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# Virtualization: New Possibilities in Security and Efficiency

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**totalsecurity**<sup>™</sup>



[Unrestricted]—For everyone

- Market & Technology Trends
- Virtualization – Security Concerns
- Security as Enabler
- Summary

## Resource Consolidation

- Real savings
  - Reduced personnel costs
  - System consolidation, shared infrastructure
  - Decreased hardware, power, space costs
  - Increased asset utilization
  - Reduced implementation/management time and complexity.
- Operational flexibility
- Simplified application delivery
- Enhanced business continuity, disaster recovery
- Green IT initiatives





- **Virtualization decouples physical resources from the OS & applications**
- **Machines are encapsulated as files**

- 52% Y-Y growth in virtualization servers
- 15% Y-Y growth for virtualization software



Top Trends for 2009:  
Security, Virtualization



- Ten-fold increase in Virtual Machines by 2011
- Highest Impact Trend in IT through 2009

Gartner.

*#1 Security Threat for 2009:*  
Virtualization vulnerabilities  
and securing virtual  
systems

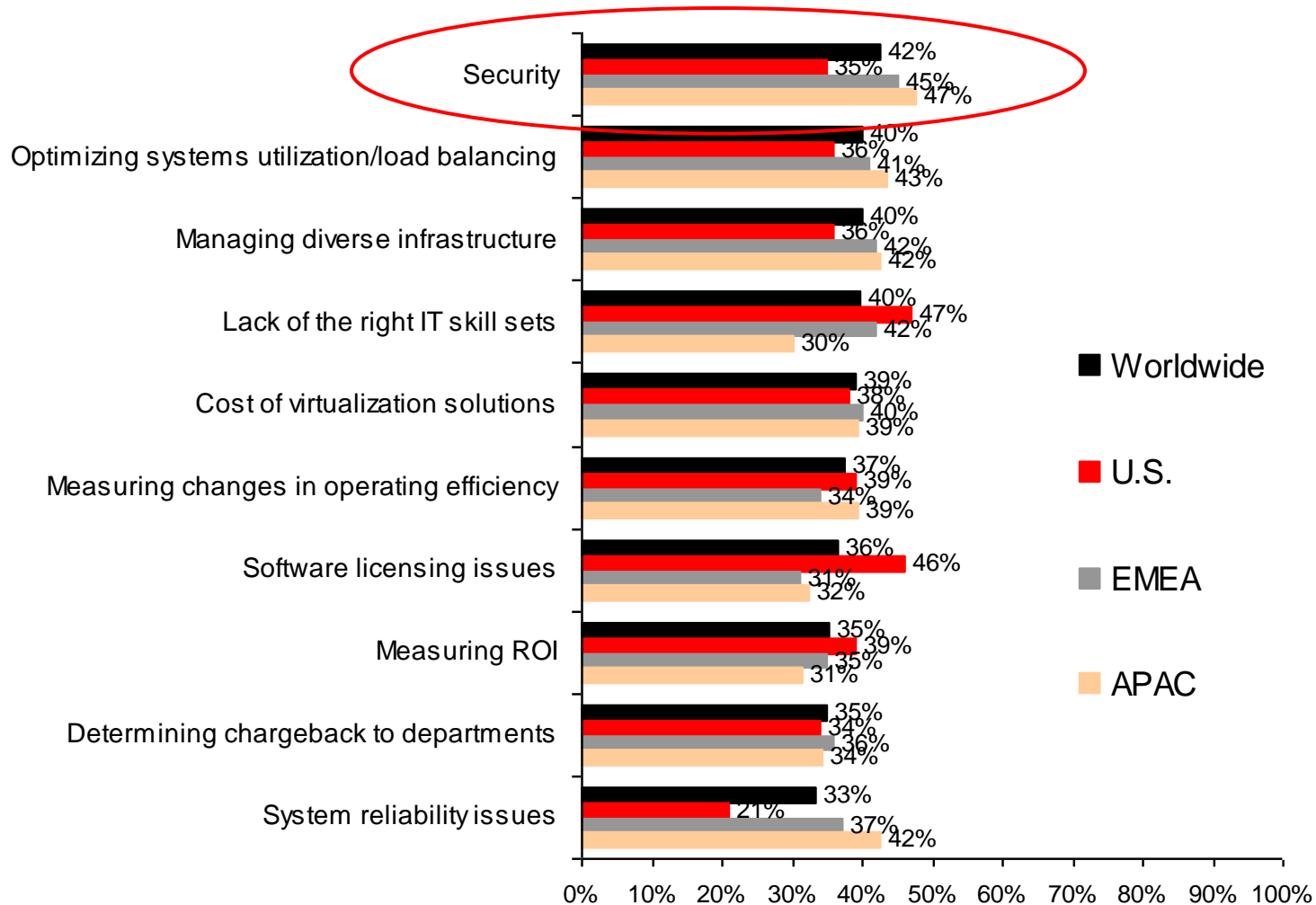


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- Virtualization is not a security solution
- Virtualization “visibility gap”
- ‘Classical’ exploits are very real
- Hypervisor attacks
  - Myths?



**Significance of Challenges When Managing Server Virtualization Environment**  
(% Rating 4 or 5 where 5=Extremely Significant and 1=Not at all Significant)



- Lack of inter-VM visibility for monitoring and enforcement
- Aligning static policies with fast VM sprawl and mobility
- Maintaining network session state with live migration (VMotion)
- Loss of SOD between server admin and network/security teams

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"As far as we can tell, the system went down because someone stepped on a crack in the sidewalk."

# Security Challenges In Virtual Environments

## Virtualization Benefits

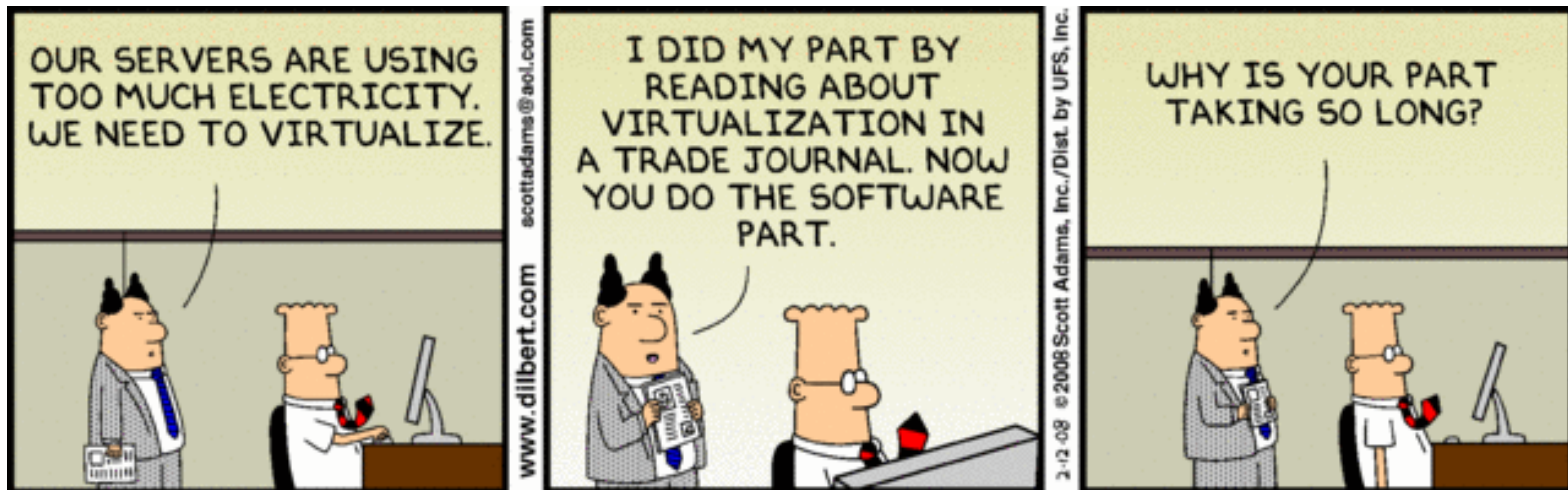
Easy machine creation

Multiple apps/servers consolidated into VM's on single ESX

VM's operating and communicating entirely within virtual environment

VMotion (live migration) - Mobility enables high availability, dynamic resource optimization

Hypervisor enables consolidation



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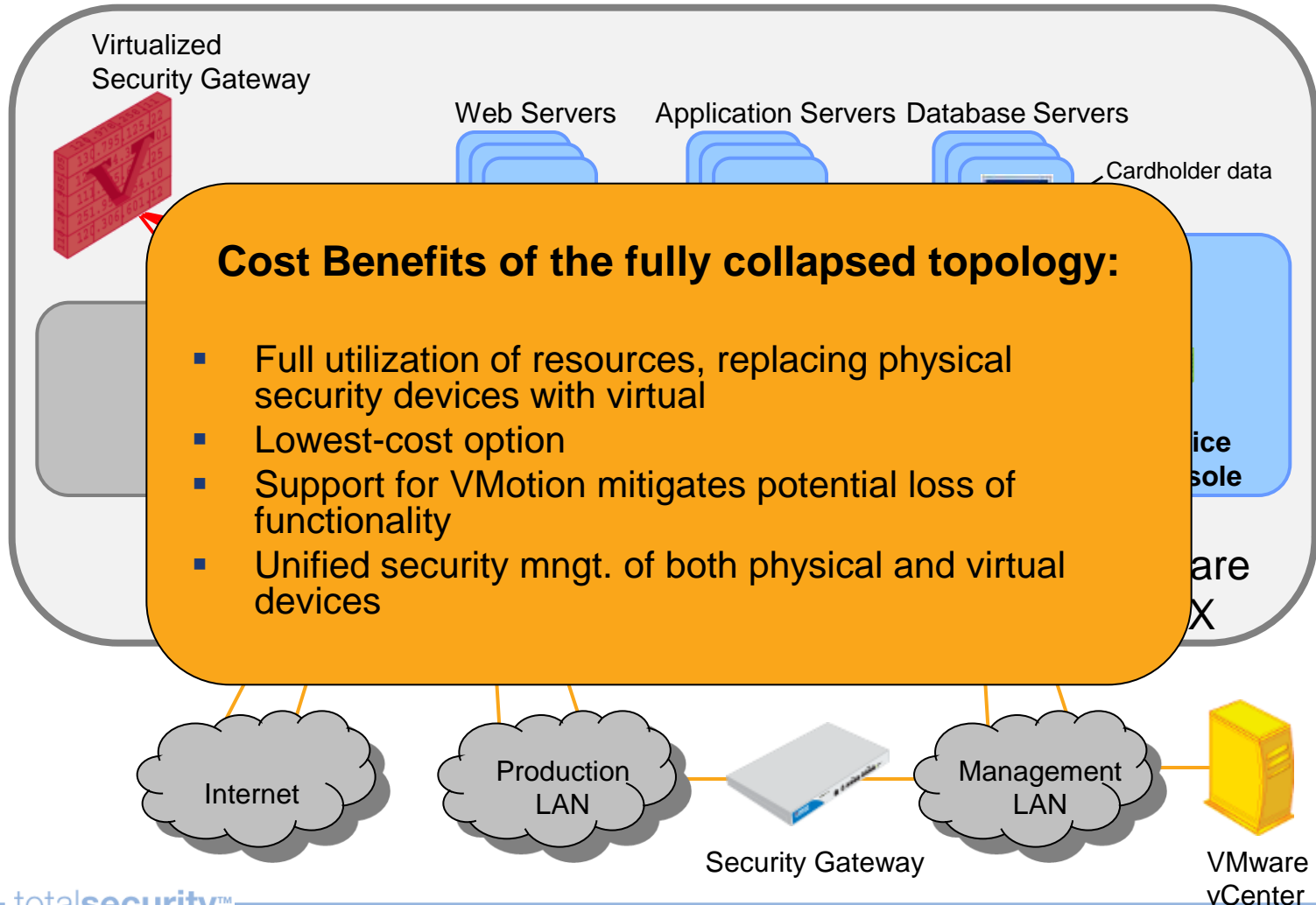
# Security as Virtualization Enabler

## Key Use Cases

- Virtualizing the Data Center DMZ servers
- Platform for Services Delivery
- Office-in-a-box
- Disaster Recovery
- PCI Compliance



## Data Center Virtualization



## MSPs

- Adding security to the cloud
- Flexibility and variety of services
- Outsourcing: cost benefits



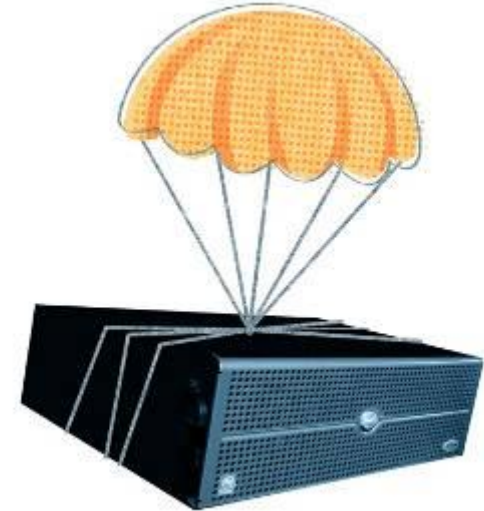
## Office-in-a-box

- Consolidate security with other applications on a single machine
- Protect other virtual machines and rest of office
- Simplify provisioning of remote office



## Disaster Recovery

- Preserve security in DR scenarios
- No need for additional physical Firewall on the DR site
- “DR on a Disk”
- Fast deployment – zero time



## PCI Compliance

- Inspect & protect network communications between VM's
- Maintain compliance with VMotion support and High Availability and Scalability
- Established security vendor is proven solution
  - Assessor familiarity, well-understood
  - Industry recognized vendor



- Visit our Security Virtualization Center
  - [http://www.checkpoint.com/products/security\\_virtualization/index.html](http://www.checkpoint.com/products/security_virtualization/index.html)
- Visit our Compliance Center:
  - <http://www.checkpoint.com/solutions/compliance/index.html>
- View VirtSec webinars:
  - <http://www.checkpoint.com/corporate/events/index.html>



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**Virtualization Security and PCI Compliance**

View this joint Check Point and VMware webinar to learn how to maintain separation and isolation of servers in a virtualized environment in order to meet PCI Compliance requirements.

Virtualization and security experts demonstrate how to transform from physical VMware and Check Point that are universally available in virtual environments.

**Watch Now**

**Featured Speakers:**

**Charu Chahal**  
Technical Marketing Manager, VMware  
Charu Chahal is a Security expert with expertise in virtualization. His area of expertise includes VMware's prescriptive guidance on Microsoft systems, where he had over 10 years of experience in resource management and grid infrastructure management and grid infrastructure automation.



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**Security Virtualization**

Virtualization is a must for companies' plans for simplification. It enables them to reduce server expenses as well as the ongoing operational expenses associated with servers. As virtualization takes hold in data centers and server rooms, the question being asked is — how does security fit into the virtualization efforts?

Check Point enables security professionals to provide a clear roadmap on how to take advantage of virtualization while maintaining a high level of security. **VPN-1 VE (Virtual Edition) for VMware** enables you to deploy the same technology used to secure your network, to secure your virtual environments. Additionally **VPN-1 Power VBX** provides a secure platform for virtualizing your VPN-1 security gateway, enabling quick provisioning and consolidation to reduce costs.

**FEATURED PRODUCT**

**VPN-1 VE**  
» VPN-1 VE Product Page

**BENEFITS**

- » Secure Virtual Environments
- » Reduce Costs
- » Simplify Deployment with Centralized Virtual Appliances

**SOLUTIONS**

- » VPN-1 VE
- » VPN-1 Power VBX
- » Concentra
- » VSX

**DEPLOYMENT OPTIONS**

- » Securing Virtualized Servers
- » Consolidating Security Gateways



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**Compliance & Risk Management**

Today's companies are struggling with the complexities and costs of complying with multiple regulations.

Check Point is a leading security solutions provider that delivers comprehensive security in an integrated suite of products. With an uncompromising commitment to pure security, Check Point simplifies compliance for the enterprise.

**FEATURED SOLUTION**

**Mapping Security Across Multiple Regulations**  
Introducing Events Compliance Reports

**REGULATIONS**

- » PCI Data Security Standard
- » Sarbanes-Oxley (SOX)
- » HIPAA

**SOLUTIONS**

- » Check Point PCI Solutions
- » Check Point SOX Solutions
- » Check Point HIPAA Solutions
- » Technology
- » OMB Directive

**RESOURCES**

- » Check Point Cross-Compliance Resources
- » Check Point PCI Resources
- » Check Point SOX Resources
- » Check Point HIPAA Resources

**Thank You!**

**Questions?**

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