

Automating Technology Audits

Managing technology effectively requires a technology audit.

By Sam Zippin



Throughout the country, schools have significantly ramped up their use of technology as a teaching tool and as an administrative asset for teachers, administrators, and students alike. But along with that increased adoption comes an increased scope of work for business and IT departments whose personnel must manage, secure, and optimize the ever-increasing array of devices across their network infrastructure.

One of the first and most important overall steps in the automating process is to conduct a technology audit.

What is a technology audit? Simply put, it is the process of identifying and confirming the status and location of *all* of an organization's information technology assets. From meeting Tech Readiness requirements to

managing software licenses, hardware, and other computer assets—and from capital planning to inventory—audits are important. Knowing what assets you have, how they're used, and who is using them is critical to efficient and cost-effective asset management, especially when budgets are tight.

Not surprisingly, most respondents in a recent SchoolDude/CoSN survey of K–12 IT professionals report that they conduct audits for internal purposes only, with 68% indicating they conduct annual audits and 14% indicating they audit their assets twice per year.

Although these numbers are positive, some schools still don't conduct audits at all. When comparing the numbers of respondents who don't conduct audits at all

(6%) with the number of respondents that do not have a software-based asset management system in place (11%), it may be simply too overwhelming to perform cost-effective audits without using a software-based asset management system. Preparing for Tech Readiness, BYOD, and capital planning will not be an easy task without such a solution in place.

Knowing what assets you have, how they're used, and who is using them is critical to efficient and cost-effective asset management, especially when budgets are tight.

School districts must manage all IT assets. This includes individual desktops, notebooks, and tablet computers—which, depending on your district, may be Apple products, Chrome products, Linux-based computers, or others as well as their component parts—and server computers. Other hardware and accessories also need to be audited, including printers, networking equipment, and presentation equipment, such as projectors and electronic whiteboards. In some cases, assets such as telecommunications equipment and security systems can also be included in an IT audit.

Confirming proper software licensing is also a significant part of a technology audit. Unlicensed software installations can expose your district to expensive fines and even civil litigation. Installed software that has not been licensed or approved for use by your institution can not only violate licensing agreements, but can place the security of your network and your data at risk.

Technology audits can address many key concerns of school business officers and technology directors. A survey of IT directors, IT managers, technicians, and administrative staff found that:

- 88.6% reported concern about software license compliance and

would greatly benefit from an automated system.

- 85.7% required technicians or contracted help each year to spend several days conducting an audit of IT assets.
- 80% reported assets sometimes disappear and are gone for a

while before anyone notices.

- 74.3% encountered problems with unauthorized software being installed on computers.
- 71.4% said it is difficult to plan hardware and computer replacement and upgrade programs for the next three years.

Regular technology audits can improve compliance, protect assets, minimize unauthorized installations, and provide a blueprint for future upgrades and replacements. However, conducting these audits manually can impose a significant additional burden on your already thinly-stretched staff.

Software for a Technology Audit

A manual audit of your district's IT assets conducted by in-house personnel typically requires technicians to walk through all buildings and sites, finding and confirming each individual IT asset. This is an inefficient process, wasting many hours of valuable technician time each year. This inefficiency amplifies the challenges already faced by district operations and IT departments in an economic climate where they are expected to accomplish more than ever before, while having fewer resources available to devote to the tasks at hand.

IT asset management has become more complicated, especially now with technology readiness requirements in the Common Core

standards schools must comply with. Using software to manage IT audits offers benefits in a number of areas:

Automation. The most immediate benefit to automating your technology audit process is the amount of staff time and resources that can be devoted to other needs. In fact, 77% of the survey participants reported that their IT budget was less than needed in order to meet the overall expectations of the school board and district leaders, with 41% stating that their budget was severely less than needed to meet expectations. Automating your IT audits will free up significant amounts of staff time while enabling you to manage the district's IT investment effectively.

Software Management. Institutions have a major investment in software. A school's software not only needs to be effectively managed financially, it also needs to comply with licensing agreements to avoid fines. An automated technology audit solution can discover and monitor all the software on all computers within the organization, then provide the tools for optimum software management.

Proactive IT Support. Using an automated technology audit solution can improve customer service. Such a system can provide a help desk technician with complete visibility of the BIOS, hardware, and software of the IT asset. As a result, technicians can proactively identify issues before a teacher or other faculty member has to put in a help desk ticket for servicing, keeping end users happy and productive.

Asset Security. Effective technology audit automation software will identify all the PC hardware on the client network and then monitor it daily to ensure it remains there. Since some hardware is expected to be removed from the network at times, such as notebook computers or personal devices associated with BYOD, the system should allow

for “security tuning,” which simply means one must determine how long an asset is removed from the network before triggering an alarm.

Both short- and long-term plans gain credibility when supported by high-quality information about the current state of the district’s IT assets.

Network and Data Security.

Many technical problems and the related costs occur as a result of unauthorized software being installed on institutions’ PCs. An effective IT audit automation tool allows software to be black-listed, gray-listed or white-listed. If someone installs unauthorized software or unapproved software, an incident report is immediately generated and routed to appropriate personnel for evaluation and corrective action. In addition, viruses and malware that can compromise network security are quickly identified.

Strategic Planning/Emerging Trends. Having an excellent and accurate database of all hardware and software assets is a critical

foundation for short- and long-term planning. A technology audit automation system should provide excellent support for planning next year’s budget as well as multi-year technology plans. Both short- and long-term plans gain credibility when supported by high-quality information about the current state of the district’s IT assets. This data also will help with determining how to approach and manage the demands of emerging trends, such as BYOD policies, 1:1 computing initiatives, and Common Core-driven tech readiness.

How to Get Started with Audit Software

If you’re convinced that technology audit automation will benefit your district, you may be wondering where to begin the process of selecting the right product or how to guide your IT department through the process. To find the best product to meet your district’s needs, follow these five steps as you complete your evaluation:

Step 1: Look for a Software as a Service (SaaS) solution that lowers total cost of ownership.

SaaS, also known as cloud-based computing, has increased in popularity in recent years for several reasons. Widespread high-speed connectivity, lower data storage costs, and the explosion in mobile computing have combined to make SaaS solutions an excellent choice for K–12 school districts of all sizes.

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While lower upfront costs are a well-known benefit of SaaS systems, when that is combined with a low price, the total cost of ownership makes a SaaS system a very efficient and effective investment.

Step 2: Work with your vendor to ensure all assets and IP addresses are imported into software to automate and streamline audits.

Ensure that your technology audit automation vendor can import your existing data and with you to collect any asset information that may not currently be accurately tracked. In addition to current asset information, your vendor should collect and import any and all ranges of IP addresses used in your district. If additional addresses are added, your vendor should provide a user-friendly means for adding them to your system.

Step 3: Appoint an audit manager or champion to manage the process.

For your implementation of technology audit automation to succeed, an internal project manager should serve as the liaison between your district and your vendor. This person should also serve as the main internal advocate for the project. He or she must constantly raise the project’s profile, be a fierce supporter, and continually emphasize the benefits of technology audits and the automation process to your stakeholders.

Step 4: Conduct audits and monitor software on a regular basis to monitor hardware, software licenses, and other devices.

After selecting and implementing your technology audit automation solution, develop a technology baseline by conducting audits in all departments. These audits will establish current capacity across the district and provide support when additional resources are needed. Areas operating with sub-standard or outdated hardware can

be pinpointed and targeted quickly as refresh strategies are developed. Audits can also determine if software is being used in accordance with district licensing agreements.

Step 5: Analyze time saved through reporting functionality—assess, evaluate and improve!

After your baseline has been established, review the reports provided by your system. They should offer a blueprint for areas which you can target for improvement and to provide to supervisors, management, the Board, or other stakeholders. Whether you are on the lookout for unlicensed software, attempting to head off potential hardware problems, or working to comply with regulatory requirements, your IT audit management solution should provide your IT department with reports that are easy to generate and full of actionable data.

Conclusion

Automating technology audits can eliminate the expense and errors of manual audits, automatically manage your district’s software licensing and hardware deployment, improve the security of the district’s technology investment, and help you comply with applicable fiduciary regulations. In today’s technological and budgetary climate, a technology audit automation solution is an essential element of your business and technology plan.

Resource

“The Unique Challenges Facing the IT Professional in K–12 Education” survey by SchoolDude and the Consortium for School Networking, 2013. <http://www.schooldude.com/Portals/0/Public%20Content/Reports%20and%20Presentations/Technology%20Management/sr-2013-it-survey.pdf>

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