

Dell Networking N-Series Ethernet switches

Best-in-class campus switching



Portfolio or solution overview

Positioning: N-Series is a family of energy-efficient, cost-effective 1GbE and 10GbE switches designed for modernising and scaling network infrastructure.

Key facts: Comprehensive enterprise-class Layer 2/Layer 3 feature set. Consistent, simplified management. High-availability device and network design.

Product positioning

Target customers

- Large enterprise and mid-market campus networks
- Small-to-medium businesses and branch office networks
- Customers deploying unified communications/video collaboration and voice-over IP (VoIP) or virtual desktop infrastructure (VDI) in campus networks

How/where we win

- **No single vendor lock-in:** N-Series provides strong alternate hardware and software solutions to support current and next-generation campus networks.
- **Conserve IT Budget:** N-Series costs up to 60% less than competitors.
- **Grow without rip-and-replace:** N-Series provides industry-standard solutions that interoperate with vendors like Cisco and are managed similarly to Cisco.
- **Reliable networking:** N-Series operates on a carrier-grade Linux kernel and supports active/active deployment with multi-chassis link aggregation (MLAG), non-stop forwarding and hot-swappable power supplies.
- **Familiar management:** N-Series switches use a well-known command language and offer management via a graphical user interface.
- **Scale quickly and easily:** N-Series switches have built-in stacking ports and can scale to 12 units managed as one logical switch.

Opportunities/customer pain points

- Upgrading aging 100Mb networks
- Office expansions or building upgrades
- Demanding applications, 24x7 access and large media (video/data)
- Bandwidth constraints at core/distribution layers, reducing user experience
- Challenges adding and supporting a growing workforce
- Networks designed with inefficient proprietary solutions resulting in higher total cost of ownership (TCO)
- Older hardware consuming space and additional cooling/power in constrained wiring closets
- Complex deployment and management requirements for campus/branch sites

Product/solution advantages

- Flexible, open and high return on investment (ROI) networking platforms ideally suited for demanding collaboration and communications on campus networks
- Comprehensive enterprise-class Layer 2/3 feature set with Dell Networking OS 6
- MLAG creates active/active loop-free redundancy replacing the need for expensive spanning tree protocols
- Hot-swappable expansion modules for a variety of interfaces
- Industry-standard command-line interface (CLI) and management helps reduce training resources and costs.
- FreshAir®-compliant switches enable operation in smaller closets while reducing cooling costs.
- Plug-and-play configuration with Dell EqualLogic and validated with Dell Compellent storage arrays
- OpenManage Network Manager manages an entire Dell campus environment, both wired and wireless.

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Competitive differentiation

Dell's key competitive strengths

- Dell offers industry-leading end-to-end enterprise solutions for servers, storage and networking.
- Dell offers OpenManage Network Manager (OMNM) and OpenManage Essentials (OME) management across platforms and Dell servers and storage products (75% faster to deploy than competition).
- Dell Networking is a cost-effective, interoperable second-vendor alternative.
- Dell offers cost-effective, high-density industry-leading N-Series switches.

Versus Cisco Catalyst

- N-Series provides higher performance and density.
- N-Series delivers better power efficiency.
- N-Series can reduce capital costs up to 50% (based on total switching solution costs for small, mid-size and large campus installations).
- More 10GbE uplinks on N2000/N3000
- Lifetime warranty on N-Series switches

Versus HP

- N-Series provides higher performance and density.
- N-Series delivers better power efficiency.

Objection handling

We need to upgrade, but don't have sufficient budget.

- The modular nature of N-Series networks allows you to upgrade at your pace. Start with the most critical needs first and gradually upgrade your network as your budget allows.

We're a Cisco house.

- N-Series has been shown to seamlessly interoperate with Cisco equipment, supports Cisco protocols such as RPVST+, and even provides a similar CLI for ease of use. Check out the white paper [here](#).

We need chassis-level resiliency.

- MLAG provides loop-free redundancy without spanning tree.
- N-Series can also be combined with Dell's C-Series chassis for the best of both worlds.



Case studies/references

- [Dell Networking N4032: 5*/5*](#)
- ["Delivers a superior range of features." - IT Pro](#)

Additional resources

- [Dell Networking N-Series 1-Pager](#)
- [Dell Networking N2000 Spec Sheet](#)
- [Dell Networking N3000 Spec Sheet](#)
- [Dell Networking N4000 Spec Sheet](#)
- [Campus Reference Architecture](#)
- [VoIP for Dell Networking N-Series Switches](#)

For more information: [Advanced Ethernet Switches](#), [Power-Over-Ethernet Switches](#), [N4000 High Performance Ethernet Switches](#)

