

With students, faculty and other stakeholders increasingly using the internet, cloud computing and other digital technologies for learning, educational institutions need a way to optimize their network and application performance without spending all their time managing their IT.

Often, traditional wide area network (WAN) architectures can't keep up, particularly for schools, colleges, libraries and other organizations with multiple campuses. Instead, educational institutions today need a software-defined WAN (SD-WAN) that centralizes WAN management from the cloud while ultimately providing greater security, resiliency and efficiency.

Still, not everyone is fully aware of how SD-WAN solutions can help improve network management or how to get the most out of these solutions. Below are five things every educational institution should know about SD-WAN.

1. The Resiliency of SD-WAN Can Help Save Money.

Educational institutions understandably take the cost of IT seriously in order to meet strict budget requirements; however, it's important to look at the total cost of ownership when implementing an SD-WAN solution. Long term, using a reliable SD-WAN solution can save money. That's because SD-WAN can offer resiliency and redundancy that minimize the cost of fixing network issues.



On average, network downtime costs \$5,600 per minute. While this may seem to only apply to businesses like e-commerce companies that could lose revenue if their sites go down, downtime can affect educational institutions, including non-profit ones, in a variety of ways. For example, a network outage could lead to data loss, which could be expensive to recover, especially if IT employees need to work overtime or contractors need to be brought in to get back to where you were before the outage.

To help keep your network running smoothly and prevent network overload, SD-WAN solutions offer features like application load sharing and link balancing. Further, functions like automated link failover can protect against outages.



2. SD-WAN Can Improve Operational Efficiency.

Keeping networks running smoothly limits IT repair costs and the expense of resolving operational issues like lost data. In addition, educational institutions can also improve operational efficiency through SD-WAN to get more value out of their IT resources and provide a better digital experience for students, faculty and other stakeholders.

For example, an SD-WAN solution can dynamically route traffic around network issues and ensure bandwidth optimization so that your applications run smoothly. That means users can gain the connectivity they need to learn and work efficiently, and they can quickly and reliably access critical applications.

With the confidence that your educational institution can handle bandwidth-heavy applications, you can then start deploying more solutions that help improve the learning experience. Without SD-WAN, however, it can be harder to justify the cost of adding new solutions that can't be used reliably.

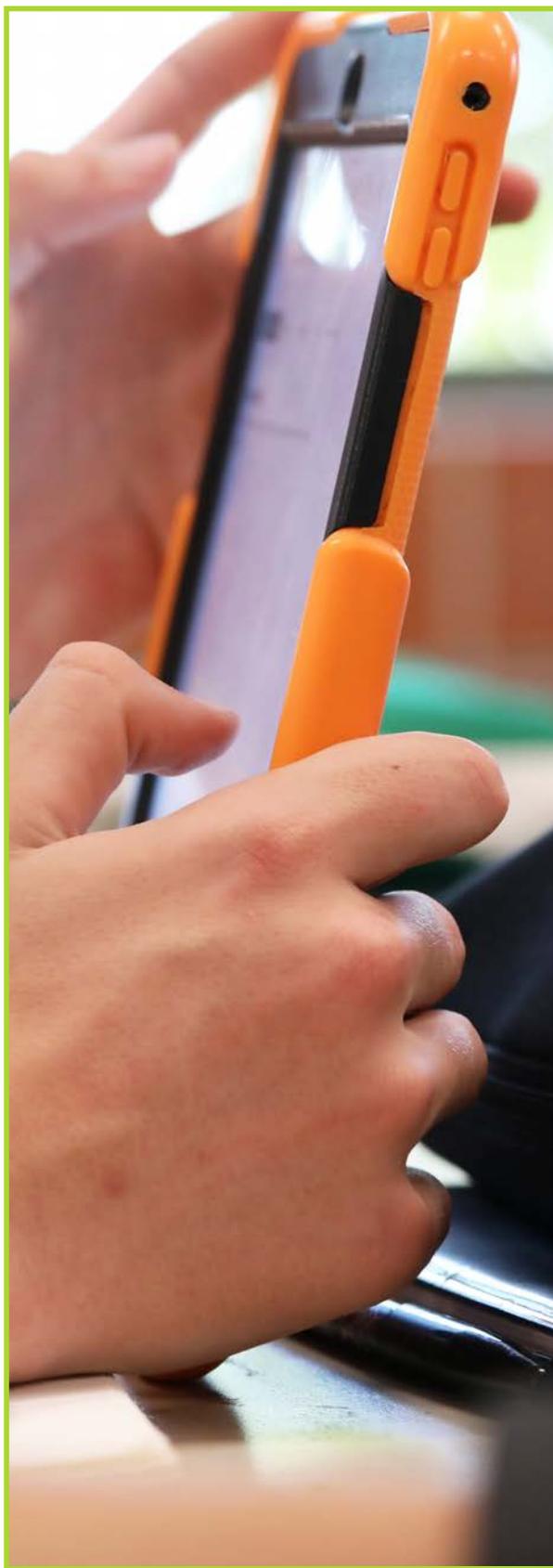
SD-WAN's automated capabilities, such as link failover and generating application performance analytics, can also increase the efficiency of your IT staff. This automation frees up their time to focus on other value-added tasks, like implementing stronger data storage and recovery solutions.

3. SD-WAN Can Improve Security and Compliance.

When dealing with IT, educational institutions need to be particularly mindful of areas like cybersecurity and compliance, given the amount of sensitive information they hold. Fortunately, SD-WAN provides organizations with greater control to improve security and compliance.

For one, SD-WAN solutions can have built-in security features, like intrusion detection and URL filtering to help block malicious traffic from getting through to networks. Organizations can also centrally manage security policies for segmenting traffic and authenticating devices so that unauthorized users have less of a chance to reach the most sensitive areas of your network.





In addition to preventing external threats, SD-WAN can also help with internal security and compliance. For example, you may not want students using school-owned devices to visit certain websites or use applications that could pose security risks or cause compliance issues. With SD-WAN, you can easily set policies to block users from accessing risky areas of the web. You can also help ensure that network traffic remains appropriate for an educational environment with features such as safe search and YouTube filtering.

4. Advanced Technology Can Still Be Simple to Implement and Manage.

With all the capabilities that SD-WAN provides, it may seem complex to set up and use. However, SD-WAN offers automated features and increased visibility that can ultimately make it easier to manage your network.

Many SD-WAN solutions can be set up with zero-touch provisioning, so you can start managing your network in the cloud in a few hours (rather than the months it can take to set up a traditional WAN). Once your SD-WAN is set up, you can gain better oversight of your entire network across different campuses, with automated alerts and analytics to help you understand network performance.

Not only do these features help protect your network and free up IT departments to focus on other tasks, but they can also add flexibility to overall IT management.

For example, by being able to easily analyze the performance of different applications and infrastructures, IT teams can recognize when something might need to be repaired or replaced, rather than waiting until it becomes fully non-functional.

As such, educational institutions can make decisions, such as shifting resources from one campus to another or replacing one device or application that could help bolster others. Doing so could make capital expenses more palatable than replacing entire IT environments at once.

5. Underlying Network Quality Is Equally as Important as SD-WAN Quality

Although SD-WAN solutions can be powerful, they can't overcome a bad underlying network. If your internet service provider (ISP) doesn't offer fast internet speeds, for example, an SD-WAN can't increase your maximum network speeds; it would just help you get the most out of what your ISP can offer. Ultimately, the quality of the network that you're using still matters a great deal. Before deploying an SD-WAN solution, it helps to ensure you're using a well-built network with low latency.

Educational institutions may also benefit from working with an SD-WAN provider like FirstLight, which owns and operates its own fiber-optic network, whereas many other SD-WAN vendors use other providers' networks. As such, FirstLight can eliminate many of the troubleshooting issues that arise from multiple providers servicing the same network—including the finger-pointing and lack of accountability between vendors when an issue arises.





Leverage the Advantages of SD-WAN With FirstLight

By using FirstLight's Cisco-based SD-WAN solution, educational institutions gain the advantage of powerful network management technology with a strong underlying network.

Our SD-WAN solution can be paired with our Network Assurance service for a fully managed network, including ongoing monitoring. With this combination, we can help you assess your current network, deploy all equipment and services, assist you in managing your technology to maximize operational efficiency and security, and provide 24/7 local support to make sure you can rely on real people to get the most out of your IT. We won't let our customers fail with the technology we provide.

See how FirstLight's SD-WAN solution can help educational organizations like yours. Schedule a time to [view our demo](#) so you can gain a deeper understanding of our offering.

[Schedule a Demo](#)

