



Dell EMC PowerSwitch N3200-ON Series Switches

High performance Open networking 1GbE and 10GbE MultiGig 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 Multi-chassis 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.

Leverage familiar tools and practices

All N-Series switches include Dell EMC Networking OS 6, designed for easier deployment, greater interoperability and a lower learning curve for network administrators. OS 6 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. Details at

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.

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

[Dell.com/LifetimeLimitedWarranty](https://www.dell.com/LifetimeLimitedWarranty) ¹

Hardware, performance and efficiency

- 1GbE Switches: 1RU switches with up to 48 line-rate 1GbE ports of copper or fiber, and four two 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

Product	Description
N3200 series	<p>OS6 Options (with pre-installed OS6 NOS)</p> <ul style="list-style-type: none"> 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, 1x 550W AC PSU included N3224T-ON PS/IO Airflow, with OS6: 24x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 1x 550W AC PSU included N3224F-ON IO/PS Airflow, with OS6: 24x 1000-SX (up to 500m distance) or 1000-LX (up to 10km distance) SFP GbE ports, 4x 10G SFP+ 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, 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, 1x 1600W AC PSU included N3248TE-ON IO/PS Airflow, with OS6: 48x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ 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, 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, 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, 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, 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, 1x 1600W AC PSU included <p>NO-OS Options (no pre-installed NOS, recommended for use with 3rd party ON partner NOS)</p> <ul style="list-style-type: none"> N3208PX-ON IO/PS Airflow, NO-OS: 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, NO-OS: 24x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 1x 550W AC PSU included N3224F-ON IO/PS Airflow, NO-OS: 24x 1000-SX (up to 500m distance) or 1000-LX (up to 10km distance) SFP GbE ports, 4x 10G SFP+ ports, 1x 550W AC PSU included N3224P-ON IO/PS Airflow, NO-OS: 24x RJ45 10/100/1000Mb 802.3at (up to 30W) PoE auto-sensing ports, 4x 10G SFP+ ports, 1x 1050W AC PSU included N3224PX-ON IO/PS Airflow, NO-OS: 24x RJ45 10M/100M/1G/2.5G/5G/10G 802.3bt (up to 90W) PoE auto-sensing ports, 4x 25G SFP28 ports, 1x 1600W AC PSU included N3248TE-ON IO/PS Airflow, NO-OS: with OS6: 48x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 1x 550W AC PSU included N3248TE-ON PS/IO Airflow, NO-OS: 48x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 1x 550W AC PSU included N3248P-ON IO/PS Airflow, NO-OS: 48x RJ45 10/100/1000Mb 802.3at (up to 30W) PoE auto-sensing ports; 4x 10G SFP+ ports, 1x 1050W AC PSU included N3248X-ON IO/PS Airflow, NO-OS: 48x RJ45 10M/100M/1G/2.5G/5G/10G auto-sensing ports, 4x 25G SFP28 ports, 1x 550W AC PSU included N3248PXE-ON IO/PS Airflow, NO-OS: 48x RJ45 10M/100M/1G/2.5G/5G/10G 802.3bt (up to 90W) PoE auto-sensing ports; 4x 25G SFP28 ports, 1x 1600W AC PSU included <p>OS10 Options (with pre-installed OS10 NOS)</p> <ul style="list-style-type: none"> 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
Power shelves (optional)	<ul style="list-style-type: none"> 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

Power supplies (optional)	<ul style="list-style-type: none"> 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 ³ 550W DC hot swappable with PS/IO airflow, adds redundancy to N3224T-ON, N3248TE-ON, N3248X-ON ³ 1300W DC hot swappable, adds redundancy and/or extends PoE budget for N3224P-ON, N3248P-ON, N3224PX-ON, N3248PXE-ON ³
Optics	<ul style="list-style-type: none"> Transceiver, SFP, 100M-FX, for SFP ports only Transceiver, SFP, 1000BASE-T Transceiver, SFP, 1000BASE-SX Transceiver, SFP, 1000BASE-LX Transceiver, SFP, 1000BASE-ZX Transceiver, SFP+ 10GbE, USR (MMF upto 100m) Transceiver, SFP+ 10GbE, SR (MMF upto 400m) Transceiver, SFP+ 10GbE, LRM (MMF 220m), for SFP+ ports only Transceiver, SFP+ 10GbE, LR (SMF 10 km) Transceiver, SFP+ 10GbE, ER SMF 40 km) Transceiver, SFP+ 10GbE, ZR (SMF 80 km) Transceiver, SFP+ 10GbE, BASE-T Transceiver, SFP28 25GbE, LR Transceiver, SFP28 25GbE, SR-NOF Transceiver, SFP28 25GbE, ESR Transceiver, QSFP28 100GbE, Q28-100G-SR4-HG, for stacking ports Transceiver, QSFP28 100GbE, Q28-100G-LR4-G3, for stacking ports
Cables	<ul style="list-style-type: none"> 10GbE, SFP+ to SFP+, Passive DAC (0.5M, 1M, 2M, 3M, 5M, 7M) 10GbE, SFP+ to SFP+, Active optical (2M, 3M, 5M, 7M, 10M, 15M, 20M) 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), for stacking ports
Fans (spare)	<ul style="list-style-type: none"> Fan module, IO to PSU Airflow Fan module, PSU to IO Airflow (for N3224T-ON, N3248TE-ON, N3248X-ON only)

³ Planned in Roadmap

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 additional 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: 90% 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): 827
(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 154°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 ad 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 the ON partner NOS, please contact your Dell EMC or ON partner 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 VLAN Tagging

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 EMC Multi-Chassis LAG (MLAG)

Dell EMC 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 EMC EqualLogic iSCSI Auto-configuration

MTU 9,216 bytes

General Internet protocols

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

General IPv4 protocols

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

General IPv6 protocols

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

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 LAG 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 SMLv1

1157 SNMPv1

1212 Concise MIB Definitions 1213 MIB-II

1215 SNMP Traps

1286 Bridge MIB

1442 SMLv2

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 SMLv2

2246 TLS v1

2271 SNMP Framework MIB

2295 Transport Content Negotiation

2296 Remote Variant Selection

2346 AES Ciphersuites for TLS

2576 Coexistence between

SNMPv1/v2/v3

SMLv2

2579 Textual Conventions for SMLv2

2580 Conformance Statements for SMLv2

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
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 EMC 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 EMC 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.

Learn More at bcdvideo.com/dell-networking
or by contacting sales@bcdinc.com