



ISSUE BRIEF

## **BUILDING K-12'S SECURE, SUSTAINABLE, STREAMLINED FUTURE**

**Transforming K-12 education processes starts with laying the right foundation with your organizational workflow.** Many districts have embarked on education transformation initiatives; however, there is still room for improvement to build a more stable transformation foundation.

According to a recent Center for Digital Education (CDE) survey, the top 2 leadership priorities are personalized learning and digital content and curriculum.<sup>1</sup>

The purpose of this paper is to discuss three foundational layers of digital transformation—security, sustainability, and streamlined operations—and how K-12 institutions can improve their workflow and processes to enable a more seamless transformation effort.

A CDE survey found that in many school districts, technology and SaaS lead the way for school security. Specifically, 79% stated building access technology; 73% specified on-site security, 66% specified software monitoring for messaging/communication platforms for threats.<sup>1</sup>

<sup>1</sup> CDE - 2018 digital school districts survey findings - analyst briefing

# Security

As K-12 school districts become more dependent on digital content and curriculum, protecting student data has increased in importance, especially for parents concerned about how their children's information is stored and used.

Security is a critical foundational piece to transformation efforts, but many K-12 school districts focus only on network protection, essentially ignoring end-point devices. Major security gaps arise when multifunction printers (MFPs) and other devices with varying, decentralized security mechanisms are connected to the network; this issue is exacerbated by the fact that the IT team is not always responsible for print and document management.

We have identified three security practices that can help kick-start your school district's transformation efforts: implementing role-based information access, protecting personally identifiable information (PII), and ensuring end-point devices are secure. Let's take a closer look at each of these areas:

## Implementing Role-Based Information Access

Applying a role-based information access system helps ensure that the right people have access to the right data.

To institute role-based information access, you must deploy tools that authenticate user identity; decide who can access specific applications and data and how they can use it; and help prepare for compliance audits by showing who accessed files and applications, made changes, printed copies, and transferred files to external storage.

## Protecting Personally Identifiable Information

Systems and processes must be established to prevent PII from being stored, shared, or printed in an insecure manner.

As a starting point, districts should have:

- Identity and access management (IAM)
- Role-based user access
- Single sign-on (SSO)
- Self-service password management on end-point devices
- Two-factor/multi-factor authentication
- Audit trails and logging software

## Securing End-User Devices

End-point devices are vulnerable because many of them do not fall under traditional centralized network security controls, but they still transact large quantities of PII.

For example, documents sent to a server-connected printer are stored in the printer's hard drive. Any connected device, including printers, can be an open port for hackers. Faxed or printed documents that lay in output trays before their intended recipient retrieves them also put PII at risk. In a busy administrative office, these materials could be available to whomever happens to walk by.

Schools and districts can secure end-point printers by deploying a secure print system, enacting policies for data that can be printed, and training employees on acceptable use policies. To accomplish this, schools using Canon's uniFLOW can store print jobs digitally in a secure, centralized server and then push jobs to network printers. This empowers the school to establish rules-based output and policies that add efficiencies and reduce costs.

## Emergency Preparedness

Districts are implementing several measures to improve preparedness. 93% are implementing emergency alerting and notification systems such as phone calls, text, and computer pop-up alerts. 88% state that they have measures to back up system data regularly. 86% state the district's disaster/crisis plan has been coordinated with local disaster response authorities. However, only 48% have included cyber disruptions in its crisis management plan—leaving a huge opportunity and gap in their security plans.<sup>2</sup>

Sustainability reduces costs and increases security of information. For many school districts, sustainability starts with printing only what needs to be printed, when it needs to be printed.

Printers can serve as the center of a new way to capture and store information, reducing the need to print at all. On Canon MFPs, paper documents can be scanned and recognized using software, such as the Therefore™ Capture Client, that will route documents through a secure, intelligent workflow.

K-12 institutions also need to adopt a print management system that makes it easier for teachers and staff to print responsibly. Canon Solutions America helps school administrators implement solutions to gain control of their printing habits and encourage teachers and faculty to print responsibly. With Canon printing solutions, school administrators can promote and achieve more environmentally conscious behavior through energy conservation.

## Streamlined Operations

Teachers can spend hours each week developing and grading tests, but district administrators can help streamline these activities through intelligent grading and automation processes.

Streamlining workflows requires identifying processes that can be digitized and eliminating manual and repetitive processes within your institution. Using scan and capture technologies instead of paper helps K-12 institutions serve students faster. It also allows them to reduce repetitive processes, increase accuracy of information (by eliminating manual entry), and make information accessible anywhere.

When done well, workflow management can provide K-12 institutions with a flexible, cost-effective, and efficient way to print, grade, and analyze tests. For example, 38% of K-12 respondents to the CDE survey said automation and workflow management simplified staff/teacher workloads. Another 34% said automation and workflow management helped to free employee (particularly teacher) time for more critical tasks.

In addition, technologies such as Canon's Intelligent Grading Solution (IGS) provide educators with flexibility to create and grade exams and then generate detailed, analytic reports directly from their printer. These simple changes can have a major impact on the amount of time teachers spend on the grading process each day.

## STEPS FOR EVALUATING YOUR WORKFLOWS TODAY

1

**IDENTIFY HOW DATA GETS IN YOUR SYSTEM**

Does data have to be entered manually?

2

**IDENTIFY THE FLOW OF DATA THROUGH YOUR SYSTEM**

Once data enters your system, where does it flow? Does it have to be entered more than once?

3

**IDENTIFY HOW EMPLOYEES INTERACT WITH YOUR DATA**

Do your employees have to access data from disparate systems?

4

**IDENTIFY POINTS WHERE DATA LEAVES YOUR SYSTEM**

Do you have to print data to share with students? Can you email it?

<sup>2</sup> CDE - 2018 digital school districts survey findings - analyst briefing

## Conclusion

According to the CDE survey, cost is one of the largest barriers to K-12 transformation initiatives, with 39% of K-12 educators citing it as their primary obstacle. This can drive K-12 decision-makers to seek cheaper printing solutions without understanding how to calculate the true cost of ownership.

Cost does not always equal value. Scrimping on security, quality, or other features can be more expensive in the long run. For example, failing to incorporate security mechanisms and a rigorous security policy may result in security gaps that expose a district to significant financial risk. Choosing lower-quality devices may result in frequent replacements, adding to capital investment costs and an organization's carbon footprint.

## Where to Start Your Transformation Journey

### 1 Form a transformation working group

Engage stakeholders from different parts of your district—such as teachers, administrators, and business unit managers—who represent the users involved in your daily workflows. Use this group to have a recurring conversation to identify, frame, and execute your transformation strategy. Use these meetings as an opportunity to elevate challenges to address and new ideas to test. At a minimum, assemble this group each quarter to have a regular dialogue.

### 2 Do a landscape analysis

Before you develop a transformation strategy, conduct a review of your district environment. This includes mapping all of your managed services, software applications, and hardware down to your end-point devices, which includes printers. In addition to mapping the devices, it is also important to understand the business processes supported between each of them. Use this landscape analysis to benchmark your current devices and processes against changes you implement as a way to measure and track your district's progress.

### 3 Develop a strategy that secures, sustains, and streamlines your processes

After you assemble your transformation team and map your existing landscape, it's time to create a strategy to guide your transformation. A transformation strategy should be composed of at least three short-term goals and three long-term goals within each of the key transformation elements—security, sustainability, and streamlined operations. Short-term goals should be designed to be accomplished before your next meeting (e.g. one-month to three-months); whereas long-term goals should be accomplished within the school year. You can create goals by functional area or departments and assign them to corresponding transformation group members to provide additional ownership in the process.

### 4 Measure and adapt

As your transformation efforts progress throughout the year, regularly review and report on your progress with your transformation working group. Let each member that was assigned goals have an opportunity to share challenges, progress, and learnings. Sharing this knowledge as a group will allow you to centralize information and adapt quickly if you need to change direction.

## Take the Productivity Challenge

For help with your transformation journey, Canon Solutions America has created the Productivity Challenge. The Productivity Challenge is an online self-assessment tool that helps organizations understand how they benchmark against industry optimized organizations in five key areas: Print Management, Document Distribution, Document Management, Accounting, and Sustainability. Take the challenge today at <http://bit.ly/productivitychallenge>.

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