Virtualization Solutions from Check Point Software Techologies

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Agenda

1   Who are we?

2   Virtualization and Clouds

3   Security at Virtualized Core

4   Desktop Virtualization

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1 **Who are we?**

2 Virtualization and Clouds

3 Security at Virtualized Core

4 Desktop Virtualization

Global Security Leader

Leader

- ► Global firewall/VPN leader and mobile data encryption leader
- ► 170,000 protected businesses
- ► 60 million users
- ► 100% of Fortune 100

100% Security

- ► 100% focus on security
- ► 1,500 security experts
- ► 66,000 Check Point certified professionals worldwide
- ► From Firewall-1 to Software Blades

Global Footprint

- ► 2,300 employees, HQ in Israel and USA, 80 offices in 30 countries
- ► 3,000 partners in 88 countries
- ► 250 stocking locations worldwide
- ► 120 authorized training centers

Innovative Technologies

Stateful Inspection I	Stateful Inspection II	TrueVector Engine I
patent 5,606,668	patent 5,835,726	patent 5,987,611

TrueVector Engine II	Cooperative Enforcement	SecureXL
patent 6,850,943	patent 6,873,988	patent 6,496,935

- **Significant R&D investment**

- **More than 1,500 security experts**

Application Intelligence	Accelerated Data Path (ADP)
CoreXL	PacketXL

Leadership Confirmed

Best Enterprise Firewall

SC MAGAZINE AWARDS

2009

Best Mobile Device Security Solution

SC MAGAZINE AWARDS

2009

Leader Magic Quadrant Enterprise Network FW

Gartner

2009

Security Product of the Year

NETWORKcomputing AWARDS 2009
SECURITY PRODUCT OF THE YEAR
WINNER

2009

Global Product Excellence, Encryption Solution

Info Security Products Guide 2009
GLOBAL PRODUCT EXCELLENCE AWARDS
CUSTOMER TRUST

2009

VB100 Award

vb 100 VIRUS
virusbtn.com
April 2008

2009

Everything Channel Five-Star Partner Program Guide Certification

Everything CHANNEL 5 STAR
PARTNER PROGRAM WINNER 2009

2009

Tech Innovator UTM-1 Total Security

var Business TECHinnovator WINNER 08

2008

Best Firewall/VPN & Best Unified Threat Management

COMPUTERWORLD AWARDS 08

2008

Leader Magic Quadrant Mobile Data Protection

Gartner

2008

Check Point Stays Ahead…

2007

Defined 3 domains:
Endpoint and data, network and
gateway, management

2008

Total security solutions
Comprehensive gateways,
including appliances

2009

Software Blades
The architecture that changes security

2010

More, Better, Simpler Security
A holistic approach where endpoint and network are
integrated and DLP, IPS impact all domains of security

Agenda

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1	Who are we?
2	**Virtualization and Clouds**
3	Security at Virtualized Core
4	Desktop Virtualization

Data Center Trends

➤ **The New Computer**

  ➤ Data center capacity, not server capacity, is the new metric

➤ **Consolidation**

  ➤ High Computational Density
  ➤ Physical Location Consolidation

➤ **Green**

  ➤ Efficient Power Management

➤ **Virtualization**

  ➤ On Demand Provisioning
  ➤ Hardware Independence / High Availability
  ➤ Location Independence

➤ **Network / Storage Convergence**

Next Generation Data Center

IP-net

Automated Metering and Billling

Service Management

Automated Orchestration and Provisioning

Virtual Infrastuctrure

Servers	Storage	Network

Physical Infrastructure

Servers	Storage	Network	Facilities

Configuration Management Database (CMDB)

Different Services from Cloud

IaaS	PaaS	SaaS	StaaS
Infrastructure as a Service • Servers • Network • Storage • Managed services (FW)	Platform as a Service: • Application building blocks	Software as a Service: • Applications • ASP	Storage as a Service: • Primary • Backup and archieve • Disaster recovery
Multiple Service Providers	Amazon EC2	Salesforce.com	Amazon S3
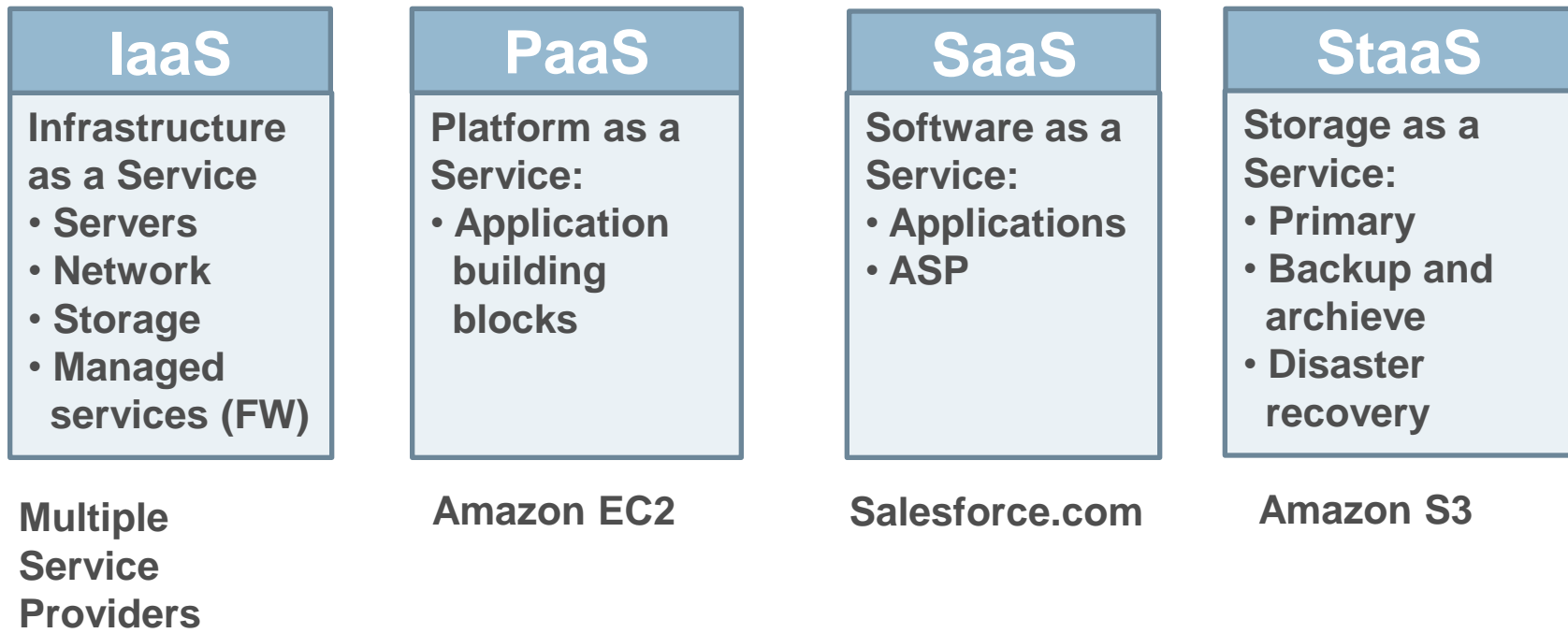
- ✓ **Capacity / Utility Based Computing, Delivered from NGDC**
- ✓ **Cloud = IT as a Service (ITaas)**
- ✓ **Cloud Computing = Business Model for Delivering ITaaS**
- ✓ **Virtualization = Techology that Enables Cloud Computing**

Why Cloud Computing?

- **Business needs**

  - Instant delivery of IT

  - Speed, Agility: New IT resources available to support business in hours, instead of tens of days

  - Pay As You Go: Usage of IT aligned with underlying business volume

  - From CAPEX to OPEX

  - Self Service fully Automated Service

  - Always on within My service window, 24/7 requirement

- **Requirements Easier to Address by Dedicated "IT-utility"- Service Provider, than In-House IT.**

Cloud Computing requires High Available and Virtualized Infrastructure with Security in Place

Virtualization Overview

VM **VM**

Virtualization Layer

- **Virtualization decouples physical resources from the OS & applications**

- **Machines are encapsulated as files**

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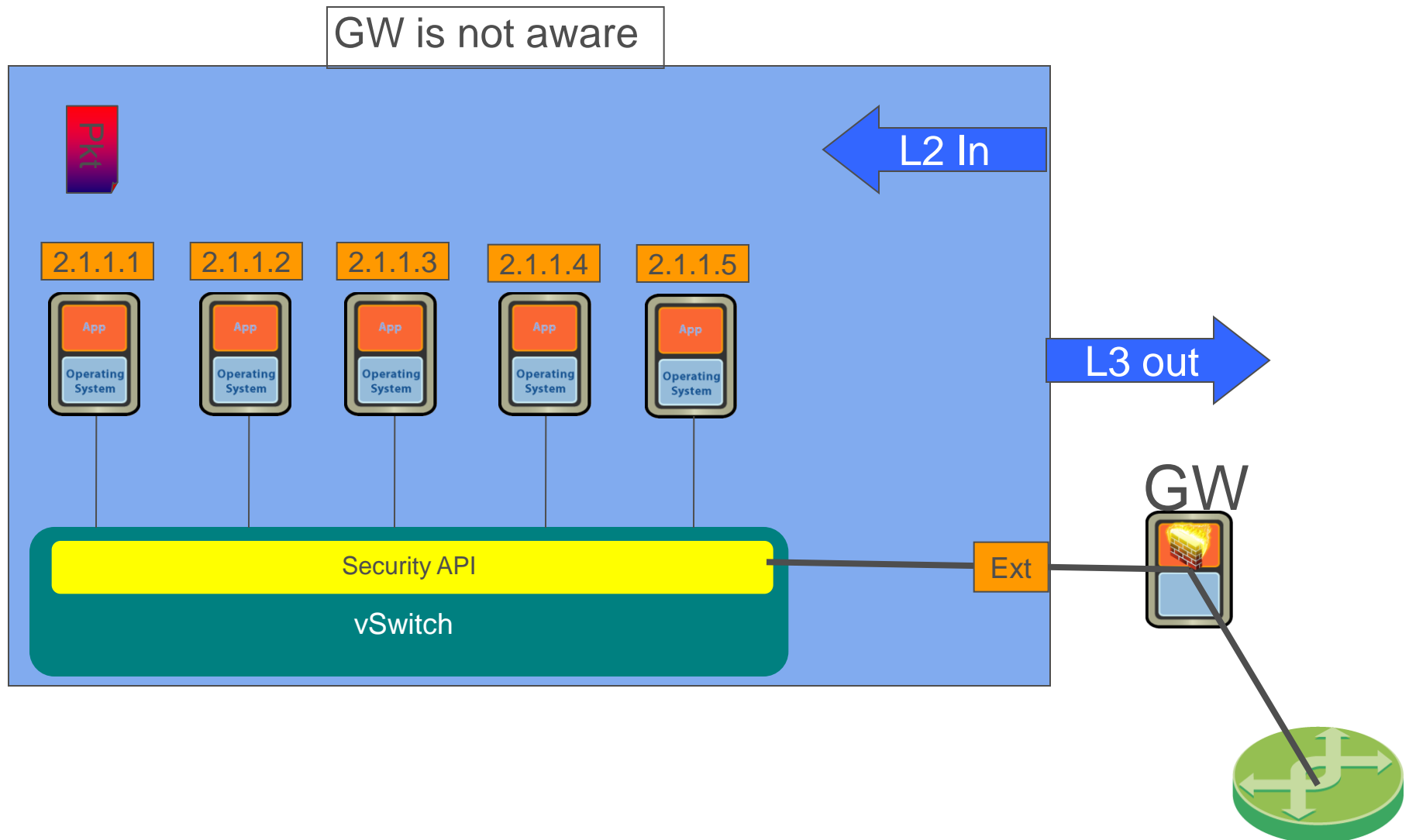# Virtualization, Like Every New Technology, Presents New Risks

- New attack vectors

- Loss of segmentation

- New management requirements

- Operational teams will be mixed (Server, Security, Network…)

Security Challenges In Virtual Environments

Check Point
SOFTWARE TECHNOLOGIES LTD.

Virtualization Benefits	Security and Compliance Concerns
Easy machine creation	Vulnerabilities on a VM are not detected by external scanners
Multiple apps/servers consolidated into VM's on single ESX	External security devices on physical LAN can't automatically detect events on virtual devices
VM's operating and communicating **entirely within virtual environment**	Visibility gap; Lack of inter-VM visibility for monitoring and enforcement
VMotion (live migration) - Mobility enables high availability, dynamic resource optimization	Maintain security and isolation
Hypervisor enables consolidation	Access to sensitive data in VM

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Firewall Problem in VM environment

GW is not aware

Pkt

L2 In

2.1.1.1 2.1.1.2 2.1.1.3 2.1.1.4 2.1.1.5

App — Operating System (×5)

L3 out

GW

Security API

vSwitch

Ext

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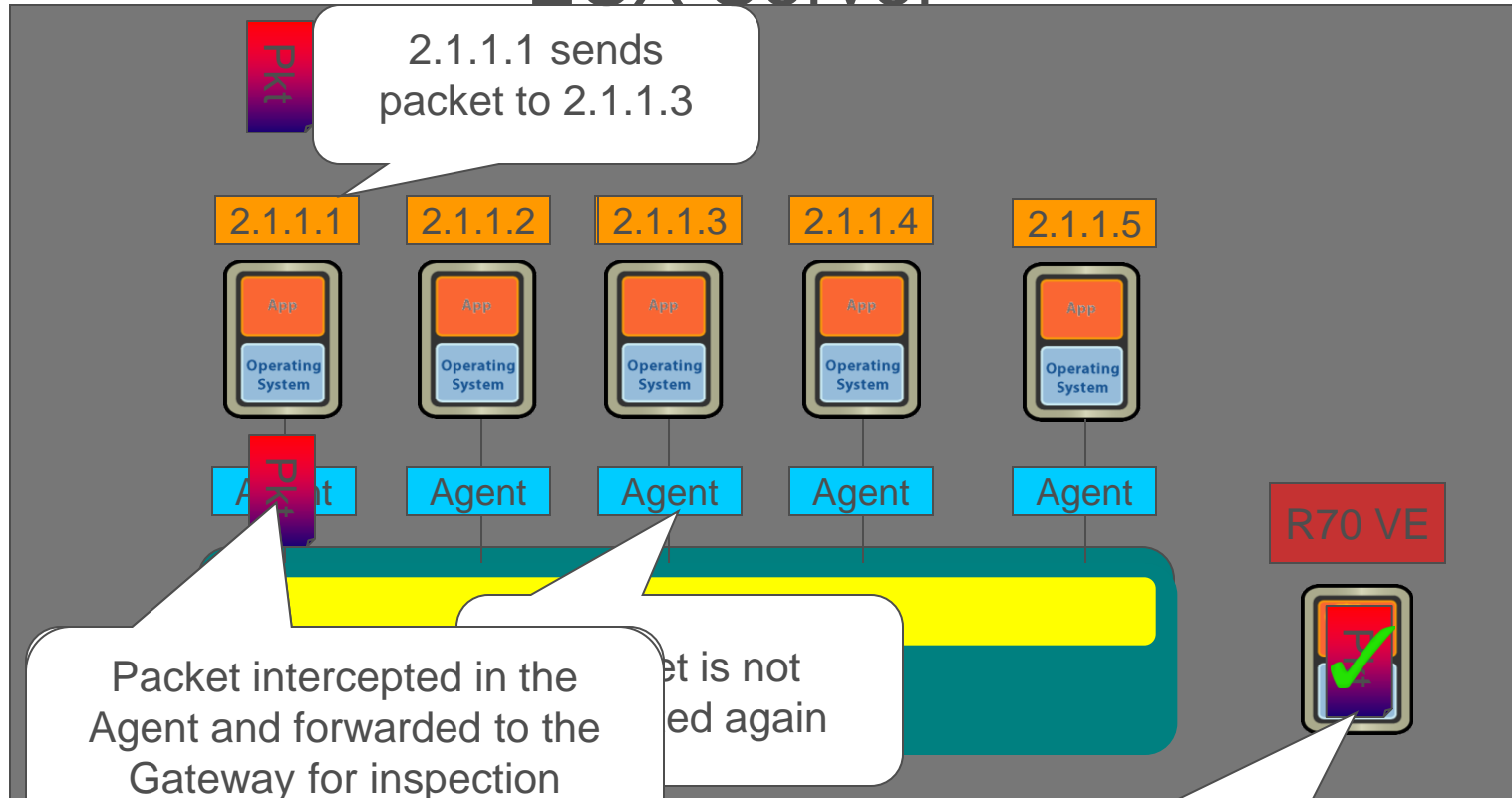# Check Point Security Gateway VE R70

Total Security

For Virtual Environments

- Best-in-class security for virtual applications
- Separates virtual machines and protects inter-VM traffic
- Protects against external threats with full IPS & UTM functionality
- Unified management of physical and virtual environment

Firewall Security at Layer 2 with VM

Protecting the Virtualized Data Center

VMware ESX Topology with VPN-1 VE

Check Point VPN-1 VE
Security Gateway

Web Servers   Application Servers   Database Servers

Cardholder data

VM   VM   VM

Service Console

Internet vSwitch   Intranet vSwitch   Web vSwitch   App vSwitch   DB vSwitch

NIC Teams

VMware ESX

Internet   Production LAN   Management LAN

Check Point UTM-1 Security Gateway   VMware vCenter
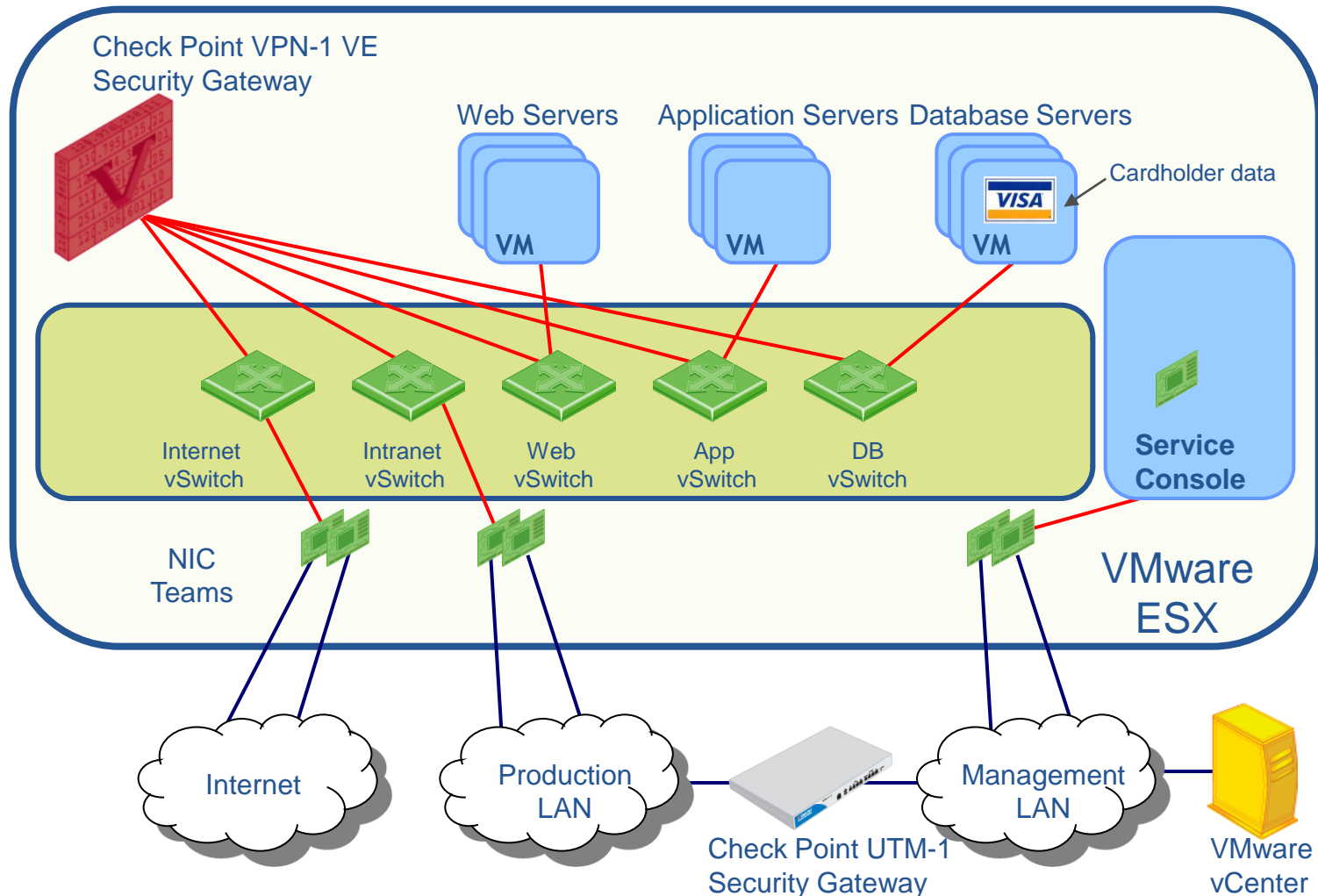
Security Gateway VE with VMsafe

- Protect the VM by inspection from inside the vSwitch
- Complete integration and awareness of VMotion, Storage VMotion, HA, etc.
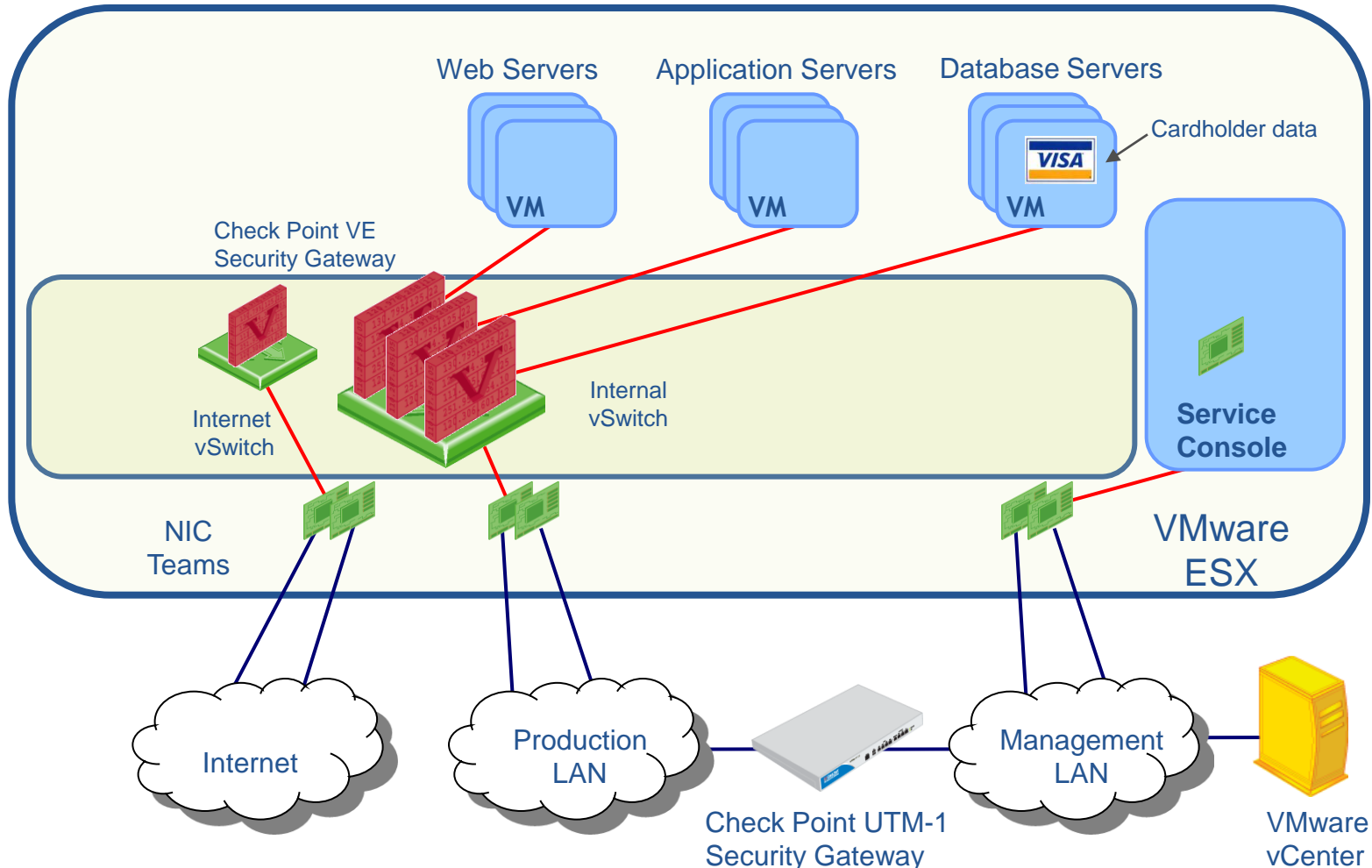
R70 VE Benefits

Best Security

Firewall, IPS and UTM integrated in the VM-kernel
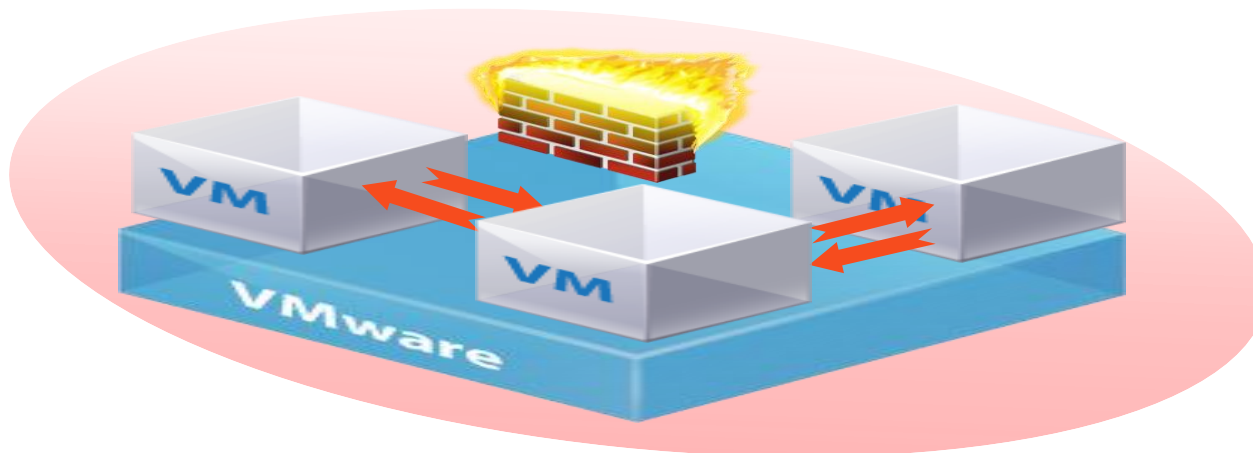
Full Coverage

Protection against inter-VM and external threats

Management

Interoperable with VMware V-Sphere Management Console

Consistency

Unified security policy inside and out of the virtual zone

V-Center Management

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Remote Workforce Challenges

Working—and Accessing Files—from Home

"42% of US employers allowed staff to work remotely this year—up from 30%."

—World at Work 2009
(Survey of 2,288 U.S. employers)

Examples

► Isolate and protect your corporate data while using your family PC

► Avoid unintentional data loss during home PC usage by family members by segregating corporate data

Business Continuity Challenges

The Case of the Icelandic Volcano

"Companies prepared for business interruptions… are the ones most likely to be keep themselves operating."

—AP Report, Iceland Volcano 2010

Examples

▶ Maintain productivity even when large numbers of your workforce are stranded due to a volcanic eruption or other natural disaster

▶ Sustain business continuity when a snow-day forces the closure of your office

3rd-Party Workforce Challenges

Partners, Contractors and Shared Environments

Examples

► Prevent contractors from exposing your sensitive information to 3rd parties

► Maximize assets usage in shared environments - such as call centers - while providing personal workspace to all employees

"**Over 44% of all cases in this year's data-breach study involved third-party mistakes.**"

—Ponemon Institute 2009

Introducing Check Point Abra

Check Point Abra
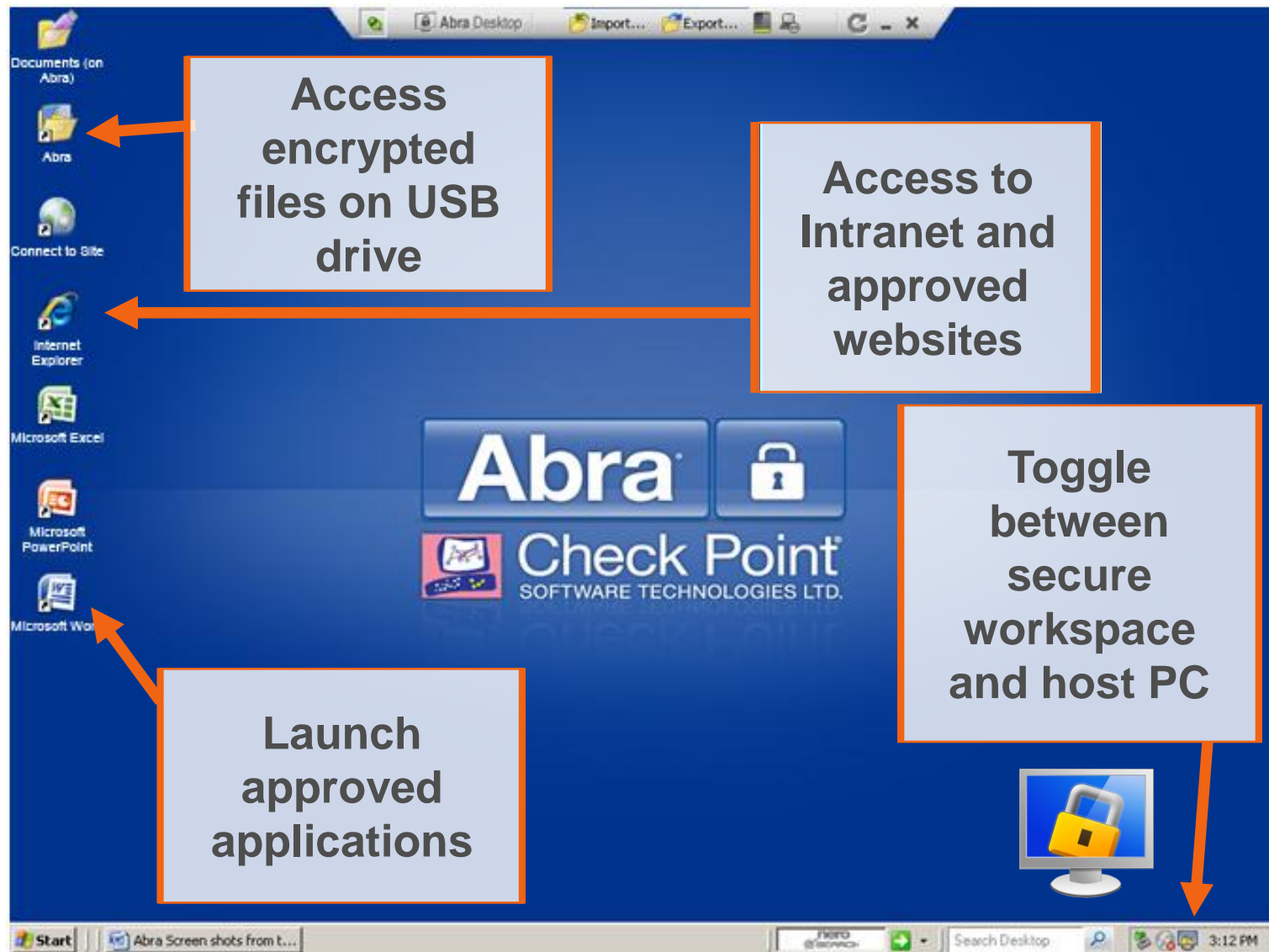# Put your office in your pocket

Instantly turn any PC into your own corporate desktop

Virtual workspace that keeps mobile data secure

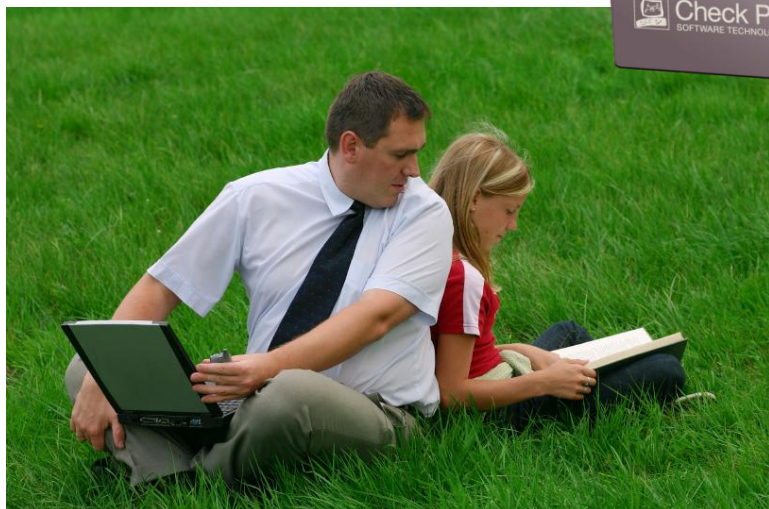Ideal for mobile workers, contractors and disaster recovery

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Standard Windows Environment

Plug-and-Play Solution to Fit Any PC

Work Off-Line

Work On-Line

Access working files and data from the virtual workspace

Seamless and secure connectivity to the corporate network

Let's see how it works!