



Virtualization: A Study in FUD

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Questions



- How comfortable are you with virtualization?
- Who thinks virtualized environments are less secure?

Three Types of Virtualization (x86)



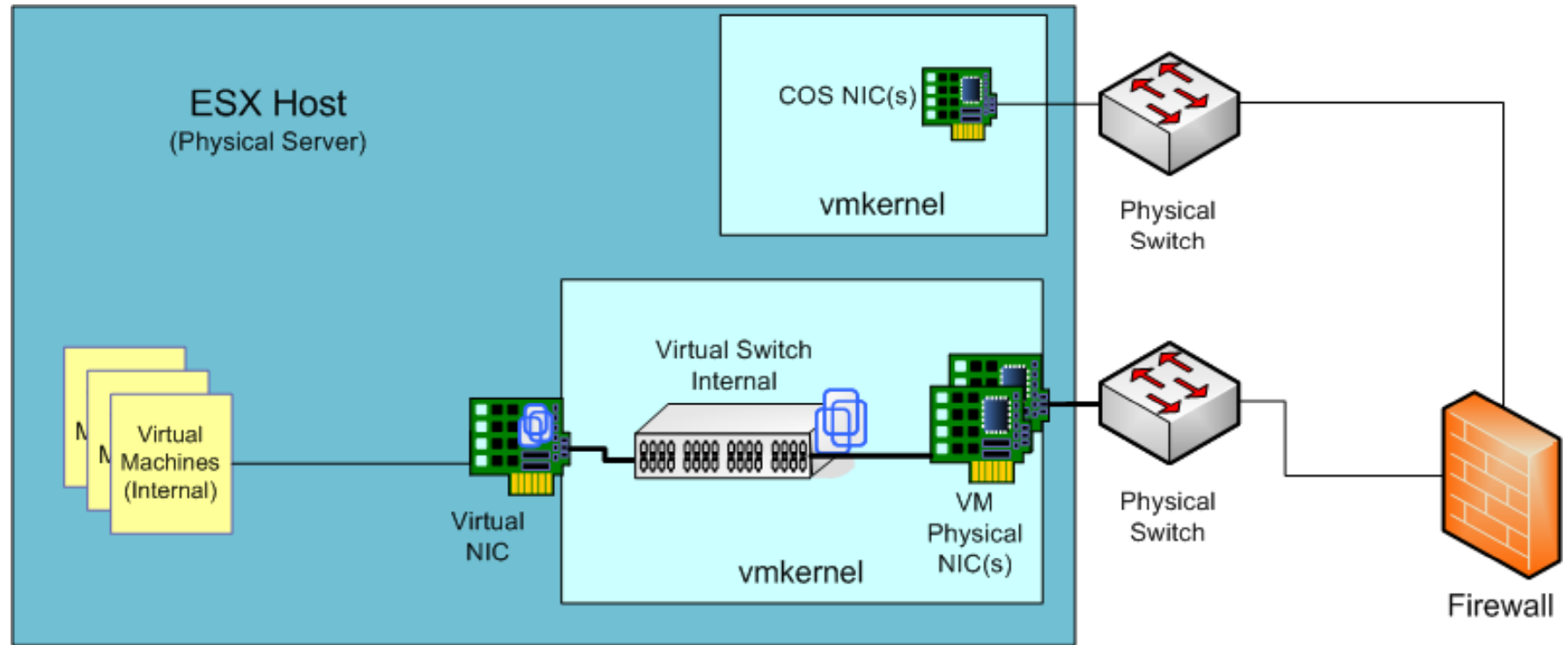
- Hypervisor
 - Microsoft Hyper-V
 - VMware ESX
 - Citrix Xen
- Desktop (Hosted)
 - VMware / Microsoft / Sun / Parallels, et al
- Containers
 - Sun Containers
 - Parallels Virtuozzo

Security Attack Vectors

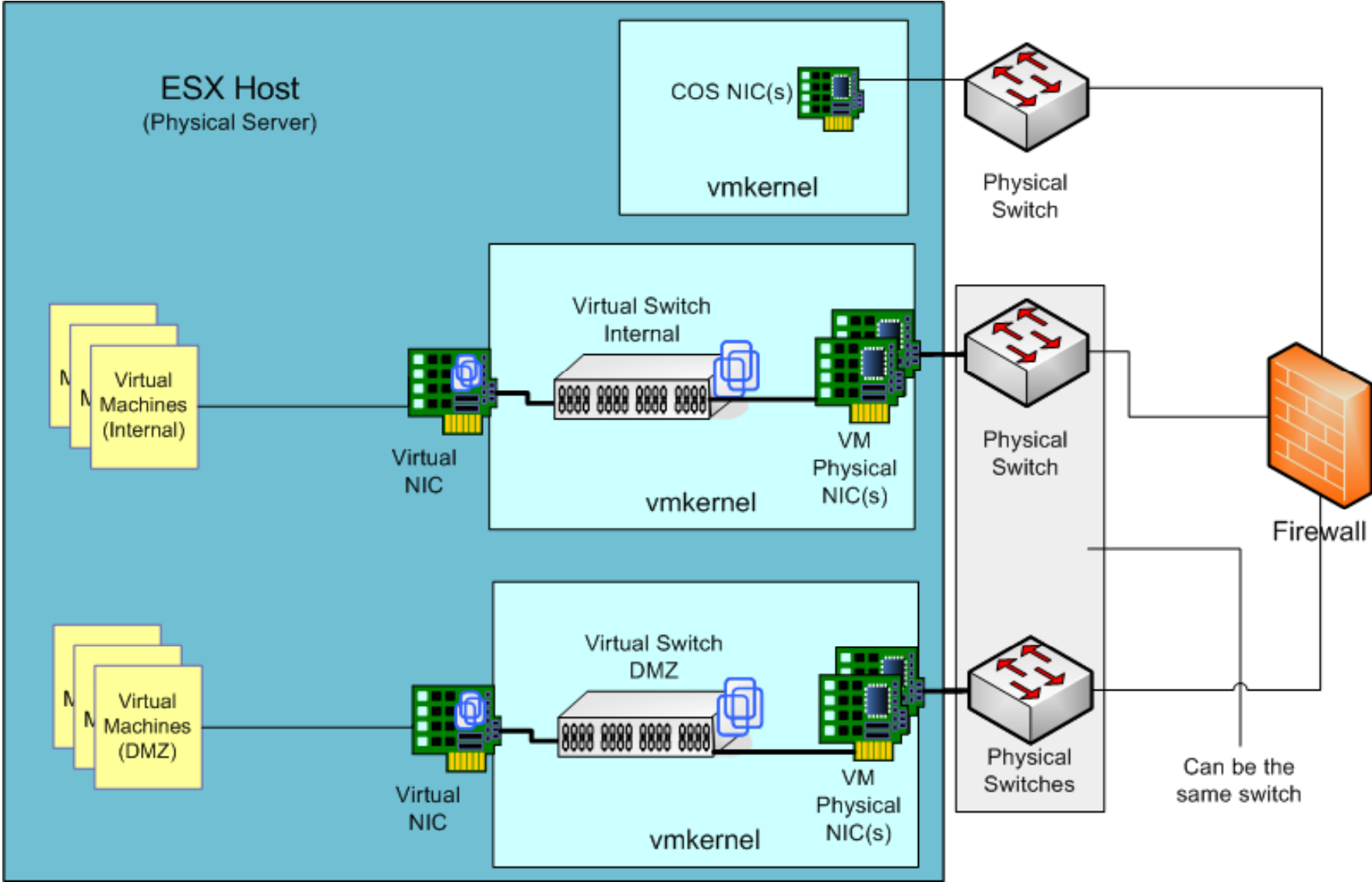


- Physical - Layer 1
- Network - Layer 4
- Application - Layer 7
- Meat - Layer 0??

Trusted



Mixed



How To Secure Virtualized Systems invent

- Same as physical systems
 - Approved Run Books – Procedures
 - Patched Systems
 - Best Practices from Vendor
 - Proper Training of Staff
 - Ad Nauseum

How To M/M Virtualized Systems



- Same as physical systems
 - HP, Microsoft, Citrix, et al
 - Ad Nauseum