

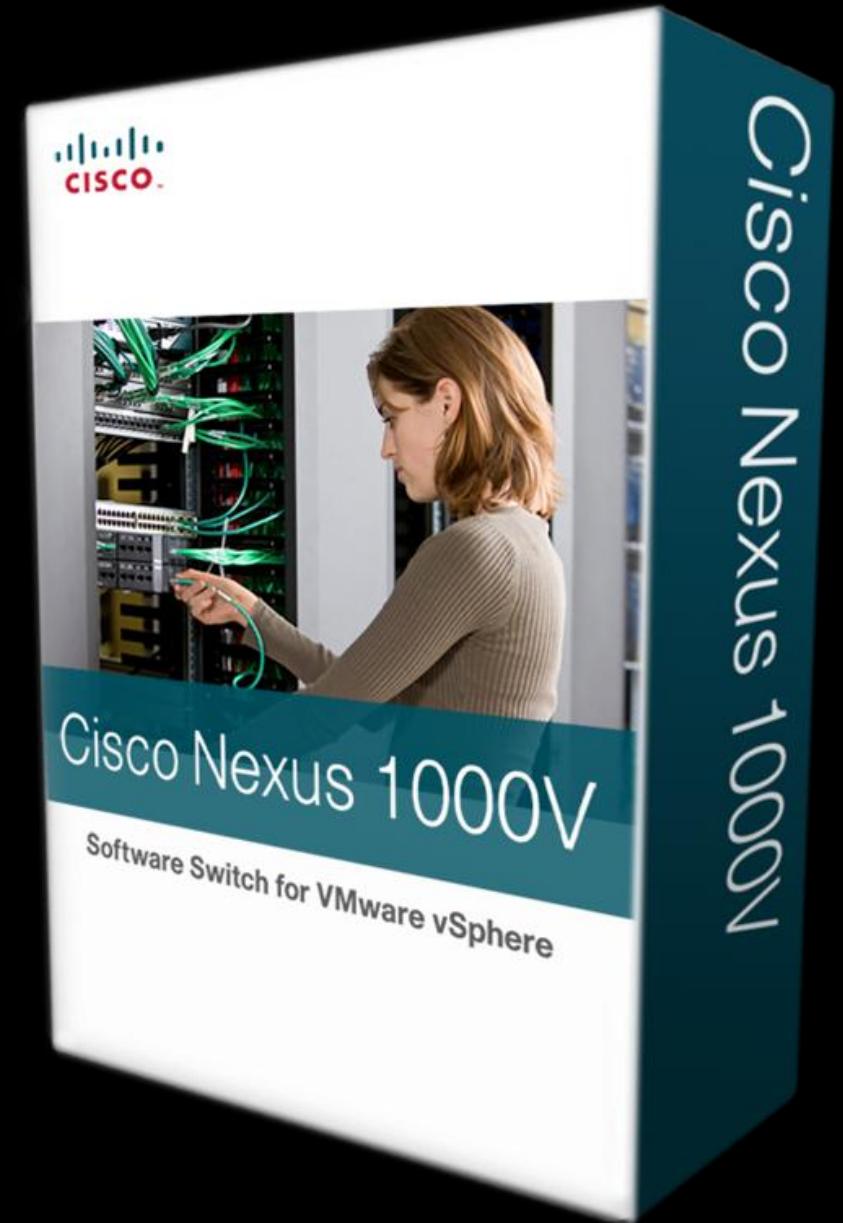


# Cisco Nexus 1000V Update

Han Yang

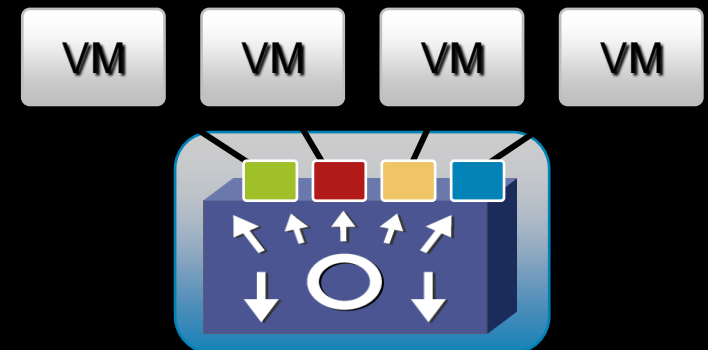
Product Manager

Server Access & Virtualization Business Unit

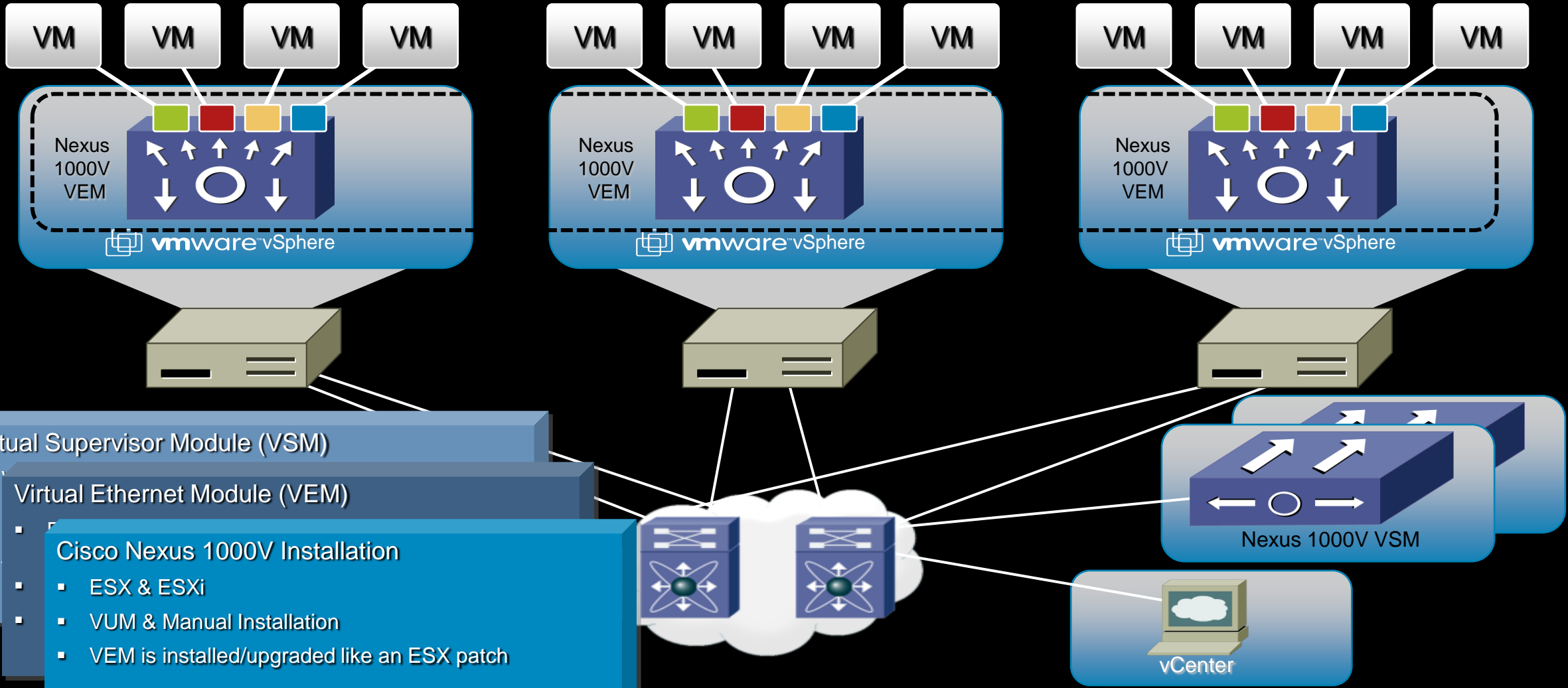


# Cisco Nexus 1000V: Global Adoption

- Introduced at VMworld 2008: Best of VMworld
- Shipped with VMware vSphere 4.0 in May 2009
- Evaluation Customers from 130 Countries
- Over 1,000 customers
- Shipped Nexus 1010 Virtual Services Appliance
- Shipped Over 1 Million Virtual Ethernet Ports

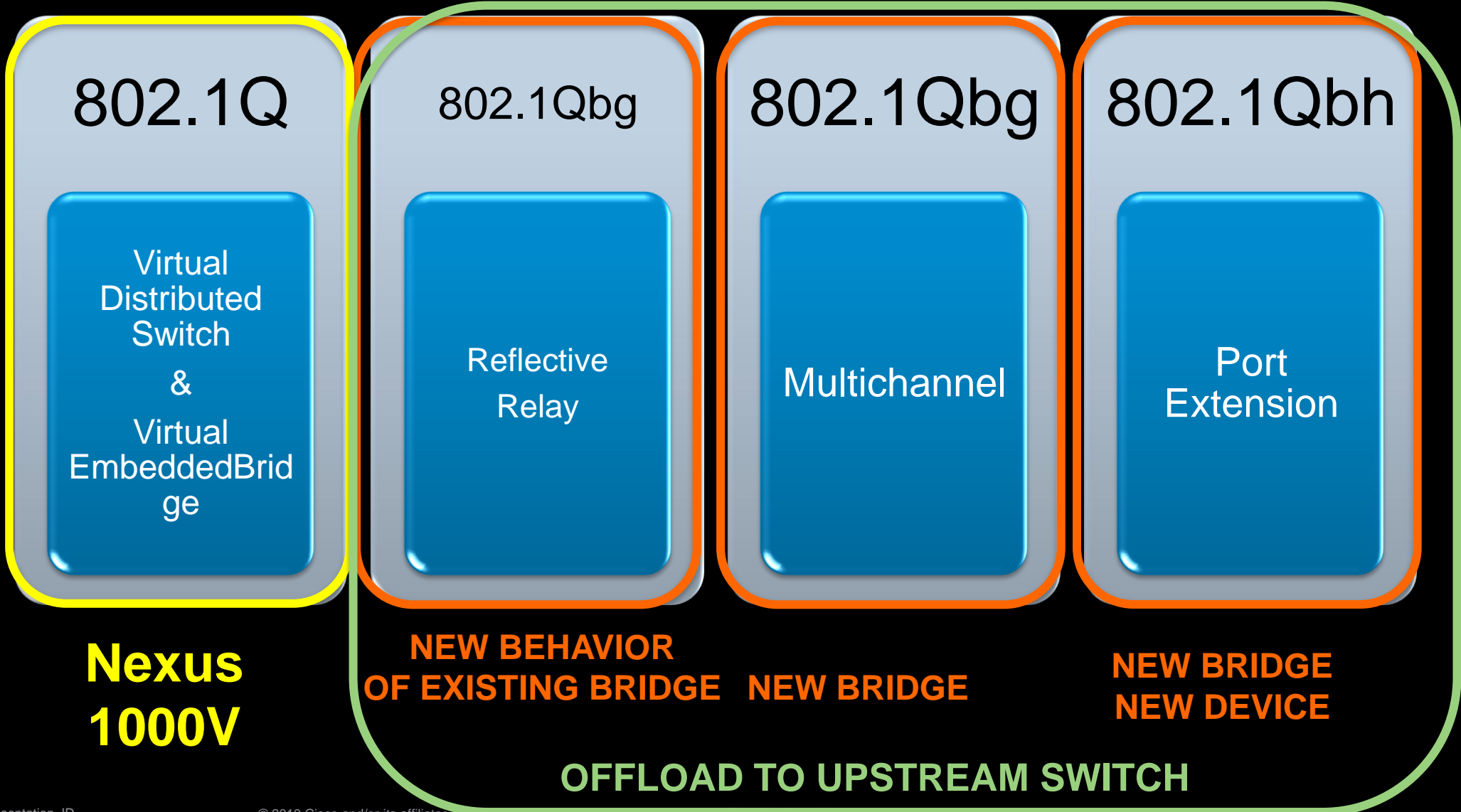


# Cisco Nexus 1000V Architecture



- Virtual Supervisor Module (VSM)
- Virtual Ethernet Module (VEM)
  - Cisco Nexus 1000V Installation
    - ESX & ESXi
    - VUM & Manual Installation
    - VEM is installed/upgraded like an ESX patch

# Nexus 1000V: Standards Based Switch

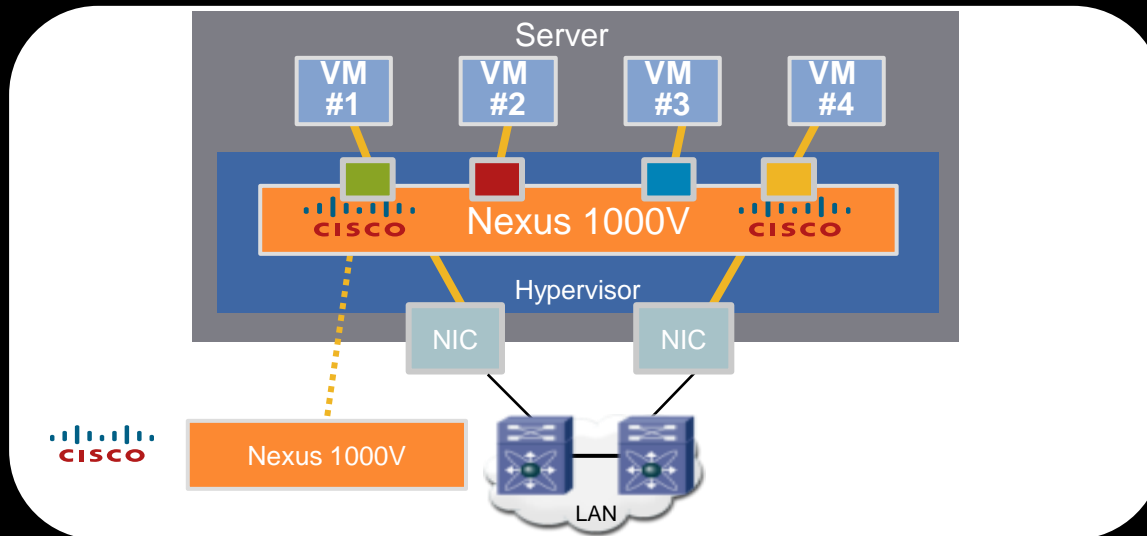


# VN-Link: Complimentary Options

## Software Hypervisor Switching

Dense VMs environment  
Advanced feature set  
Flexibility

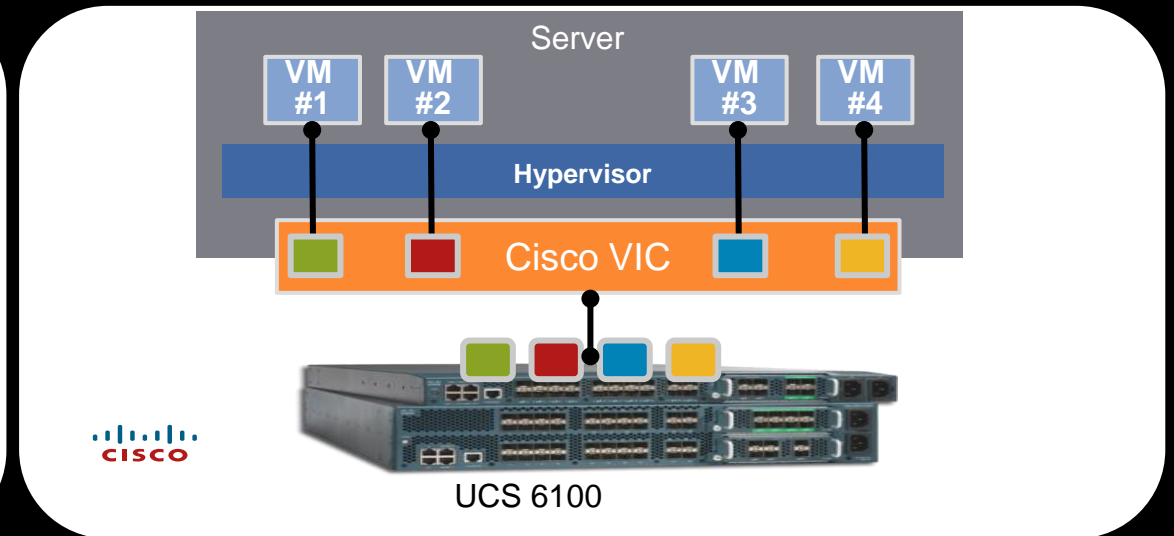
Tagless (802.1Q)



## External Hardware Switching

Higher performances  
Granular I/O management  
Consolidation

Tag-based (Pre-standard 802.1Qbh)



Policy-Based  
VM Connectivity

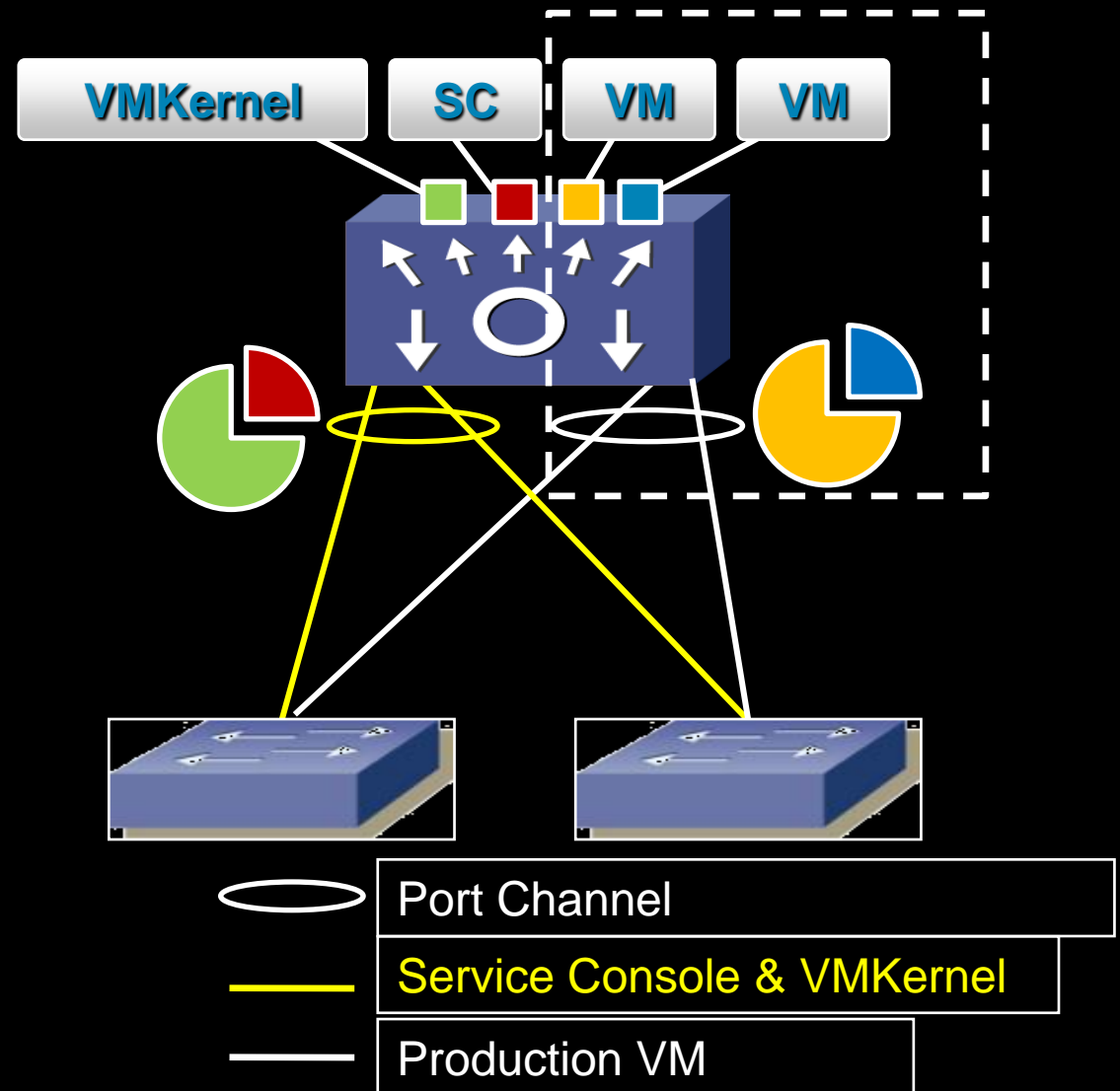
Mobility of Network & Security  
Properties

Non-Disruptive  
Operational Model

# Differentiated SLA for Virtual Machines

## With vSphere 4.1

- Different service level agreements for production virtual machines
- Use Quality of Service with Weighted Fair Queuing providing minimum bandwidth for a particular class
- Dynamically adjust link bandwidth allocation in a port channel to ensure accurate bandwidth allocation



# New Network Services Requirements

*Firewall, Load Balancer, WAN Optimization . . .*

Appliance/Module



Virtualize

Scale Up



Scale Out

Kernel  
Acceleration

Context

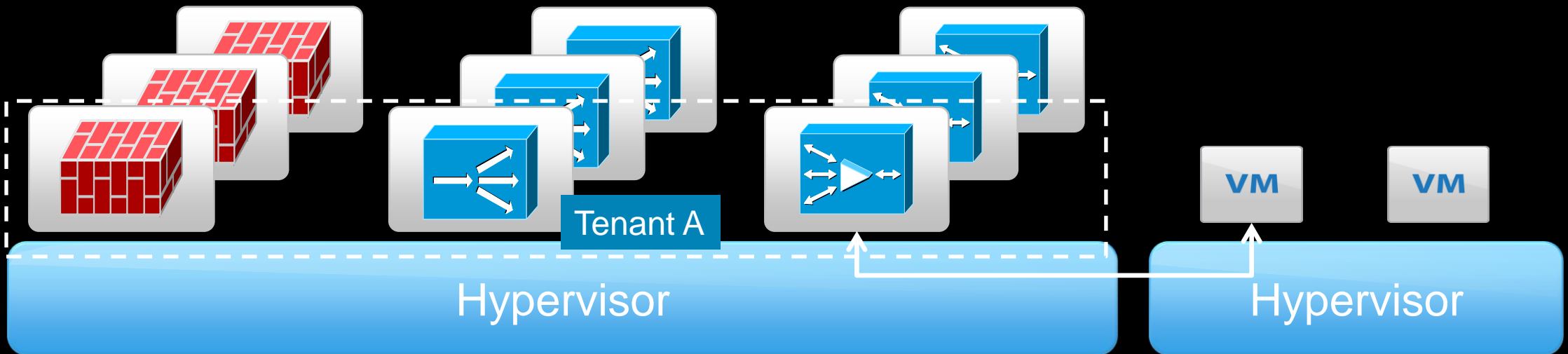


Multitenant

Service VM/Host



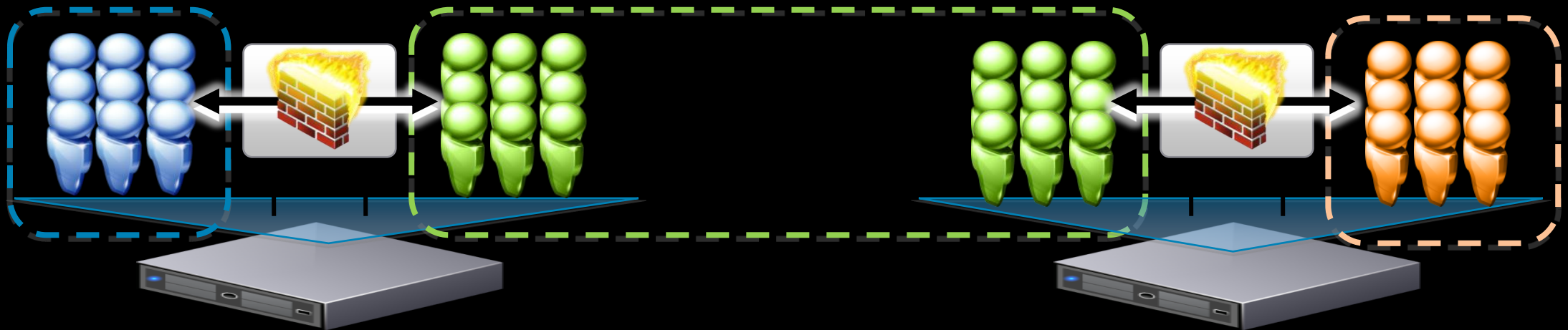
Flexible Deployment



# Virtual Service Domain

## *Manage Pools of VMs with Similar Security Policy*

- Virtual Service Domain **define** a logical group of virtual machines **protected** by a **virtual appliance**.
- All the traffic **entering or leaving** the group will be sent to that particular virtual appliance.
- One virtual network appliance per host
- Network service provided in virtual appliance



# Nexus 1000V: Ready for the Cloud

- Nexus 1000V: Strong customer demand and momentum
- Based on IEEE 802.1Q standard
- Differentiated SLA for VM
- Understand growing demand for network services

**Please Attend Cisco Keynote:  
Scaling Data Center Fabrics with Secure Cloud Services  
Ed Bagnion  
SS1010: Tuesday 11:00-12:00 Room 134**



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