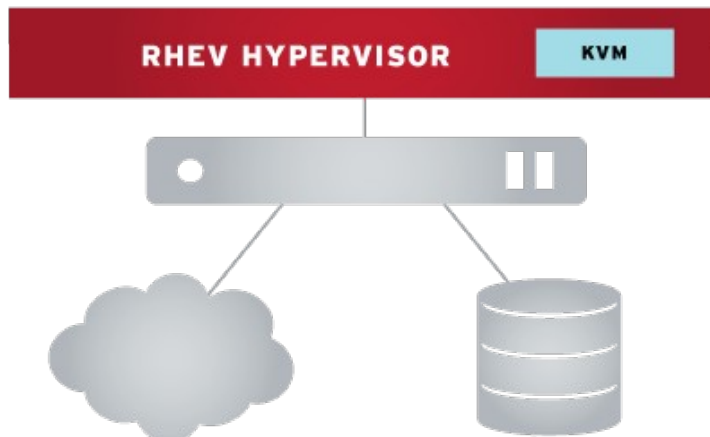
KERNEL-BASED VIRTUAL MACHINE (KVM)

- Included in Linux kernel since 2006
- Runs Linux, Windows and other operating system guests
Microsoft SVVP Certified
- Advanced features
 - Live migration
 - Memory page sharing
 - Thin provisioning
 - PCI Pass-through
- KVM architecture provides high “feature-velocity” – leverages the power of Linux
- Massively Scalable
 - 64 vCPU guests – virtualize any workload



RHEV HYPERVISOR

SMALL FORM FACTOR, SCALABLE,
HIGH PERFORMANCE



Small footprint

- Customized 'spin' of RHEL + KVM
- 'Just enough' RHEL to run virtual machines
- Security hardened image
- Runs on all RHEL certified hardware

Easy to install, configure and upgrade

- PXE boot, USB boot, CD or Hard drive

RHEV MANAGER

ENTERPRISE VIRTUALIZATION | Logged in user: rhevadmin | Sign out | Configure | About | Guide

Search: Host: [x] [★] [GO]

Expand All | Collapse All

Tree: System

- Default
 - Storage
 - ISO
 - Data
 - Clusters
 - Default
 - Hosts
 - alpha
 - beta
 - gamma

Bookmarks

Tags

Data Centers | Clusters | Hosts | Storage | Virtual Machines | Pools | Templates | Users | Even | Monitor

New | Edit | Remove | Activate | Maintenance | Approve | Configure Local Storage | Power Management | Assign tags | << Prev Next >>

Name	Host/IP	Cluster	Status	Load	Memory	CPU	Network	Spm Status
alpha	alpha.rhev.lab.e	Default	Up	1 VMs	13%	0%	0%	SPM
beta	beta.rhev.lab.er	Default	Up	1 VMs	12%	0%	0%	None
gamma	gamma.rhev.lab	Default	Up	0 VMs	3%	0%	0%	None

- Centralized virtual infrastructure management (hosts, virtual machines, networking, storage, templates etc.)
- Designed for large scale – 500+ hosts and 10,000+ virtual machines
- Administrative interfaces: GUI, RESTful API

RHEV MANAGER FEATURES

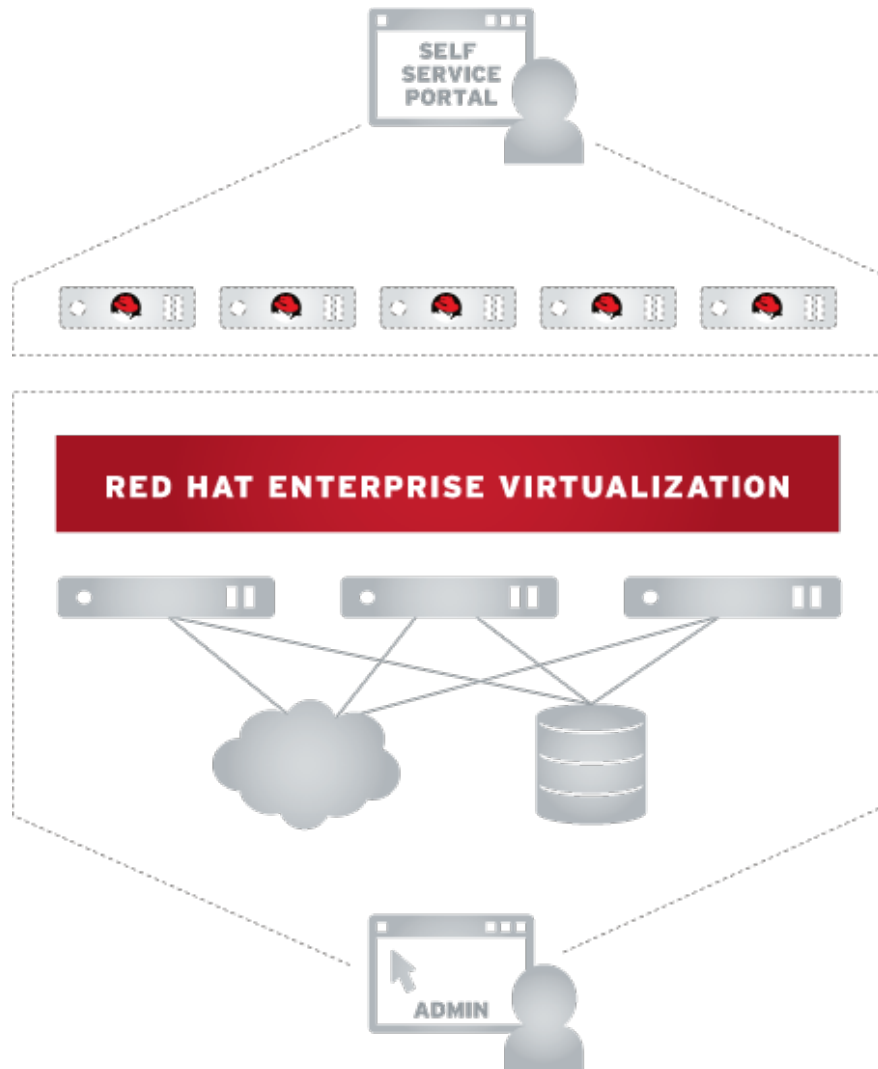
The screenshot shows the RHEV Manager web interface. At the top, it says "ENTERPRISE VIRTUALIZATION" and "Logged in user: rhevadmin | Sign out | Configure | About | Guide". Below that is a search bar for "Host:" and a "GO" button. The main content area has tabs for "Data Centers", "Clusters", "Hosts", "Storage", "Virtual Machines", "Pools", "Templates", "Users", "Even", and "Monitor". The "Hosts" tab is active, showing a table of hosts:

Name	Host/IP	Cluster	Status	Load	Memory	CPU	Network	Spm Status
alpha	alpha.rhev.lab.e	Default	Up	1 VMs	13%	0%	0%	SPM
beta	beta.rhev.lab.er	Default	Up	1 VMs	12%	0%	0%	None
gamma	gamma.rhev.lat	Default	Up	0 VMs	3%	0%	0%	None

Below the table, there are five "APP" icons representing virtual machines. At the bottom, there is a diagram showing three server racks connected to a cloud and a database, with the text "RED HAT ENTERPRISE VIRTUALIZATION" in a red box above them.

- High Availability
- Live Migration
- Self Service Portal
- Load Balancing (DRS)
- Power Saver (DPM)
- Templates, thin provisioning, snapshots
- Centralized storage and networking management
- V2V conversion tools
 - Import VMware VMs

POWER USER PORTAL

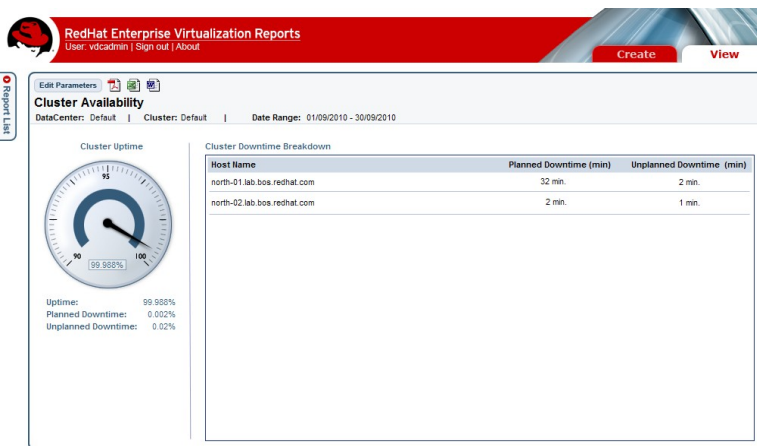


- Self-Service user portal
- Integrated with Microsoft AD & Red Hat Identity Management (LDAP) users and groups
- Role and object based security delegation
- Full VM lifecycle management

- ✓ Create, edit and remove virtual machines
- ✓ Manage virtual disks and network interfaces
- ✓ Assign user permissions to virtual machines
- ✓ Create and use templates to rapidly deploy virtual machines
- ✓ Monitor resource usage and high-severity events
- ✓ Create and use snapshots to restore virtual machines to a previous state

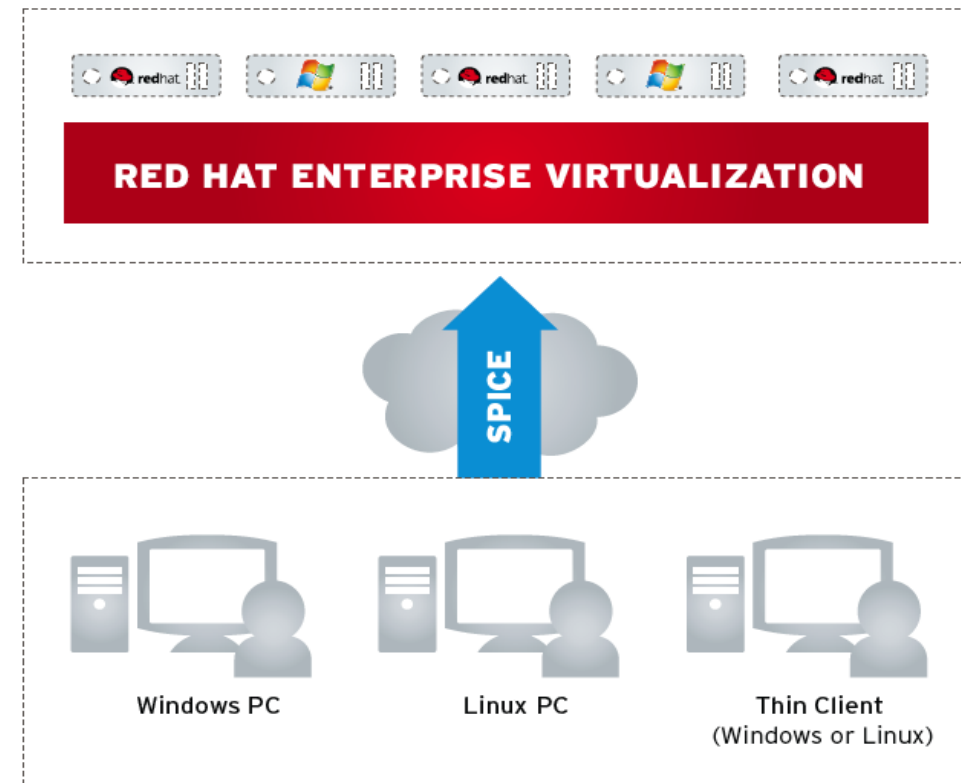
INTEGRATED REPORTING ENGINE

- Reporting system built on Jasper Reports
- Includes prebuilt dashboards and reports
 - Historic utilization, trending, quality of service, capacity planning
- Allows users to create their own reports and templates

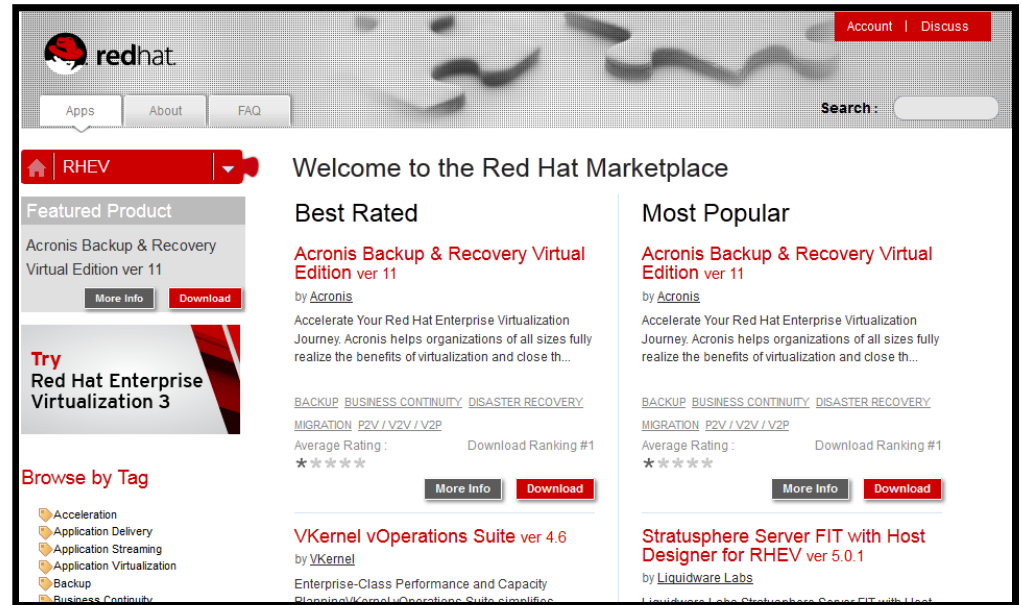
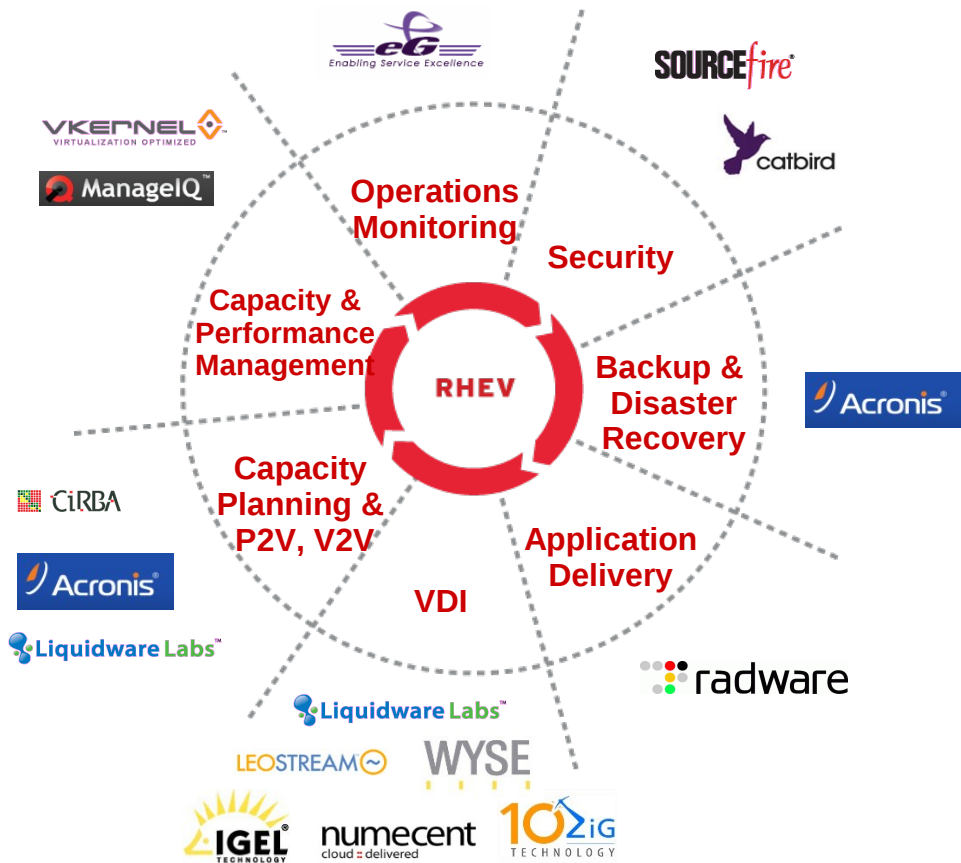


VIRTUAL DESKTOP INFRASTRUCTURE

- Full featured VDI
 - Connection Broker
 - Desktop Pooling
 - Templates
 - Thin provisioning
 - Over-commit ...
- SPICE Remote Rendering Protocol
 - Bi-directional audio & video
 - VoIP & video conferencing
 - HD quality video
 - Up to 4 monitors
 - High resolution 2560x1600 (each)
 - USB redirection for nearly any device
 - Smart Card/CAC authentication
 - Copy & paste



RED HAT ENTERPRISE VIRTUALIZATION 3.0 ISV PARTNERS



<http://marketplace.redhat.com>

RHEV 3.0 IN THE PRESS



“The revamped Red Hat Enterprise Manager (RHEV-M) for Servers— with sizeable increases in virtual machine (VM) resource allocations and tighter integration with the Red Hat Enterprise Linux 6.2 (RHEL 6.2)—means that **IT managers can begin to consider RHEV 3.0 a viable competitor to other virtualization platforms, including VMware.**”

– eWeek Labs, February 2012



“As industry leaders focus on [a] multivendor approach to virtualization, **RHEV 3.0 is emerging as the first choice in terms of scalability, functionality, interoperability and performance.**”

– CIO Quick Pulse, December 2011



“RHEV is an emerging force in the virtualization market, that builds on the open source projects KVM and oVirt. **Red Hat's history of commercializing Linux and other open source software, positions it to be the leader in bringing KVM to enterprises.** ”

– Red Hat Enterprise Virtualization Whitepaper, IDC, December 2011

New in Red Hat Enterprise Virtualization 3.0: Over 1,000 features, enhancements and improvements

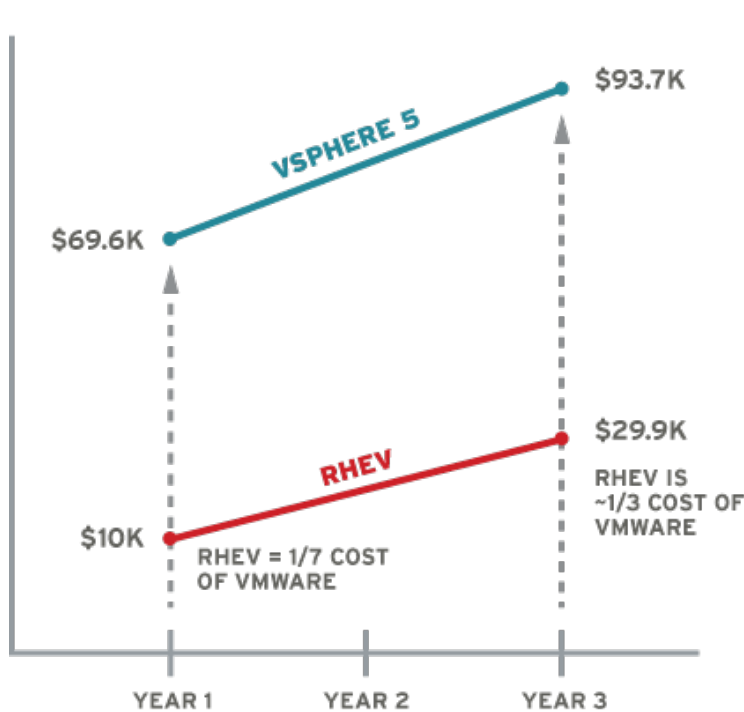
RHEV HYPERVISOR

- RHEL 6.2 based hypervisor - performance and scalability enhancements
 - Kernel/Scheduler
 - Memory management
 - Block IO
 - Networking
- SPICE enhanced WAN performance

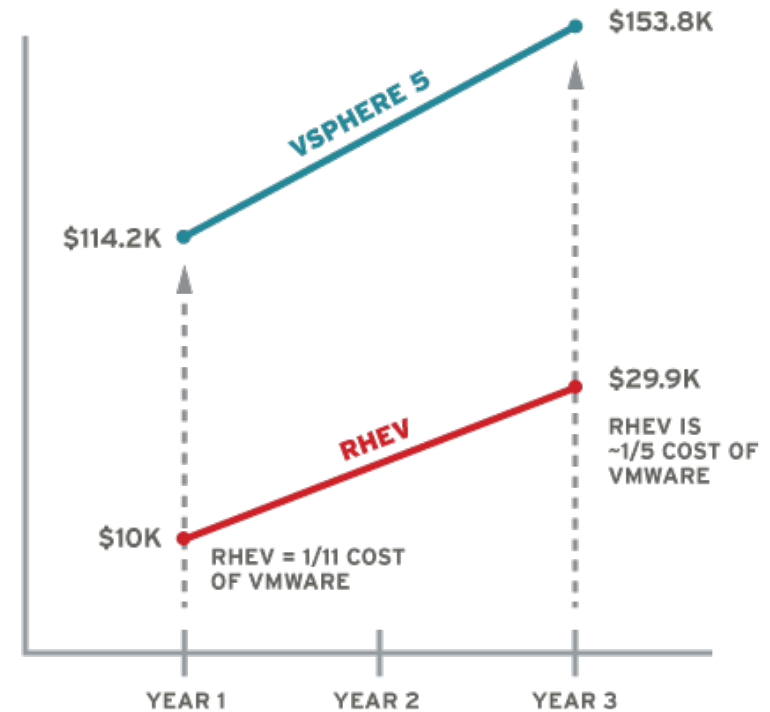
RHEV MANAGER

- RHEV-M runs on RHEL
- RESTful API
- Power User Portal
- Granular Multi-level Admin
- Marketplace
- Embedded Reports
- Local Disk Support
- And more...

INDUSTRY LEADERSHIP: SIGNIFICANT COST ADVANTAGE



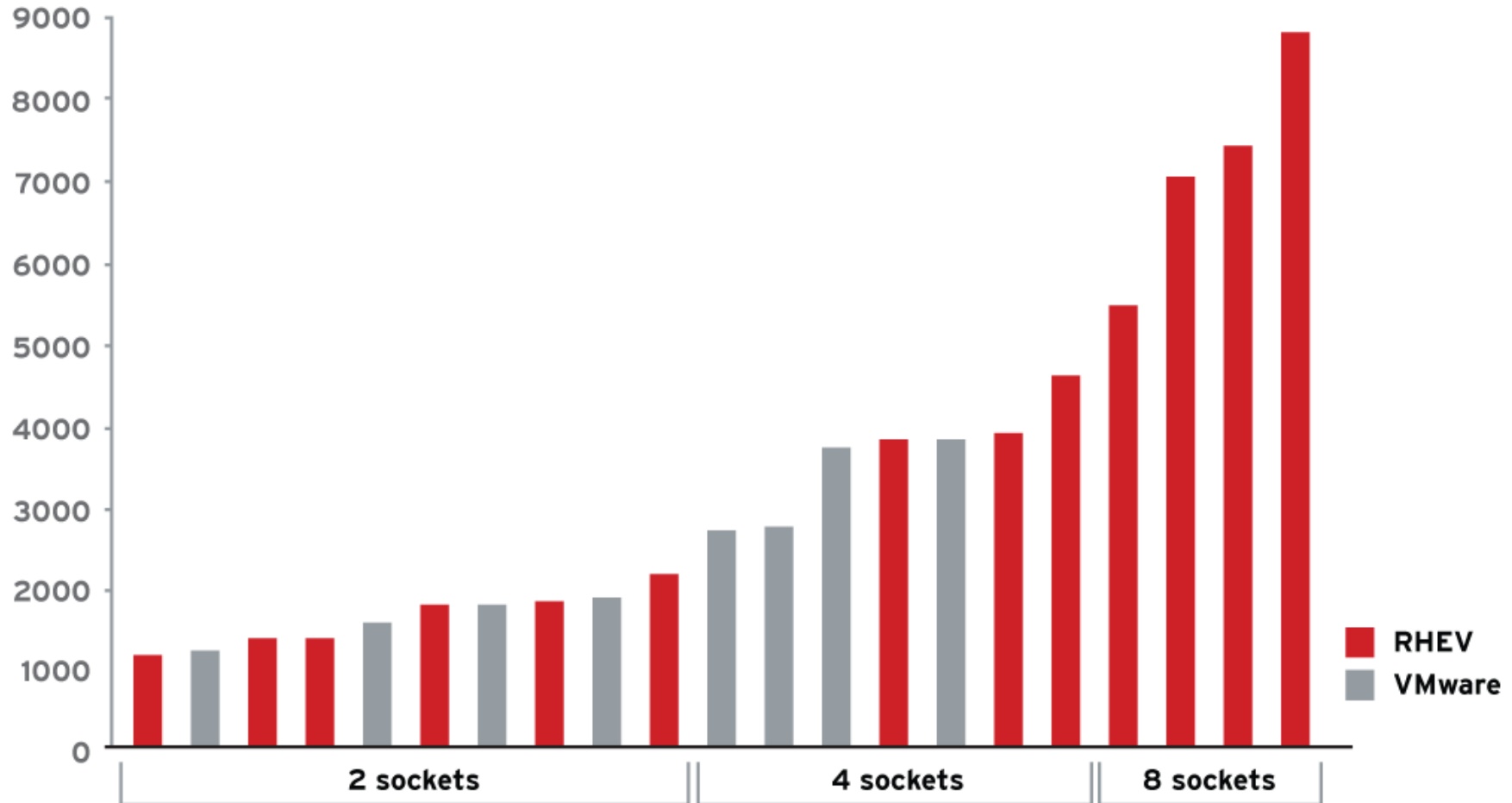
- 10 physical hosts (2x4HT, 64GB)
- Same density across both



- 10 physical hosts (2x8HT, 256GB)
- Same density across both

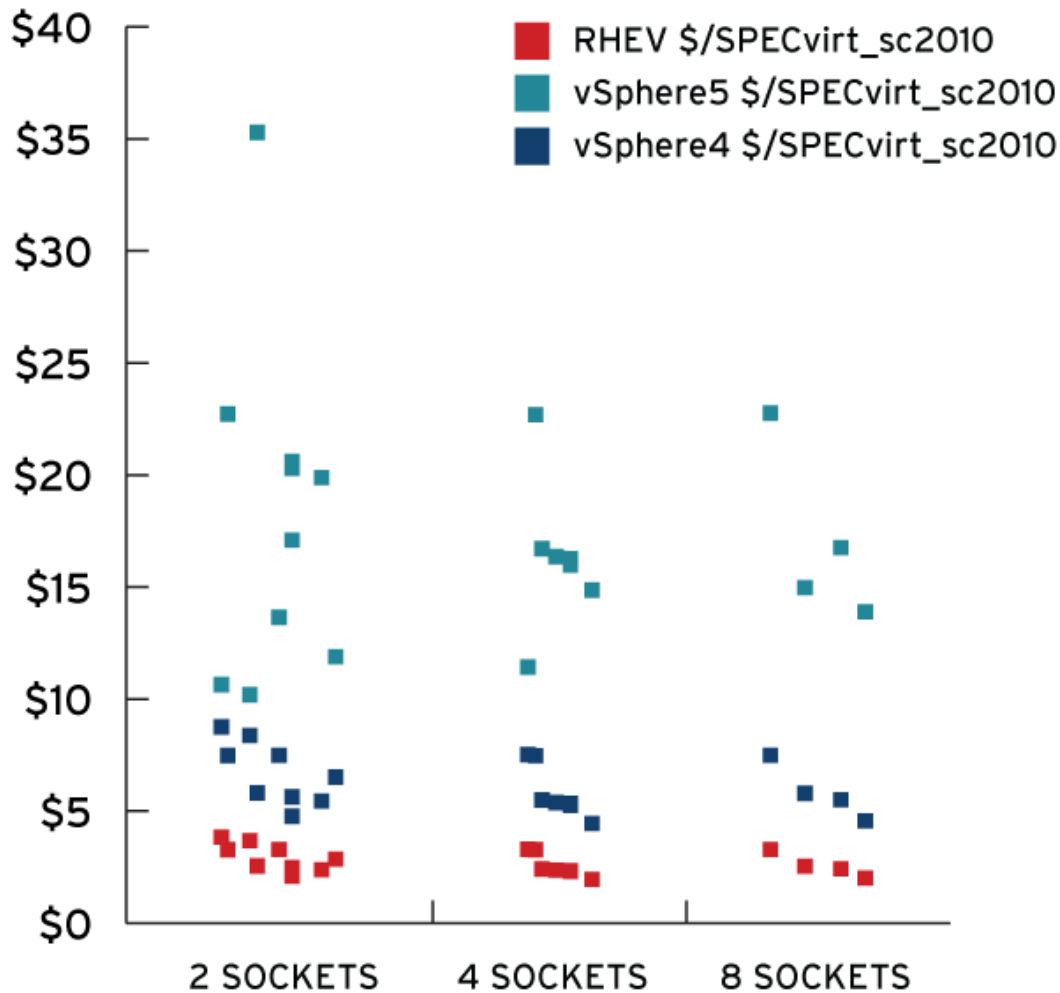
RHEV COSTS 1/7th VS. VMWARE AND 1/3rd OVER 3 YEARS. SCALE UP COST ADVANTAGE EVEN MORE

INDUSTRY LEADING VIRTUALIZATION PERFORMANCE



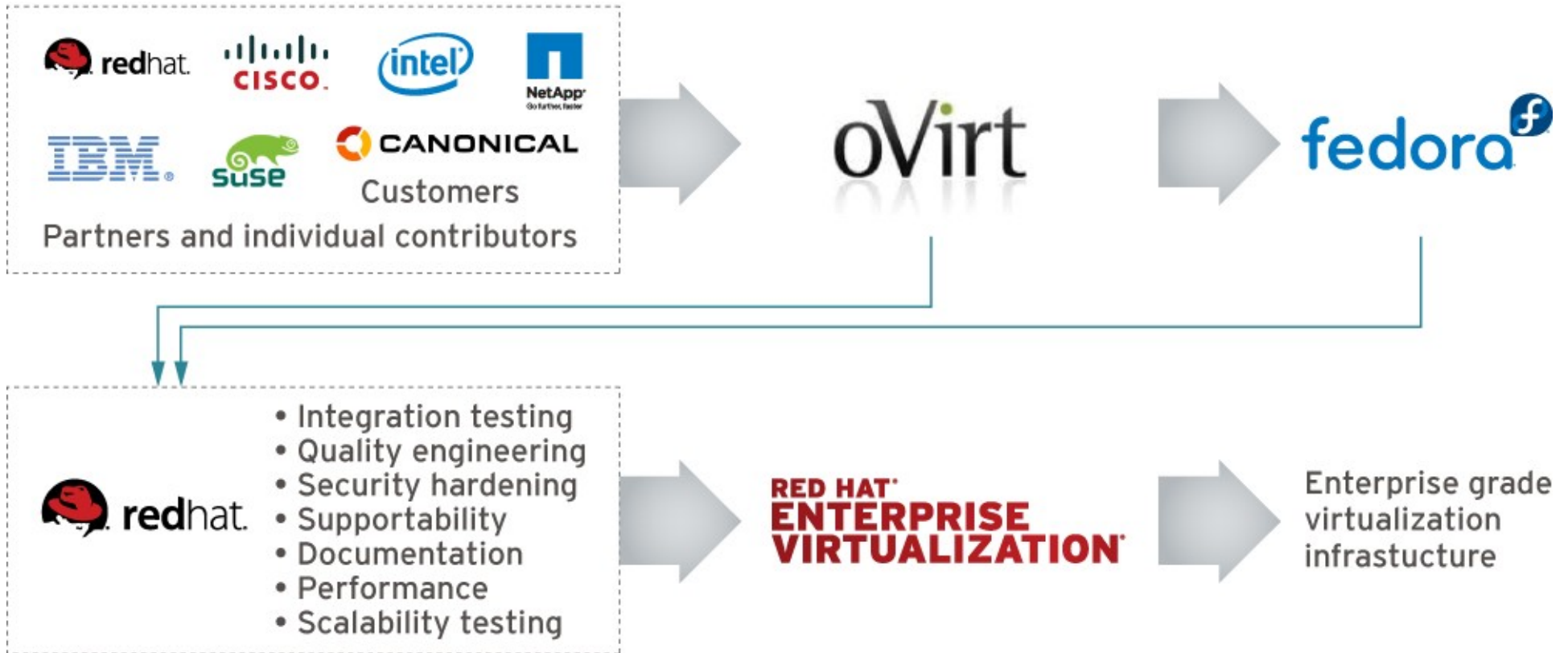
- **SPECvirt_sc2010: As of January 1, 2012, RHEV claims top 6 results and the only 8 socket server scores**

COST FOR PERFORMANCE OVER 3 YEARS



- vSphere5 costs average of **\$17.38/SPECvirt_sc2010** over three years (**6.38X RHEV cost**)
 - Note much higher variability due to vRAM licensing
- vSphere4 costs average of **\$6.20/SPECvirt_sc2010** over three years (**2.28X RHEV cost**)
- RHEV costs average of **\$2.72/SPECvirt_sc2010** over three years

INDUSTRY LEADERSHIP: THE ONLY END-TO-END OPEN VIRTUALIZATION INFRASTRUCTURE



INDUSTRY LEADERS IN INFRASTRUCTURE, NETWORKING, STORAGE ARE BACKING RHEV



THANK YOU

Download RHEV now
<http://www.redhat.com/rhev3>

