DELL Technologies

N3200-ON Specification Sheet

Dell EMC PowerSwitch N3200-ON Series Switches

High performance Open networking 1GbE and 10GbE Multigigabit switches for modern campus networks

The N3200 switch series offers power-efficient and resilient 1GbE and 1/2.5/5/10GbE Multigigabit range of switching solution for advanced Layer 3 distribution for offices and campus networks. The series has high-performance capabilities and wire-speed performance utilizing a non-blocking architecture to easily handle unexpected traffic loads. Use dual internal hot-swappable 80PLUS Platinum certified power supplies for high availability and power efficiency. The switches offer simple management and scalability via an 400Gbps (full duplex) high-availability stacking architecture that allows management of up to 12 switches from a single IP address.

Modernize campus network architectures

Modernize campus network architectures with a power-efficient and resilient 1/2.5/5/10GbE switching solution with dense options of 802.3at (30W) or 802.3bt (60W/90W) PoE solutions to deliver clean power to wide range network devices such as wireless access points (APs), Voice-over-IP (VoIP) handsets, video conferencing systems, security cameras, LED luminaires and many more.

Achieve high availability and full bandwidth utilization with Multichassis Link Aggregation (MLAG). N3200 series switches support MLAG to create active/active loop-free redundancy without spanning tree. Server rooms can deliver reliable server and storage connectivity with features to help save time and avoid configuration errors. N3200 supports VRF-lite, allowing it to be partitioned into multiple virtual routers with isolated control and data planes on the same physical switch. For greater interoperability in multivendor networks, N3200 switches offer the latest open-standard protocols.

Leverage familiar tools and practices

All N-Series switches include Dell EMC Networking OS6, designed for easier deployment, greater interoperability and a lower learning curve for network administrators. OS6 common command line interface (CLI) and graphic user interface (GUI) are intuitive, so skilled network administrators can get productive quickly. N3200 switches also support the Open Network Install Environment (ONIE), enabling installation of alternate network operating systems.

Deploy with confidence at any scale

N3200 series switches help create performance assurance with a data rate up to 1560Gbps (full duplex) and a forwarding rate up to 2167Mpps. Scale easily with built-in rear stacking ports. Switch stacks of up to 624 1/2.5/5/10GbE/25GbE ports can be managed from a single screen using the highly available stacking architecture for high-density aggregation with seamless redundant availability. The N-series switches' lifetime warranty covers software upgrades, hardware repair or replacement, and optics and cables purchased with the switch.[1]

1 Select Networking products carry a Lifetime Limited Warranty with Basic Hardware Service (repair or replacement) for life. Repair or replacement does not include troubleshooting, configuration, or other advanced service provided by Dell EMC ProSupport. See details at https://www.dell.com/en-us/work/shop/networkingwarranty/cp/networkingwarranty

Hardware, performance and efficiency

- 1GbE Switches: 1RU switches with up to 48 line-rate 1GbE ports of copper or fiber, and four integrated 10GbE SFP+ ports. PoE variants with up to 48 ports of 802.3at (30W) PoE.
- Multigig Switches: 1RU switches with up to 48 line-rate 1G/2.5G/ 5G/10GbE copper ports with four integrated 25GbE SFP28 ports. PoE variants with up to 48 ports of 802.3bt (90W) PoE.
- 400Gbps stacking bandwidth using two 100GbE QSFP28
  integrated rear stacking ports.
- Available with dual 80PLUS Platinum certified hot swappable
  internal power supplies. Optional external power supply to extend PoE budgets on specific models.
- Variable speed fan operation helps decrease cooling and power costs.
- Energy-Efficient Ethernet and lower power PHYs reduce power to inactive ports and idle links, providing energy savings from the power cord to the port.
- Dell EMC Fresh Air compliance for operation in environments up to 113°F (45°C) reduces cooling costs.

Deploying, configuring and managing

- USB auto-configuration rapidly deploys the switch without complex TFTP configurations or sending technical staff to remote offices.
- Management via an intuitive and familiar CLI, embedded web server (GUI), SNMP-based management console application (including Dell EMC OpenManage Network Manager), Telnet or serial connection.
- Private VLAN extensions and Private VLAN Edge support.
- AAA authorization, TACACS+ accounting and RADIUS support for comprehensive secure access support.
- Authentication tiering allows network administrators to tier port authentication methods such as 802.1x, MAC Authentication Bypass and Captive Portal in priority order so that a single port can provide flexible access and security.
- Achieve high availability and full bandwidth utilization with MLAG and support firmware upgrades without taking the network offline.
- Layer 3 Advanced IPv4 and IPv6 functionality including BGP, VRF, BFD, PIM-SM/DM/SSM, IGMP/MLD, RIPv1/v2, OSPFv2/v3
- VXLAN support in hardware only [2]
- MACsec support in N3248PXE-ON hardware only [2]

2 Can be used if enabled by ON partner network operating system.

Product	Description
N3200 series	**OS6 Options (with pre-installed OS6 NOS)** • N3208PX-ON IO/PS Airflow, with OS6: 4x RJ45 10M/100M/1G/2.5G/5G 802.3bt (up to 90W) PoE auto-sensing ports, 4x 10M/100M/1000Mb 802.3bt (up to 90W) PoE autosensing ports, 2x 10G SFP+ ports, 1x 320W AC PSU included • N3224T-ON IO/PS Airflow, with OS6: 24x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 2X 100G QSFP28 ports, 1x 550W AC PSU included • N3224T-ON PS/IO Airflow, with OS6: 24x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 2X 100G QSFP28 ports, 1x 550W AC PSU included • N3224F-ON IO/PS Airflow, with OS6: 24x 1G SFP, 4x 10G SFP+ ports, 2X 100G QSFP28 ports, 1x 550W AC PSU included • N3224P-ON IO/PS Airflow, with OS6: 24x RJ45 10/100/1000Mb 802.3at (up to 30W) PoE auto-sensing ports, 4x 10G SFP+ ports, 2X 100G QSFP28 ports, 1x 1050W AC PSU included • N3224PX-ON IO/PS Airflow, with OS6: 24x RJ45 10M/100M/1G/2.5G/5G/10G 802.3bt (up to 90W) PoE auto- sensing ports, 4x 25G SFP28 ports, 2X 100G QSFP28 ports, 1x 1600W AC PSU included • N3248TE-ON IO/PS Airflow, with OS6: 48x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 2X 100G QSFP28 ports, 1x 550W AC PSU included • N3248TE-ON PS/IO Airflow, with OS6: 48x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 2X 100G QSFP28 ports, 1x 550W AC PSU included • N3248P-ON IO/PS Airflow, with OS6: 48x RJ45 10/100/1000Mb 802.3at (up to 30W) PoE auto-sensing ports; 4x 10G SFP+ ports, 2X 100G QSFP28 ports, 1x 1050W AC PSU included • N3248X-ON IO/PS Airflow, with OS6: 48x RJ45 10M/100M/1G/2.5G/5G/10G auto-sensing ports, 4x 25G SFP28 ports, 2X 100G QSFP28 ports, 1x 550W AC PSU included • N3248X-ON PS/IO Airflow, with OS6: 48x RJ45 10M/100M/1G/2.5G/5G/10G auto-sensing ports, 4x 25G SFP28 ports, 2X 100G QSFP28 ports, 1x 550W AC PSU included • N3248PXE-ON IO/PS Airflow, with OS6: 48x RJ45 10M/100M/1G/2.5G/5G/10G 802.3bt (up to 90W) PoE auto-sensing ports; 4x 25G SFP28 ports, 2X 100G QSFP28 ports, 1x 1600W AC PSU included **NO-OS Options (no pre-installed NOS, recommended for use with Enterprise SONiC Distribution by Dell Technologies)** • N3248TE-ON IO/PS Airflow, NO-OS: 48x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 2X 100G QSFP28 ports, 1x 550W AC PSU included [2] • N3248TE-ON PS/IO Airflow, NO-OS: 48x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 2X 100G QSFP28 ports, 1x 550W AC PSU included [2] **OS10 Options (with pre-installed OS10 NOS)** • N3248TE-ON IO/PS Airflow, with OS10: 48x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 1x 550W AC PSU included • N3248TE-ON PS/IO Airflow, with OS10: 48x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 1x 550W AC PSU included
Power cords	C15 to NEMA 5-15, 1.8M (N3208PX-ON only) C13 to NEMA 5-15, 3M (all other N3200 platforms) C13 to C14, 2M (all other N3200 platforms)
Power shelves (optional)	• MPS-1S Shelf, External power shelf to hold 1 PSU (any of 1050W AC, 1600W AC, 2000W AC, 1300W DC), Extends PoE budget for N3224PX-ON, N3248P-ON, N3248PXE-ON [3] • MPS-3S Shelf, External power shelf to hold up to 3 PSUs (any combination of 1050W AC or 1600W AC or 2000W AC PSUs, or up to three 1300W DC PSUs), Extends PoE budget for N3224PX-ON, N3248P-ON, N3248PXE-ON [3]

Product	Description
Power supplies (optional)	• 320W AC external power adapter, adds redundancy and/or extends PoE budget for N3208PX-ON • 550W AC hot swappable with IO/PS airflow, adds redundancy to N3224T-ON, N3224F-ON, N3248TE-ON, N3248X-ON • 550W AC hot swappable with PS/IO airflow, adds redundancy to N3224T-ON, N3248TE-ON, N3248X-ON • 1050W AC hot swappable, adds redundancy and/or extends PoE budget for N3224P-ON, N3248P-ON. Also used with MPS-1S shelf, MPS-3S Shelf • 1600W AC hot swappable, adds redundancy and/or extends PoE budget for N3224PX-ON, N3248PXE-ON. Also used with MPS-1S shelf, MPS-3S Shelf • 2000W AC hot swappable, extends PoE budget, used with MPS-1S Shelf, MPS-3S Shelf [3] • 550W DC hot swappable with IO/PS airflow, adds redundancy to N3224T-ON, N3224F-ON, N3248TE-ON, N3248X-ON • 550W DC hot swappable with PS/IO airflow, adds redundancy to N3224T-ON, N3248TE-ON, N3248X-ON • 1300W DC hot swappable, adds redundancy and/or extends PoE budget for N3224P-ON, N3248P-ON, N3224PX-ON, N3248PXE-ON [3]
Optics	Transceiver, SFP, 1000BASE-T [4] Transceiver, SFP, 1000BASE-SX [4] Transceiver, SFP, 1000BASE-LX [4] Transceiver, SFP, 1000BASE-ZX [4] Transceiver, SFP+ 10GbE, USR (MMF upto 100m) [5] Transceiver, SFP+ 10GbE, SR (MMF upto 400m) [5] Transceiver, SFP+ 10GbE, LRM (MMF 220m) [5], for SFP+ ports only Transceiver, SFP+ 10GbE, LR (SMF 10 km) [5] Transceiver, SFP+ 10GbE, ER SMF 40 km) [5] Transceiver, SFP+ 10GbE, ZR (SMF 80 km) [5] Transceiver, SFP+ 10GbE, BASE-T GEN2 [5] Transceiver, SFP28 25GbE, LR Transceiver, SFP28 25GbE, SR-NOF Transceiver, SFP28 25GbE, ESR Transceiver, QSFP28 100GbE, Q28-100G-SR4-HG Transceiver, QSFP28 100GbE, Q28-100G-LR4-G3
Cables	10GbE, SFP+ to SFP+, Passive DAC (0.5M, 1M, 2M, 3M, 5M, 7M) [5] 10GbE, SFP+ to SFP+, Active optical (2M, 3M, 5M, 7M, 10M,15M, 20M) [5] 25GbE, SFP28 to SFP28, Passive DAC (1M, 2M, 3M, 5M) 25GbE, SFP28 to SFP28, Active optical (7M, 10M,15M, 20M) 100GbE, QSFP28 to QSFP28, Passive DAC (0.5M, 1M, 2M, 3M, 5M)
Fans (spare)	Fan module, IO to PSU Airflow Fan module, PSU to IO Airflow (for N3224T-ON, N3248TE-ON, N3248X-ON only)

3 Planned in Roadmap
4 Auto-negotiation not supported, using 1G optics require manual configuration and all 4x10G SFP+ or 4x25G SFP28 ports to be set to same speed. 100M speed not supported.
5 Auto-negotiation not supported, using 10G cables or optics require manual configuration and all 4x25G SFP28 ports to be set to same speed. 100M/1G speed not supported.

Technical specifications

Hardware specifications

Physical

2 integrated rear 100GbE QSFP28 stacking ports (except N3208PX-ON)
Out-of-band management port (10/100/1000BASE-T)
USB (Type A) port for configuration via USB flash drive
MicroUSB (Type B) console port (MicroUSB to USB connector cable included)
RJ45 console port with RS232 signaling (RJ-45 to female DB-9 connector cable included)
Auto-negotiation for speed and flow control
Auto-MDI/MDIX, port mirroring
Flow-based port mirroring Broadcast storm control
Energy-Efficient Ethernet per port settings
Redundant variable speed fans
Air flow: I/O to power supply
Power supply:
Integrated 320W (N3208PX-ON),
550W (N3224T-ON, N3224F-ON, N3248TE-ON, N3248X-ON),
1050W (N3224P-ON, N3248P-ON),
1600W (N3224PX-ON, N3248PXE-ON)
Dual firmware images on-board
Switching engine model: Store and forward

Chassis

Size (1RU, H x W x D):
N3208PX-ON: 1.71 in x 11 in x 12.28 in;
All other models: 1.71 in x 17.09 in x 15.75 in (power supply/fan tray handle adds add'l 1.18 in)
Approximate weight (Switch with 1 PSU installed):
8.44lbs/3.83kg (N3208PX-ON),
13.75lbs/6.24kg (N3224T-ON),
14.25lbs/6.46kg (N3224F-ON),
15.6lbs/7.08kg(N3224P-ON),
16lbs/7.26kg (N3224PX-ON,
15.4lbs/6.99kg (N3248TE-ON),
16.7lbs/7.57kg (N3248P-ON),
16.1lbs/7.3kg (N3248X-ON),
17.6lbs/7.98kg (N3248PXE-ON)
2-post rack mounting kit

Environmental

Power supply efficiency: 87% or better in all operating modes
Max. thermal output (BTU/hr):
2821 (N3208PX-ON), 686 (N3224T-ON), 764 (N3224F-ON), 3220 (N3224P-ON), 9344 (N3224PX-ON), 723 (N3248TE-ON), 5719 (N3248P-ON), 1637 (N3248X-ON), 18224 (N3248PXE-ON)
Power consumption max (watts):
900 (N3208PX-ON), 201 (N3224T-ON), 224 (N3224F-ON), 944 (N3224P-ON), 2740 (N3224PX-ON), 212 (N3248TE-ON), 1677 (N3248P-ON), 480 (N3248X-ON), 5344 (N3248PXE-ON)
Operating temperature: 32° to 113°F (0° to 45°C)
Operating relative humidity: 95%
Storage temperature: –40° to 158°F (–40° to 70°C)
Storage relative humidity: 95%

Performance

CPU memory: 4GB
SSD: 8GB (32GB for N3248TE-ON)
Packet buffer memory:
8MB (4MB for N3208PX-ON and 32MB for N3248X-ON and N3248PXE-ON)
Switch fabric capacity (full-duplex):
88Gbps (N3208PX-ON),
528Gbps (N3224T-ON, N3224F-ON, N3224P-ON),
576Gbps (N3248TE-ON, N3248P-ON),
1080Gbps (N3224PX-ON),
1560Gbps (N3248X-ON, N3248PXE-ON)
Forwarding rate:
122Mpps (N3208PX-ON),
733Mpps (N3224T-ON, N3224F-ON, N3224P-ON),
800Mpps (N3248TE-ON, N3248P-ON),
1500Mpps (N3224PX-ON),
2167Mpps (N3248X-ON, N3248PXE-ON)
Line-rate Layer 2 switching: All (non-blocking)
Line-rate Layer 3 routing: All (non-blocking)

Network Operating System specifications

Software specifications listed below are applicable for OS6. For detailed specifications of NOS, please contact your Dell Technologies representative.

Scaling performance

MAC addresses: 32K
Link aggregation:
128 LAG groups, 144 dynamic ports per stack, 8 member ports per LAG
Priority queues per port: 8
Static routes: 1,024 (IPv4)/1,024 (IPv6)
Dynamic routes: 8,158 (IPv4)/4,096 (IPv6)
OSPF routing interfaces: 8,158
RIP routing interfaces: 512
ECMP next hops per route: 16
ECMP groups: 1024
VLAN routing interfaces: 128
VLANs supported: 4,094
Protocol-based VLANs: Supported
Multicast forwarding entries:
1,536 (IPv4), 512 (IPv6)
ARP entries: 6,144
NDP entries: 2,560
Access control lists (ACL): Supported
MAC and IP-based ACLs: Supported
Time-controlled ACLs: Supported
Max number of ACLs: 100
Max ACL rules system-wide: 3,914
Max rules per ACL: 1,023
Max ACL rules per interface (IPv4):
1,023 (ingress), 511 (egress)
Max ACL rules per interface (IPv6):
1,021 (ingress), 509 (egress)
Max VLAN interfaces with ACLs applied: 24

IEEE compliance

802.1AB	LLDP
Dell	Voice VLAN
Dell	ISDP
802.1D	Bridging, Spanning Tree
802.1p	Ethernet Priority (User Provisioning and Mapping)
Dell	Adjustable WRR and Strict Queue Scheduling
802.1Q	VLAN Tagging, Double VLAN Tagging, GVRP
802.1S	Multiple Spanning Tree (MSTP)
802.1v	Protocol-based VLANs
802.1W	Rapid Spanning Tree (RSTP)
Dell	RSTP-Per VLAN
Dell	Spanning tree optional features: STP root guard, BPDU guard, BPDU filtering
802.1X	Network Access Control, Auto VLAN
802.2	Logical Link Control
802.3	10BASE-T
802.3ab	Gigabit Ethernet (1000BASE-T)
802.3ac	Frame Extensions for VLANTagging
802.3ad	Link Aggregation with LACP
802.3ae	10 Gigabit Ethernet (10GBASE-X)
802.3at	PoE (N3224P-ON, N3248P-ON, N3208PX-ON, N3224PX-ON, N3248PXE-ON)
802.3bt	PoE (N3208PX-ON, N3224PX-ON, N3248PXE-ON)
802.3AX	LAG Load Balancing
Dell	Multi-Chassis LAG (MLAG)
Dell	Policy Based Forwarding
802.3az	Energy Efficient Ethernet (EEE)
802.3u	Fast Ethernet (100BASE-TX) on management ports
802.3x	Flow Control
802.3z	Gigabit Ethernet (1000BASE-X)
802.3bz	1G/2.5G/5G/10G
ANSI	LLDP-MED (TIA-1057)
Dell	EqualLogic iSCSI Auto-configuration
MTU	9,216 bytes

General Internet protocols

General Internet protocols are supported. For a detailed list, please contact your Dell Technologies representative.

General IPv4 protocols

General IPv4 protocols are supported. For a detailed list, please contact your Dell Technologies representative.

General IPv6 protocols

General IPv6 protocols are supported. For a detailed list, please contact your Dell Technologies representative.

Layer 3 functionality

1058	RIPv1
1724	RIPv2 MIB Extension
1765	OSPF DB overflow
1850	OSPF MIB
2082	RIP-2 MD5 Auth
2328	OSPFv2
2338	VRRP
2370	Opaque
Dell	Policy Based Routing
2453	RIPv2
2740	OSPFv3
2787	VRRP MIB
3101	NSSA
3137	OSPF Stub Router Advert
3623	Graceful Restart
3768	VRRP
4271	BGP
5187	OSPFv3 Graceful Routing Restart

Multicast

1112	IGMPv1
2236	IGMPv2
2365	Admin scoped IP
2710	MLDv1
2932	IPv4 MIB
2933	IGMP MIB
3810	MLDv2
3973	PIM-DM
4541	IGMP v1/v2/v3 Snooping and Querier
5060	PIM MIB
5061	PIM MIB
3376	IGMPv3
Dell	Static IP Multicast

Draft-ietf-pim-sm-bsr-05
Draft-ietf-idmr-dvmrp-v3-10 DVMRP
Draft-ietf-magma-igmp-proxy-06.txt
IGMP/MLD Proxying
Draft-ietf-magma-igmpv3-and-routing-05.txt
draft-ietf-idmr-dvmrp-mib-11
draft-ietf-magma-mgmd-mib-05
draft-ietf-pim-bsr-mib-06
IEEE 802.1ag draft 8.1 – Connectivity Fault Management (CFM)
IEEE 802.1p GMRP Dynamic L2 Multicast Registration

Technical specifications

Quality of service

2474	DiffServ Field
2475	DiffServ Architecture
2597	Assured Fwd PHB
Dell	Port Based QoS Services (TCP/UDP) Mode
Dell	Red/WRED
Dell	Flow Based QoS Services
Dell	Audio Video Bridging Mode (IPv4/ IPv6)
Dell	UDLD
2697	srTCM
4115	trTCM

Network Management and Security

Dell	L4 Trusted Mode
1155	SMIv1
1157	SNMPv1
1212	Concise MIB Definitions
1213	MIB-II
1215	SNMP Traps
1286	Bridge MIB
1442	SMIv2
1451	Manager-to-Manager MIB
1492	TACACS+
1493	Managed objects for Bridges MIB
1573	Evolution of Interfaces
1612	DNS Resolver MIB Extensions
1643	Ethernet-like MIB
1757	RMON MIB
1867	HTML/2.0 Forms with file upload extensions
1901	Community-based SNMPv2
1907	SNMPv2 MIB
1908	Coexistence between SNMPv1/v2
2011	IP MIB
2012	TCP MIB
2013	UDP MIB
2068	HTTP/1.1
2096	IP Forwarding Table MIB
2233	Interfaces Group using SMIv2
2246	TLS v1
2271	SNMP Framework MIB
2295	Transport Content Negotiation
2296	Remote Variant Selection
2576	Coexistence between SNMPv1/v2/v3
2578	SMIv2
2579	Textual Conventions for SMIv2
2580	Conformance Statements for SMIv2
2613	RMON MIB
2618	RADIUS Authentication MIB
2620	RADIUS Accounting MIB
2665	Ethernet-like Interfaces MIB
2666	Identification of Ethernet chipsets
2674	Extended Bridge MIB
2737	ENTITY MIB
2818	HTTP over TLS
2819	RMON MIB (groups 1, 2, 3, 9)
2856	Text Conv. For High Capacity Data Types
2863	Interfaces MIB
2865	RADIUS
2866	RADIUS Accounting
2868	RADIUS Attributes for Tunnel Prot.
2869	RADIUS Extensions
3410	Internet Standard Mgmt. Framework
3411	SNMP Management Framework
3412	Message Processing and Dispatching
3413	SNMP Applications
3414	User-based security model
3415	View-based control model
3416	SNMPv2
3417	Transport Mappings
3418	SNMP MIB
3577	RMON MIB
3580	802.1X with RADIUS
3737	Registry of RMON MIB
4086	Randomness Requirements
4113	UDP MIB
4251	SSHv2 Protocol
4252	SSHv2 Authentication
4253	SSHv2 Transport
4254	SSHv2 Connection Protocol
4419	SSHv2 Transport Layer Protocol
4521	LDAP Extensions
4716	SECSH Public Key File Format
5246	TLS v1.2
6101	SSL
6398	IP Router Alert
Dell	Enterprise MIB supporting routing features

draft-ietfhubmib- etherifmib- v3-00.txt (Obsoletes RFC 2665)

Other certifications

N-Series products have the necessary features to support a PCI compliant network topology.

Regulatory, environment and other compliance

Safety and emissions

Australia/New Zealand: ACMA RCA Class A
Canada: ICES Class A; cUL
China: CCC Class A; NAL
Europe: CE Class A
Japan: VCCI Class A
USA: FCC Class A; NRTL UL; FDA 21 CFR 1040.10 and 1040.11
Eurasia Customs Union: EAC Germany: GS mark
Product meets EMC and safety standards in many countries inclusive of USA, Canada, EU, Japan, China. For more country-specific regulatory information, and approvals, please see your Dell Technologies representative.

RoHS

Product meets RoHS compliance standards in many countries inclusive of USA, EU, China, and India. For more country-specific RoHS compliance information, please see your Dell Technologies representative.
EU WEEE
EU Battery Directive
REACH

Energy

Japan: JEL

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 an environmentally responsible way.

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