TECH TACTICS

SOLVING IT STAFFING CHALLENGES WITH MANAGED SERVICES

HISTORICALLY, K–12 school systems have taken a "do-it-yourself" approach to deploying and managing their network infrastructure. This DIY model has served school systems well for many years. However, K–12 leaders are starting to rethink this method as they look for ways to solve for a shortage of IT talent.

An emerging approach that is becoming more popular within K–12 education is managed network services. In this approach, school districts outsource the operation of their network to an experienced service provider. Rather than owning and maintaining network equipment themselves, they pay a monthly fee for network equipment and services as if these were a utility.

Managed services effectively enable school districts to augment their IT staff by leveraging a pool of talented professionals with years of experience across a broad range of technology domains. This eliminates the burden of attracting and retaining network specialists. Managed services also come with a fixed cost, making budgeting much easier and eliminating the unforeseen expenses associated with hardware failures and the need to replace outdated technology.

Managed services involve a significant shift in mindset for K–12 leaders. Here are five "dos" and five "don'ts" to help leaders understand whether this model makes sense for their district and to ensure a successful implementation.

DO be realistic about the challenges of IT hiring.

Finding and recruiting skilled IT workers poses a challenge for organizations of all sizes, even during periods of economic uncertainty. While a number of U.S. companies have announced hiring freezes or layoffs in recent months, the demand for IT talent remains strong. During the first quarter of 2022 alone, U.S. employers **reportedly posted 1.1 million tech job openings** — a 43% increase over the prior year.

Employers say there aren't enough skilled IT workers to fill the demand. **According to Gartner**, IT executives see the talent shortage as the biggest adoption barrier for 64% of emerging technologies, compared with just 4% in 2020. A lack of available talent was cited far more often than other barriers, Gartner says, such as implementation costs (29%) or security risks (7%).

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The shortage of IT talent is a problem for all organizations, but it places a particularly large burden on public school systems. With **IT salaries on the rise**, school districts often struggle to match the compensation packages that private-sector employers can offer.

Managed network services solve this problem. By offloading hardware installation, system configuration, network administration, maintenance, and support to an experienced provider, school district IT departments don't have to worry about whether they have the expertise on staff to handle these tasks for themselves. Instead, they can focus their time and effort on supporting students and teachers more effectively.

DON'T be averse to trying new IT approaches.

Technology is constantly changing, and nobody knows that better than IT leaders. Yet, IT departments aren't immune from becoming trapped in the same TTWWADI ("that's the way we've always done it") mindset that tends to stymie progress within education. To serve the needs of stakeholders, IT executives need to be highly agile and open to changing course when it makes sense to do so.

Twenty years ago, students and staff were still accessing software from school district servers — and the idea that we would log into most applications from the cloud seemed like a foreign concept. Managed network services represent a similar paradigm shift, and leaders must be willing to let go of the idea that schools should own and operate their own network infrastructure if a managed approach can save them time and money and improve their network services.

DO think about how managed services can help IT staff be more strategic.

When you own your IT infrastructure, you're responsible for all maintenance and repairs. With a managed solution, you don't have to worry about these responsibilities. IT staff who normally would be deployed for network maintenance and support can be reassigned to focus on higher-level tasks that align more closely with the core mission of your school system, such as implementing new instructional technologies and training users.

This is a key benefit of a managed services

approach. Research suggests that many school district IT departments are spread too thin to support the use of technology for instruction effectively.

In a 2022 **survey of K–12 chief information officers** by the Consortium for School Networking (CoSN), a majority of respondents said their districts were understaffed for two IT functions that have a direct impact on teaching and learning: providing instructional support around classroom technology use (52%) and providing remote support to students and their families (51%). Nearly half of respondents (46%), meanwhile, reported insufficient staff for integrating technology into the classroom.

Freeing school district IT staff from having to manage the network allows them to focus on these critical tasks instead, reducing the likelihood that these strategic priorities become neglected.

DON'T overlook how managed services can help with network security.

K–12 school systems have become targets for a growing number of cyberattacks in recent years, and IT leaders are under enormous pressure to prevent a network security breach in their district.

A managed services approach helps K–12 leaders successfully predict and manage their network expenses, including the cost of routine maintenance. There are no more costly surprises when a piece of equipment goes down, and district leaders don't have to scramble to find the money to replace aging routers or wireless access points.

According to the K12 Security Information Exchange (K12 SIX) and its 2022 **State of K–12 Cybersecurity: Year in Review report**, there have been more than 1,300 publicly disclosed cybersecurity breaches involving K–12 districts in the United States since 2016. This equates to a rate of more than one incident per school day, the organization notes.

A managed approach to network services can help mitigate the risk of a successful attack. This is another important benefit of adopting a managed approach.

When you own your network infrastructure, you're also responsible for implementing security patches and upgrades to keep these systems fully protected. With managed services, security patches and firmware changes are installed for you, keeping your network continually up to date.

DO consider the benefits of having a fixed monthly cost for network services.

CoSN's survey indicates that budgeting for technology has consistently been the top IT challenge facing K–12 school systems for the last several years. Taking a managed approach to network services can help K–12 leaders budget for technology more effectively by replacing unpredictable expenses with fixed monthly costs that are much simpler to plan around.

Traditionally, school district IT departments have purchased and installed network infrastructure through large capital expenditures. The problem with this approach is that strategic IT planning may depend on the availability of new funding. As a result, districts might be stuck with outdated equipment until they can raise the money required for a network refresh cycle.

A managed services approach can lead to more stable and consistent IT budgeting. This helps K–12 leaders successfully predict and manage their network expenses, including the cost of routine maintenance. There are no more costly surprises when a piece of equipment goes down, and district leaders don't have to scramble to find the money to replace aging routers or wireless access points. What's more, many districts find it easier to pay a smaller fixed amount every month than to make large, up-front capital expenditures.

DON'T ignore the value of having an easily scalable network infrastructure.

Besides making it easier to budget for network technology, a managed approach gives school systems greater flexibility, allowing districts to scale their network capacity up or down as necessary.

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When you purchase your own network equipment, you're investing in a specific infrastructure with a fixed capacity. If your needs change more quickly than you anticipated, or if you underestimated the demands on your network, you're out of luck until you have the additional capital required for enhancements. In contrast, a managed solution lets you easily add more capacity whenever you need to — such as during online testing or if your student population surges unexpectedly. Plus, it gives you the assurance that as technology evolves, you'll always have access to the latest innovations.

A managed approach also lets you scale down your capacity. For instance, if you don't need as much bandwidth during the summer months, you can temporarily reduce your capacity — and your costs.

DO carefully evaluate potential network providers.

Choosing an effective provider is critical for success. Contracting with the wrong network provider could result in poor communication, slow response times, unexpected network outages, and disappointing service. The resulting administrative headaches could end up costing your IT staff valuable time to sort out — which defeats the purpose of opting for a managed approach in the first place.

When evaluating managed service providers, look for a company with cutting-edge technology and proven industry leadership. Some key questions to ask include:

- Does the provider use the latest network standards and technologies?
- Do the company's products reflect the latest industry developments?
- Does the provider have the size, capacity, and expertise to serve your needs effectively?
- Is the company stable and reliable, with a strong reputation in the industry?

Complex IT challenges call for a partner who can build a network that matches your specific goals, timelines and performance demands. Think carefully about your network infrastructure needs, and choose an experienced and highly regarded network provider who can deliver on these technical requirements.

DON'T worry about giving up control of your network.

IT leaders might have concerns about relinquishing control of their network infrastructure to an outside company. But partnering with a managed services provider doesn't have to mean giving up total control.

While providers offer a wide range of fully managed services, many also let customers assume control of some operations with co-management capabilities. If they desire, a school district's IT staff can still maintain control with real-time visibility into what's happening on the network and the ability to make changes via an intuitive portal.

Managed services don't necessarily replace

a school system's IT resources. Instead, these services allow IT staff to focus their time and attention on the priorities that make the most sense for their district. School districts and their network partners can decide together how they'll share the responsibilities of managing the district's network infrastructure.

DO choose a reliable partner with extensive education experience.

Technical expertise is essential, but so is a knowledge of the education sector and its requirements. School systems have their own unique culture, operate on a different calendar and schedule than other organizations, and have a broad range of stakeholder groups with different needs and network privileges. As a result, the network requirements of K–12 school systems are very different from those of businesses.

When choosing a managed network provider, school districts should select a company that will be not just another technology vendor, but a reliable partner that understands the unique needs of K–12 education and is fully invested in their success. Look for a service provider with a proven record in serving other school systems effectively, one that will value you as a customer and will respond quickly whenever you have questions.

DON'T forget to negotiate SLAs.

A managed solution gives K–12 leaders peace of mind with service level agreements (SLAs) that guarantee network uptime and a fast resolution to any problems that might occur. SLAs set well defined expectations from the beginning of the relationship between a school system and a managed services provider. When negotiating SLAs, ask for estimates of the provider's response times to various situations,

so you have clear sense of the time it will take to fix any problems that might arise. Make sure you understand the provider's process for keeping network systems up to date and its approach to network security, and make sure someone is available at all hours in the event of an emergency.

ENSURING AVAILABILITY OF IT RESOURCES

If school districts have skilled and experienced network technicians on staff who can maintain and troubleshoot the network, then it might make sense for districts to purchase and manage their own network infrastructure. However, if districts struggle to recruit and retain qualified network technicians or if they find their IT departments stretched thin, then a managed solution could be an attractive option.

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Network maintenance and management involves constant tweaking and firmware updates to optimize the experience for users. With a managed approach to network management, this process doesn't have to place a burden on district IT staff. Support teams are available to troubleshoot problems and deploy technicians if there are any problems with the network 24 hours a day, 365 days a year.

A managed services approach can improve a school district's security profile. It makes budgeting for technology easier. It helps district IT employees be more strategic. And it ensures that critical IT resources will always be available for students and staff when needed.

WHY CHOOSE SPECTRUM ENTERPRISE?

Spectrum Enterprise is an industry-leading provider of managed network services with extensive experience in serving K–12 school systems nationwide. Its technical teams work closely with district leaders to plan, design, and implement network solutions that meet a district's specific needs.

School districts can transition from their own private networks to a managed SD-WAN solution at a pace of their choosing. District leaders can decide whether Spectrum Enterprise fully manages the solution, or whether the district will co-manage it with Spectrum Enterprise. Either way, a managed services approach allows school district IT teams to focus on higher priorities.

The services that Spectrum Enterprise offers include:

- **Enterprise Network Edge**
- **Managed Network Edge**
- **Managed Router Services**
- **DDoS Protection**
- **Managed WiFi**

Each service includes unique properties, but all services provide:

- **Network continuity:** Improve reliability and uptime of WAN connections by ensuring routing network equipment is up to date.

- **Reliable connections:** Ensure your network is running at top performance with updated equipment that identifies and corrects both issues and bottlenecks, with the ability to gain easy insight into network performance.

- **Minimized disruptions:** Offer failover to a second router or connection to ensure continued network access.

- **Expert support:** Focus on more strategic initiatives knowing you have dedicated access to certified technicians as well as local account teams, plus 24/7/365 phone and online support.

- **Managed efficiency:** Offload network support requirements to focus IT on more strategic initiatives with a fully managed solution, including design, implementation, and router monitoring — or utilize Spectrum Enterprise for co-managed services.

Certified network experts, a national reach, and multiple connectivity options make Spectrum Enterprise uniquely qualified to be a school district's single networking partner. We can customize a complete solution to meet any needs. Managed Services from Spectrum Enterprise can strengthen a school district's security posture with automated updates that make it easy to keep pace with changing networking requirements and emerging security risks.

Firewall service, unified threat management (UTM), advanced malware and intrusion protection can be added to all Spectrum Enterprise network services. In addition, site-to-site VPN integration automatically establishes encrypted tunnels for traffic between schools and to the cloud, ensuring that network connections are more secure. A school district's most critical applications can receive priority via intelligent routing, and this same intelligent routing plays a crucial role in protecting district networks.