

# South Orangetown Central School District

## Network User Accounts

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**AUGUST 2022**

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OFFICE OF THE NEW YORK STATE COMPTROLLER  
Thomas P. DiNapoli, State Comptroller

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# Report Highlights

## South Orangetown Central School District

### Audit Objective

Determine whether South Orangetown Central School District (District) officials ensured network user accounts were adequately managed.

### Key Findings

District officials did not ensure network user accounts were adequately managed. In addition to sensitive information technology (IT) control weaknesses which we communicated confidentially to officials, we found District officials did not:

- Ensure procedures for granting, changing and disabling network access are consistently followed by all departments.
- Always review all network user accounts to determine if they are needed.
- Disable 30 of the 3,675 network user accounts that were no longer needed. The 30 accounts include 13 generic accounts, nine former employee accounts and eight contractor accounts.

### Key Recommendations

- Ensure that unneeded network user accounts are immediately disabled and regularly review enabled network user accounts for necessity.

District officials agreed with our recommendations and indicated they will initiate corrective action.

### Background

The District serves the Town of Orangetown in Rockland County and is governed by an elected five-member Board of Education (Board). The Board is responsible for the general management and control of financial affairs. The Superintendent of Schools is the chief executive officer responsible, along with other administrative staff, for day-to-day management under the Board's direction.

The Director of Technology (IT Director) oversees the Technology Department which provides technology support services to the District. The District contracts with the Lower Hudson Regional Information Center to provide assistance in managing, configuring and securing network user accounts.

#### Quick Facts

Students 2020-2021	2,932
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Employees	452
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#### Network User Accounts

Generic	145
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Non-Student	605
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Student	2,925
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Total	3,675
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### Audit Period

July 1, 2019 – April 30, 2021. We extended our audit period through August 12, 2021 to complete our IT testing.

# Network User Accounts

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Network user accounts provide access to the District's IT system and data which are, and contain, valuable resources. The District relies on its IT assets for Internet access, email and maintaining personnel and student records that contain personal, private and sensitive information (PPSI),<sup>1</sup> such as Social Security numbers, medical information, retirement registration numbers and bank account numbers.

If the network user accounts used to access the IT system are compromised, the results could range from inconvenient to catastrophic and may require extensive effort and resources to evaluate, repair or rebuild. While effective network user account controls will not guarantee the safety of an IT system, a lack of effective controls significantly increases the risk of unauthorized use, access and loss.

## How Should the District Manage Network User Accounts?

Network user accounts provide access to network resources and should be actively managed to minimize the risk of misuse. If not properly managed, network user accounts could be potential entry points for attackers because they could be used to inappropriately access and view data on the network, including PPSI. Therefore, a district should have written procedures to help guide network administrators in properly granting, changing and disabling user accounts.

District officials should disable unnecessary network user accounts as soon as there is no longer a need for them. When an employee leaves the District, Staff Relations Department staff complete an account termination request form and notify the IT department that the individual has left. When a contractor's network access is no longer needed, department heads should notify the IT department that the contractor's network access should be disabled. In addition, to minimize the risk of unauthorized access, District officials should maintain a list of authorized user accounts and regularly review enabled network user accounts to ensure they are still needed.

Generic user accounts are not linked to individual users and may be needed for certain network services or applications to run properly. Therefore, they should be limited in use as they have reduced accountability. For example, generic accounts can be created and used for automated backup or testing processes, training purposes or generic email accounts, such as a service helpdesk. Officials should routinely evaluate and disable any generic accounts that are not related to a specific district or system need.

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<sup>1</sup> PPSI is any information to which unauthorized access, disclosure, modification, destruction or use – or disruption of access or use – could have or cause a severe impact on critical functions, employees, customers (students), third parties or other individuals or entities.

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## Officials Should Improve How They Manage Network User Accounts

District officials could improve how they manage the District's network user accounts. Although the District had written procedures for adding and disabling user accounts, they were not always followed. Also, the IT Director did not maintain a list of authorized network users to perform periodic account reviews for necessity. We reviewed all 3,675 enabled network user accounts to determine if they were needed. We identified 1,965 non-generic accounts that appeared to not have been used in more than six months and therefore may have been unneeded. We discussed these accounts with the IT Director to determine whether they were still needed and if the District's procedures for notifying the IT department were being followed. Based on this discussion, we found 1,872 of the accounts were for students and when students login the logins are not registered in the District's domain controller. We confirmed that these accounts belonged to current students. We also found not all District department heads were following the District's procedures by timely notifying the IT Department when network access is no longer needed. Of the 93 non-students, non-generic accounts that had not been used in more than six months, we identified 17 accounts that were not necessary. These included the accounts of nine District employees who no longer worked at the District and eight former contractors. Some of these users left the District more than four years prior to our testing, but their network accounts were still enabled as of May 27, 2021.

District procedures for disabling employee user accounts require the Staff Relations Department to complete an exit checklist which includes sending a signed account termination request form to the IT Department to request account termination. In addition, the procedures require department heads to submit a request form to the IT Department to disable the accounts of contractors when they leave the District. However, the IT Director said he was not informed that these 17 individuals were no longer with the District.

We inquired with the relevant department heads to determine why the IT Director was not notified. We were told the following:

- The High School Principal informed us that six of the contractors were Board of Cooperative Educational Services (BOCES) employees and he was not notified when they left BOCES employment.
- The Middle School Principal told us he was not aware one account existed because it was created before he assumed his position.
- The Director of Safety, Security and Compliance stated not notifying the IT Director that one account should be disabled was an oversight due to increased demands related to the pandemic.
- The personnel assistant to the Director of Staff Relations (personnel assistant) said six former employees were appointed for one year, and their

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accounts should have been terminated at the end of the appointed school year. Therefore, she believed there was no need to complete deactivation forms for these employees. In addition, there were no forms available for the remaining three employees. The personnel assistant indicated that two of these three left the District prior to the District's use of the exit checklist.

In addition, we examined all 145 generic network user accounts and found 13 accounts were no longer needed. The IT Director said these 13 accounts were old student Science, Technology, Engineering and Mathematics accounts and accounts used for varying services that were no longer needed for District operations and should have been disabled. The IT Director informed us they were not removed because he missed them when he was reviewing the District's network user accounts. However, we reviewed the last logon date for these accounts and found that three of the accounts had not been logged into since 2015.

Unneeded network user accounts are additional entry points into a network and, if accessed by attackers, they could be used to inappropriately access and view PPSI on the network or to gain access to or control over other IT functions.

### **What Do We Recommend?**

The Board should:

1. Ensure District procedures for granting, changing and disabling network access are consistently followed by all departments.

The IT Director should:

2. Maintain a list of authorized nonemployee network user accounts and routinely evaluate and disable any unnecessary accounts.
3. Ensure that network user accounts are disabled as soon as account termination request forms are received.

The personnel assistant should:

4. Maintain a list of authorized employee network user accounts and ensure account termination request forms are submitted to the IT Department whenever an employee leaves District service.

# Appendix A: Response From District Officials

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## South Orangetown Central School District

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Robert Pritchard, Ed.D  
Superintendent of Schools  
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July 12, 2022

Office of the State Comptroller  
Newburgh Regional Office  
Dara Disko-McCagg, Chief Examiner  
33 Airport Center Drive, Suite 103  
New Windsor, NY 12553-4725

Dear Ms. Disko-McCagg,

This letter is in response to the Draft Report of Examination 2022M-24: Network User Accounts for the period of July 1, 2019 – August 12, 2021, which was reviewed and discussed at an exit conference held on July 6, 2022. After careful consideration, the South Orangetown Central School District acknowledges the findings and recommendations without dispute. The implementation of corrective measures has already been initiated and a full and complete Corrective Action Plan (CAP) will be prepared and provided to the Comptroller's Office and the State Education Department as required.

On behalf of the District, I would like to express our sincere appreciation to the Comptroller's Office for the time and effort involved in conducting this audit under the uniquely challenging circumstances necessitated by the COVID-19 global health pandemic. The thorough examination by the Comptroller's Office Staff was performed in a professional and courteous manner and their thoughtful feedback will be used to improve District processes and procedures moving forward.

If you have any questions or concerns regarding this response or any other matter relative to this audit, please do not hesitate to contact me.

Sincerely,

Robert R. Pritchard, EdD  
Superintendent of Schools

CC: Board of Education  
Mr. Mike Vespi, School Business Administrator  
Mr. George Brady, Director of Technology



Tappan Zee High School South Orangetown Middle School  
Cottage Lane Elementary School William O. Schaefer Elementary

## Appendix B: Audit Methodology and Standards

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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 reviewed the District's IT policies and procedures and interviewed District officials to gain an understanding of the District's network user account management, configuration and security and to determine the adequacy of those policies and procedures.
- We ran a computerized audit script on May 27, 2021, to examine the District's domain controller (the server used to help manage, configure and secure network user accounts and network resource access). We then analyzed each report generated by the script, looking for weaknesses in network user account management, privilege and group definition and network setting configurations. We also compared the list of network user accounts generated by the script to a list of current employees to determine whether any network users were no longer employed by the District. We discussed with District officials any potentially unnecessary network user accounts and any network security settings that did not meet industry best practices.
- We followed up with District officials on potentially unneeded accounts, generic accounts and security settings that were inconsistent with industry standards.

Our audit also examined the adequacy of certain information technology controls. Because of the sensitivity of some of this information, we did not discuss the results in this report, but instead communicated them confidentially to District officials.

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.

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

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### **Regional Office Directory**

[www.osc.state.ny.us/files/local-government/pdf/regional-directory.pdf](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://www.osc.state.ny.us/local-government/academy)

## Contact

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