Pine Bush Central School District

IT Asset Management

S9-22-21 | **February 2023**

Contents

Report Highlights

Audit Objective

Determine whether Pine Bush Central School District (District) officials appropriately tracked, inventoried and safeguarded information technology (IT) assets acquired or in use during the audit period.

Key Findings

District officials did not appropriately track or inventory IT assets, maintain complete IT inventory records or establish adequate controls to safeguard IT assets. As a result, officials cannot assure taxpayers that money invested in IT assets has been appropriately spent or safeguarded.

We selected 40 IT assets to confirm their location and that they were inventoried, and 15 additional IT assets to confirm they were inventoried. We found 7 percent of the sampled assets were not properly accounted for. Specifically:

- Four Chromebooks, with a total cost of approximately $1,300, of the initial 40 IT assets could not be physically located but were inventoried. The additional 15 assets were properly inventoried.

In addition, annual inventories were not conducted, network hardware storage locations were not secured, and officials did not adopt a comprehensive written policy for establishing and maintaining IT equipment inventory.

Key Recommendations

- Ensure District inventory records are complete and include the detail necessary to adequately track and locate IT assets.
- Perform annual and complete physical inventories and compare results to inventory records.

District officials generally agreed with our recommendations and have initiated or indicated they planned to initiate corrective action.

Background

The District serves the Towns of Crawford, Montgomery, Mount Hope, and Wallkill in Orange County, the Town of Mamakating in Sullivan County and the Towns of Gardiner and Shawangunk in Ulster County

The elected seven-member Board of Education (Board) is responsible for the general management of the District.

The Superintendent serves at the Board's direction and is responsible for day-to-day management.

The IT Director is responsible for overseeing the IT department, including IT asset inventory management.

Quick Facts	
District	
Enrollment	4,812
Staff	1,076
Approximate Cost of IT Assets Purchased or Leased in Our Audit Period	$1.8 million

Audit Period

July 1, 2019 – March 31, 2022. We expanded our audit period through June 15, 2022 to observe inventory at the District.

IT Asset Management

School districts purchase a wide variety of IT equipment, such as interactive displays and desktop computers, as well as highly portable items, such as monitors, laptops and tablets. These assets can make up a significant portion of a district's IT asset inventory, in both value and number. School district officials are responsible for providing oversight to ensure that assets are protected from loss, inventory records are current, and assets can be easily located.

With the onset of the COVID-19 pandemic, school districts acquired a significant number of IT assets to transition to remote and hybrid learning. This influx of new and often highly portable IT assets highlighted the importance of tracking and inventorying practices to ensure that taxpayer funds are appropriately spent and safeguarded.

How Should District Officials Inventory and Safeguard IT Assets?

A school board should adopt a comprehensive written policy that sets forth guidelines and procedures for establishing and maintaining IT asset inventory. Although some IT assets could be considered fixed assets, IT assets' portability and access to a district's network and/or confidential data poses a distinct risk of loss or misuse. Given this risk, school district officials should establish a separate, well-defined policy that includes guidance for school district officials to maintain detailed, up-to-date inventory records for all IT assets including:

- Adding new equipment to the inventory,
- Notifying the IT Department when equipment is reassigned, lost or stolen,
- Documenting and updating the inventory for equipment disposal, and
- Annually reviewing the physical inventory.

Inventory records should include a description of each item including the make, model and serial number; the name of the individual to whom the device is assigned, if applicable; the physical location of the asset; and relevant purchase or lease information including the initial cost, depreciation and acquisition date.

In addition, school district officials should verify the accuracy of IT asset inventory records through annual physical inventory counts. Devices should be periodically examined to assess their condition and to verify accurate location information in the inventory records. Maintaining complete and up-to-date IT asset inventory records also helps a school board develop and implement an effective IT equipment replacement plan. To safeguard IT assets from loss, theft or misuse, IT assets should be in a locked and secured area with environmental controls such as smoke detectors, fire alarms and extinguishers, and protection from water damage.

Officials Did Not Appropriately Inventory or Safeguard IT Assets

Although the Board-adopted Fixed Assets Inventories, Accounting and Tracking Policy[1] (Policy) requirements provide direction for officials to track and inventory assets, the Board did not adopt a comprehensive written policy specifically for IT equipment inventory.

According to the Policy, fixed assets are generally long-term (i.e., lasting more than one year) tangible resources intended to be continuously held or used and may include equipment. Based on this definition, most IT assets would be subject to the Policy's guidance without a comprehensive policy specifically for IT assets.

The Policy states that assets should be labeled (i.e., an asset tag) and inventory records for each asset should be maintained. These inventory records, where possible, should contain:

- Date of acquisition,
- Description,
- Serial or other identification number,
- Funding source,
- Vendor,
- Cost or value,
- Location and use,
- Asset type,
- Condition and estimated useful life,
- Replacement cost,
- Current value,
- Salvage value,
- Disposal information, and
- Responsible official.

Additionally, the Policy requires certain attributes to be recorded that do not necessarily aid in tracking and inventorying IT assets but are important for other operational needs. For example, cost, acquisition date or condition and useful life information do not aid in tracking an asset but are useful for determining overall cost or age of assets, which in turn, could ensure appropriate insurance coverages are maintained and assist in planning for replacement of assets reaching the end of their useful life. Although the District's accounting records have the costs, acquisition date and vendor information for IT assets, this information is not easily compiled for inclusion in the District's IT asset inventory records and cannot easily aid in planning for future IT asset investments. Therefore, the cost and age of all IT assets currently in use by the District was undetermined at the conclusion of our fieldwork.

Inventory Records – The IT Director and a Technical Support Assistant maintained one inventory list for District IT assets, using an inventory management system that they transitioned to in 2019. Additionally, each of the seven school buildings have an additional Technical Assistant responsible for ensuring the devices in their respective buildings are correctly entered in the inventory management system.

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1   Policy 5620, adopted August 24, 2011, last revised September 22, 2020.

We reviewed the inventory list, and although all 40 IT assets in our physical test as well as the 15 assets additionally identified during our walk-through and inspection were properly recorded, we found that it did not always contain information needed to sufficiently track and/or identify the District's IT assets. For example, there was numerous missing, incomplete and/or inaccurate information for individual entries, such as serial number, asset tag, acquisition date, vendor or cost. Specifically:

- 3,852 records were missing the acquisition date.
- 13,976 assets had assigned locations within the District that did not include a specific room, only the building the device was assigned to.

Further, the list did not contain all the information required by the District's Policy including asset condition, funding source, replacement cost, current value, salvage value, disposal information or responsible official (Figure 1).

Figure 1: Board-Required Inventory List Attributes

Master IT Inventory List						
Acquisition Date	Description	Serial or Asset Number	Vendor	Cost or Value	Location and Use	Asset Condition
✓	✓	✓	✓	✓	✓	X
Funding Source	Asset Type	Replacement Cost	Current Value	Salvage Value	CAP Information	Responsible Official
X	✓	X	X	X	X	✓

The Technical Support Assistant told us when the IT asset information was transferred into the new inventory management system, information may not have transferred properly or not all the required information was originally recorded in the previous system. The IT Director told us he was aware of the Policy requirements and the required information was entered for new purchases starting in July 2019, but it would be too time consuming to enter in the missing information from IT purchases prior to that date.

Annual Inventories –The IT Director told us he instructed his staff to verify IT asset locations when they enter a classroom and update records, but the staff have been overwhelmed with support demands from the increase in portable IT assets to accommodate remote learning due to the COVID-19 pandemic. As a result, his department did not conduct a physical inventory of all IT assets during our audit period and the Director could not recall the last time one was done. However, an increase in the number of portable IT assets reinforces the need for complete physical inventories

Safeguarding Assets – Of the 40 assets we selected to physically confirm were in the District's possession, the IT Director could not locate four Chromebooks (10 percent of assets tested) costing approximately $1,300 (Figure 2).

The IT Director was unaware that these four Chromebooks were missing, or that his staff could not locate them.

These four Chromebooks last connected to the District network between January 2016 and September 2019, prior to the start of the COVID-19 pandemic. Had the IT Department conducted adequate annual inventories, these assets should have been identified and the discrepancies should have corrected.

FIGURE 2

IT Assets Selected

Located

Not Located

10%

Four of 40 IT assets could not be located

In addition, during our building walk-through and inspection of assets, we observed network hardware located in two unlocked closets located in the elementary and middle school, leaving the hardware susceptible to possible damage. The IT Director said these closets are in common spaces and they cannot always keep the doors locked but acknowledged the need for equipment to be secured when possible.

The IT Director did not maintain detailed up-to-date inventory records, ensure annual physical inventories were conducted or that IT assets were always safeguarded. As a result, District officials cannot be assured that IT assets are adequately accounted for and would be detected if lost, stolen, or misused. Further, complete, accurate, and up-to-date inventory records help District officials ensure that IT assets are properly insured, tracked through their life cycle and replaced as necessary. When inventory records are incomplete, and assets are not properly accounted for, District officials cannot ensure taxpayers that money invested in IT assets has been appropriately spent or safeguarded. Finally, IT system components should always be in a locked and secured area to further safeguard them from damage or loss.
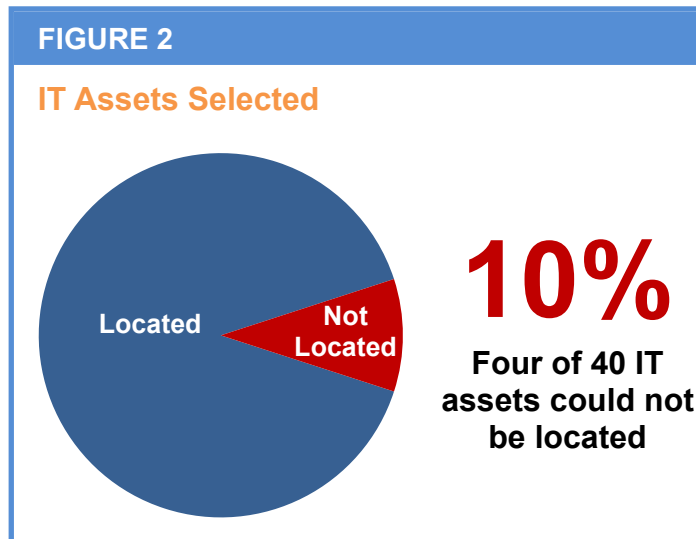
What Do We Recommend?

The Board should:

1. Adopt a specific comprehensive written policy to appropriately track and inventory IT equipment. This policy should include guidance and processes for:

    - Maintaining detailed, up-to-date inventory records for all IT equipment,

    - Adding new equipment to the inventory,

    - Notifying the IT Department when equipment is reassigned, lost or stolen,

    - Documenting and updating the inventory for equipment disposal, and

    - Annually reviewing the physical inventory.

2. Require the IT Director to perform a physical inventory of all IT equipment, locate missing and unaccounted-for equipment and update inventory records accordingly.

The IT Director should:

3. Comply with applicable District policies.

4. Ensure District inventory records include the detail necessary to adequately track and locate an IT asset and that asset records minimally include the make, model and serial number; the name of the individual to whom the device is assigned, if applicable; the physical location of the asset; and relevant purchase or lease information including the initial cost, depreciation and acquisition date.

5. Perform a complete annual physical inventory and compare the results to inventory records. Take appropriate action to follow up on any discrepancies.

6. Ensure that District personnel keep IT asset storage areas locked and secured.

Appendix A: Response From District Officials

Brian Dunn, Superintendent of Schools
Amy Brockner, Assistant Superintendent for Instruction
Joseph Lenz, Assistant Superintendent for Business

WE EMPOWER STUDENTS TO DREAM BIG, THINK GLOBALLY, VALUE DIVERSITY, AND ACHIEVE PERSONAL SUCCESS

PINE BUSH
Central School District

January 5, 2023

Office of the NEW YORK STATE COMPTROLLER
Attention: Statewide Audit Unit

District Response to IT Asset Management Report of Examination S9-22-21

The district welcomed the IT asset management audit by the NYS Comptroller's office. We were open to suggestions on how best to handle the management and tracking of Chromebooks used by students now that students are taking them home. The district was forced into the one-to-one Chromebook world when the pandemic hit without adequate time to plan the rollout, which brought about many challenges. Unfortunately, the comptroller's office report paints a picture that the district does not adequately keep track of its IT assets, which the district feels is not completely accurate. Further, the report does not adequately discuss the improvements that the IT Department made to its inventory tracking and processes when the new asset management system was implemented in 2019, three years prior to the audit. However, there are processes that can be improved and the district will take all of the recommendations seriously.

The IT Department made a conscious decision to transition to a new asset management and work order system in the 2018-2019 school year which enabled the district to accurately track assets and to whom and where they were assigned, as well as track the repair history for devices. The IT Department researched multiple systems before deciding on the new system. There were some key factors in the department making the decision to identify, purchase and implement the new system. These factors include: the ability to accurately track assets, assign assets to both staff and students, include a timeline for the life of the assets and include the repair history of assets. The purchase of the new system was made in April 2019 and the process of migrating the existing inventory records from the old asset management system into the new system began. This was a complicated process that involved both district staff and technical support staff for the new system. The new system was brought online in July 2019. The IT Department has been working diligently to maintain accurate records for its IT assets since the new system was put in place. The IT Department acknowledges that there are missing data elements for assets that were purchased prior to the new system being put in place. Some of these elements were missing in the previous system and some were not able to be imported from the old system into the new system. The decision was made to not research and enter the missing data elements in the new system for inventory purchased prior to 2019 due to the simple fact that this would be an overwhelming task with limited resources.

Of the four Chromebooks that the IT Department was not able to locate when the auditors were onsite, two were purchased in 2015, one was purchased in 2017 and the other was purchased in 2018. The two purchased in 2015 are a model that was no longer being used in the district at the time of the audit. The Chromebook purchased in 2017 is a model that was taken out of normal service prior to the 2021-2022 school year and was being used as a loaner while a student's assigned device was being repaired. The Chromebook purchased in 2018 was being taken out of normal service in September 2022 to be used as a loaner while a student's assigned device was being repaired. All four of these devices were purchased and inventoried prior to the new asset management system being implemented in 2019.

One of the IT Department's goals was to conduct a physical inventory after the new asset management system was implemented. Unfortunately, the pandemic hit the same school year that the new system was implemented, as a result the physical inventory was put on hold. The IT Department experienced a significant increase in the demands placed on it during the pandemic. These demands have eased very little as school has slowly tried to return to normal. The number of Chromebook repairs have increased exponentially since students began taking the devices home. The IT Department met the challenges to successfully support the quick pivot decision of both virtual and in-person learning for staff and students during the pandemic without additional staff. We completely understand and support conducting a physical inventory each year, but this has been impossible to do while supporting instruction and handling all of its other responsibilities these past three years. It is important to also keep in mind that the IT Department has also had to increase cyber protections and adhere to new data privacy regulations during this same time period.

The district agrees that keeping its IT closets secure is a priority. In fact, the district has made significant efforts to secure its IT closets over recent years through Smart Schools projects and by using in house maintenance staff. The school buildings were all built well before IT was a topic in schools. Consequently, it is impossible to have IT only closets throughout the district. Storage space is a premium in schools and consequently, most IT closets are in spaces used for storage and are shared with other staff. This makes it very difficult to completely secure all of these spaces.

The district does appreciate the feedback and recommendations included in the Comptroller's office report on IT Asset Management. The report's recommendations will be reviewed and an action plan to make improvements will be developed.

Sincerely,

Brian P. Dunn
Superintendent of Schools

Sent via: Muni-Statewide@osc.ny.gov.

Appendix B: Audit Methodology and Standards

We conducted this audit pursuant to Article V, Section 1 of the State Constitution and the State Comptroller's authority as set forth in Article 3 of the New York State General Municipal Law. To achieve the audit objective and obtain valid audit evidence, our audit procedures included the following:

- We selected the District for audit from a list of school districts (excluding NYC schools) with enrollment greater than 300 and not currently in the OSC audit process at the time of selection. We classified school districts into four groups by enrollment and, using a random number generator, selected Districts from these groups. The list was broken out by geographic region for an even representation of school districts across the State for this multi-unit audit.

- We interviewed District officials and reviewed District policies and Board minutes to gain an understanding of IT asset management.

- We reviewed District IT department and building IT asset records provided by the District to determine if the records contained sufficient information to identify IT assets.

- We selected a sample of 40 IT assets, 30 from District invoices, and 10 from Chromebook report. For 30 assets, we selected the largest invoice(s) from each IT vendor and selected the first 10 assets. Ten student devices were selected based on four-month school access inactivity report. We reviewed purchase orders, invoices, and/or packing slips and District inventory records to determine if assets were added to the inventory record and physically located in the District.

- We performed a walkthrough of District facilities and judgmentally selected 15 assets to determine whether the assets were accurately recorded on the inventory record. During our visual inspection of District IT assets, we assessed the general condition of their locations for the potential risk of damage or loss.

We conducted this performance audit in accordance with generally accepted government auditing standards (GAGAS). Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Unless otherwise indicated in this report, samples for testing were selected based on professional judgment, as it was not the intent to project the results onto the entire population. Where applicable, information is presented concerning the value and/or size of the relevant population and the sample selected for examination.

The Board has the responsibility to initiate corrective action. A written corrective action plan (CAP) that addresses the findings and recommendations in this report must be prepared and provided to our office within 90 days, pursuant to Section 35 of General Municipal Law, Section 2116-a (3)(c) of New York State Education Law and Section 170.12 of the Regulations of the Commissioner of Education. To the extent practicable, implementation of the CAP must begin by the end of the next fiscal year. For more information on preparing and filing your CAP, please refer to our brochure, *Responding to an OSC Audit Report*, which you received with the draft audit report. The CAP should be posted on the District's website for public review.

Appendix C: Resources and Services

Regional Office Directory
www.osc.state.ny.us/files/local-government/pdf/regional-directory.pdf

Cost-Saving Ideas – Resources, advice and assistance on cost-saving ideas
www.osc.state.ny.us/local-government/publications

Fiscal Stress Monitoring – Resources for local government officials experiencing fiscal problems
www.osc.state.ny.us/local-government/fiscal-monitoring

Local Government Management Guides – Series of publications that include technical information and suggested practices for local government management
www.osc.state.ny.us/local-government/publications

Planning and Budgeting Guides – Resources for developing multiyear financial, capital, strategic and other plans
www.osc.state.ny.us/local-government/resources/planning-resources

Protecting Sensitive Data and Other Local Government Assets – A non-technical cybersecurity guide for local government leaders
www.osc.state.ny.us/files/local-government/publications/pdf/cyber-security-guide.pdf

Required Reporting – Information and resources for reports and forms that are filed with the Office of the State Comptroller
www.osc.state.ny.us/local-government/required-reporting

Research Reports/Publications – Reports on major policy issues facing local governments and State policy-makers
www.osc.state.ny.us/local-government/publications

Training – Resources for local government officials on in-person and online training opportunities on a wide range of topics
www.osc.state.ny.us/local-government/academy

Contact

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