RED HAT ENTERPRISE VIRTUALIZATION 3.0

YOUR STRATEGIC VIRTUALIZATION ALTERNATIVE

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AGENDA

- RHEV Background/Market Dynamics
- Components of RHEV
- Advantages/Benefits of RHEV
- IBM Partner Benefits
- Next Steps
VIRTUALIZATION DIVERSIFICATION: DUAL SOURCE REALITY...

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

- Server virtualization is a mature technology – competition, innovation, choice...
- Over 70% of customers surveyed are either already deploying a dual virtualization vendor strategy, or have concrete plans to do so


A MAJORITY OF ENTERPRISES ARE LOOKING FOR ALTERNATIVES TO VMWARE
WHAT'S DRIVING VIRTUALIZATION TODAY?

- Cost Reduction: 77%
- Disaster Recovery and Business Continuity: 63%
- Server and Storage Consolidation: 60%
- More Flexible Development and Testing Environments: 51%
- Business Agility: 49%
- Enabling Data Center Automation: 26%
- Other: 4%

SOURCE: 2011 IDG Research study for Red Hat based on 78 qualified CIO Peer2Peer Research Panel members
YOU HAVE A CHOICE IN VIRTUALIZATION

“Don’t just find a vendor, find a solution; 42% of organizations use multiple hypervisors to maximize features & minimize cost”
— InfoTech Research Group, July 2011

“VMware vSphere still leads the pack... but the gap is closing fast. If there’s one obvious result of this test, it’s that there’s never been a better time to shop for a virtualization solution.”
— Virtualization Shoot-out: Citrix, Microsoft, Red Hat and VMware, InfoWorld, April 2011

“If I were VMware, I wouldn’t worry most about Microsoft, with its tendency to subsume low-end, small business markets by including everything in the Windows operating system. That’s so 1990s. Rather, I'd worry that Red Hat and KVM already have a foot in the cloud.”
— VMware Should Worry More About Red Hat, InformationWeek, September 2011
YOU HAVE A CHOICE IN VIRTUALIZATION

“As industry leaders focus on [a] multivendor approach to virtualization, RHEV 3.0 is emerging as the first choice in terms or 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. Broad industry support and a growing ecosystem are evident in the early growth of the Open Virtualization Alliance.”
— Red Hat Enterprise Virtualization Whitepaper, IDC, December 2011
RHEV: STRATEGIC ALTERNATIVE TO VMWARE AND NATURAL CHOICE FOR LINUX VMS

- Server consolidation
- Hardware abstraction
- Private cloud platform
- Unix to Linux migration
- Big Data development/ hybrid mode
- Virtual Desktop Infrastructure (VDI)
RHEV IS MATURE AND READY FOR LARGE SCALE VIRTUALIZATION DEPLOYMENTS...
THOUSANDS OF CUSTOMERS WORLDWIDE DEPLOY RHEV IN PRODUCTION TODAY

T1/ MISSION CRITICAL BUSINESS APPLICATIONS ARE POWERED BY RHEV
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RED HAT ENTERPRISE VIRTUALIZATION
PRODUCT RELEASES

• Red Hat Enterprise Virtualization 3.0 (Jan. 2012)
  • RHEV-M/Linux backend, RHEL 6.x KVM, Usability, integration & customization features, SPICE

• Red Hat Enterprise Virtualization 2.2 (June 2010)
  • Added Virtual Desktop Infrastructure with SPICE, V2V Migration utilities

• Red Hat Enterprise Virtualization 2.1 (Nov. 2009)
  • Enterprise grade server management system
SUBSCRIPTION MODEL
SERVER & DESKTOP VIRTUALIZATION

SERVER VIRTUALIZATION
- Complete management feature set (high availability, live migration, system scheduler, power saver etc.)
- SOCKET-based Pricing

DESKTOP VIRTUALIZATION
- Add-on to RHEV infrastructure
- SPICE, connection broker, desktop pools, etc.

RHEV for Servers
$499
$749

RHEV for Desktops
25 User Packs
$375 ($15)
$550 ($22)
NEW IN RHEV 3.0: OVER 1,000 FEATURES AND FEATURE ENHANCEMENTS

RHEV HYPERVERSOR

- 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...
## RHEV 3.0 FOR SERVERS & DESKTOPS

### SERVER VIRTUALIZATION
- High Availability (VMware HA)
- Live Migration (vMotion)
- System Scheduler (VMware DRS)
- Power Saver (VMware DPM)
- Image management / provisioning
- Maintenance Manager
- VMWare, RHEL/Xen image converter
- OVF Import/Export

### DESKTOP VIRTUALIZATION
- SPICE remote rendering
  - HD quality video
  - Bi-directional audio/video
  - USB support
  - Multiple monitors
- Connection Broker
- Desktop pools
- Massive VM density (hundreds to thousands of virtual desktops on single host)
- Guest Support – Windows XP, Windows 7, RHEL 5, RHEL 6

### SERVER VIRTUALIZATION FEATURES
- SPICE remote rendering
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- Bi-directional audio/video
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- Desktop pools
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RHEV HYPERVISOR/KVM OVERVIEW

SMALL FORM FACTOR, SCALABLE, HIGH PERFORMANCE

- Host: 160 logical CPU (4,096 theoretical max), 2 TB RAM (64TB theoretical max)
- Guest: 64 vCPU, 512 GB RAM
- Supports latest silicon virtualization technology
- Based on the latest RHEL 6 kernel
- Microsoft SVVP certified
RHEV MANAGER OVERVIEW

- 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

- High Availability
- Live Migration
- Self Service Portal
- Load Balancing (DRS)
- Power Saver (DPM)
- Templates, thin provisioning, snapshots
- Centralized storage and networking management
- Eco-system marketplace
RHEV ECOSYSTEM: PARTNERS THROUGH YOUR DEPLOYMENT LIFECYCLE

- Integrate through the RHEV API
- Certified by Red Hat to work with RHEV
- Free trials available via the RHEV Marketplace
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INDUSTRY LEADERSHIP: THE ONLY END-TO-END OPEN VIRTUALIZATION INFRASTRUCTURE

INDUSTRY LEADERS IN INFRASTRUCTURE, NETWORKING, STORAGE ARE BACKING RHEV
INDUSTRY LEADING VIRTUALIZATION PERFORMANCE

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

VMWARE

$4,995 / server + SnS

- vCenter Server

+$ 995–3,495 / license (socket or vRAM) + SnS

- Enterprise Plus features
- Enterprise features
- Advanced features
- Standard features
- vSphere APIs and management engine

$0

RHEV

$499–749 / SOCKET

- RHEV-M

- RHEV APIs and management engine and ALL features

RED HAT, INC. | RED HAT ENTERPRISE VIRTUALIZATION
INDUSTRY LEADERSHIP: SIGNIFICANT COST ADVANTAGE

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

RHEV COSTS 1/7th VS. VMWARE AND 1/3rd OVER 3 YEARS. SCALE UP COST ADVANTAGE EVEN MORE
RHEV 3.0 VALUE PROPOSITION

- Industry leading performance
- 50% to 75% lower cost
- Open source (non-proprietary, no lock-in) with KVM, OVA & oVirt
- No vRAM licensing
- Scalability of storage and clusters
- Integrated Historical Reporting
- Self-service user portal
- Virtual servers and desktops from the same product
- Kernel-level security with sVirt and SELinux
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RED HAT PARTNER VALUE PROPOSITION

• Benefits
  • More budget for services means more value delivered
  • A safe, low cost VMware alternative
  • YR2 & YR3 annuity

Customer budget allocation between software & consulting services
IBM HAS RED HAT PART NUMBERS

• IBM is the only Tier 1 OEM with RHEV part numbers ready to sell
• IBM is the only Tier 1 OEM with stated support for RHEV
• IBM + Red Hat Enterprise Virtualization has the performance and scalability competitive advantage!
  – Leverage RHEV sales on IBM System x and BladeCenter to help achieve IBM annual attainment numbers
IBM EX5 RHEV OPTIMIZED MODELS

Configurations

x3850 X5 with Red Hat
- Red Hat Enterprise Linux (includes KVM) registration card
- 4 E7-4860 processors
- 8 memory cards
- MAX5 V2
- 96 4GB DIMMs (dual rank, 1.35V)
- SAS HDD backplane
- ServeRAID M1015 controller
- Emulex 10 GbE integrated virtual fabric adapter II
- 2 1975W + 2 675W power supplies

x3690 X5 with Red Hat
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eX5 + RHEV Performance Leadership

IBM Configuration

System x3850 eX5
1TB RAM
4 X 2.4/2.8 GHz, 30M Cache, 6.4GT/s

- 1 x Broadcom NetXtreme II Gigabit Ethernet (dual port, integrated)
- 2 x Intel x520 (dual port, 10Gb, PCI-express)

HP Configuration

DL580 G7
1TB RAM
4 X 2.4/2.8 GHz, 30M Cache, 6.4GT/s

- 1 x HP NC375i quad port Multifunction Gigabit Server Adapter on board
- 1 x Intel X520-SR2 Dual Port Server Adapter
- 6 x NC365T 4 port Ethernet Server Adapter
- 1 x NC364T PCI Express Quad Port Gigabit Server Adapter

28 x 1 Gb/s Ports
30 NICs

IBM eX5 Delivers 18% more VMs and higher score than HP with 24 fewer NIC interfaces and identical processors and memory
Red Hat and IBM System x

Why Red Hat and IBM System x

The fastest way to harness the latest innovations in virtualization, energy efficiency and high availability is by running Red Hat Enterprise Linux running on IBM System x and IBM BladeCenter®. This foundation provides an open, reliable, easily managed and secure IT environment that can easily scale as workloads demand. Implementing a virtualized environment within your data center is easy. IBM and Red Hat offer KVM-based virtualized platforms - the way to virtualize today and for your future.

IBM Red Hat Offerings: Quick Selector Tool

To see how quickly you can get started designing RHEL solutions on System x, use this Quick Selector Tool to pick the right subscription and support choice for your solution.

You can Trust RHEL running on System x

Red Hat® and IBM have partnered to drive the open standards revolution, moving business beyond the limits of proprietary software and hardware solutions. The entire IBM Systems product line is Red Hat Enterprise Linux enabled, making it easy for any size business to take advantage of the power of open standards. During 12+ years of collaboration, IBM and Red Hat have focused on a large number of Linux projects including cross IBM HW and SW platform support, innovative feature development, usability/RAS features, real time Linux, KVM virtualization hypervisor and ovirt open source community projects, and most recently in May, together recruited other members to the Open Virtualization Foundation.

Leadership technology and performance

NEW! System x3850 X5 hits #1 Virtualization Performance score on Red Hat

NEW! BladeCenter HX5 hits #1 Virtualization Performance Score on Red Hat
The Red Hat Partner Program offers a flexible structure designed to accommodate our partners’ individual business models and is composed of three partnership levels, plus numerous specializations that fall into two categories, Core and Featured.

http://www.redhat.com/partners/reseller/
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Call to Action

Identify Opportunities

- Unix -> Linux, RHEL, VMWare alternative

Leverage IBM – Intel – Red Hat program resources

- Demo Depot, Pre-Sales Services, RHEV Trial
- redhat.com/partner, ibm.com/partnerworld

Contact your local Channel Account Manager
PARTNERING WITH RED HAT AND IBM

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