The N1500 switch series offers a power-efficient Gigabit Ethernet (GbE) network-access switching solution with integrated 10GbE uplinks. With high-performance capabilities and wire-speed performance, utilizing a non-blocking architecture to easily handle unexpected traffic loads, the switches offer simple management and scalability via an 40Gbps (full-duplex) high availability stacking architecture that allows management of up to four switches from a single IP address. An integrated 80PLUS-certified power supply and features such as Energy-Efficient Ethernet and short cable detection provide energy efficiency to help decrease power and cooling costs.

Modernize campus network architectures

Modernize campus network architectures with a power-efficient and resilient 1/10GbE switching solution with Power over Ethernet Plus (PoE+). Select N1500 models offer 24 or 48 ports of PoE+ to deliver clean power to network devices such as wireless access points (APs), Voice-over-IP (VoIP) handsets, video conferencing systems and security cameras.

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. One common command line interface (CLI) and graphic user interface (GUI) using a well-known command language gets skilled network administrators productive quickly. With USB auto-configuration, network administrators can rapidly deploy mirrored configurations to numerous devices by simply inserting a USB key.

Deploy with confidence at any scale

N1500 series switches help create performance assurance with a data rate up to 176Gbps (full duplex) and a forwarding rate up to 164Mpps. Scale easily by stacking with 10GbE ports. Switch stacks of up to 200 1GbE ports can be managed from a single screen using the highly available stacking architecture for high-density aggregation with seamless redundant availability. N-Series switches help provide certainty with a lifetime warranty that covers software upgrades, hardware repair or replacement, and optics and cables purchased with the switch. Details at Dell.com/LifetimeWarranty.*

Hardware, performance and efficiency

- Up to 48 line-rate GbE RJ-45 ports and four integrated 10GbE SFP+ ports.
- Up to 48 ports of PoE+ with an optional external power supply.
- Up to 200 1GbE ports in a 4-unit stack for high-density, high-availability in IDFs, MDFs and wiring closets.
- Non-stop forwarding and fast failover in stack configurations.
- 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.
- Fresh Air compliance for operation in environments up to 113°F (45°C) helps reduce cooling costs in temperature-constrained deployments.

Deploying, configuring and managing

- USB auto-configuration rapidly deploys the switch without setting up 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 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.
- Layer 3 Lite IPv4 and IPv6 functionality including static routing and Routing Information Protocol support.
- Remote Switch Port Analyzer (RSPAN) monitors ports across a Layer 2 domain without costly dedicated network taps.

*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.
**Product** | **Description**
--- | ---
**N1500 series** | N1524: 24x RJ-45 10/100/1000Mb auto-sensing ports, 4x SFP+ ports, 1 integrated 40W PSU
N1524P: 24x RJ-45 10/100/1000Mb PoE+ (up to 30.8W) auto-sensing ports, 4x SFP+ ports, 1 integrated 600W PSU (requires C15 plug)
N1548: 48x RJ-45 10/100/1000Mb auto-sensing ports, 4x SFP+ ports, 1 integrated 100W PSU
N1548P: 48x RJ-45 10/100/1000Mb PoE+ (up to 30.8W) auto-sensing ports, 4x SFP+ ports, 1 integrated 600W PSU (requires C15 plug)

**Power cords** | C13 to NEMA 5-15, 3M
C13 to C14, 2M
C15 to NEMA 5-15, 2M (C15 for POE N-Series only)

**Power supplies (optional)** | RPS720 external power supply for N1500 non-POE (720 watts): N1524 and N1548 (sold separately)
MPS1000 external power supply for N1500 PoE+ switches (1000 watts): N1524P and N1548P (sold separately)

**Optics (optional)** | Transceiver, SFP, 1000BASE-T
Transceiver, SFP, 1000BASE-SX, 850nm wavelength, up to 550m reach
Transceiver, SFP, 1000BASE-LX, 1310nm wavelength, up to 10km reach
Transceiver, SFP, 1000BASE-ZX, 1550nm wavelength, up to 300m reach
Transceiver, SFP+, 10GbE, SR, 855nm wavelength, up to 300m reach
Transceiver, SFP+, 10GbE, LR, 1310nm wavelength, up to 10km reach
Transceiver, SFP+, 10GbE, ER, 1550nm wavelength, up to 40km reach

**Cables (optional)** | Dell Networking cable, SFP+ to SFP+, 10GbE, copper twinax direct

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**Technical specifications**

**Physical**
4 integrated front 10GbE SFP+ dedicated ports, 2 10GbE can be used as stacking ports
USB (Type A) port for configuration via USB flash drive
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

**Optics**
802.1X Network Access Control, Auto VLAN
802.2 Logical Link Control
802.3 10BASE-T
802.3u Fast Ethernet (100BASE-TX)
802.3ad Link Aggregation with LACP
802.3ac Frame Extensions for VLAN Tagging
802.3ab Gigabit Ethernet (1000BASE-T)
802.3af Power over Ethernet (PoE)
802.3ad Link Aggregation with LACP
802.3at Gigabit Ethernet (1000BASE-X)
802.3at PoE+ (N1524P and N1548P)
802.3az LAG Load Balancing
802.3az Energy Efficient Ethernet (EEE)
802.3v Fast Ethernet (100BASE-TX) on Management Ports
802.3x Flow Control
802.5z Gigabit Ethernet (1000BASE-X)
ANSI LLDP-MED (TIA-1057)
IEEE 802.1Q VLAN Tagging, Double VLAN Tagging, 802.1Q VLAN Tagging, Double VLAN Tagging

**Environmental**
Power supply efficiency: 80% or better in all operating modes
Max. thermal output (BTU/hr): 103.1 (N1524), 2972 (N1524P), 152.2 (N1548), 5824.3 (N1548P)
Power consumption max (watts): 30.2 (N1524), 87.1 (N1524P), 44.6 (N1548), 170.4 (N1548P)
Operating temperature: 23° to 113°F (0° to 45°C)
Storage temperature: 10° to 149°F (–40° to 65°C)
Storage relative humidity: 85%

**Performance**
CPU memory: 1GB
Packet buffer memory: 15MB
MAC addresses: 16K
Static routes: 256 (IPv4)/128 (IPv6)
Dynamic routes: 256 (IPv4)
Switch fabric capacity: 128Gbps (N1524 and N1548P) (full duplex); 176Gbps (N1548 and N1548P)
Forwarding rate: 128Mpps (N1524 and N1548P), 16Mpps (N1548 and N1548P)
Link aggregation: 64 LAG groups, 144 dynamic ports per stack, 8 member ports per LAG
Priority queues per port: 8 Line-rate Layer 2 switching: All (non-blocking) Line-rate Layer 3 routing: All (non-blocking)
Flash memory: 256MB
Power consumption max (watts): 30.2 (N1524), 5824.3 (N1548P)
Power consumption max (watts): 87.1 (N1524P), 44.6 (N1548), 170.4 (N1548P)
Operating temperature: 23° to 113°F (0° to 45°C)
Storage temperature: 10° to 149°F (–40° to 65°C)
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**Physical**
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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
Integrated power supply: 40W AC (N1524), 100W AC (N1548), 600W AC (N1524P, N1548P)
RJ-45 console port with RS232 signaling (RJ-45 to female DB-9 connector cable included)
Dual firmware images on-board
Switching engine model: Store and forward

**Chassis**
Size (1RU, H x W x D):
N1524 and N1548: 17 in x 17.3 in x 10.1 in (43.2 mm x 440.0 mm x 257.0 mm)
N1524P and N1548P: 17 in x 17.3 in x 15.2 in (43.2 mm x 440.0 mm x 387.0 mm)
Approximate weight: 6.6lbs/3kg (N1524), 12.8lbs/5.8kg (N1524P), 8.8lbs/4kg (N1548), 15.4lbs/7kg (N1548P)
Rack mounting kit with 2 mounting brackets, bolts and cage nuts

**Environmental**
Power supply efficiency: 80% or better in all operating modes
Max. thermal output (BTU/hr): 103.1 (N1524), 2972 (N1524P), 152.2 (N1548), 5824.3 (N1548P)
Power consumption max (watts): 30.2 (N1524), 87.1 (N1524P), 44.6 (N1548), 170.4 (N1548P)
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IT Lifecycle Services for Networking

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