Dell EMC Networking

The foundation for digital transformation
In the face of digital transformation, enterprise and service providers alike are going through significant changes. At the core of the transformation is a fundamental shift in IT technologies designed to dramatically change cost structures and capabilities. This shift in technologies is occurring in data centers, where enterprise workloads and service provider services are imparted; it is also occurring in access environments, where end-users and endpoints connect. Shaping this new landscape are trends in virtualization, containerization, automation, mobility, big data, artificial intelligence (AI) and the Internet of Things (IoT). At Dell EMC, we believe the network, whether in the data center or in access and edge networks, is a critical starting point and foundation to digital transformation.

Our vision for the Network is open

Dell EMC’s vision for the network is based on a disaggregated model offering an open ecosystem in which organizations can pick and choose from a wide range of innovative, industry-standard network applications, operating systems, and hardware platforms. This approach gives customers maximum choice and control over the technologies they select and the architectures they adopt, resulting in measurable cost-savings and increases in service agility.

We believe that our Open Networking approach and solutions stimulate rapid innovation by helping our customers achieve unprecedented levels of flexibility and efficiency. These solutions also help minimize the time and effort required to design, provision and manage networks; enable IT managers to leverage open-source tools; and provide expertise to help reduce costly engineering overhead.

PowerSwitch Open Networking solutions for your data center

Dell EMC data center PowerSwitch switching solutions are cost-effective and easy to deploy at any scale, from 1 gigabit Ethernet (GbE) to multi-rate 100GBe, for optimum connectivity within the rack or modular compute chassis, between racks, and between data centers themselves. Our switching solutions feature a choice of software options, including Dell EMC OS10 Enterprise Edition and Open Edition as well as options from our Open Networking software ecosystem and open source communities, to address virtually any enterprise or service provider use-case or environment at any scale. Additionally, our networking solutions are designed to interoperate with leading virtualization environments, serving as a foundation for scale-out storage and hyperconverged infrastructure. This includes specialized capabilities optimized for VMware NSX, vSAN and VxRail deployments.

“97% of Transformed companies are committed to software-defined data center technologies including software-defined networking.”

—ESG: The Network’s Foundational Role In IT Transformation

At the top of rack, our latest PowerSwitch S series 25GbE switches help customers unlock the high-speed I/O capabilities inherent in today’s server and storage elements, boosting performance 2.5x over legacy 10GbE environments. All of our latest PowerSwitch S series platforms include 100GbE uplinks to facilitate high-speed inter-rack connectivity with our PowerSwitch Z series family of 100GbE fabric switches. And to interconnect data centers, we offer the S4200, a specialized platform for widearea, full-table routing and switching.

Dell EMC Networking for your data center – key differentiators:

- **Open Networking** – Unmatched customer choice and capability with the broadest set of software options from Dell EMC, ecosystem partners, and open source communities
- **Cost-effective port connectivity** – Connectivity speeds from 1/10GbE to 25/50GbE to 100GbE supporting modular compute, top-of-rack, fabric, and data center interconnect form-factors and applications
• **Web scale operations** – Leaf-spine architectures that easily scale up or down and are easily automated at any scale with open automation tools and APIs

• **Ease of management** – GUI-based interfaces that enable design simplification, automated fabric deployment, simplified monitoring and reporting

**Open Networking solutions for your campus and branch environments**

Campus and branch environments are undergoing significant transformations to accommodate new office automation and surveillance technologies and an increasingly mobile workforce.

To meet these evolving needs, we offer an extensive line of stackable fixed-form factor platforms with Power-over-Ethernet (POE) capabilities to provide data connectivity and power to networked devices, sensors, cameras and wireless access points.

For wireless connectivity, we offer solutions from Aerohive Networks and Ruckus Wireless, providing state-of-the-art controller-less, cloud-managed, and traditional controller-based capabilities for indoor and outdoor as well as specialty hospitality and healthcare environments.

Dell EMC PowerSwitch N1100 and N1100, N1500, N2000 and N3000 series are an energy-efficient, cost-effective 1GbE family of switches designed for modernizing and scaling network infrastructure.

To meet higher performance needs, including the latest 2.5GbE and 5GbE technologies, along with increased featured sets for Layer 2 and Layer 3 networking, we offer the N2100 and N3100 series.

Our X-Series switches, offered exclusively through our channel partners, serve customers who value intuitive web-based management and enterprise-grade functionality.

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**Figure 1. Dell EMC Open Networking Solutions**
Open Networking solutions for your campus/branch environments – key differentiators:

• **Open Networking** – The industry’s only family of ONIE-enabled switches for the campus/branch (N1100 series, N3000 series and multi-gig PoE N3132PX-ON and N2128PX-ON)

• **Cost-effective port connectivity** – The gamut of PoE-enabled connectivity 1GbE to 2.5GbE to 5GbE addressing any office environment

• **Office-friendly** – FreshAir compliant designs for operation in smaller closets while reducing cooling costs

• **Open mobility** – Choice of wireless solutions from Aerohive Networks and Ruckus Wireless

Organizations that have begun implementing SDN technologies are more than 3.5x likely to report that they usually beat the competition bringing new products and/or services to market.”

—ESG: The Network’s Foundational Role In IT Transformation

In keeping with our Open Networking philosophy, Dell EMC offers a set of next-generation access/ SD-WAN solutions that allow customers to mix and match software options with our industry-leading hardware platforms.

For SD-WAN functionality, we partner with VeloCloud (VMware) and Versa Networks to offer enterprise and service provider customers with tested and validated production-ready solutions. We pair these software options with our Virtual Edge Platform (VEP) family, purpose-built platforms designed expressly for universal customer premise equipment (uCPE) and enterprise edge applications. The VEP family is powered by the latest Intel technologies and designed to have the look and feel and the serviceability of traditional networking platforms. Enterprise customers can deploy the VEP family in a do-it-yourself fashion, and service providers can leverage the VEP family as part of next-generation managed service offerings.

Dell EMC Networking for your access and edge environments – key differentiators:

• **Purpose-built** – Powered by the latest Intel technologies and optimized for I/O intensive networking workloads

• **Future ready** – Field-serviceable designs, front-panel expandability (VEP4600), performance headroom for future VNFs (Virtual Network Functions)

• **Validated choice** – Tested, validated production-ready solutions with leading SDWAN offerings (VeloCloud (VMware), Versa Networks)

• **Global supply chain and support** – Globally secure supply chain and support services ensure deployments of any scale virtually anywhere in the world

With the mobilization of modern workloads moving between on-premise, hosted and public cloud resources, a growing challenge is emerging in wide-area networks to ensure secure, ‘LAN-like’ performance wherever the user and workload may be. A software-defined wide-area networking (SD-WAN) solution provides the necessary smarts to achieve this over a combination of public and private wide-area links.
Transform your network today with Dell EMC

Whatever the size of your organization, Dell EMC Networking solutions can help you derive the full value out of your networking investments. We offer proven end-to-end solutions, comprehensive global services, and a vision that sets the pace in a rapidly changing industry. To find out how we can help you and your network, contact your Dell EMC representative today.

IT Lifecycle Services for Networking

Experts, insights and ease
Our highly trained experts, with innovative tools and proven processes, help you transform your IT investments into strategic advantages.

Plan & Design
Let us analyze your multivendor environment and deliver a comprehensive report and action plan to build upon the existing network and improve performance.

Deploy & Integrate
Get new wired or wireless network technology installed and configured with ProDeploy. Reduce costs, save time, and get up and running fast.

Educate
Ensure your staff builds the right skills for long-term success. Get certified on Dell EMC Networking technology and learn how to increase performance and optimize infrastructure.

Manage & Support
Gain access to technical experts and quickly resolve multivendor networking challenges with ProSupport. Spend less time resolving network issues and more time innovating.

Optimize
Maximize performance for dynamic IT environments with Dell EMC Optimize. Benefit from in-depth predictive analysis, remote monitoring and a dedicated systems analyst for your network.

Retire
We can help you resell or retire excess hardware while meeting local regulatory guidelines and acting in

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Learn more at DellEMC.com/Services