DELLEMC

Partner Sales Academy
Simple.Predictable.Profitable.™

Microsoft

Windows 10

Windows Server 2016: Power your business.

Windows Hello: you are the password.

Przełącznik to nie sieć, czyli opowieść o dużych marżach na Dell EMC Networking

Jarosław Dankowski

Dell EMC Networking Poland & Czech Republic Sales Executive

DELLEMC

Dell EMC Open Networking innovation timeline

Jan – announced Open Networking initiative with S4810-ON 10GbE switch and Cumulus Networks

Apr – announced S6000-ON 40GbE switch

Apr – partnership with Big Switch Networks

Aug – partnership with VMware

Dec – partnership with Midokura

Jan – announced OS10

Mar – announced OS10 Open Edition integration into OCP SONiC

Apr – announced S4048T-ON 10GBaseT switch and S6010-ON 10/40GbE switch

Oct – announced OS10 Open Edition integration into Linux foundation OpenSwitch project

Dec – OS10 Enterprise Edition into Beta

Mar – announced new Virtual Edge Platform (VEP) family for next-gen access/SD-WAN

Apr – announced S4112-ON micro top-of-rack switch

Aug – announced Z9264F-ON 64 x 100GbE switch

Aug – announced MX Fabric ONIE-enabled switching modules

Nov – announced S5248F-ON, S5296F-ON and S5232F-ON switches

2014   2015   2016   2017   2018

MORE TO COME

Mar –announced joint submission with Microsoft of Switch Abstraction Interface (SAI) to Open Compute Project (OCP)

Apr – announced S3048-ON 1GbE switch, S4048-ON 10GbE switch and Z9100-ON 100GbE switch

Apr – partnership with IP Infusion

Jun – partnership with Pluribus Networks

Sep – announced S6100-ON 40/100GbE switch

Jan – announced campus switches N3132PX-ON and N2128PX-ON 2.5/5GbE POE+ switches

May – announced S5100 25/100GbE & S4100 10/100GbE top-of-rack switches

May – announced N1100 1/10GbE access switch

Sep– announced S4200 deep-buffer/deep-table 10/100GbE switch

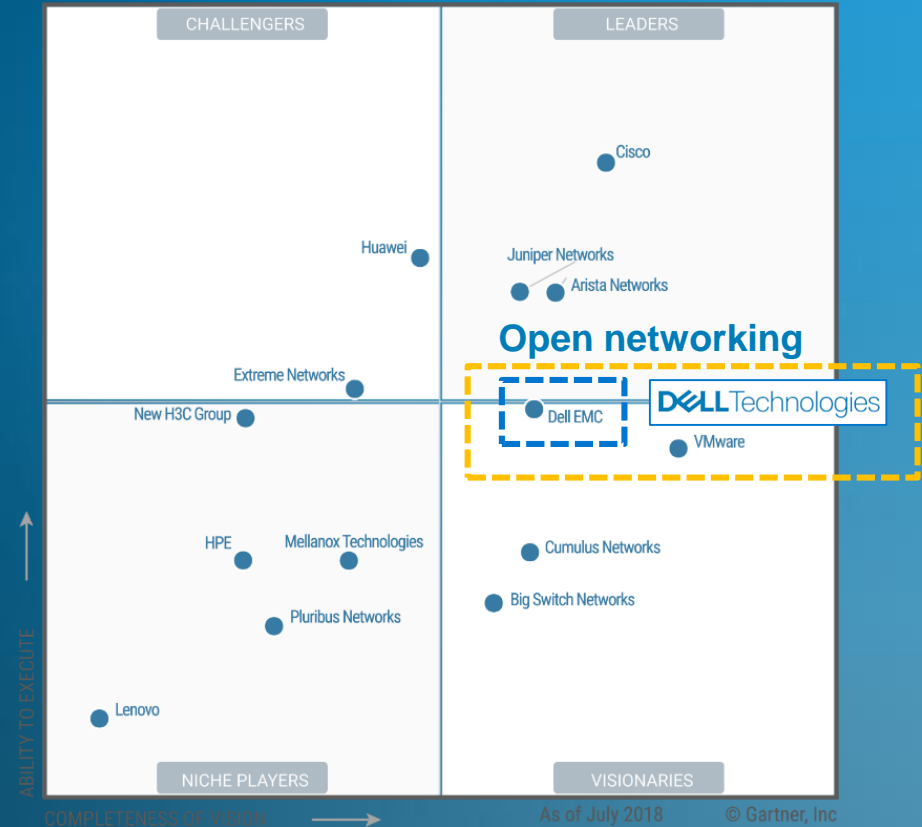**Sep**– SD-WAN Ready Nodes

DELLEMC

Recognized for our execution and vision

Gartner
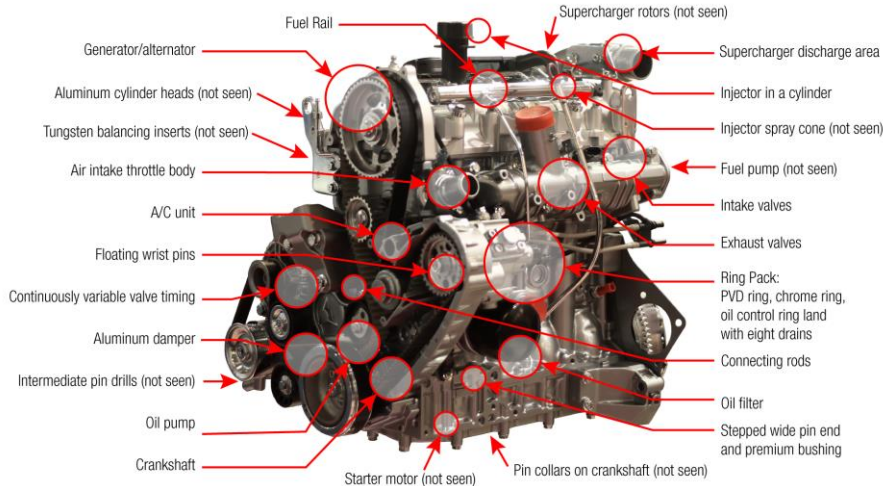Magic Quadrant for Data Center Networking

Dell EMC was an early proponent of, and remains committed to, Open Networking, which has driven and altered the market, and transformed the way many customers (and competitors) think about data center networking.

All organizations should shortlist Dell EMC, particularly those interested in Open Networking.

CHALLENGERS

LEADERS

Cisco

Huawei

Juniper Networks

Arista Networks

Open networking

Extreme Networks

New H3C Group

Dell EMC

DELL Technologies

VMware

HPE

Mellanox Technologies

Cumulus Networks

Pluribus Networks

Big Switch Networks

Lenovo

ABILITY TO EXECUTE

NICHE PLAYERS

VISIONARIES

COMPLETENESS OF VISION

As of July 2018

© Gartner, Inc

DELL EMC

OPERATING AN AUTOMOBILE – AN ANALOGY

Automobile Engine - Features

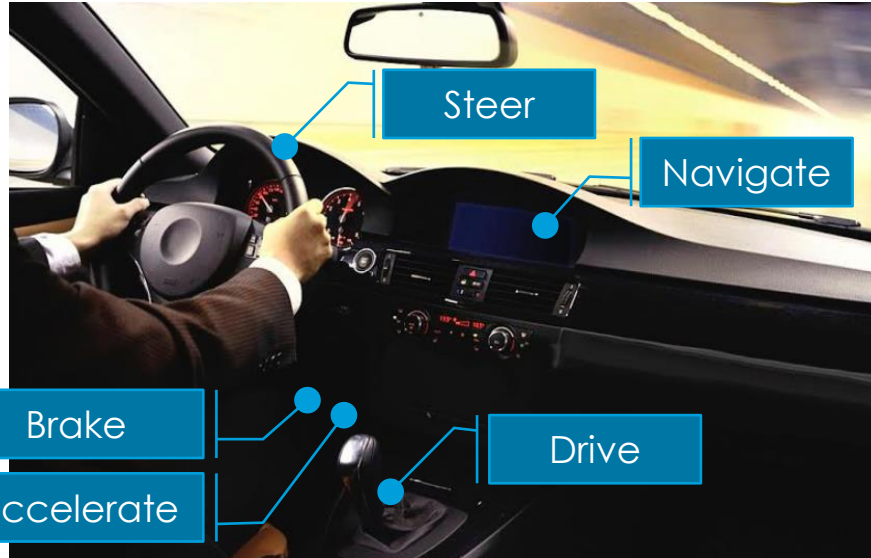- **Many components**
- **Many nerd knobs**
- **Many moving parts**

Is the engine exposed to the driver?

Feature-based

Industry kept complexity "under the hood"

OPERATING AN AUTOMOBILE – AN ANALOGY

Automobile Operation	Self-driving Automobile

- **Intent-based** (Drive, Steer, Brake, Accelerate)
- **Granular Telemetry** (Dashboard w/ Alerts)
- **Simple to operate** (Most adults can drive)
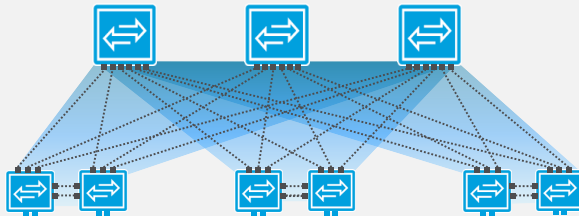
NETWORKING TRANSFORMATION HAS BEGUN

NET frame

Proprietary Stack
(ASIC, HW, SW)

Challenges:
- Complex/Slow
- Expensive
- Scale-up
- Vendor lock-in

Clos Fabric

Commodity
Components

Benefits:
- Simple/Fast
- Economical
- Scale-out
- Vendor choice

Disaggregated Stack

Software

Hardware

ASIC

LOGICAL CHASSIS ARCHITECTURE — "ONE BIG SWITCH"

Traditional Chassis Pair

Supervisor 1

Supervisor 2

Line Card

Line Card

Line Card

Line Card

Line Card

Line Card

Logical Chassis Pair

Supervisor 1

Supervisor 2

SDN Controller

Hierarchical Control Plane

Fabric Backplane

Fabric Backplane

Spine Switches

10G/40G/100 Backplane

Line Card

Line Card

Leaf Switches

Physical, Virtual, and Container Workloads

1G/10G/25G/40G Workloads

Compute Workload

Compute Workload

Services & Connectivity Racks

Innovation Velocity

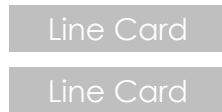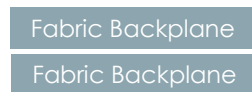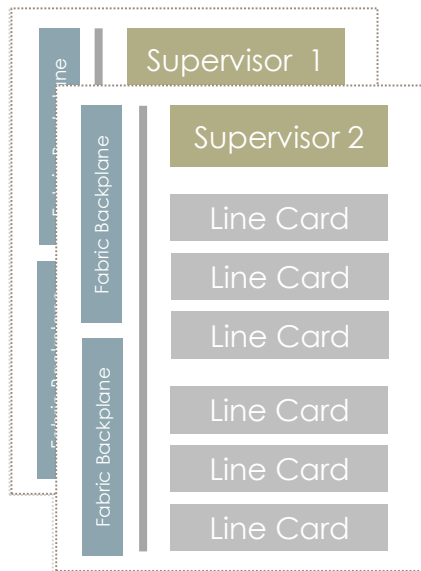Scale as You Need

HW Vendor Choice

big switch networks

D&LL EMC

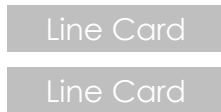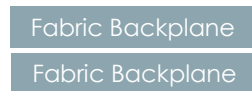# LOGICAL CHASSIS ARCHITECTURE — "ONE BIG SWITCH"

Traditional Chassis Pair

Supervisor 1

Supervisor 2

Line Card
Line Card
Line Card
Line Card
Line Card
Line Card

Supervisor 1

Supervisor 2

Fabric Backplane
Fabric Backplane

Line Card
Line Card

Logical Chassis Pair

SDN Controller

Hierarchical Control Plane

One Logical Switch

Spine Switches

10G/40G/100G Backplane

Leaf Switches

Physical, Virtual, and Container Workloads

1G/10G/25G/40G Workloads

Compute Workload   **Compute Workload**   **Services & Connectivity Racks**

Innovation Velocity

Scale as You Need

HW Vendor Choice

Open Networking—Ecosystem and use-cases
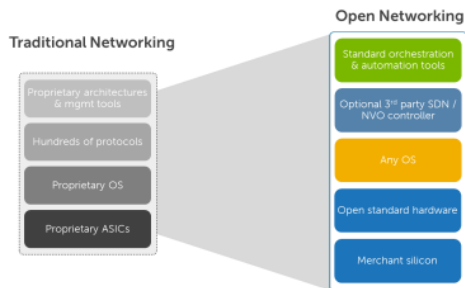
Cumulus
Linux

Linux-based operating system preferred by customers looking to converge knowledge sets and automation tools

Big Cloud Fabric
Big Tap
Big Tap Inline

Controller-based fully auto-provisioned fabrics with common integration points for VMware vSphere and OpenStack

OcNOS

Commoditized MPLS for enterprise and university customers seeking economical good-enough MPLS solutions

NetVisor

Controller-less peer-to-peer small scale fabric solution designed for simple manageability and visibility plus resiliency

Dell Networking
Operating System

Customer-proven feature-rich L2/L3 operating system designed for data center and campus deployments at any scale

Dell EMC Networking portfolio

Fabric/Spine switches	Top-of-rack/Leaf switches	Module I/O	Next-generation access
Z-series	S-series	FN-IOM for FX2 MX modules for MX7000 MXL/IOA for M1000e	Virtual Edge Platform

Campus/Branch switching	Wireless networking	Networking software	Ecosystem partners
N-series	Aerohive and Ruckus	DELL EMC OS9, OS10 · big switch networks · cumulus networks · ip infusion · vmware NSX · Pluribus NETWORKS	puppet labs · CHEF · ANSIBLE · velocloud · VERSA NETWORKS · paloalto networks

DELL EMC

The most complete and open SDN framework

For the Campus, Branch and Wide-Area

Open Networking Spectrum

Wired ←——————————————————————————————→ Wireless

1. Open Networking for campus core, aggregation and access environments

2. Next-generation access/SD-WAN

3. Cloud-managed wireless

DELLEMC ProSupport

DELLEMC ProSupport

DELLEMC ProSupport

airwatch   RSA
Unified endpoint security

impulse   safe·connect
Network access control

SONICWALL
Firewalls/intrusion detection

AEROHIVE   RUCKUS
NETWORKS
Cloud/on-prem secure wireless

OS6 & OS9

big switch networks

CUMULUS

velocloud™

VERSA NETWORKS

AEROHIVE NETWORKS

RUCKUS
an ARRIS company

DELLEMC N-series

DELLEMC VEP

DELLEMC

Right-sizing the modular switching market with merchant silicon

Port density

ASIC Shipments

SERDES Shipments in Millions

Merchant Silicon

Vendor ASIC

Source: 650 Group

2008
Cisco Catalyst 6500

64 x 10GbE

2010
Force10 S4810

2010
Cisco Nexus 9000

128 x 10GbE

2012
Z9000

2016
Cisco Nexus 9500

64 x 100GbE

2018
Z9200

Network scale

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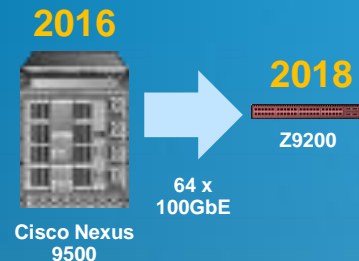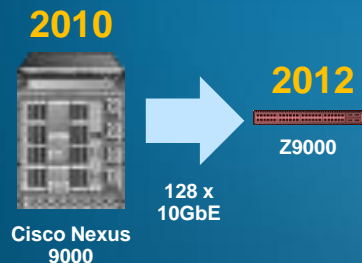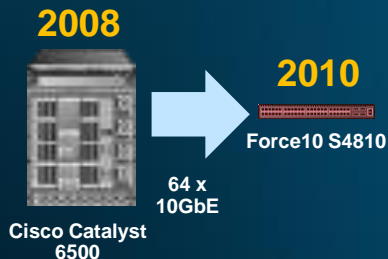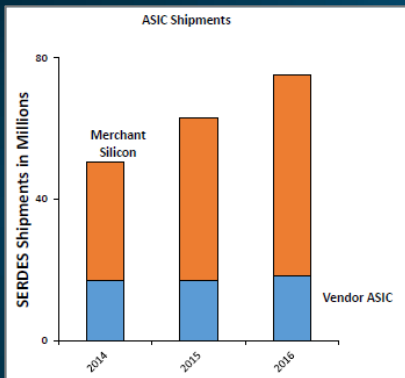
Complete top-of-rack connectivity

Port density

L2 + L3 Ethernet Switch Revenue
July 2017 Forecast

$30

Revenue in $ Billions

40 GE

Software

100/200/400 GE

50 GE

10 GE

25 GE

$15

1 GE

5.0 GE

Fast Ethernet

2.5 GE

$0

2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

Source: Dell'Oro Group

S6100

Multi-rate
10/25/40/50/100GbE
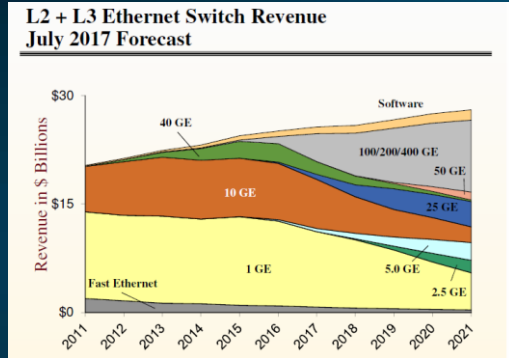
S5000/S5100/S5200

25GbE

S4100/S4200

10GbE

ONIE

S3000

1GbE

Network scale

DELLEMC

Cost-effective switching

N-series

Campus
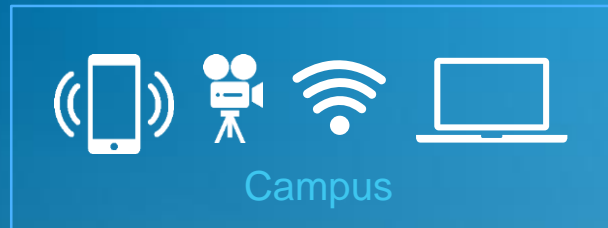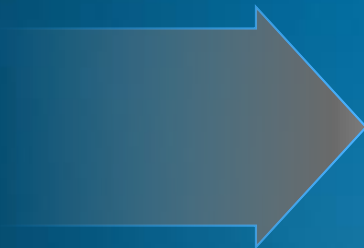
X-series

Channel only

Branch / SMB
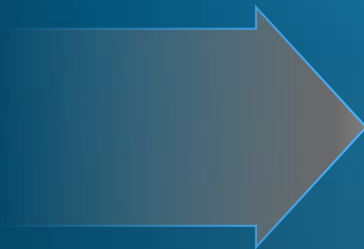
DELL EMC

Cloud-based management

Hardware

Dell EMC N-series switches

Access points

Software

Two management options:

Cloud

On-premise

Services

Consulting and surveys

ProDeploy

ProSupport

Simplified 'manage from anywhere' solutions for wired and wireless infrastructure

DELLEMC

Tier Resource Requirements – EMEA Zone 2

	Gold				Platinum				Titanium			
	S	T	TA	M	S	T	TA	M	S	T	TA	M
Server		1	-			1	-			3	-	
Networking		1	-			1	-			3	-	
Data Protection	1	1			1	1			3	3		
Storage		1	-			1	1			3	2	
Converged Infrastructure	1	1		1	1	1		1	3	3		1
Core Client Solutions	1	1	-		1	1	-		3	3	-	
Workstations	1	1	-		1	1	-		3	3	-	
Cloud Client Computing	1	1	-		1	1	-		3	3	-	
Client Data Security	1	1	-		1	1	-		3	3	-	
IT Transformation					1	1			3	3		
Digital Transformation					1	1	1		3	3	1	

TITANIUM — EMEA Rebate

PRODUCT CATEGORIES			Base	Growth		Services		NBI
				>100%	>120%	Gate 1	Gate 2	
CSG		A	3.00%	0.50%	1.00%	0.50%	1.00%	4.00%
CSG		B	1.25%	0.50%	1.00%	0.50%	1.00%	4.00%
CSG		C	0.50%	0.50%	1.00%	0.50%	1.00%	4.00%
CSG		CP&D	2.00%	0.50%	1.00%	-	-	-
ISG	Server	A	4.00%	1.00%	2.00%	0.50%	1.00%	6.00%
ISG	Server	B	2.50%	1.00%	2.00%	0.50%	1.00%	6.00%
ISG	Storage	A	4.00%	6.00%		0.50%	1.00%	8.00%
ISG	Storage	B	0.30%	6.00%		0.50%	1.00%	8.00%
ISG		NW	5.00%	1.50%	2.50%	0.50%	1.00%	15.00%
ISG		EI	1.50%	1.00%	2.00%	-	-	-

Jak zostać Dell Networking Certified Partner

Dell Partner

Przejście wymaganą drogę szkoleń i certyfikacji

Budowa wymaganego magazynu DEMO

Przeszkolenie wymaganej ilości osób z działu handlowego i technicznego

Dostęp i umiejętne korzystanie z konfiguratora i systemu rezerwacji projektów

Dell Certified Deployment Professional Networking