SD-WAN Edge 3000 Spec Sheet

DELL EMC SD-WAN SOLUTION POWERED BY VMWARE – EDGE 3000 SERIES

Next generation Dell Technologies edge networking appliances factory-integrated with VMware Velocloud SD-WAN software for turnkey WAN modernization. The 3000 series is ideal for data center or central office locations, complementing the 600 series for

Dell EMC SD-WAN Solution powered by VMware combines next generation networking appliances from Dell Technologies with leading SD-WAN software from VMware. The SD-WAN Edge3000 series is a performance-designed appliance well suited for the Service Provider edge, Enterprise locations, and core data centers. The SD-WAN EDGE 3000 is 1 RU sized, using the latest Intel® Xeon® D-2100 x86-based processor which is optimized for high-performance networking. Dell Technologies is the first to market with Xeon-D for SD-WAN.

The Edge 3000 series is part of the Dell EMC SD-WAN Solution powered by VMware, which delivers:

- **Simplicity & Agility** with a Dell Technologies hardware and VMware software in one solution for turnkey modernization
- **Performance & Efficiency** that boosts applications performance and can help reduce WAN costs by up to 75%
- **Scale & Trust** by backing your modernization with enterprise-class support, services, and supply chain capabilities all from a single trusted vendor – Dell Technologies

Purpose-built for appliance for SD-WAN

= The SD-WAN 3000 is perfect for the service provider edge or larger enterprise branch, where high-performance, modular expansion port availability, 1RU racking, and large number of configuration options are design considerations.

- Appliance integrated with VMware SD-WAN software, provides simplified ordering and reduce deployment risks
- First to market with networking optimized Intel® Xeon® D-2100 x86-based processor
- Accelerates packet processing with Intel® Data Plane Development Kit (DPDK)
- Accelerates security encryption with Intel® QuickAssist Technology (QAT)
- IO to PSU airflow, front facing ports, and redundant power option
- Short-depth chassis design excellent for telco use cases
- Processing: 8 or 16 core options
- Memory from 32GB
- Storage from 240GB
- Ports: 6X1G (standard), 4X10G SFP+
- One expansion slot is pre-populated; and one additional expansion slot is available for future capabilities

Maximum efficiency

SD-WAN Edge 3000 enables rapid modernization of the WAN without disruptive and costly upgrades. The SD-WAN Edge 3000 is designed with headroom to scale when WAN traffic is added. Software licensing options can be upgraded to accommodate changing business requirements for features, duration, and/or bandwidth.

Adapting to change quickly provides operational efficiency.

- Scale deployment of new sites, links and network services leveraging zero-touch provisioning to bring up sites quickly including built-in firewall and easy integration with partners' firewalls.
- Centralize monitoring and management to quickly identify and troubleshoot security and network issues.
- Leverage dynamic multi-path bandwidth optimization based on app performance requirements to steer traffic around poor links and networks.

Improving availability furthers operational efficiency by transforming inexpensive broadband links into a secure enterprise-grade, secure SD-WAN improving the performance of existing connections, saving money, and improving scalability and quality of experience.

The Dell Advantage

As part of the Dell EMC SD-WAN Solution, the SD-WAN Edge 3000 is backed by a full range of ProSupport, services, and world-class supply chain from a single trusted vendor- Dell Technologies.

SD-WAN EDGE 3000 models

	SD-WAN Edge 3400	SD-WAN Edge 3800
CPU	Intel Xeon D-2100, 8 Core	Intel Xeon D-2100, 16 Core
Drive	240GB in standard configuration	240GB in standard configuration
RAM	32GB in standard configuration	32GB in standard configuration
Ports	(6 x 1G) + (4 x 10G SFP+)	(6 x 1G) + (4 x 10G SFP+)
Fan	4	5

Performance and scale

	SD-WAN Edge 3400	SD-WAN Edge 3800
Max Recommend Subscription	**5 Gbps**	**10 Gbps**
Max throughput (1300 bytes)	**7 Gbps**	**10 Gbps**
Average iMix Throughput	**2.5 Gbps**	**5 Gbps**
Max Flows per second	**38,400**	**38,400**
Maximum Tunnels	**4000**	**6000**
Maximum concurrent flows	**3.8M**	**3.8M**
Maximum segments	**16**	**16**
Maximum routes	**100K**	**100K**

VMware Velocloud software features

Category	Features
AAA	RADIUS, local authentication and authorization, multitenant 3 Tier role-based access control (RBAC) architecture, auditing, roles and privileges
Availability	High availability for VMware SD-WAN Edge, disaster recovery for VMware SD-WAN Orchestrator, multilink for high availability of WAN, VMware SD-WAN Edge clustering
Configuration and monitoring	REST API, SDK (Java and Python), Syslog, SNMP, NetFlow, 3000+ applications/categories, ANPM, application usage, device identification, live mode, zero IT touch activation
Deployment flexibility	Eliminate pre-stage, no CLI, group policies, consolidated ICOM and end customer dashboard, VNF form-factor, multitenant stateless headend, transport group for business policy abstraction, application-aware service insertion on premises or in cloud, RMA workflow, customized application maps
DMPO	Application and network condition aware sub-second steering, jitter/loss correction, fast intelligent routing, intelligent gateway selection, link aggregation, TCP flow optimization, uni-directional link measurements, bandwidth detection
Multitenancy	VMware SD-WAN Controller, VMware SD-WAN Gateway, VMware SD-WAN Orchestrator
Network Services	IPv4, DNS, DHCP client, DHCP server, DHCP relay, NAT

QoS	Shaping, policing, per-flow queueing, tunnel shaper, multi-source inbound QoS, rate-limiter, COS aware, outer/inner DSCP tagging, smart defaults, MPLS COS
Remote Troubleshooting	Live mode, alerts, events, remote diagnostics (examples: DNS test, ping test, flush active flows, list active flows, paths, VPN tests, packet capture, etc.), PKI infrastructure with certificate management workflows, diagnostic bundles
Routing	OSPF, BGP, static, connected, ICMP probes/responders, overlay flow control, per-packet application aware steering, route filter, route redistribution
SaaS/IaaS	Improved performance for cloud apps, supports well-known IaaS (e.g., AWS, Azure, GCP), Cloud Web Security (e.g., Check Point, Zscaler, Palo Alto Networks, Netskope, Menlo Security, Websense, OpenDNS)
Security	AES256/128, SHA1/SHA2, IKEv2, VPNC compliant IPSec, PKI, segmentation, TLS1.2, SCEP, firewall L2-7, 1:1 NAT, port forwarding, dynamic branch to branch, MAC filtering security service Insertion capabilities: simplified service insertion of third-party NGFW VNF running locally on Edge simplified cloud-based NGFW, AV, IPS/IDS, threat-detection service insertion
VLAN Tagging	802.1Q, 802.1ad, QinQ (0x8100), QinQ (0x9100), native
WAN overlay support	Public/private/hybrid transport, cloud and on-premises

Technical Specifications

Overview	
CPU	Intel Xeon-D 2100 8 cores: SD-WAN Edge 3400 16 cores: SD-WAN Edge 3800
Networking ports	6 x 1GE 4 x 10GE, SFP+ (using interfaces from expansion slot)
Management ports	2X - 10/100/1000Base-T: one for CPU and one for BMC
USB ports	2X - USB type A receptacle (female) ports supports USB 3.0 1X – Micro USB type B receptacle (female) port, available for console port
Console ports	2X – Serial: one for CPU and one for BMC
Storage Option	2x M.2 SATA (240GB in standard configuration, upgradable to 1.92TB with custom upgrade)
Out of Band Management	BMC IPMI 2.0 compliant
Memory	4 DIMM slot (32GB in standard configuration, upgradable to 128GB)
TPM	2.0
QAT	Yes
Expansion slots	1 X expansion slot available for future capabilities
BMC	IPMI 2.0 compliant
Power Supplies	Standard configuration: 16 core (2 PSU), 8 core (2 PSU)
Fans	Standard configuration: 16 core (5 fans), 8 core (4 fans)
Airflow	Air flows from I/O side to PSU side
Software	VMware SD-WAN software

Operations	
Operating Temperature	0°C to 45°C (32°F to 113°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Operating Relative humidity	5% to 85% (RH), non-condensing Continuously 5% to 90% (RH), non-condensing Short term (< 1% of operational hour per year)
Storage Relative humidity	5% to 90% (RH)
Operating Altitude	No performance degradation to 10,000 feet (3,048 meters)

Power	
Power Input	AC: 100 to 240 VAC, 50/60 Hz
Power consumption	SD-WAN Edge 3400 a. Power consumption: 242W/ 178W (max/typical) b. Typical current: 1.62 A (110 VAC); 0.75A (240 VAC) SD-WAN Edge 3800 a. Power consumption: 312W/208W (max/typical) b. Typical current: 1.89A (110VAC); 0.87A (240 VAC)

Physicals		Inches	cm
Product	Width	17.1	43.4
	Depth	15	38.1
	Height	1.72	4.37
Shipping Box	Width	22.64	57.5
	Depth	23.78	60.4
	Height	8.38	21.3
Rack clearance required (Front)		5	12.7
Rack clearance required (Rear)		5	12.7
Product Weight		SD-WAN 3400: 16.6 lbs (7.53kg) SD-WAN 3800: 16.5 lbs (7.48kg)	

Regulatory	
Safety	• UL/CSA 60950-1, Second Edition • EN 60950-1, Second Edition • IEC 60950-1, Second Edition Including all National Deviations and Group Differences • IEC 62368-1 • EN 60825-1 Safety of Laser Products Part 1: Equipment Classification Requirements and User's Guide • EN 60825-2 Safety of Laser Products Part 2: Safety of Optical Fiber Communication Systems FDA Regulation • 21 CFR 1040.10 and 1040.11
Emissions	• Australia/New Zealand: AS/NZS CISPR 32, Class A • Canada: ICES-3/NMB-3, Class A • Europe: EN 55024 (CISPR 24), Class A • Japan: VCCI Class A • USA: FCC CFR 47 Part 15, Subpart B, Class A
Immunity	• EN 300 386 EMC for Network Equipment • EN 55024 • EN 61000-3-2: Harmonic Current Emissions • EN 61000-3-3: Voltage Fluctuations and Flicker • EN 61000-4-2: ESD • EN 61000-4-3: Radiated Immunity • EN 61000-4-4: EFT • EN 61000-4-5: Surge • EN 61000-4-6: Low Frequency Conducted Immunity
RoHS	• EN 50581:2012 All S9999 components are EU RoHS compliant.

Learn more

Dell EMC SD-WAN Solution powered by VMware enables turnkey modernization by combining Dell Technologies Edge networking appliances with VMware Velocloud software in one solution. Our product team is proud to bring you the Edge 3000 series, designed exclusively to meet and exceed the demands for high-performance virtualized networking.

Contact your Dell Sales Representative for additional information and to discuss your next generation access requirements. For information, please visit DellTechnologies.com/SD-WAN.