

# Making your school network future-ready

**M**eeet today's changing network needs with simplicity, investment assurance and scalability on demand



# Future-ready, flexible and cost-competitive

Schools today are challenged to support an increasingly digital learning environment. At the same time, school IT managers are looking for ways to reduce network complexity and cost. Dell Technologies has a long history of delivering solutions that are future-ready, flexible and cost-competitive, and we bring this same approach into the school networking arena. We offer a common, software-driven platform for network connectivity for both traditional and new architectures — with customizable solutions for your network.

Schools and school districts come in all shapes and sizes. Does your district have a large IT department looking to scale or consolidate your existing network and deploy flexible new solutions? Do you have a dedicated IT staff managing a multi-site network, and need an easily managed, secure solution that scales with your needs? Or is yours a small organization that requires a cost-effective, secure network with very little troubleshooting or maintenance? Dell Technologies has you covered.



## Solution requirements and paths

To meet today's needs and become future-ready, schools require K-12 campus networking solutions that provide:

### Scalability:

- With secure, high-speed 1G/2.5G/5G/10G Multigig platforms and up to 90W Power over Ethernet (PoE) for 802.11ax (Wi-Fi 6) wireless networks

### Simplicity:

- Using pretested and validated reference architectures with multi-vendor-capable network management tools and intuitive UIs

### Flexibility:

- Including the ability to expand networking capability in the classroom while reducing costs and preparing for a software-defined networking (SDN)-ready open architecture

# A high-performing network

Schools have competing paths available to acquire solutions, each with its own trade-offs. Monolithic legacy solutions are expensive to purchase and maintain, and may not allow organizations to take advantage of all the latest innovations in the industry. Another potential path, using new proprietary approaches, has inherent lock-in drawbacks and requires the existing environment to be ripped out and replaced when it is time to update. Commodity systems offer a path that is less expensive from an acquisition standpoint but places all deployment responsibilities on the organization and involves costly ongoing maintenance.

Dell Technologies offers a unique path that is designed to deliver maximum value, flexibility and choice as campus networking needs evolve. Key design tenets enable organizations to strike a balance between initial and ongoing costs while lowering total cost of ownership (TCO). These design tenets include a standards-based approach, open architecture and modular systems that let you flexibly scale on demand. The result is a high-performing network that helps enable future-ready schools.





# The E-rate opportunity

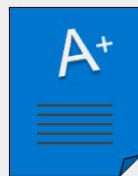
The Universal Service Program for Schools and Libraries (E-rate) program provides a fantastic opportunity for schools to update their aging networks with the latest wired and wireless technologies. While E-rate is focused on basic network functionality, Dell Technologies offer a range of cost-effective and highly scalable networking solutions — good, better and best — all of which are made even more affordable with E-rate.

Our K-12 campus networking vision is based on unified management across network tiers, security and wireless, providing a single point of network control. This architecture merges access and core layers to simplify delivery and management of mission-critical applications.



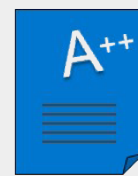
**For basic networking** with the maximum E-rate funding coverage:

- Dell EMC PowerSwitch N3200 switches with 1G/2.5G/5G/10G connectivity
- Dell EMC PowerSwitch N1108EP and N1500 switches for basic networking
- Dell EMC SD-WAN Solution powered by VMware for prioritizing mission-critical education applications on local networks, dramatically boosting the performance of video conferencing and e-learning applications



**Adding redundancy** will ensure more reliable networking in the event of single point of failure, and multigigabit technology for a diverse range of speeds, cable types, and Power over Ethernet (PoE):

- 2x Dell EMC PowerSwitch N3200 switches with multi-chassis link aggregation (MLAG) for core switching and routing
- Dell EMC PowerSwitch N2200 switches supporting MLAG, for 2.5G Multigig access and up to 60W PoE, along with 802.11ac Wave 2 wireless
- Dell EMC SD-WAN Solution



**For the best solution**, we recommend:

- Dell EMC PowerSwitch S-Series 25GbE switches with 100GbE uplinks to facilitate high-speed inter-rack connectivity with our PowerSwitch Z series family of 100GbE and 400GbE fabric switches
- Dell EMC SD-WAN Solution powered by VMware for prioritizing mission-critical education applications on local networks, dramatically boosting the performance of video conferencing and e-learning applications



# Right-sized solutions for different-sized needs

**D**ell Technologies has designed high-performing unified campus solutions for different requirements, with management solutions for each. All of the solutions are intended to provide energy-efficient operation, compatibility with existing networking equipment and client devices, and wireless choice based on open standards for interoperability.

## **Delivering important IT and educational benefits**

Our unique design philosophy — combining open and standards-based systems with modularity and a modern approach — gives organizations compelling benefits: investment assurance, scalability on demand and access to the latest innovations. These qualities are the hallmarks of a future-ready approach to IT and networking that can grow with and help transform a district.

## **Investment assurance**

Schools can tailor Dell Technologies solutions to their needs today and then adapt them to whatever needs they have in the future, without risking the investment they have already made. For example, you can simplify your transition to software-defined models and reduce risks commonly associated with software-defined deployments by using a variety of our SDN solutions. These solutions have been mutually developed, tested and validated with leading software providers and are fully supported by Dell Technologies. And because we focus on engineering solutions for the lowest TCO, investment continues to pay dividends in terms of simplification, time savings and reduced costs over time. These reduced costs help schools get the most benefit from every dollar.

## Scalability on demand

Our solutions are intended to grow with you so they can scale up, down or out with the same predictable economics and ease. There is no need to overbuy networking at the outset or rip-and-replace when growth occurs.

## Access to innovation

With Dell Technologies' standards-based and open architectures, you have access to the latest innovations wherever they come from; you are not locked into proprietary solutions that may be slower to innovate. We focus on driving out inefficiencies and driving down complexity, so innovations are within reach of every school district, regardless of size. This focus includes offering flexible paths to integrating new in-classroom tools such as interactive whiteboards and student response systems, and reduce risks commonly associated with software-defined deployments by using a variety of our SDN solutions.

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Plan, deploy, manage and support your IT transformation with our top-rated services

### Consulting

Dell Technologies Consulting Services provides industry professionals with a wide range of tools and the experience your need to design and execute plans to transform your business.

### Deployment

Accelerate technology adoption with ProDeploy Enterprise Suite. Trust our experts to lead deployments through planning, configuration and complex integrations.

### Management

Regain control of operations with flexible IT management options. Our Residency Services help you adopt and optimize new technologies and our Managed Services allow you to outsource portions of your environment to us.

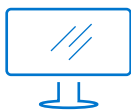
### Support

Increase productivity and reduce downtime with ProSupport Enterprise Suite. Expert support backed by proactive and predictive artificial intelligence tools.

### Education

Dell Technologies Education Services help you develop the IT skills required to lead and execute transformational strategies. Get certified today.

Learn more at [DellTechnologies.com/Services](https://DellTechnologies.com/Services)



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