TREND MICRO™ | Securing Your Web World

Architecting Security for the Private Cloud

Todd Thiemann

The Evolving Datacenter

Lowering Costs, Increasing Flexibility

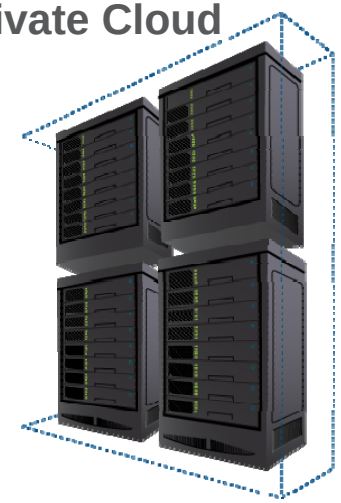
Physical

Traditional datacenter

Virtual

Servers virtualized with minimal changes to datacenter processes

Private Cloud



Servers virtualized in scalable, shared, automated & elastic environment

Public Cloud

Select enterprise applications in public cloud

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Substance Emerging From Cloud Hype

Cloud Computing Reduces Costs, Increases Agility

Public Cloud for Backup & Storage

Using public cloud services, GE reduced backup costs by 40% to 60%, created reusable processes in a rapidly deployable model.
Matt Merchant, General Electric (December 2009)

Pharmaceutical R&D and The Cloud

"Drug behemoth Eli Lilly and Co. …uses Amazon's Elastic Compute Cloud (EC2) for scientific collaboration and computations … because they empower many subsets of users."
SearchCIO.com, 30 July 2009

Gartner Top 10 Strategic Technologies in 2010

"Cloud Computing. Organizations should think about how to approach the cloud in terms of using cloud services, developing cloud-based applications and implementing private cloud environments." SearchCIO*.com, 22 October 2009*

Cloud Computing & Security

"CISOs and Security Architects: Don't let operations-led projects lower your security profile. Engage in a discussion of the issues now, not after the fact."
Neil MacDonald, Gartner (Gartner Data Center Conference, December 2009)

Virtualization Poses New Challenges

Through 2012, 60% of virtualized servers will be less secure than the physical servers they replace….

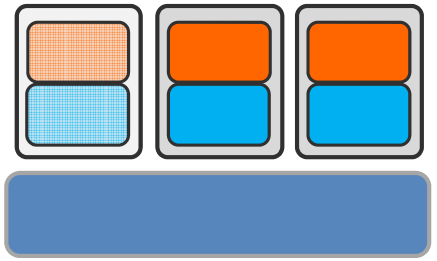
Neil MacDonald, Gartner
“Addressing the Most Common Security Risks in Data Center Virtualization Projects”
25 January 2010

VMs Need Specialized Protection

Same threats in virtualized servers as physical.

\+ **New challenges:**

1. Dormant VMs →
2. Resource contention →
3. VM Sprawl →
4. Inter-VM traffic →
5. vMotion →



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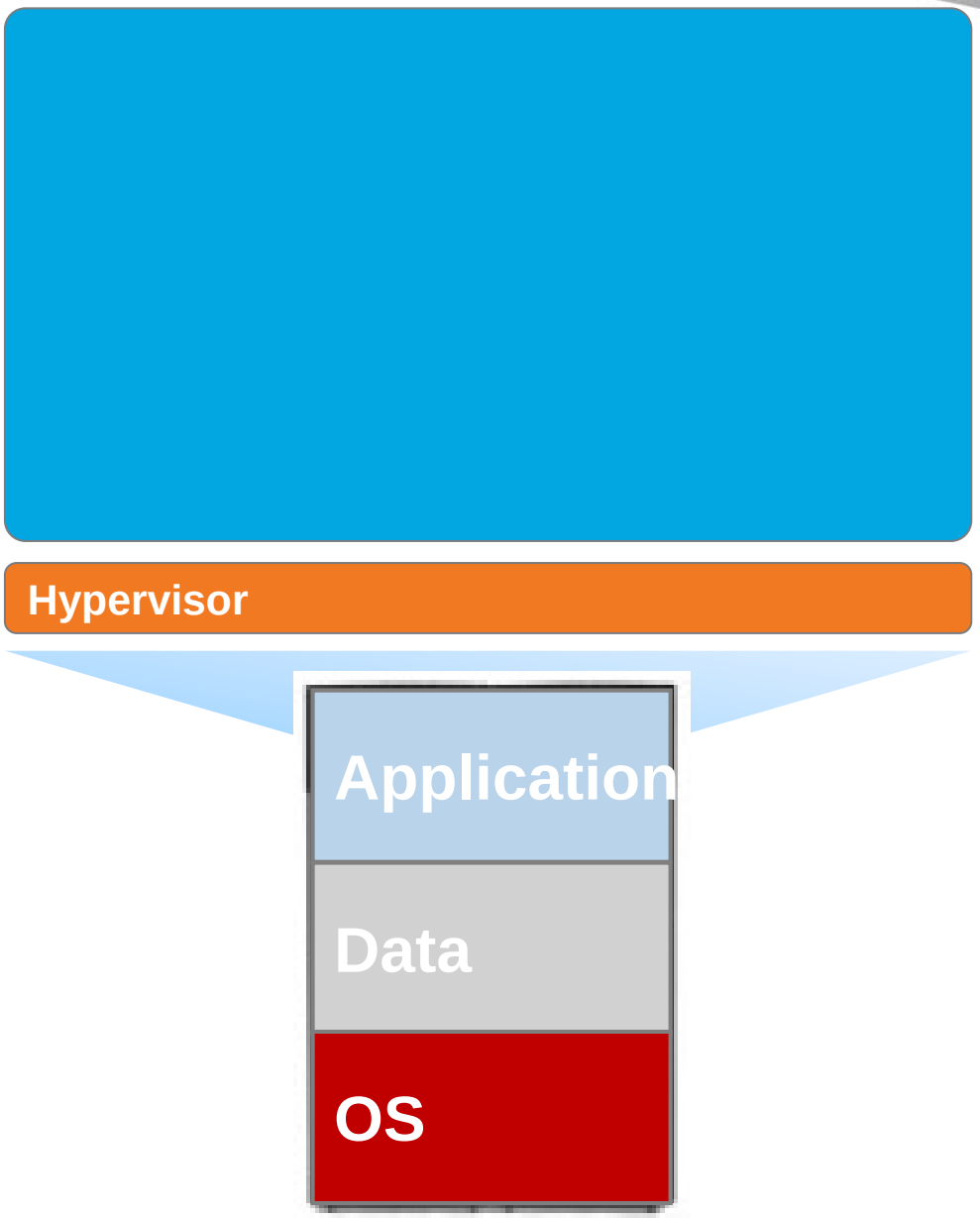
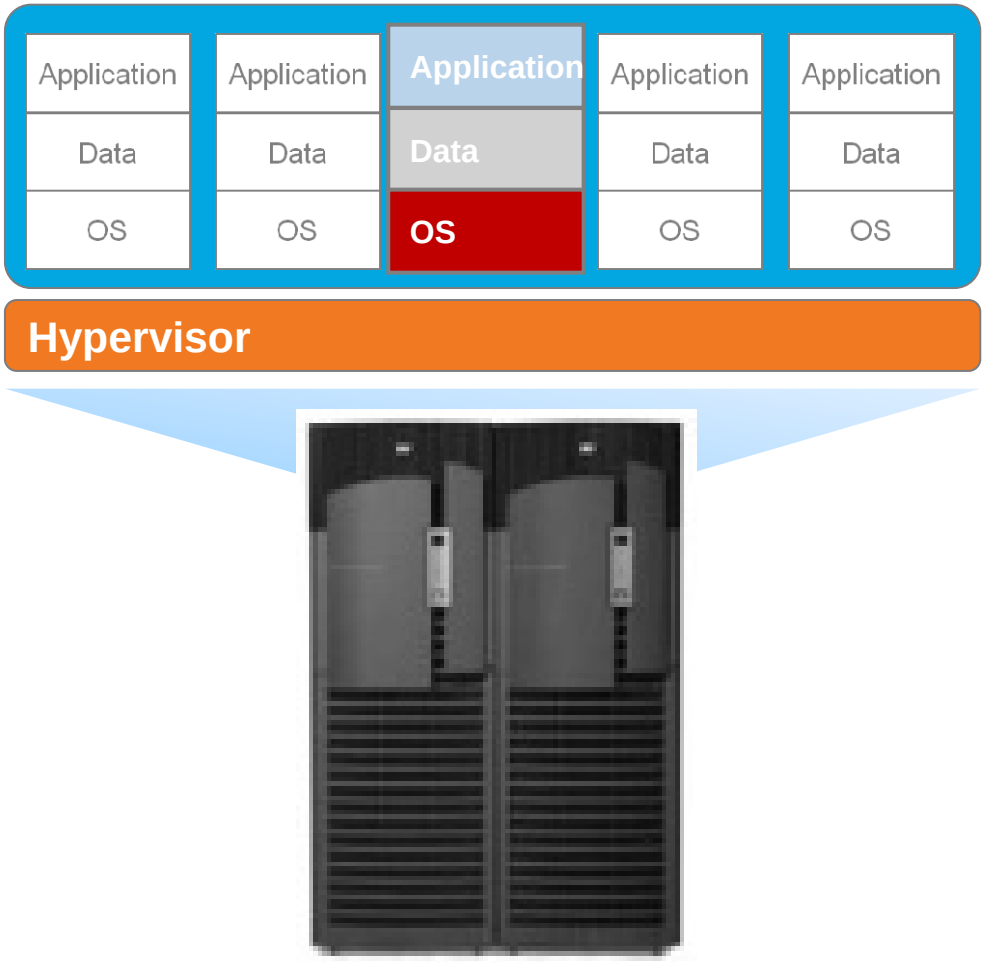
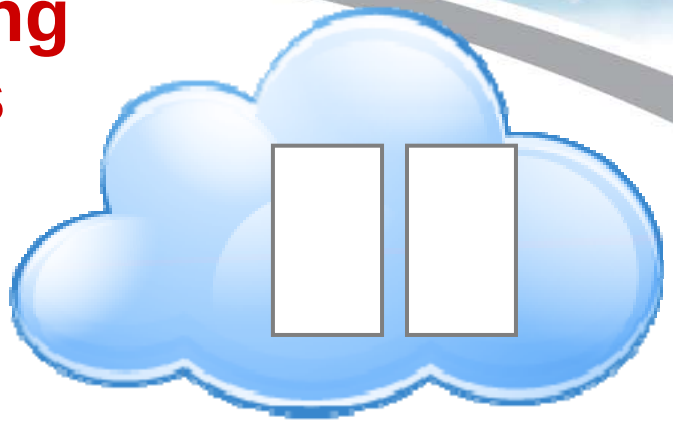
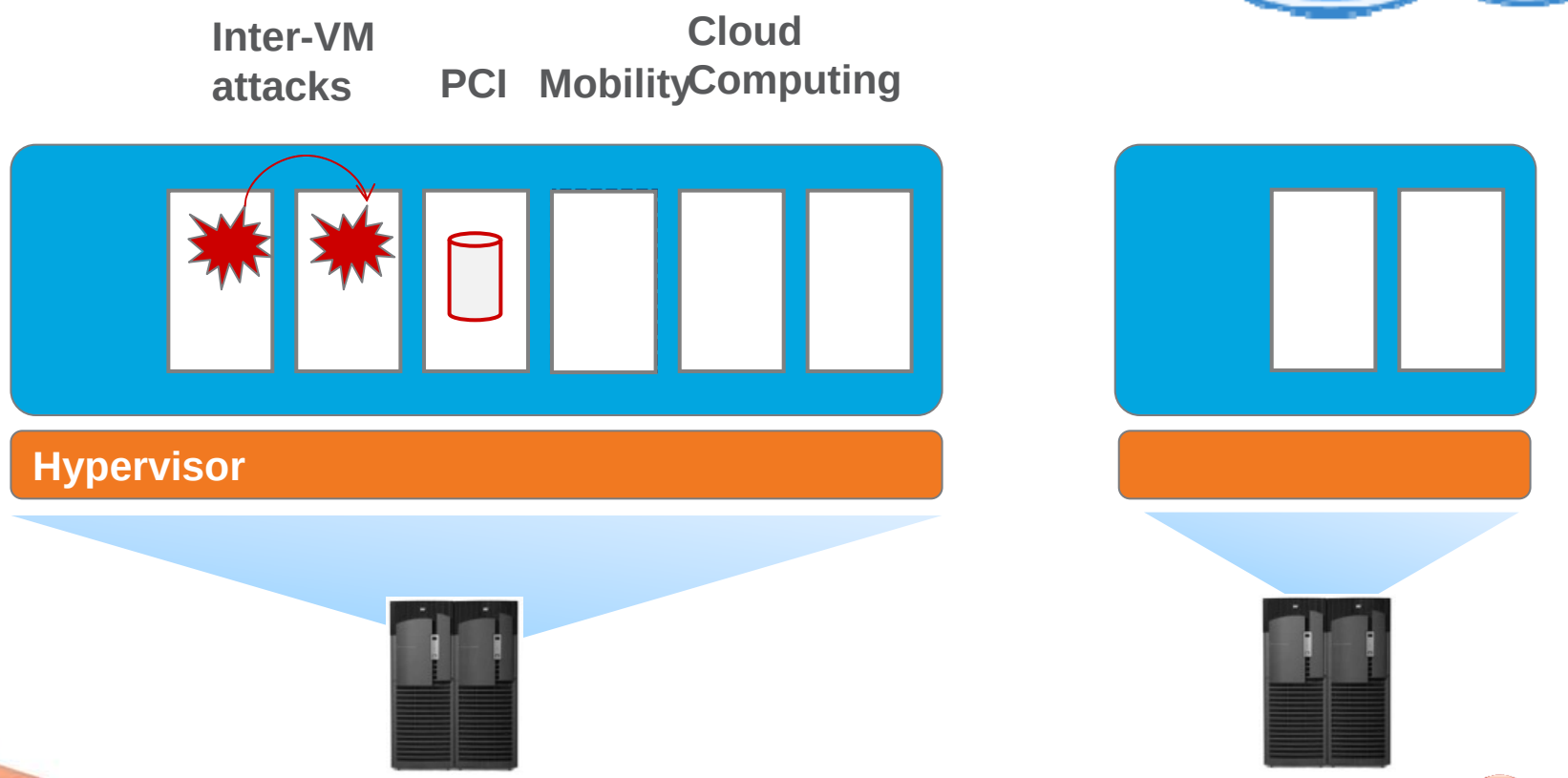




Virtualization & cloud computing create new security challenges

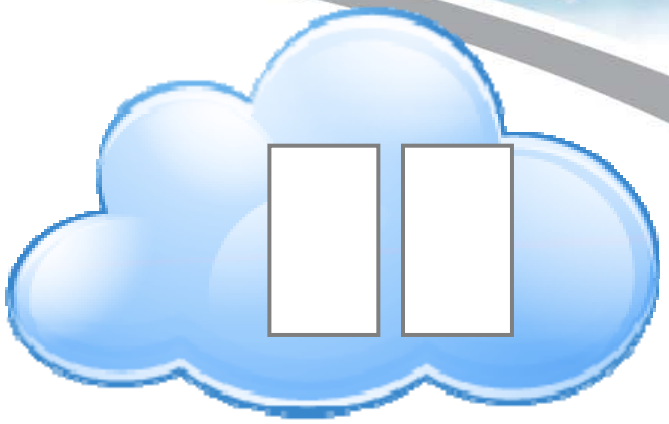


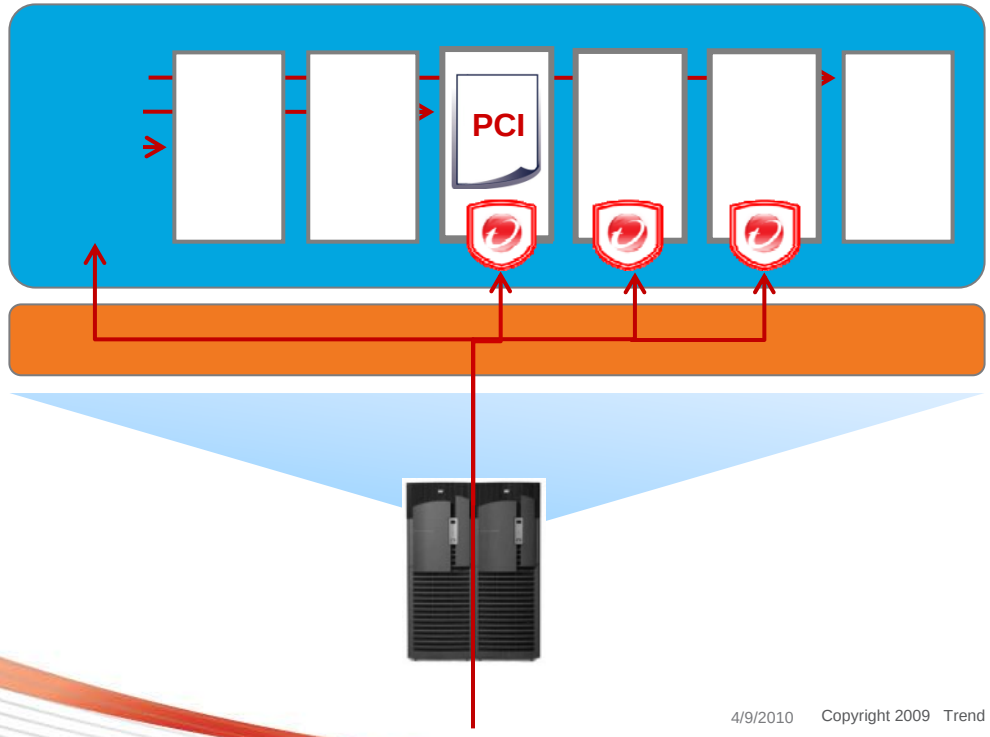


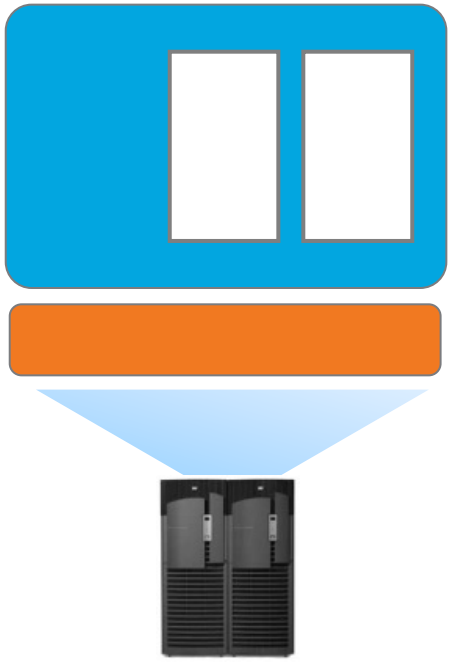
New Architecture Requires A Coordinated Approach

Firewall

IDS / IPS







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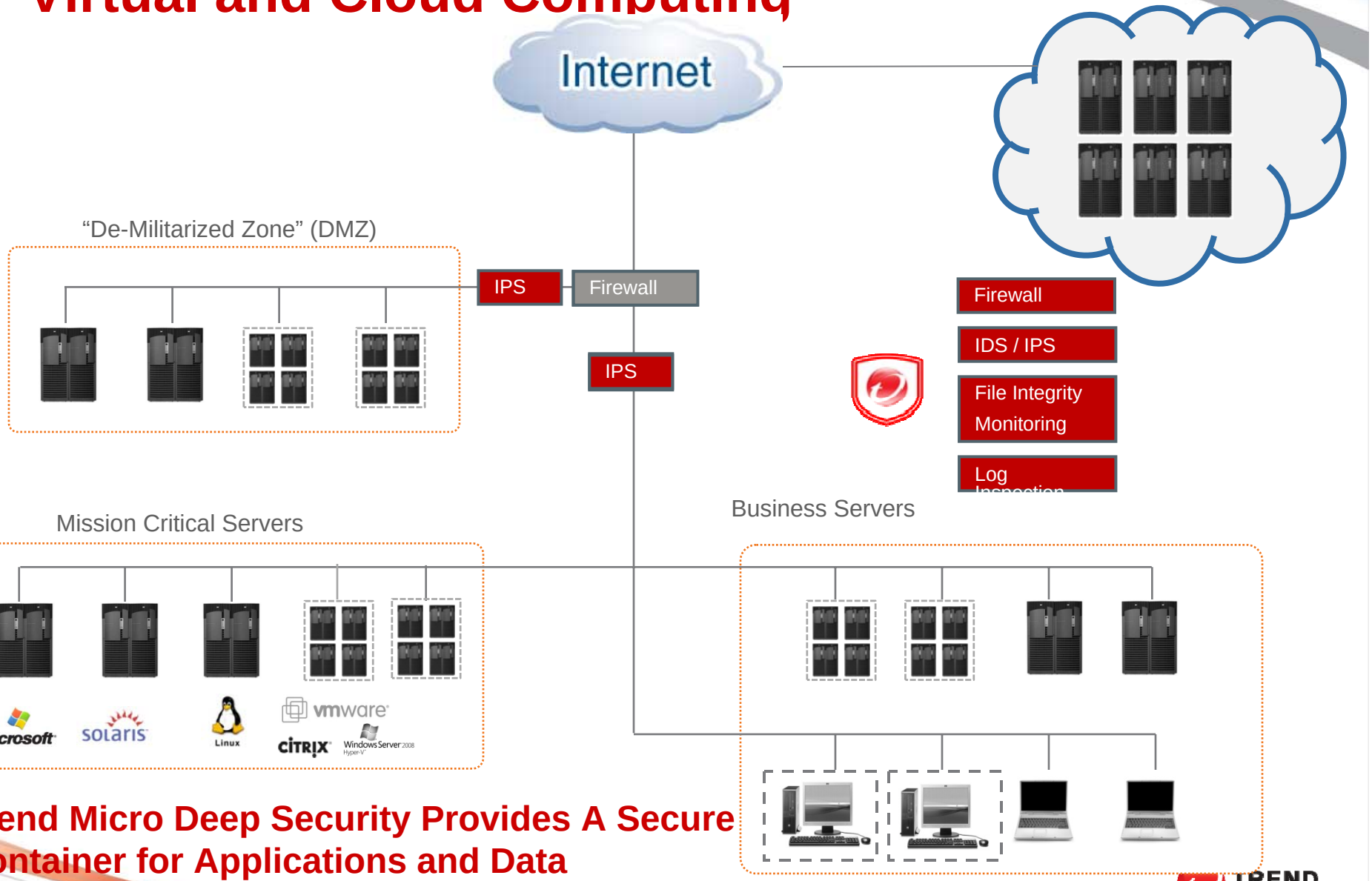
“Inside-out” Protection Model for Physical, Virtual and Cloud Computing



Trend Micro Deep Security Provides A Secure Container for Applications and Data

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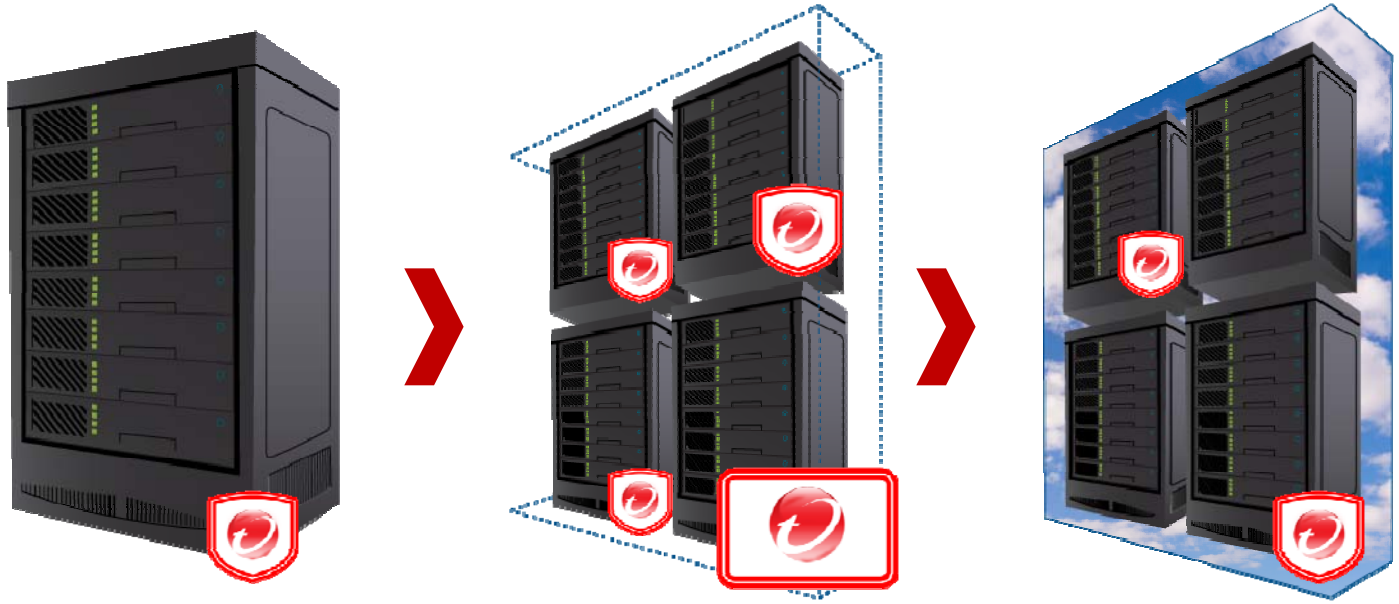
What is Deep Security?

Server & application protection for:

PHYSICAL **VIRTUAL** **CLOUD**



Deep Packet Inspection

IDS / IPS	Web App. Protection	Application Control

Firewall

Integrity Monitoring

Log Inspection

Malware Protection

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Key Takeaways

- Get in front of operations-led projects
- Evaluate protection for the individual host
- Look for virtualization-ready security solutions
  - Leverage infrastructure innovations like VMware VMsafe APIs
- Future-proof security by enabling evolution at your pace

Thank you!

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Deep Security Product Components