

Dell Networking provides:

- Data center switches for robust underlays for L2 overlays
- CLI for virtual and physical networks
- Network management and automation with Active Fabric Manager
- S6000 Data Center Switch Gateway for physical workloads to connect to virtual networks
- Complete end-to-end solutions that include server, storage, network, security, management and services with world wide support

VMware NSX advantages:

- Decouple virtual networks from underlying network hardware
- Reproduce physical network services in the logical space
- Reproduce secure address space isolation between virtual networks
- Complete network virtualization with integrated L4-L7 services
- Programmatically create, provision, snapshot, delete and restore complex, multi-tier networks, all in software
- Single point of management for configuring logical networks across hypervisors and physical infrastructure
- VXLAN deployments no longer require IP multicast for physical networks
- Holistic views of the virtual and physical topology increase operational efficiency

Problem:

Enterprise networks, data centers and cloud are becoming more complex, crowded and difficult to manage. Global businesses and distributed offices continue to grow their infrastructure and network equipment must scale in parallel.

Servers are becoming denser, driving the need for more storage and network bandwidth.

In a virtual server environment, moving applications to other physical hosts in order to optimize SLAs as well as perform server maintenance without service disruption, is becoming a necessity.

Enterprise networks are experiencing more east-west traffic with demands from new application deployments and continued virtual machine expansion.

Networks need to be able to handle increased throughput of high performance applications.

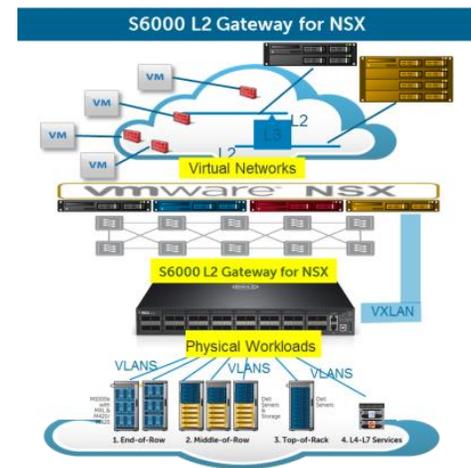
With network becoming the pivotal glue that holds all the infrastructure components together, the need to provide a scalable fabric solution for non-stop operation across physical and virtual environments relies on network administrator's ability to maximize utilization for data center network capacity.

Cloud scale necessitates network programmability and automation.

Solution:

Network virtualization overlays using VMware's NSX platform over robust network underlays from Dell provide customers the power to do more, at cloud scale.

Programmability and advanced automation solutions from Dell and VMware simplify operations enabling the network administrator to adopt network virtualization to maximize utilization for the underlying network capacity.



In developing the Dell Networking S6000, Dell worked closely with VMware's NSX team to deliver a high-performance gateway that allows customers the flexibility to unify pools of virtualized and non-virtualized IT assets.

Network virtualization with VMware's NSX and Dell's robust data center switching products provide the programmability, automation and cloud scalability to meet the needs of today's complex networks.

Dell S6000 use cases:

- Extend virtual networks to physical servers
- Connect physical workloads reachable on a specific VLAN to logical networks via an L2 service
- Connect physical workloads reachable on a specific port to logical networks via an L2 service
- Connect to physical workloads in a Physical to virtual migration
- Migration from existing virtualized environments to public clouds, creating hybrid clouds
- Access physical router, firewall, load balancer, WAN optimization and other network resources

Joint solution:

- Create a large virtual L2 network on top of existing L2 networks to facilitate seamless migration of virtual machines across the entire data center
- Jointly engineered to deliver greater customer value
- Maximizes utilization for underlying physical network capacity
- Simplified operations with centralized, programmatic control of network service provisioning.
- Realize the full potential of Software Defined Enterprise and Software Defined Data Centers

Networking and VDS CLI:

Enterprises benefit from a high performance, flexible and scalable layer 3 switching solution to interconnect servers and storage, and concentrate traffic coming from aggregation switches and 10/40GbE uplinks, as well as high availability features including internal hot-swap power and fans.

Dell Networking solutions streamline data center and cloud operations with high-performance, energy efficient switches to power non-stop networking environments.

Dell's S6000 is a highly scalable, high-performance 40GbE switch engineered to deliver unprecedented performance to accelerate workloads in demanding, mission-critical enterprise networks.

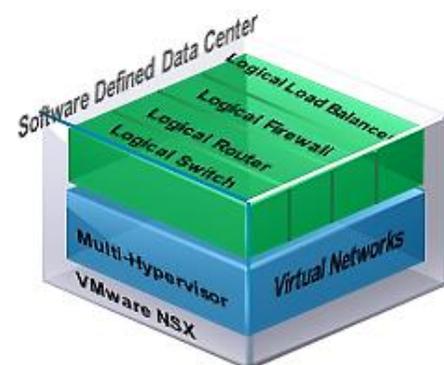
Active Fabric Manager (AFM) is a key Dell software application that automates tasks associated with designing, building and monitoring data center fabrics, thereby reducing fabric deployment time by up to 86%. Users can now design and deploy both layer 2 and layer 3 fabrics within a matter of minutes.

AFM includes Command Line Interface (CLI) specifically developed for VMware's vSphere Distributed Switch (VDS).

The CLI provides network administrators a familiar, consistent means for visibility into and management of both virtual and physical networks.

VMware NSX:

Network virtualization with VMware decouples underlying hardware and delivers multi-tier network and security at scale for any workload, any application, on any server hypervisor, on any physical network controlled by any cloud management platform.



Conclusion:

Dell S6000 L2 gateway with VMware NSX removes the boundaries between, non-virtualized and virtualized infrastructure, unifying both, creating large L2 networks for across the entire data center for ultimate VM mobility and infrastructure utilization providing businesses operational efficiencies and competitive edge.

Dell, together with VMware, delivers the needed scale and business agility providing customers the power to do more.

Network virtualization with VMware NSX and data center networking with Dell deliver utmost customer value.