

Scarsdale Union Free School District
Independent Accountant's Report On
Applying Agreed-Upon Procedures
June 21, 2022

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**INDEPENDENT ACCOUNTANT'S REPORT ON
APPLYING AGREED-UPON PROCEDURES**

To the Board of Education and Audit Committee
Scarsdale Union Free School District
Scarsdale, New York

We have performed the procedures described in the following pages, which were agreed to by the Scarsdale Union Free School District (District), on information technology for the period July 1, 2020 through December 31, 2021.

The District's management is responsible for administering this function.

This engagement to apply agreed-upon procedures was performed in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of the procedures is solely the responsibility of the District. Consequently, we make no representation regarding the sufficiency of the procedures either for the purpose for which this report has been requested or for any other purpose.

Our procedures and findings are described in the following pages.

We were not engaged to and did not conduct an examination or review, the objective of which would be the expression of an opinion or conclusion, respectively on the District's information technology function. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

We would like to express our appreciation for the cooperation and assistance that we received from the District's administration and other employees during our engagement.

This report is intended solely for the information and use of the District and is not intended to be and should not be used by anyone other than the specified parties.

Cullen & Danowski, LLP
June 21, 2022

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Introduction:

This report is organized as follows:

- Background information
- Summary of the engagement
- Procedures performed during our detailed testwork
- Findings as a result of our review
- Recommendations to further strengthen internal controls or improve operational efficiency.

Some of the recommendations may require a reassignment of personnel duties within the District and/or a monetary investment. However, any enhancement of controls should be done after a careful cost-benefit analysis.

Corrective Action Plan:

Commissioner of Education Regulation §170.12(e)(4) requires that a corrective action plan (CAP), approved by the Board of Education, must be filed within 90 days of issuance with the New York State Education Department (NYSED).

The District should submit the CAP along with the respective Internal Audit Report via the NYSED Portal.

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INFORMATION TECHNOLOGY

Background:

We performed a review of the information technology (IT) function that included meetings, testwork and reviews of documentation as per the engagement letter dated July 1, 2021, to determine the effectiveness in complying with IT related policies and procedures. Our fieldwork was conducted during the months of February and March 2022. The District's IT Department is overseen by the Director of Information Technology, Chief Information Officer, and Data Protection Officer (Director) and includes the Data Services staff consisting of 3 full-time employees and Technical Services staff that includes the Manager of Educational Technology, Network Administrator, Computer Systems Manager, network specialists, junior network specialists, technical support specialist and secretary. The IT Department is responsible for technological activities, managing IT assets, data management and preparation of reports containing various data elements. The District also has a Director of Instructional Technology and Innovation with duties related to the systems and protocols for instructional technology. The focus and procedures of this engagement covered the IT Department and oversight.

User Accounts

Our review of the IT procedures related to user accounts and access was mainly concentrated on the District's Network (Active Directory), financial system (SMARTS), student management system (Infinite Campus) and Frontline programs (Special Education Management [formerly IEP Direct], Absence Management [formerly Aesop]) and Professional Growth [formerly MyLearningPlan and OASYS]). We found that the District has standard procedures related to adding, revising and inactivating user accounts in Active Directory, SMARTS, Infinite Campus and the Frontline programs. This process includes designated system administrators and proper administrative approval prior to making user account changes. We reviewed the access and user permissions related to the network and these critical systems to ensure that the user permissions were consistent with the respective employee's job function. We also reviewed the timeliness of granting access to new hires and inactivating access for separated employees within these systems.

Network

The Manager Educational Technology and Network Administrator are the system administrators responsible for the District network. The District uses a program, Active Directory, to facilitate the management of user accounts with the District network. The system administrators are responsible for managing user accounts. The process is fully automated where accounts are automatically activated when staff are hired and automatically suspended when staff are terminated in the Human Resources (HR) database (SMARTS). The Active Directory program also controls access to most systems, including to Google (email system), Infinite Campus, and Frontline.

SMARTS

The Director, Systems Programmer Analyst and Database Manager are the system administrator of SMARTS. This system has numerous levels of access, various rights (e.g., all access, view only, modify only, etc.) and different approval levels. Each role in the system has permissions assigned based on the employee's job duties. In addition, any changes to SMARTS user accounts results in a proper audit trail that is reviewed periodically by the Business Office.

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Infinite Campus

Infinite Campus is cloud hosted at Infinite Campus' secure data centers in multiple U.S. locations. Infinite Campus manages the system, including backups. The Director and the Data Services staff are responsible for managing and changing user accounts in Infinite Campus.

Frontline Special Education Management

The District uses Frontline Special Education Management to manage the Individualized Education Program (IEP) that is set up for each student receiving special education services. This system has numerous levels of access, various rights (e.g., all access, view only, modify only, etc.) and different approval levels based on the users job responsibilities (e.g., special education teacher, school building administrator, school psychologist, etc.) The two secretaries in the Special Education and Student Services Department staff have system administrator rights related to activating and inactivating user accounts in Frontline Special Education Management.

Frontline Absence Management

The District uses Frontline Absence Management software to manage employee absences, substitutes and attendance. This system has numerous levels of access, various rights (e.g., all access, view only, modify only, etc.) and different levels based on the users job responsibilities (e.g., teacher, school building administrator, senior administrators, etc.) The HR Department staff have system administrator rights related to activating and inactivating user accounts in Frontline Absence Management.

Frontline Professional Growth

The District uses Frontline Professional Growth software to facilitate the tracking of the professional development and observations of the instructional staff. This system has numerous levels of access, various rights (e.g., all access, view only, modify only, etc.) and different levels based on the users job responsibilities (e.g., teacher, administrator, etc.) The Curriculum, Instruction, and Assessment Department staff have system administrator rights related to activating and inactivating user accounts in Frontline Professional Growth.

Passwords

The protocols and requirements related to the specific complexity of passwords and the frequency that the users must change their passwords are managed by Microsoft group policies for all systems that are controlled by Active Director (e.g. Infinite Campus, Google, Frontline, etc.). The SMARTS system has its own password policies.

Asset Inventory

There are standard procedures related to managing the IT assets and inventory at the District utilizing a web-based asset/inventory management program, One to One Plus. The process includes proper tagging of the IT inventory (i.e., laptops, desktops, Chromebooks, iPads, projectors, etc.) with sequentially numbered District ID tags. The IT staff is responsible for affixing the IT assets with the District ID tags and updating the One to One Plus asset/inventory database. The District has also implemented a one-to-one initiative to provide students with devices and designated IT team members are responsible for the deployment of such devices.

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Recent Initiatives

The recent IT initiatives undertaken by the District include the following key items:

- The IT Department reviewed and updated the Disaster Recovery Plan and established procedures to perform this process every 2 years.
- The IT Department developed a Cyber Security Incident Response Plan and established procedures to perform annual reviews.
- The District has enhanced their cyber security protocols related to remote access by faculty and students as part of the e-learning plan.
- The IT Department has implemented an off-site backup storage process that automatically moves data from local servers to the cloud.
- The District has refined the replacement process related to the devices (i.e., Macs) to replace the items no more than 6 years in closer coordination with financing via a 4 year lease cycle.
- The IT Department has updated their Microsoft license to a higher tier from “A3 Security” to “A5 Security” to provide enhanced antivirus and overall cybersecurity protection across all operating systems.
- There have been communications, including emails to staff related to safe internet use that included awareness of phishing, scams and spamming messages.
- The IT Department continuously expands their written, formal systems documentation related to key processes and tasks performed by the IT staff.
- The IT Department has been systematically enhancing network security. The latest initiative was to enforce multi-factor authentication for staff for systems that store sensitive student data, e.g. Google, Infinite Campus, and Frontline IEP.

Summary:

We found that the District has Board policies and standard procedures in the IT function covering key processes, including access to systems, user permissions, security of data, backup of data, safeguarding inventory, etc. The results of our interviews, review of records and testwork indicate that the IT Department has been active with undertaking initiatives to enhance and expand the use of IT at the District as listed above.

We note that there are opportunities to further improve operations based on the results of our engagement. These items are described further in the findings and recommendations section below. We recommend that the District and the IT Department continue being active with implementing the recommendations below to further strengthen internal controls and enhance operational efficiencies related to the IT area.

Procedures:

Our procedures, as per the engagement letter dated July 1, 2021, were as follows:

- Review Board policies and written procedures related to the operations of the IT function including disaster recovery, user accounts, IT assets (e.g., Chromebooks, iPads, laptops, etc.), data security, state data reporting, and compliance requirements with Education Law §2-d Regulation and Part 121 of the Commissioner’s Regulations.

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- Interview IT staff and administrators with IT oversight regarding policies, procedures and systems including the ordering, purchasing, receiving, tracking, recording and assigning IT assets/inventory.
- Review the procedures related to repairing and replacing IT assets (e.g., Chromebooks, iPads, laptops, etc.) that includes the billing, collections and revenue recognition for these activities.
- Interview IT staff and administrators with IT oversight to ensure the District has complied with requirements of Education Law §2-d Regulation and Part 121 of the Commissioner's Regulations.
- Review the access to the District Network, SMARTS, Infinite Campus and Frontline systems to ensure that the user accounts and permissions are appropriate based on the employees' job duties. Select 40 current employees of the District and review:
 - Current Acceptable Use Agreement is on file
 - Access (if any) to the SMARTS financial system is appropriate
 - Access (if any) to the Infinite Campus student management system is appropriate
 - Access (if any) to the Frontline system is appropriate
- Select 10 new hires during the period for timeliness and completeness of setting up access to the network and any applications.
- Select 10 terminated employees during the period for timeliness and completeness of removal of access to the network and any applications.
- Review back-up process and procedures for 1 period under review to determine if the files were backed up in accordance with District plans.
- Select 25 purchases related to IT capital assets during the period to ensure that the items are properly recorded, tagged and assigned in the asset database.
- Select 25 purchases related to IT inventory items (i.e., under the asset threshold) during the period to ensure that the items are properly recorded, tagged and assigned in the inventory database.

Findings:

Review of Board policies and written procedures related to the operations of the IT function including disaster recovery, user accounts, IT assets (e.g., Chromebooks, iPads, laptops, etc.), data security, state data reporting, and compliance requirements with Education Law §2-d Regulation and Part 121 of the Commissioner's Regulations found:

- There are several Board policies related to IT that cover acceptable use of District computer networks, code of ethics for all personnel, internet protection act, student/parent agreement for acceptable use of District devices, disposal of District property, asset management, and information and data privacy, security, breach and notification.
- The Director and the Director of Instructional Technology and Innovation are retiring during the summer of 2022. We found that the District has assessed the structure of the technology areas to determine the staffing, roles and responsibilities going forward based on the retirement of these 2 long-term administrators. The restructuring plan consists of 3 positions that include (1) Director of Technology and Innovation, Chief Information Officer and Data Protection Officer; (2) K-12 Coordinator of Digital Learning and Literacy and (3) Lead Systems Analyst Programmer.
- There are automated processes to ensure timely changes to network user accounts and formal procedures to communicate employee changes to the system administrators to ensure timely changes

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with user accounts. In addition, the IT Department has established procedures to review the District's systems user account lists annually to validate that the status of the user accounts are appropriate. However, there is opportunity for improvement to ensure that these reviews are completed annually, since the IT Department identified that the Frontline Professional Growth system included active user accounts of employees who were retired for a period of time when we requested this list of user accounts during our fieldwork. Further review found that the user accounts in the District Network were appropriately inactivated on a timely basis for these retirees, so these users were not able to access the system.

- The District has data backup procedures in place and a written, formal Disaster Recovery Plan that provides valuable protocols in the event of a disaster or emergency.
- The Director of Instructional Technology and Innovation created a very informative video that covers the importance of data security and protection, which all of the staff are required to watch annually. Also, the Director provides the employees with periodic emails stressing the importance of potentially harmful emails with attachments and the District provides users with IT security training.
- The parents and students are required to sign the *Mobile Device User Agreements* prior to receiving a device (e.g., Chromebook, iPad, laptop, etc.) from the IT Department to acknowledge that the item is District property and agree to the acceptable use of the device. We also found that the District has a standard *Equipment Receipt* form that must be completed by staff who are provided devices (e.g., Chromebook, iPad, laptop, etc.) prior to the IT Department deploying these items to the respective employee, so they acknowledge that the asset is District property and must be returned at time of separation. The District has a *Staff Use of Computerized Information Resources Policy (Acceptable Use Policy)*. In addition, the District requires all staff to complete the comprehensive IT training courses developed in-district that includes awareness of the Acceptable Use Policy and potential phishing emails.
- The District performs annual network penetration tests and has an independent outside vendor perform comprehensive intrusion tests every couple of years. In addition, the District has signed up for membership with MS-IASC, which is a Division of Homeland Security, for multi-state information and analysis to monitor the network receive IT related alerts. The District also has membership with the BOCES Lower Hudson Regional Information Center (LHRIC) for data privacy and data security service that includes alerts, workshops, etc.

Interviews with IT staff and administrators with IT oversight regarding policies, procedures and systems including the ordering, purchasing, receiving, tracking, recording and assigning IT assets/inventory noted:

- There are over 5,200 devices (i.e., Chromebooks, iPads and laptops) deployed to staff and students, as well as, projectors, switches and other IT assets. The District has procedures to track and record IT assets that are identified during the purchasing process to be entered into the One to One Plus asset/inventory database. Assets are assigned sequentially numbered tags and affixed to the assets upon receipt or removal from their boxes.
- The IT Department has a comprehensive document titled *Technology Equipment Asset Management Policy* that contains information to ensure that information about computer equipment locations and their decommissioning status are tracked and kept up to date. This policy also includes language regarding assets values that states technology equipment which costs less than \$100 will not be tracked and the capital asset threshold is \$5,000 for financial reporting purposes.
- The physical inspections of selected IT storage closets at the High School building and discussions with the IT staff found that the access to these areas is restricted to appropriate employees. In addition, we found that there is adequate temperature control, a building wide fire detection system and a back-up power supply generator. However, we noted that these IT storage closets lack a water and flood damage alert system (e.g., water monitoring via a "leak rope"). We also understand that some of the IT storage

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closets at other school buildings are used to store non-IT supplies and cleaning apparatus resulting in the risk of potential damage to the IT equipment in these closets. In addition, we found that the District does not conduct formal periodic inspections of these areas to ascertain potential physical security weaknesses or issues.

Review of the procedures related to repairing and replacing IT assets (e.g., Chromebooks, iPads, laptops, etc.) that includes the billing, collections and revenue recognition for these activities found:

- The procedures relating to the repairing and replacing of computers are adequate and are being followed by the District employees and IT Department. This includes the use of a standard form that is completed by the technicians and submitted to the IT Office, where they are entered into the One to One Plus asset/inventory database to track and monitor the repair activity.
- The parents are encouraged to purchase insurance for the Chromebooks provided to the students. The District also has coverage through warranties on a majority of technology equipment including, but not limited to, servers, switches, computers, Chromebooks and iPads.

Interviews with IT staff and administrators with IT oversight to ensure the District has complied with the requirements of Education Law §2-d Regulation and Part 121 of the Commissioner's Regulations noted:

- The District has established Board policies and District protocols to ensure compliance with Education Law §2-d Regulation and Part 121 of the Commissioner's Regulations.
- The District has established procedures in compliance with Education Law Section 2-D to require vendors to sign a Privacy Agreement if there is any personally identifiable information involved in their services.

Selection of the 40 current employees of the District and review of their access to the District Network, SMARTS, Infinite Campus and Frontline systems to ensure that the user accounts and permissions are appropriate based on the employees' job duties found:

- *SMARTS* – of the 40 current employees there were 13 employees with access to SMARTS where their user accounts and permissions were all appropriate based on their job duties.
- *Infinite Campus* – of the 40 current employees tested there were 29 employees with access to Infinite Campus and their user accounts and permissions were all appropriate based on their job duties.
- *Frontline* – of the 40 current employees tested there were 37 employees with access to Frontline and their user accounts and permissions were all appropriate based on their job duties.
- Our full review of the District Network active user accounts (total of 1,352) compared to the SMARTS system-generated report listing all of the active employees found the following:
 - There were 80 user accounts that were listed as "Other Adults in the Buildings" and 16 user accounts that were listed as a "Consultant", "Contract Person" or "BOCES Staff". The review of these user accounts by the HR Department noted that some of these accounts should be inactivated as the individuals are no longer providing their respective service to the District.
- Our full review of the Frontline Professional Growth active user accounts (total of 759) compared to the SMARTS system-generated report listing all of the active employees found that there were 8 accounts assigned to consultants, service or generic users. Further review noted that these user accounts and their access was appropriate.

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Selection of the 10 new hires and 10 separated employees during the period to review for timeliness and completeness of setting up or removal of access to the network and any applications noted:

- The 10 new hires were set up in the appropriate systems with the proper permissions and their user accounts were activated related to their respective user accounts.
- The 10 separated employees were properly inactivated regarding their user accounts including the Directory Network and other applications related to their respective access.

Review of the back-up processes and procedures for the 1 selected period under review found:

- The files were properly backed up in accordance with the District's IT plans and procedures. There are standard routines and programs that run daily to facilitate the back-up processes, which is monitored by the IT Department and any issues are reported to the Superintendent.

Selection of 25 purchases related to IT capital assets during the period to ensure that the items are properly recorded, tagged and assigned in the asset database noted:

- There was 1 instance where an asset selected from the IT purchasing records for testing did not appear to be added to the One to One Plus asset/inventory database. Although the item appeared to be a power supply unit for the network switch that was also listed on this invoice and may be considered part of the other asset in regards to tracking, the cost listed in the One to One Plus asset/inventory database for the switch on this invoice is listed as \$4,395 and does not include the \$593 for the power supply unit listed on the invoice.
- There was 1 instance where the serial number listed on the invoice did not agree with the serial number entered into the One to One Plus asset/inventory database.
- The review of a purchase of 26 desktop computers found that all of these items were added to the One to One Plus asset/inventory database; however, the "Type" for 1 of the 26 items was incorrectly entered as a Chromebook instead of a Computer.
- The review of a purchase of 8 laptops found that all of these items were added to the One to One Plus asset/inventory database, however, the PO Number for one of these items had not been entered into the One to One Plus asset/inventory database.

Selection of 25 purchases related to IT inventory items (i.e., under the asset threshold) during the period to ensure that the items are properly recorded, tagged and assigned in the inventory database found:

- There was 1 instance related to the purchase of 22 docking stations where we found that 7 of these items could not be located within the One to One Plus asset/inventory database.

Recommendations:

We recommend that the District consider implementing the following items to further improve internal controls and operational efficiencies related to the IT function:

1. Strengthen procedures related to the user accounts by investigating the results of the reconciliations of the user accounts, particularly the accounts that are unassigned to a specific employee, for all of the programs, which includes District Network, SMARTS, Infinite Campus and Frontline systems.
2. Establish procedures to ensure compliance with reviewing the District's system user account lists at least annually to validate that the status of the user accounts are appropriate is completed timely. As noted above, the IT Department reviewed the Frontline Professional Growth user accounts during our

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fieldwork and inactivated some accounts for employees who were retired and the HR Department found that there were user accounts related to the District Network that should have been inactivated.

3. Improve controls and conditions related to the IT Storage Closets as follows:
 - a) Perform a cost/benefit analysis of installing back-up power supply generators, flood monitoring systems (e.g., "leak" rope), improved temperature control system that is properly designed for regulating temperatures and a heat detecting fire suppression system within the areas.
 - b) Restrict the use of these areas to IT equipment and not allow the storage of non-IT supplies and cleaning apparatus to prevent the risk of potential damage to the IT equipment in these closets.
 - c) Conduct formal periodic inspections of these areas to ascertain potential physical security weaknesses or issues that may exist.
4. Establish procedures to ensure that the IT assets and inventory items are recorded accurately and all fields are populated for each item entered into the One to One Plus asset/inventory database.
5. Develop procedures to ensure that all IT assets and inventory items that are required to be tagged and tracked are properly added to the One to One Plus asset/inventory database.

