

Dell EMC Networking

SDN y Open Networking

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Our vision and strategy - Open Networking



Disrupting the fundamental economics of networking through **open, standards-based technology disaggregation** – addressing the gamut of environments from **hyperconverged** to **hyperscale**.

Dell EMC is challenging the networking status quo

Traditional Networking

Proprietary architectures

Proprietary software

Proprietary ASICs



Open Networking

Investment protection

Innovation velocity

Business agility



Shifting the paradigm



Compute paradigm shift over last 20 years

The disaggregated server model changed the landscape

Mainframe /proprietary model

Digital
Sun
SGI
IBM

Proprietary
architectures
& mgmt tools

Limited apps

Proprietary OS
(e.g., Solaris, HP-UX, Ultrix)

Proprietary CPUs
(e.g., SPARC, PA-RISC, Alpha)



x86 servers model today

Dell
HP
(Compaq)
Others

Orchestration/automation
for distributed computing

Application ecosystem

Standard OS – hypervisors
VMware | Windows Server System | Red Hat Linux |
Suse

Industry standard (X86 CPU)
Intel | AMD

Benefits

- Open – Choice for customers
- Rapid Innovation at every layer (CPU, OS/Hypervisor, Applications, Middleware ...)
- Best of Breed solution to meet your needs
- Rich ecosystem for all use cases
- Cost-effective solutions



Dell EMC Fueling the **Open Networking** revolution

The Future of Networking

Traditional Networking

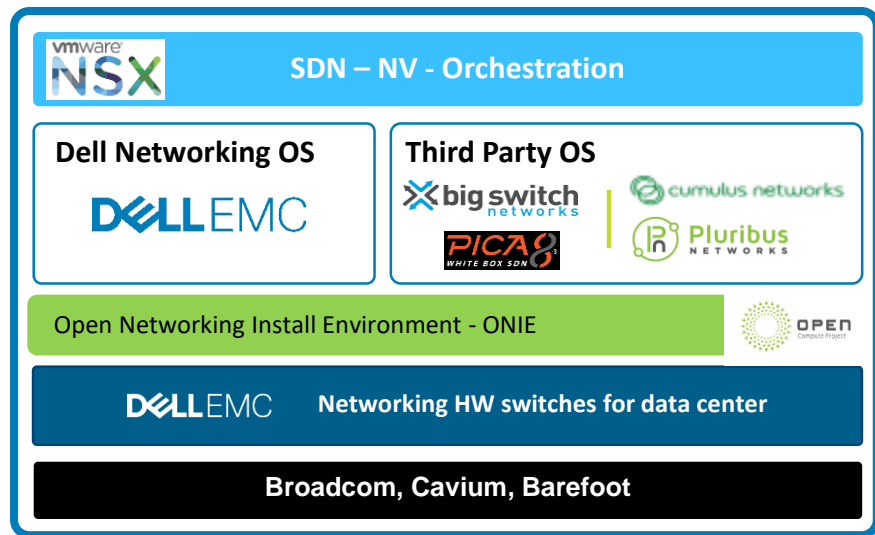
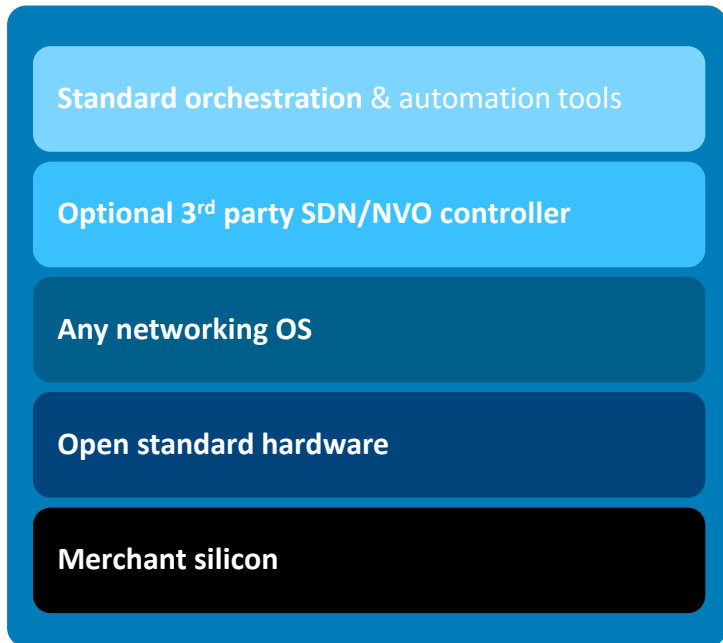


DELLEMC



Making the open networking shift work for you

Leverage open, innovative and best-of-breed solutions for the data center



DALLEMC ProSupport

Why Open Networking?



Array of Choices

Several options to choose the right OS for your workload



Open Architecture

A scale-out leaf-spine software-defined architecture instead of 3-tier traditional networks



Re-purpose HW & SW

HW can be replaced to take advantage of merchant silicon inventions keeping the same SW. SW can be replaced keeping the same HW.



Standardize HW

Opportunity to standardize on HW not requiring fork-lift upgrade



Lower TCO

Reduced CapEx and OpEx compared to traditional Incumbent infrastructure



Investment Protection

Open and agile scale-out deployment to address future growth

The most complete and open SDN framework

For the Data Center

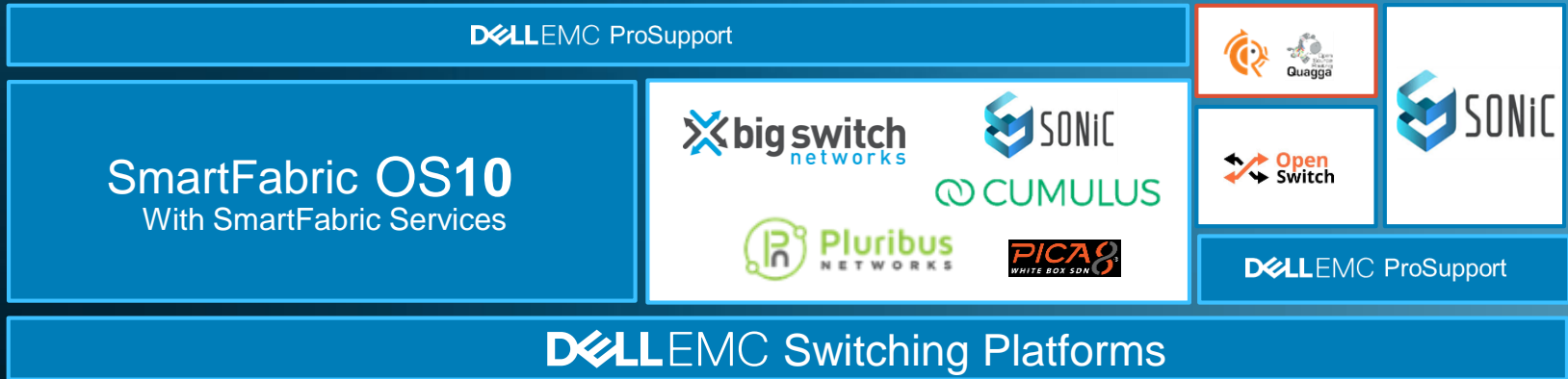
Open Networking Spectrum



1. Dell EMC networking stack:
Full Dell EMC service and support for hardware and software

2. Open networking stack: Dell EMC service and support with warm hand-over to software partner

3. Disaggregated open source stack:
Dell EMC service and support for hardware elements



OS10 Open Edition = OpenSwitch

Dell EMC
Networking
maximizes
customer choice,
flexibility, and
innovation from
the edge to the
core to the
cloud.

2 | Edge

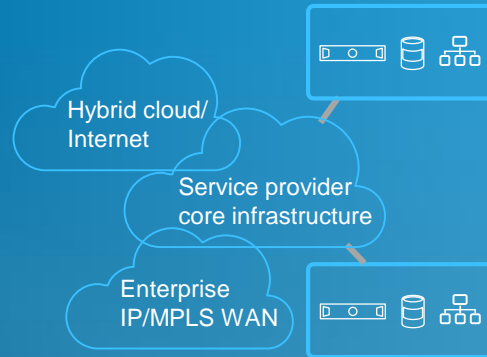
Next-generation access



Campus & branch
networking

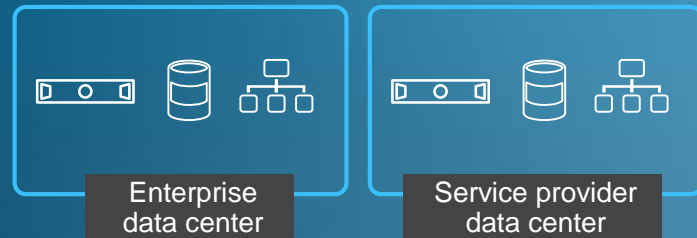


3 | Cloud

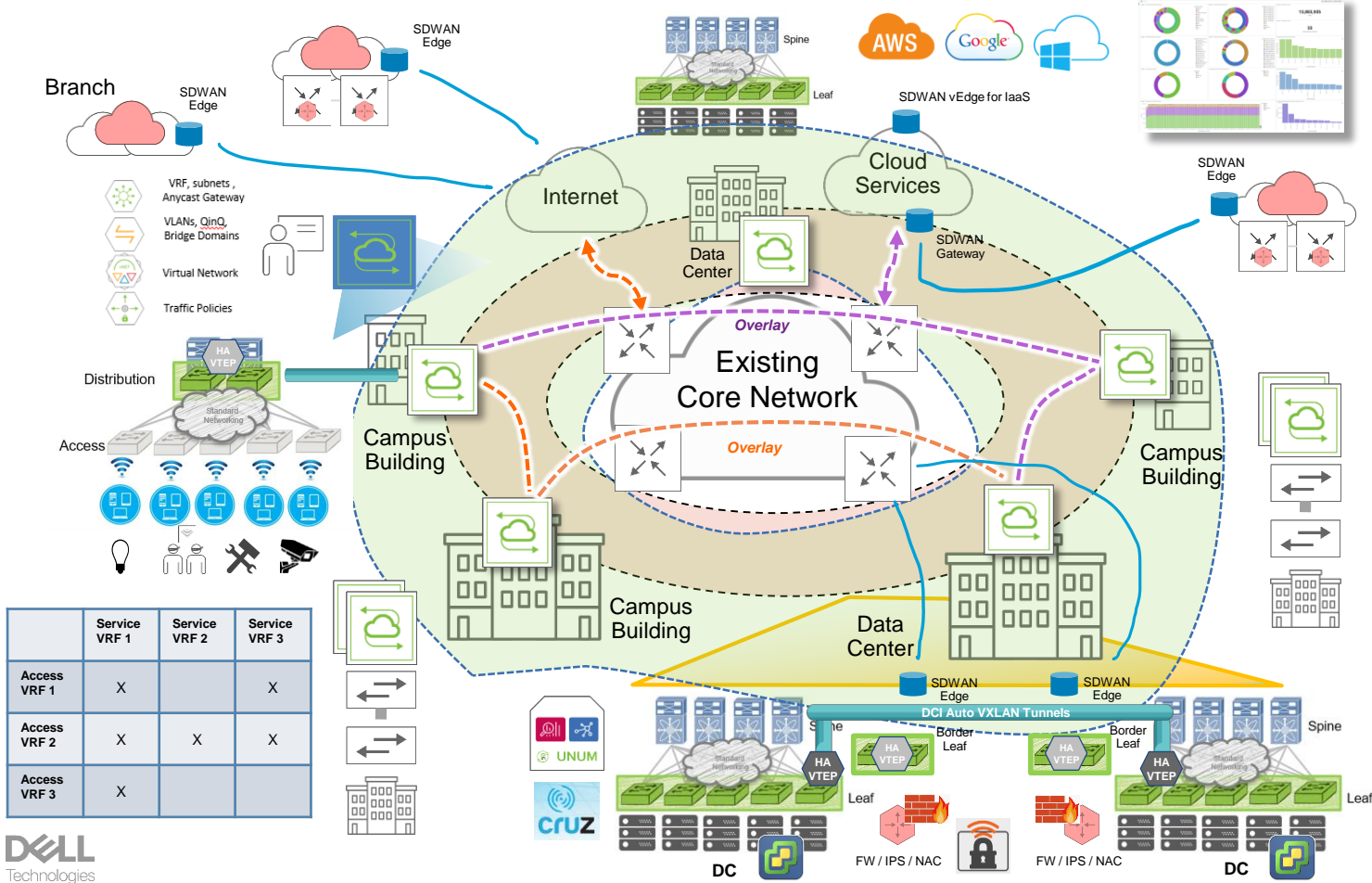


1 | Core

Data center networking



Dell EMC Networking 360° view



	Service VRF 1	Service VRF 2	Service VRF 3
Access VRF 1	X		X
Access VRF 2	X	X	X
Access VRF 3	X		

- ✓ Intent Based, Software Defined Fabric with seamless insertion in existing networks
- ✓ Controller-less SDN fabric
- ✓ Reliable scalable wire-speed easy-to-use VxLAN overlays
- ✓ Easy to scale from single site to multi-site
- ✓ Distributed fabric architecture with Single Point of Management CLI / RestAPI / GUI / Ansible. Automation, ZTP.
- ✓ Reduced ~90% provisioning complexity with fabric-wide objects (subnet, VLAN, ACL, ...)
- ✓ vCenter auto-provisioning & analytics
- ✓ Multi-tenant, segmentation & security service insertion
- ✓ Line-rate embedded flow telemetry & advanced analytics without external monitoring fabric
- ✓ Simple, open & cost effective access infrastructure (802.1X, CoA, DVA)
- ✓ Application awareness
- ✓ Business policy routing
- ✓ Brownout detection and remediation
- ✓ Bring your own bandwidth

Networks are like Parachutes...

They work best when they are OPEN



¡Muchas gracias por su atención!

