Server Virtualization Benefits

- Virtual machines across multiple environments share a server’s resources
  - Energy savings
  - Lower capital resources
  - Faster deployment

Source: VMware
Server Virtualization at Risk

“Through 2009, 60 percent of production VMs will be less secure than their physical counterparts.”

Gartner Says Organizations that Rush to Adopt Virtualization Can Weaken Security
Gartner.com
April 3, 2007 press release
Virtual Security Challenge #1

- Changing IP addresses make firewalls, VLANs, IPSs ineffective
- Requires rule changes every time VMs are migrated
Virtual Security Challenge #2

- Large numbers of VMs not properly maintained
- Images may have vulnerabilities, launch other attacks
Virtual Security Challenge #3

Inability to Monitor Intra-host Traffic

- Special tools required
- Options limited
- Point products add more management complexity
Virtualization Security Challenge #4
Maybe the Most Important

“Silo” Approach to Security Policy

- Security trade-offs exist with server virtualization
  - Hardware not flexible, VLANs not manageable
  - VM sprawl hard to secure
- Adds complexity, special training
- Introduces security gaps
What is Cross-Platform Virtual Security?

- Software-based approach
  - Access control
    - certificate-based
  - Segmentation
    - logical security zones
  - Encryption
    - port-level, selective

- Nearly any platform
- Physical and virtual
Key Benefits of Cross-Platform Virtual Security

- Realize virtualization benefits without security trade-offs
- Satisfy compliance without physical network changes
- Avoid silo approach
- Deploy policy quickly
- Reduce expense via centralized management
EpiForce VM
Cross-Platform Virtual Security

- Employs logical security zones
  - Authentication of all machine-to-machine traffic
  - Policy-based encryption
- Eliminates the need to configure network for security
- Protects against VM sprawl
  - Minimizes attack surface area
- Transparent to environment
- Policy persistence with VM regardless of location or movement
- Centralized management
Apani

Thank You!
Any Questions?