

# Lawful Interception in Virtual Environment

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*Intelligent Access and Monitoring  
Architecture*



# Goal

Review how the growing adoption of Virtualization and Cloud Services challenges Lawful Interception compliance in converged (physical & virtual) or homogeneous virtual environments.

# Virtualization In The DC: More Than a Trend

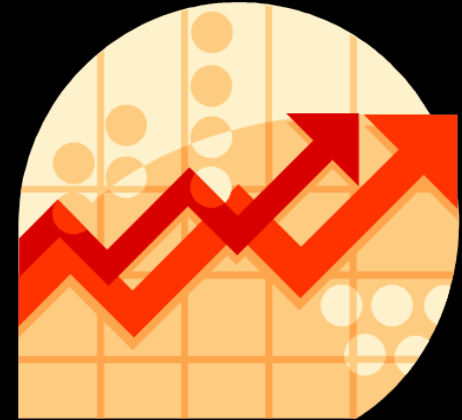
Virtualization deployment increasing year over year in data centers.

Gartner: over 30% of x86 architecture servers workloads running on VMs

Double digit annual growth

## Virtualization

- Great CAPEX improvements, no visibility.
- Passive monitoring of Inter-Virtual Machine Traffic is nonexistent.

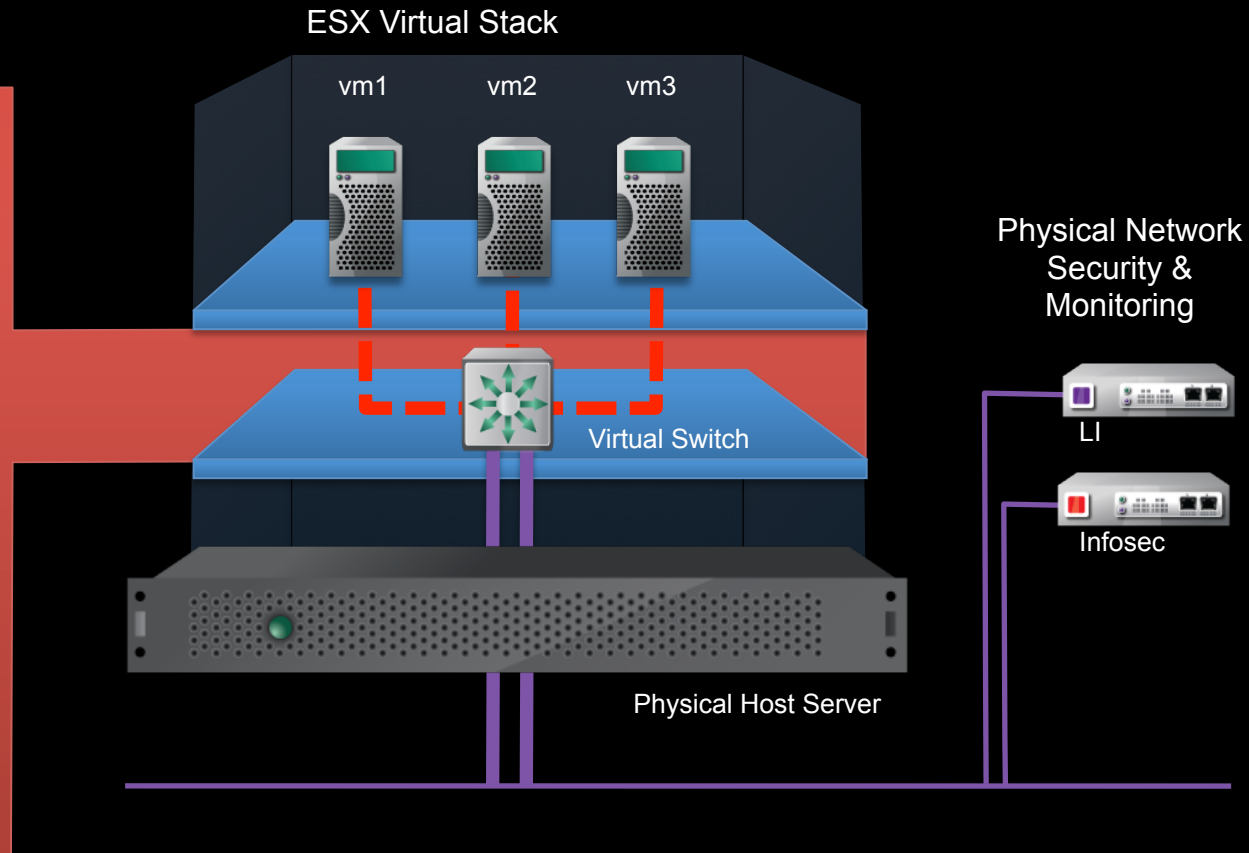


# Hypervisor Virtual Network Monitoring Challenge

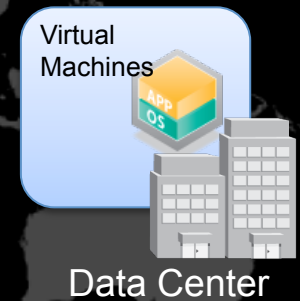
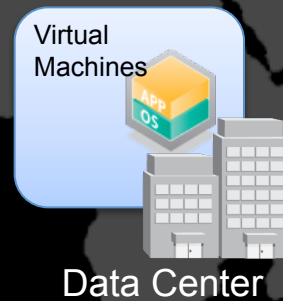
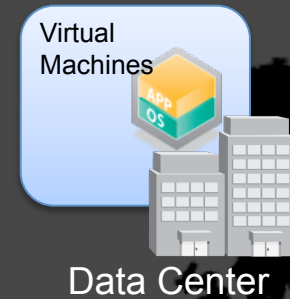
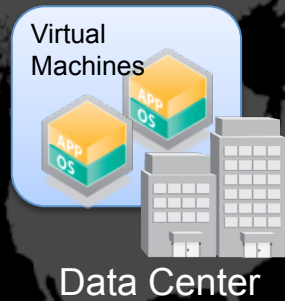


## Virtualization Creates Security, Monitoring and Compliance Risks

- No visibility into inter-VM traffic, vulnerabilities or threats
- Lacks auditing of data passing between virtual servers
- Inability to pinpoint resource utilization issues

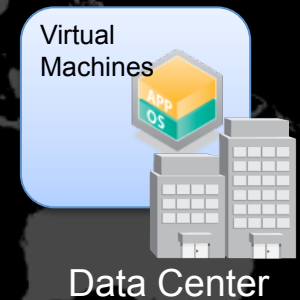
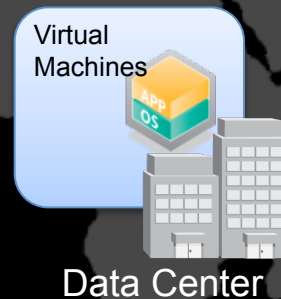
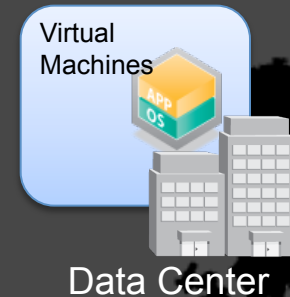
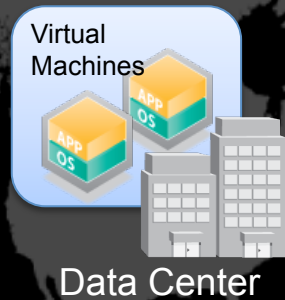


# What Customers Want



# What Customers Want

Meet Lawful interception challenges in virtual networks





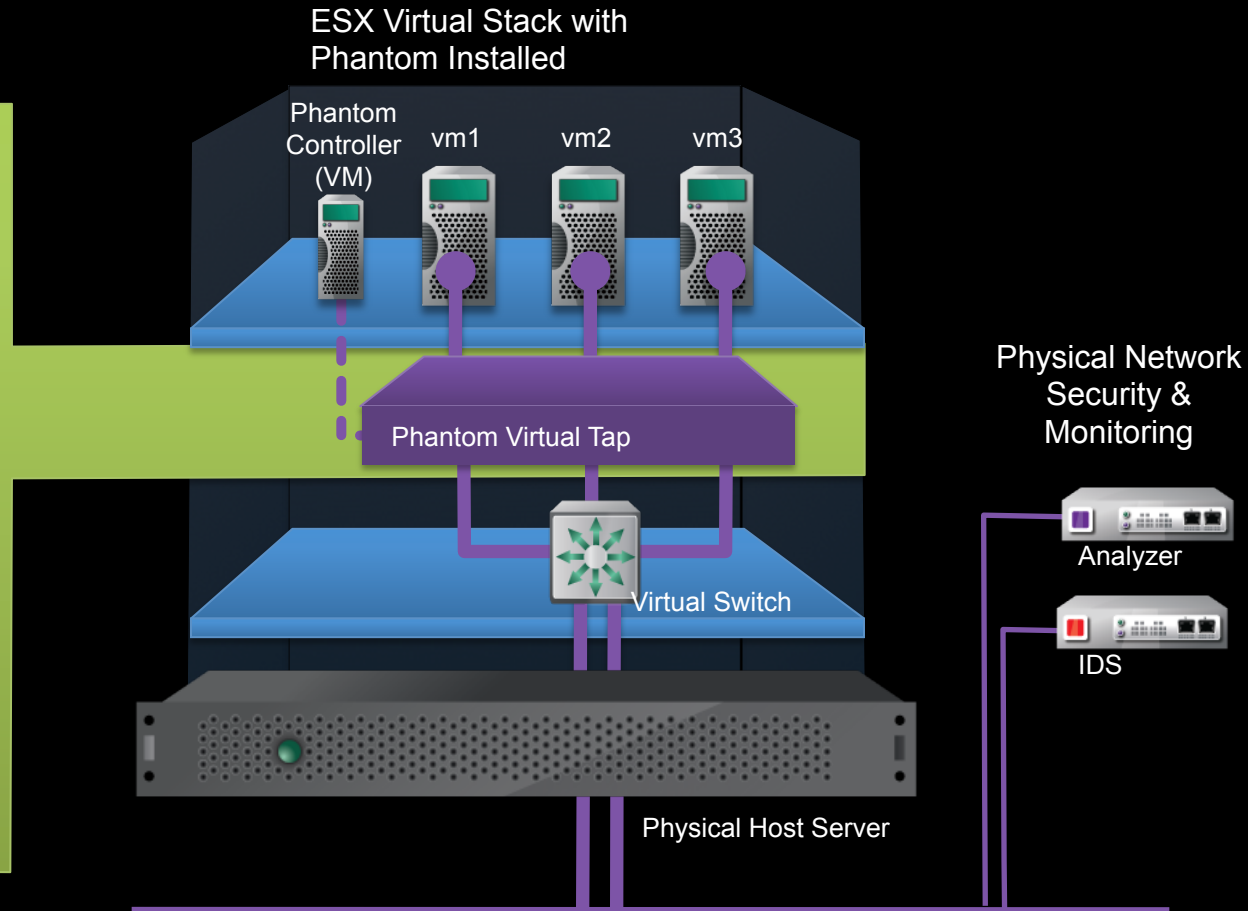
PHANTOM™  
VIRTUAL TAP

# Phantom Virtual Tap Solution



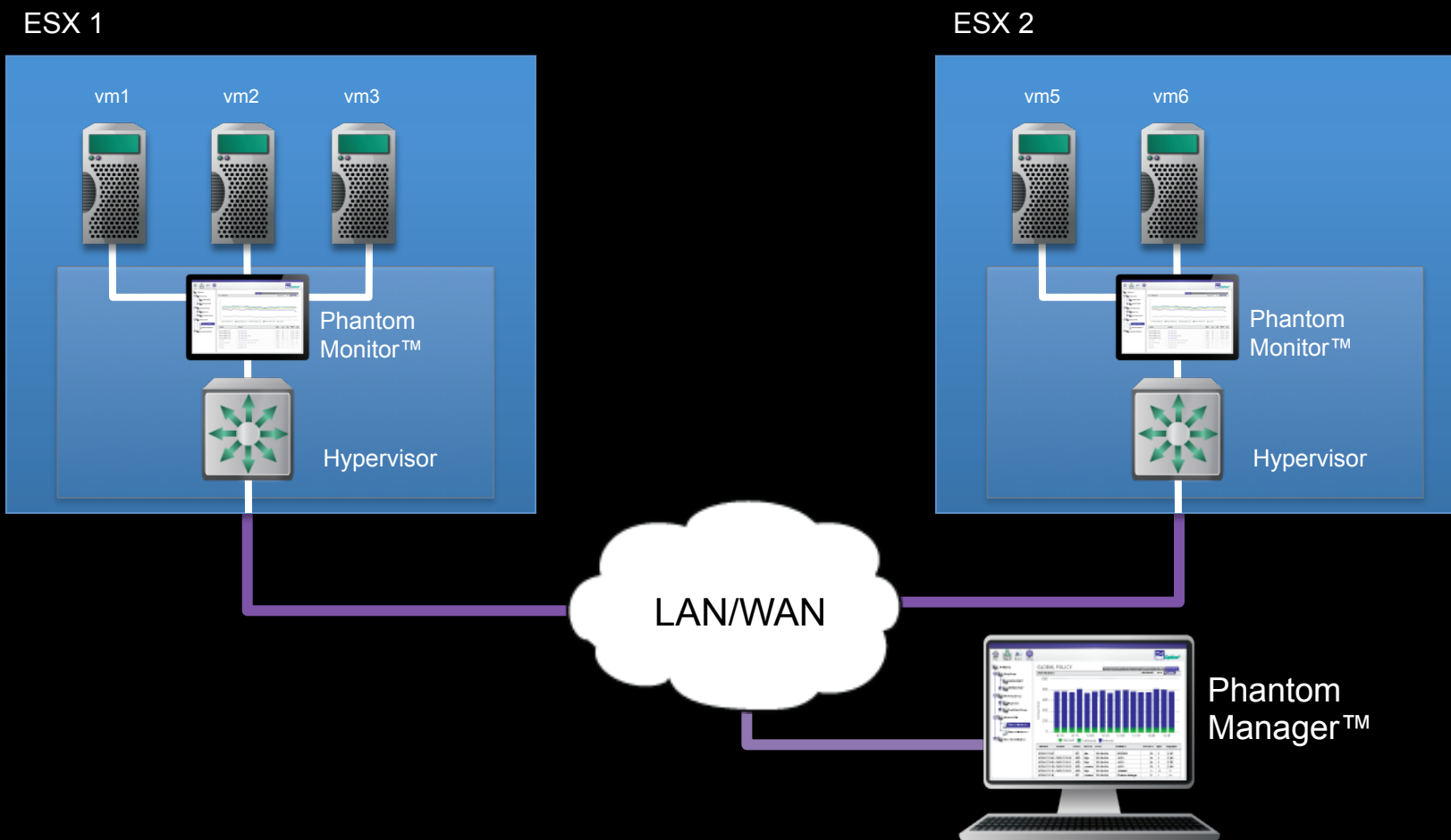
## Enables Security, Performance Monitoring and Compliance

- 100% visibility of inter-VM traffic
- Kernel implementation—no need for SPAN Ports on Virtual Switch / Promiscuous Mode
- Bridges virtual traffic to physical monitoring tools





# Support for vMotion Migration

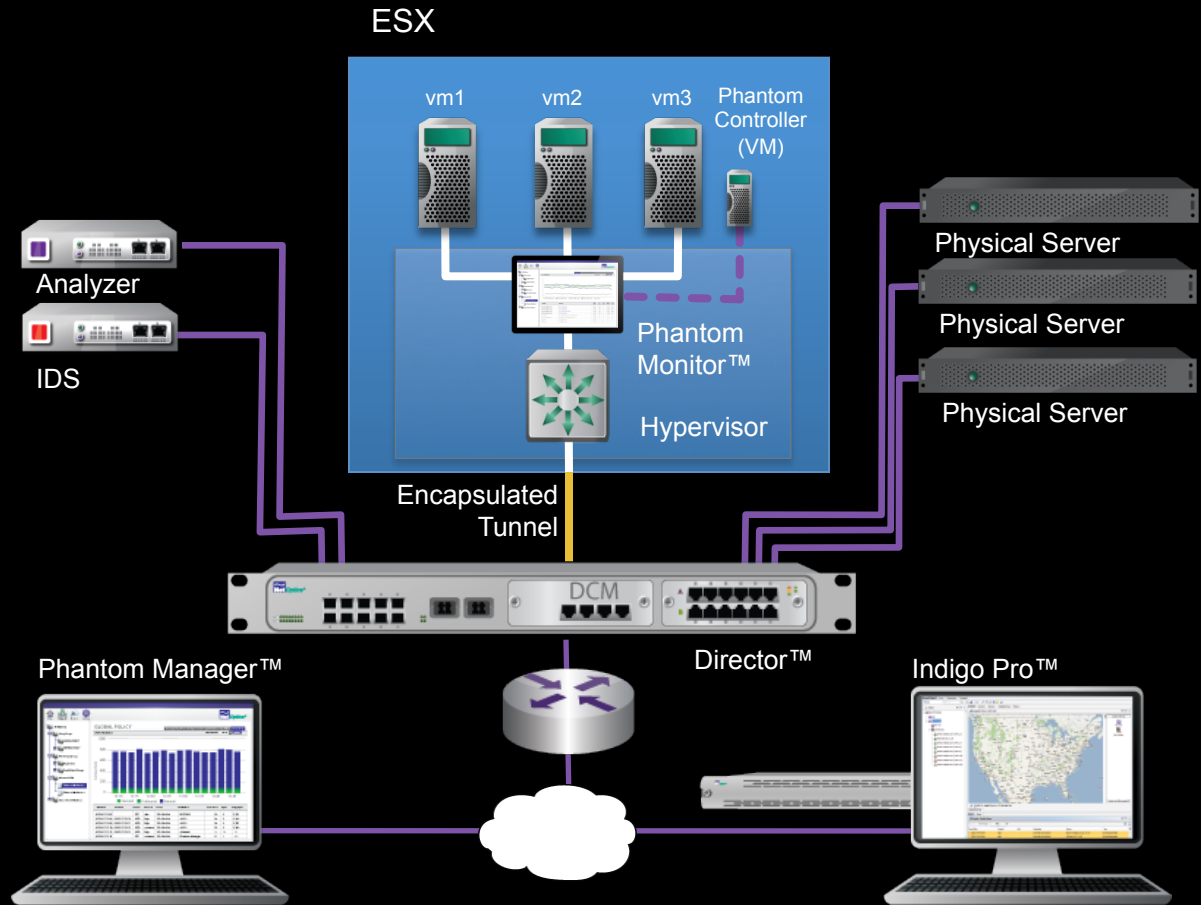


# Net Optics Converged Network Solution

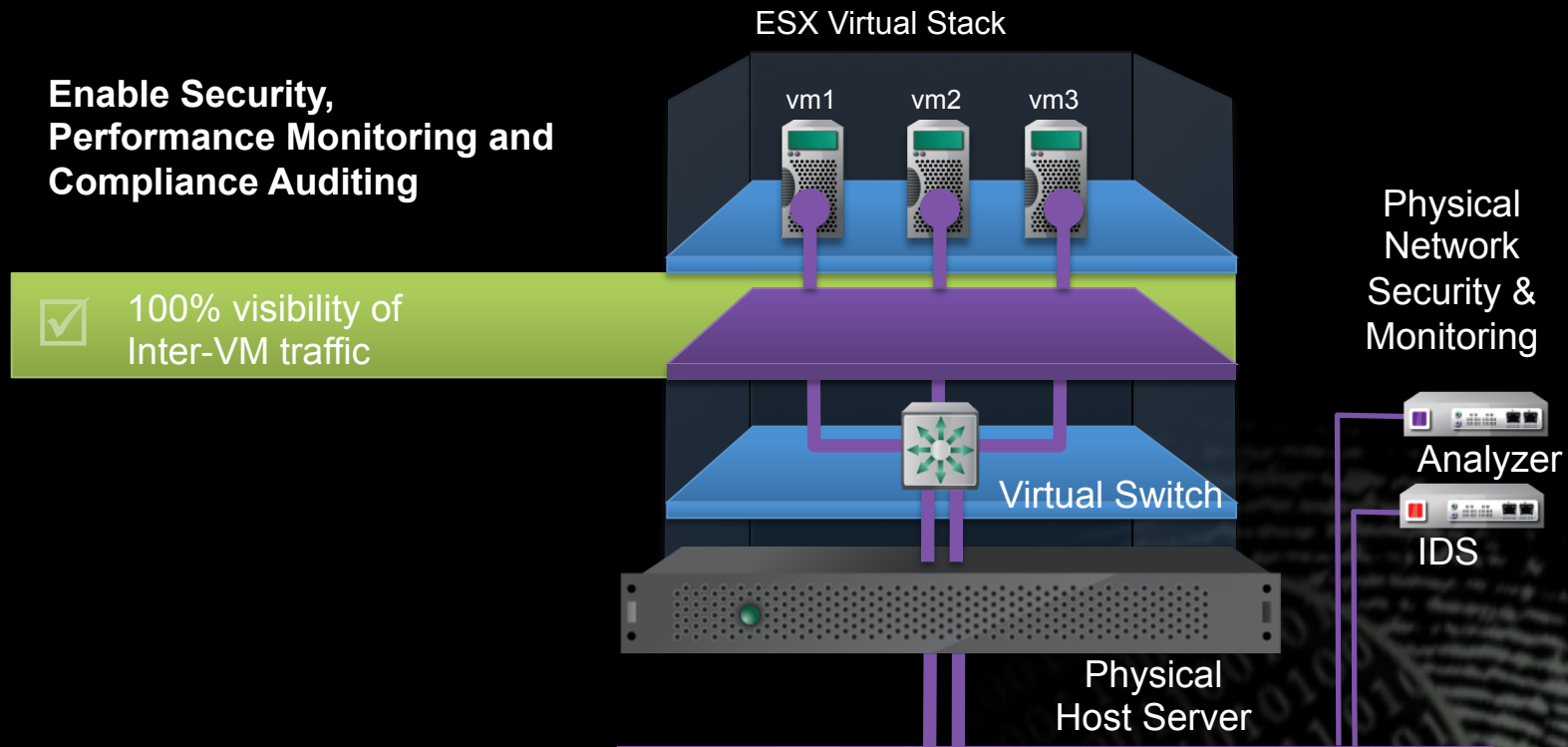


## Physical and Virtual Monitoring Access

- Hypervisor-specific Tap
- Purpose-built for virtualization
- Monitor through Live-Migration (vMotion)
- TAP for each VM instance (by VM ID)
- Tight Integration with VMware vCenter
- Fault-Tolerant and Non disruptive Architecture



# Example: Extending Wire Capabilities for VM



- Lack of visibility blocker for certain deployments
- The virtual network traffic must be “exposed”

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