

NSX From Scratch | Architecture & sample designs

The SDN solution from VMware



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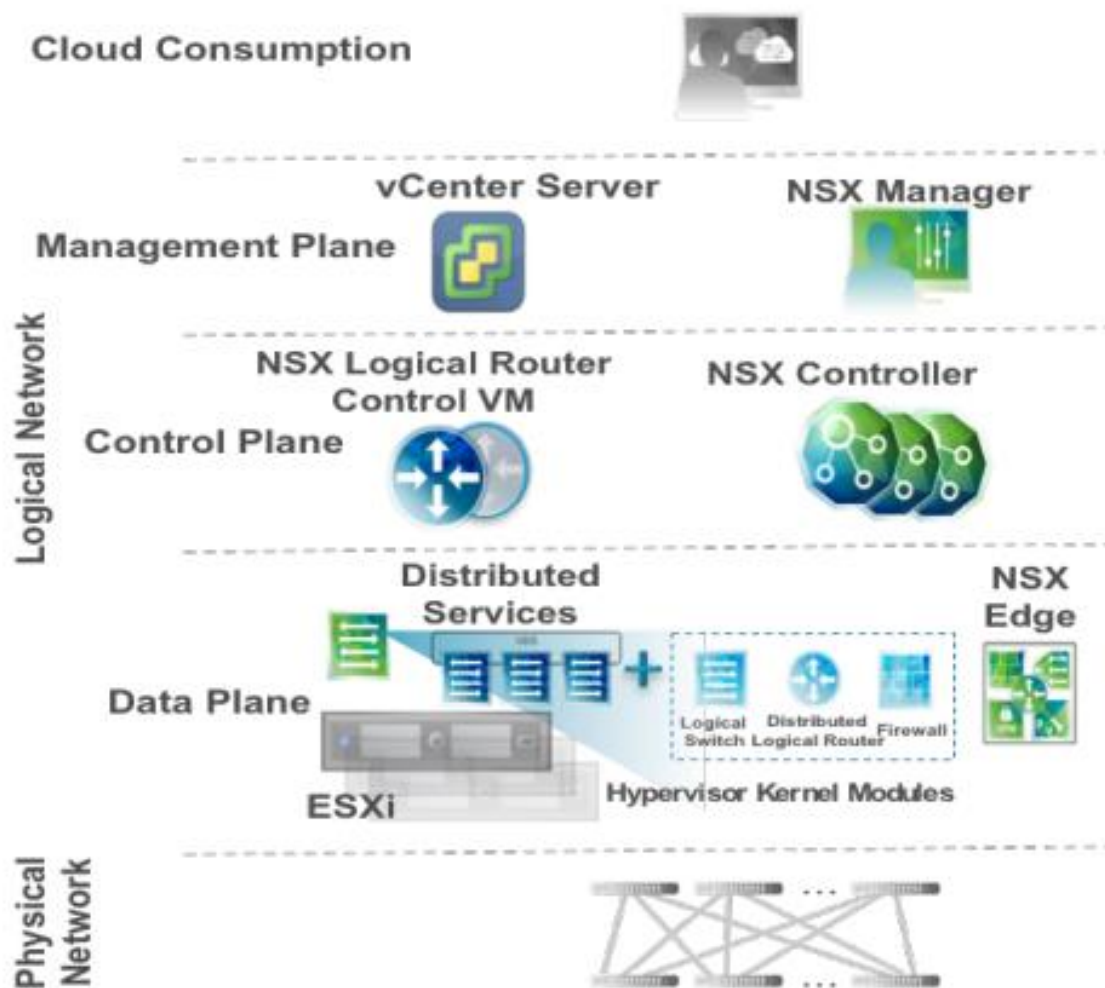
Traditional Network



SDN Model



NSX from Scratch – Architecture & sample designs



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NSX-MGR



vCenter (VC)

Management Plane
vCenter: VDS, DRS, HA, vMotion etc.
NSX-MGR: API Entry Point



DLR Control VM



NSX-Controller Cluster

Control Plane
Separation of control and data plane
Manages Logical networks
Control Plane protocol (VXLAN, Routing)



VDS



Logical Switch



Distributed Firewall (DFW)



Distributed Logical Router (DLR)

Data Plane
Distributed Functions
Scale-out Model



NSX EDGE



Firewall



Load Balancer (LB)



Router



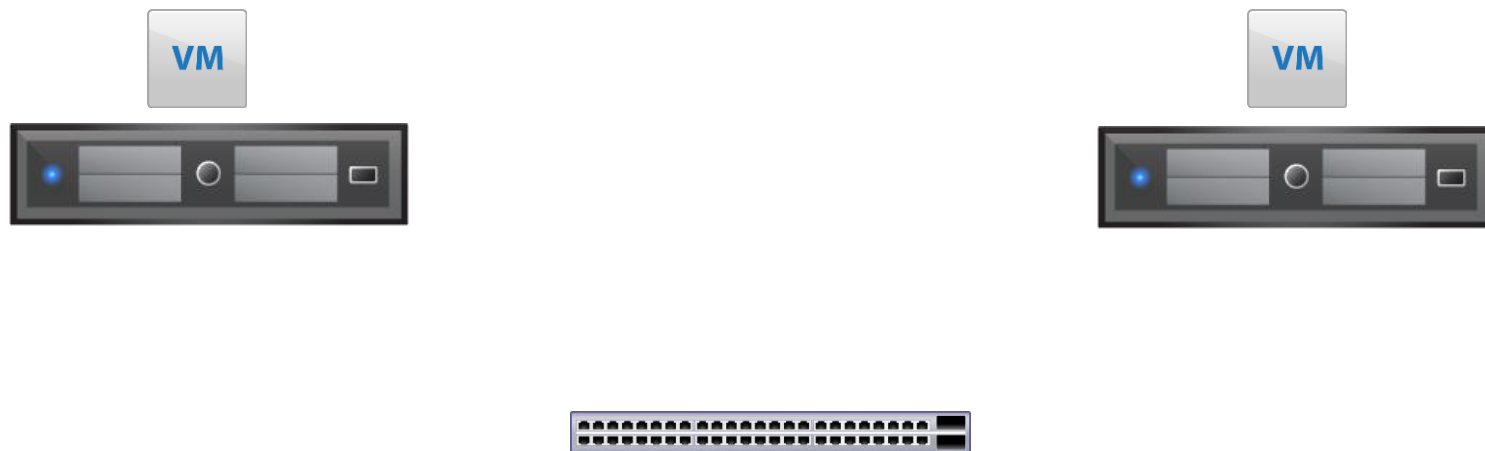
NAT

Data Plane
NSX Edge Service Gateway (ESG)
VM Form Factor

NSX Licensing

Features	Standard	Advance	Enterprise
Distributed Routing and Switching (DLR/ VXLAN)	✓	✓	✓
NSX ESG (except load balancer)	✓	✓	✓
SW L2 bridging	✓	✓	✓
Distributed Firewall (DFW - Micro-Segmentation)		✓	✓
NSX Edge load balancing		✓	✓
Cross vCenter NSX			✓

VXLAN

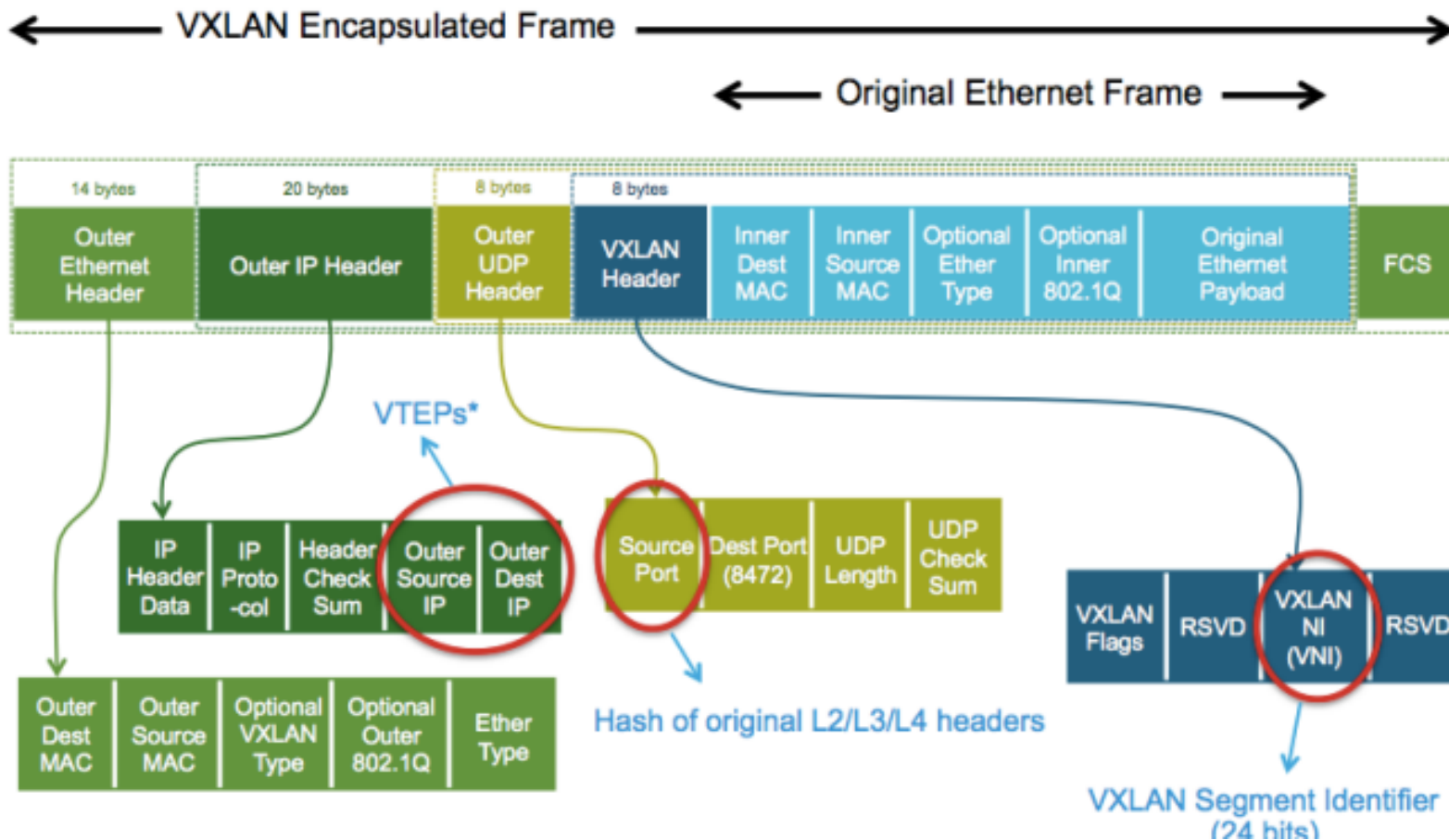


VTEP: Virtual Tunnel End-Point

NSX VLAN = Logical Switch

VNI = NSX VLAN ID

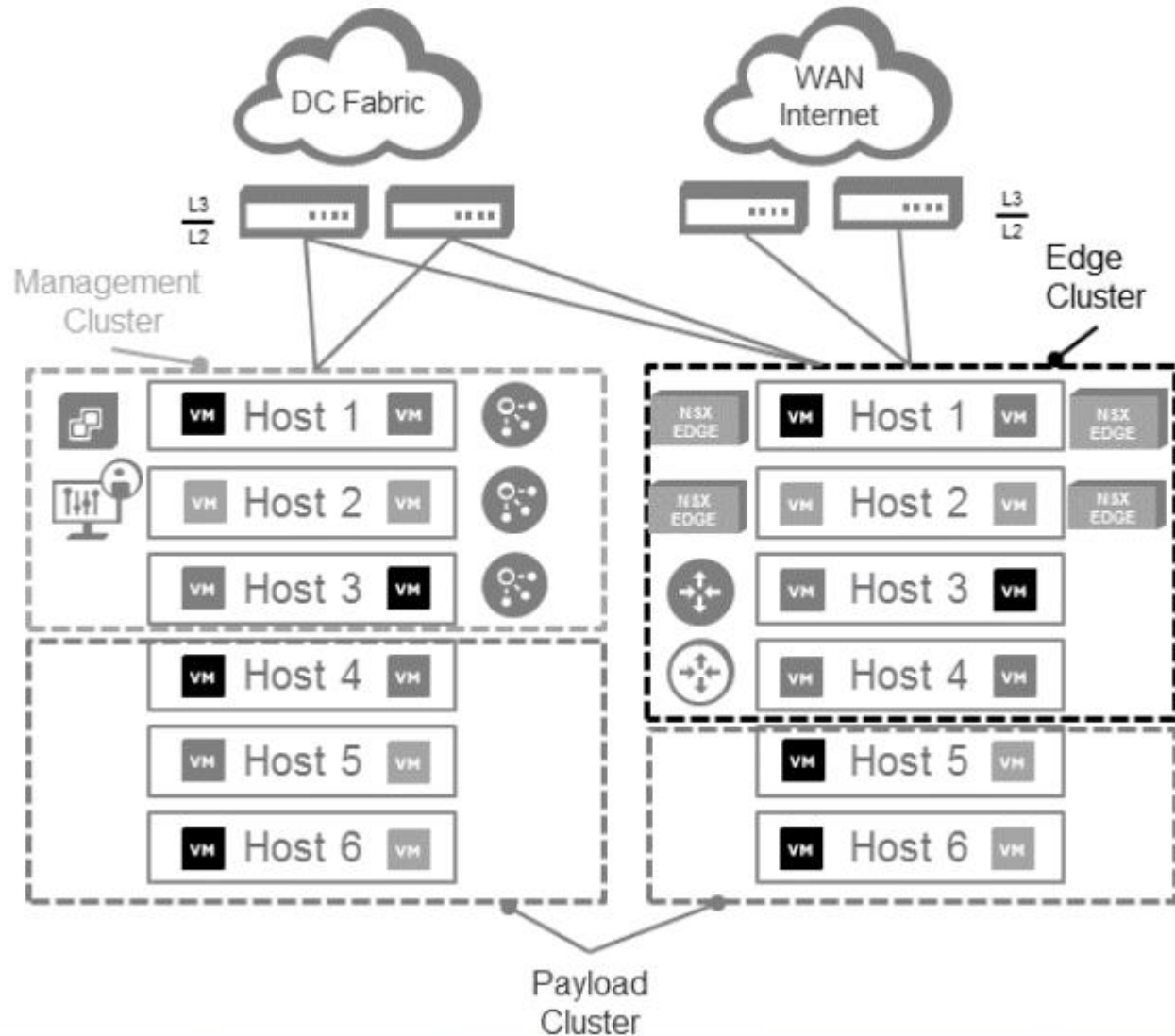
VXLAN Packet



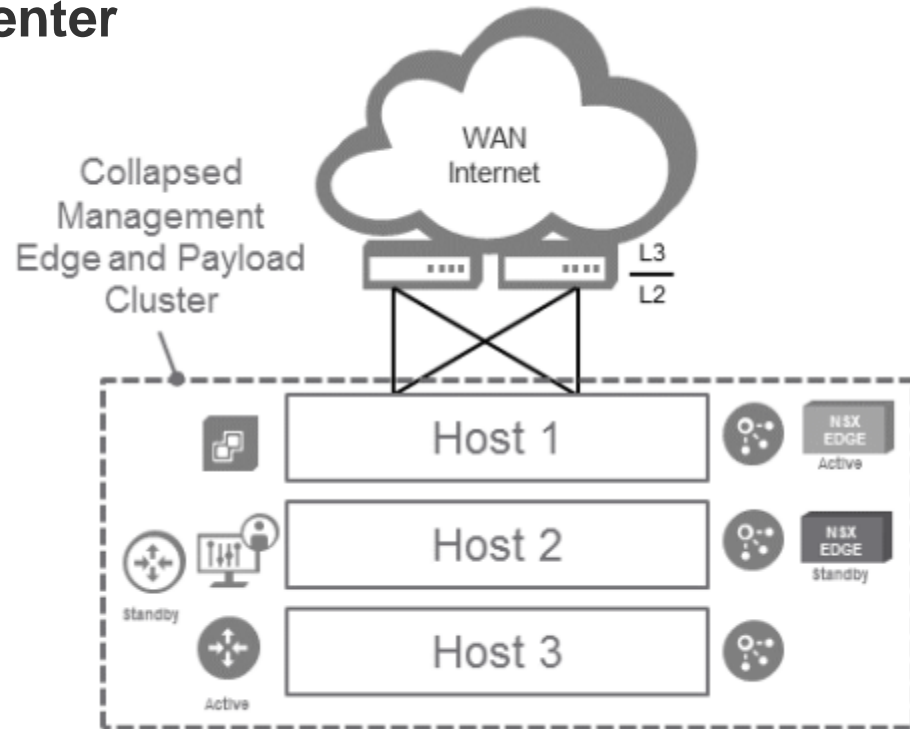
Traffic directions in SDN



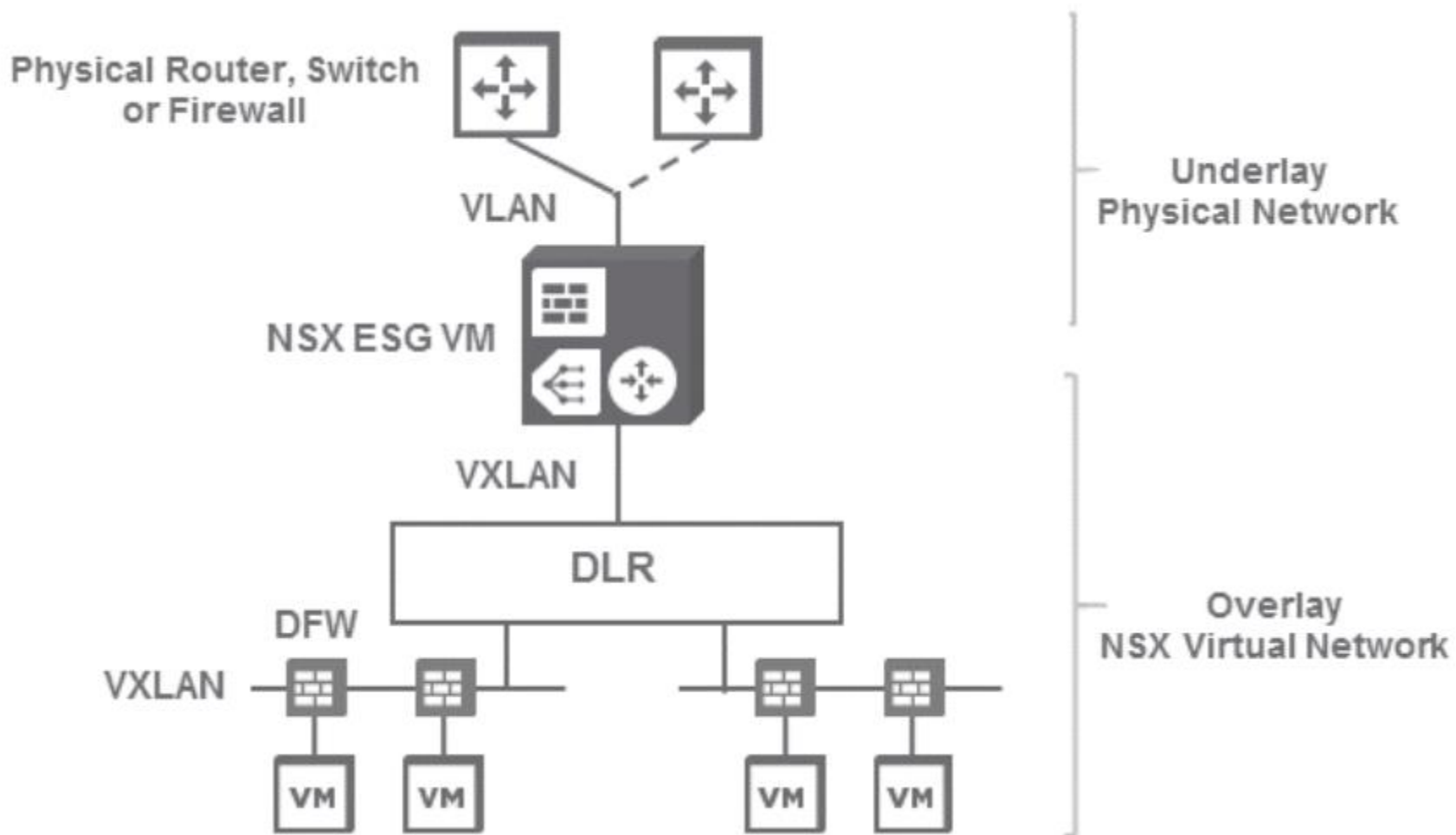
Large Enterprise Design



Small business / small datacenter



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