

# Why K-12 Schools Need to Consider IT Managed Services

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## Introduction

The dream of infinite and uninterrupted information availability in academic settings has, of late, come tantalizingly close to reality. Technological advances continue to make information more readily available for all students. However, accessing that information requires certain tools, tools which tight budgets and short term planning have frequently kept out of students' hands. IT Departments in educational institutions struggle against minimal infrastructure, low budgets, and limited manpower in the hope of enhancing students' educational experience with the technology of the 21st century.

Introducing technology into K-12 environments is seldom a simple task. A school computer network must be functional and efficient, feature elaborate security measures and be compliant with government regulations; all this requires expensive equipment, and a competent on-site IT staff. For the majority of school districts in the US, these expenses represent a nearly impossible budgetary commitment. In order to avoid cutting corners in such a way that the end users, the students and faculty, are detrimentally affected, it is necessary for school districts to consider innovative solutions to administering their IT needs.

This white paper will demonstrate the advantages of adopting IT Managed Services in K-12 School Districts. IT management needs to move toward the future side-by-side with education as it evolves to include technology at the core of the curriculum.

## Why school districts can't do it alone

School Districts must navigate numerous and elaborate challenges, and do so with extremely limited resources. Computer networks and their supporting infrastructure are generally of secondary concern; they're frequent victims of budget cuts and neglect. Even with the increasing perception of the importance of technology in educational environments, it is still difficult to encourage administrators and school boards to provide adequate support for these systems. Educational technology has been, and in large part continues to be, viewed as an easily disparaged luxury or entertainment medium instead of being recognized as one of the most vital elements in the educational future of a child.

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Given the propensity toward neglect, it is common to find outdated machinery and overwhelmed IT staff with little time for day-to-day preventative maintenance. Keeping outdated equipment running requires IT staff to spend the majority of their time updating software, downloading patches, and monitoring hardware. This leaves little time for other vital activities like updating security measures to ensure the safety of sensitive information. Protection and prevention fall under the umbrella of “security”, but reasonably, knowledge of (and control over) what information can go into or out of the network is an indispensable prerogative given the variety of end users in a school district.

IT staff end up allocating a lot of their limited resources toward problem solving and prevention when those items could be addressed more efficiently, more thoroughly, and less expensively using a strategic IT management plan.

*How can a school district find the resources to establish such a strategy when IT resources are already stretched so thin?*

The best answer to this question is “automation”. Automation is an ideal supplement to the shortcomings of most school IT departments, allowing staff to concentrate on applying their ability as directly as possible toward helping students and faculty.

### **Automation: Increased efficiency and lowered costs**

An automated environment allows for maximized potential from staff. They are able to achieve more with the same resources. Those resources (e.g. energy, computing power, and man-hours) are used more efficiently, being consumed only when necessary for a task. As a result of devices drawing less power, energy bills will be lower and the district will be more environmentally friendly, both of which are important in education institutes.

IT Management services and consulting are focused on preventative action. Manual management, on the other hand, tends to necessitate that most of the staff’s time is spent going from place to place and “putting out fires”. Other problems tend to develop simultaneously, and there is little time to implement a more efficient system that can anticipate and prevent problems, or even solve them remotely. A traditional solution might be to hire more IT staff, resulting in increased expenses

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and temporary solutions. Without a comprehensive contingency and prevention plan, which would take full advantage of existing infrastructure and human resources, long term costs and unoptimized man-hours will increase.

End users suffer the most from imperfect IT management strategies; the system's poor performance serves as a hurdle: disrupting workflow, causing frustration, and lowering morale. Technology used for educational purposes and administrative processes is stymied by issues like insufficient bandwidth, outdated update and patching history, or faulty network infrastructure. While some school districts have started to implement automation for certain tasks, most still rely on manual maintenance and repair for their networks. The possibility of using a centralized, streamlined, largely automated IT service remains overlooked by most school districts, despite offering a variety of benefits:

- A proactive system is configured in order to prevent common issues. Backup and recovery plans, constant real-time reporting, redundancy and security reinforcement prevent a significant amount of downtime and lost information.
- Devices will last longer before failure as a result of optimization.
- Centralized monitoring makes it easier for staff to be consistently aware of the well-being of the entire network. Issues that arise will be detected and addressed promptly.
- Cloud-computing allows for reduced hardware costs, increased security, and easy access to information.
- Updated infrastructure and systems function more efficiently: reducing excessive consumption of energy and optimizing the use of hardware and software.
- Additional support (on-site and remote) helps staff address issues in a timely manner.
- IT consulting services reduce the burden on school district staff through strategic planning and ideal practices.

IT infrastructure should run seamlessly in an education

**IT infrastructure should run seamlessly in an education institute: facilitating learning, broadening opportunities, and bolstering safe data flow.**



institute: facilitating learning, broadening opportunities, and bolstering safe data flow. Students denied the chance to take advantage of technology based learning will have difficulty keeping pace with students who did have that opportunity. Since there are so many complications involved in providing this critical service to the students, more schools must consider IT Managed Services: the most practical and cost effective solution to getting ahead of the curve. There is no better time than now to look to the future.

### Automation in action

Customized IT solutions produce real results. Carefully planned and managed IT environments have proven themselves as ideal solutions for small and medium-sized organizations. The Town of Salem, NH is one of the brightest examples.

In 2011, Neoscope Technology Solutions engaged in a project with the Town of Salem to improve their existing IT infrastructure situation. The initial landscape included low productivity due to insufficient Internet bandwidth, poor performance and risk of failure in critical systems, insufficient funds dedicated to IT planning and deployment, no backup and recovery strategy, and an IT staff reluctant to implement new technology.

The decision of Salem to outsource IT functions gave Neoscope an opportunity to evaluate and improve the existing infrastructure while keeping costs low.

### In 2012, the Town of Salem:

- Created security controls
- Added streamlined and centralized server and desktop preventative maintenance that included updates, antivirus, and asset management systems.
- Configured a hybrid backup and file sharing system using cloud computing combined with local infrastructure.
- Migrated to a VoIP telecommunications solution
- Established disaster recovery plans

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- Developed long-term models for technological improvement and meeting future demand.

The benefits were easy to identify based on cost reduction alone, with over \$200,000 in savings reported after the first year. By choosing the right technological tools, all of Salem's departments were experiencing more effective communications, better workflow and enhanced infrastructure, including faster processes in vital Police and Fire Department networks.

These advantages are equally applicable to Salem's K-12 school district's IT department. The Salem School District (SAU 57) turned to an outsourced IT Management Services solution during a significant crisis; a virus had compromised the district's networks, affecting 2,000 workstations and 80 servers. The lack of strong security measures led to a reassessment of best practices and planning. The project was taken by Neoscope Technology Solutions. After thorough assessment of the district's specific issues, Neoscope created a personalized solution falling within Salem's IT budget.

### **Salem School District was able to completely eradicate the virus, and at the same time:**

- Strengthen their network security systems against future threats
- Streamline the district's technology environment while complying with all required standards
- Train IT staff in competent use of infrastructure and best practices
- Manage assets through secure remote access and E-Rate assessment.

The majority of school districts will see a quick return on investment from energy savings, optimized infrastructure, preventative maintenance and monitoring, and rapid response to any issues through ticketing and personalized support.

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## Neoscope and K-12 school districts

Neoscope's intervention in school systems has been proven to provide the individual solutions needed within the required budget, as exemplified by the Salem school district. A personalized approach makes a meaningful difference in creating and implementing a development plan to diagnose, repair, assess, and maintain entire IT infrastructures.

### These are some of the key benefits recognized by school districts that are using Neoscope Technology Solutions:

1. **Tailored IT management:** Complete assessment of the school district's existing infrastructure, recognizing areas of potential improvement in line with the district's available IT budget. The center will receive the service they need while simultaneously lowering costs.
2. **Compliance** with government and district regulations.
3. **Flexibility and scalability:** The implementation of new technologies and more effective infrastructure can be done gradually. System improvements can be applied in the most efficient manner, reconciling current need with future advantage.
4. **24/7/365 monitoring and support**, including detailed reports and infrastructure overview.
5. **Ease of access:** Tools like Neoscope's customer portal and applications are simple to use and accessible for end users.
6. **Centralized management** that allows IT members to monitor and control assets from one location.
7. **Security and patch management, anti-virus and anti-malware management** to ensure the entire network is protected at all times against the latest and most aggressive threats.
8. **Backup management**, as well as disaster recovery strategies to protect sensitive information and critical files from any unforeseen circumstances. Cloud

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computing serves as an easy backup and file sharing solution.

9. **Real consulting** to create solid short-term and long-term plans to maintain and improve the existing infrastructure. Plans are designed to prepare the school for future technology demands and developments in the IT field.

All of these advantages increase productivity in the use of the entire network, leaving users satisfied with the experience and able to optimize their time.

## Neoscope and E-Rate

Affordability is paramount when it comes to K-12 school district IT projects. Neoscope Technology Solutions provides assessment with the E-Rate program, enabling qualifying districts to increase their potential for growth. These funding initiatives may facilitate outstanding improvements in access to learning technology and open new possibilities for students. Neoscope evaluates the educational center and provides guidance and information in order to maximize increased federal funding.

In this new era of learning, outsourced IT Managed Services are rapidly being successfully implemented in K-12 school districts. Neoscope stands out in that field, providing streamlined system management, asset optimization, and efficient troubleshooting in order to ensure peak system functionality and reduced costs.

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