



# North Salem Central School District

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## Network User Accounts

2022M-140 | June 2023

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# Report Highlights

## North Salem Central School District

### Audit Objective

Determine whether North Salem Central School District (District) officials ensured network user accounts were adequately managed (granted, changed and disabled).

### Key Findings

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

- Developed procedures for granting, changing and disabling network user accounts.
- Ensured IT staff disabled 181 unneeded network user accounts. Seven of these users left the District between 2011 and 2019.

### Key Recommendations

- Develop procedures for granting, changing and disabling network user accounts, and ensure that employees implement and comply with the procedures.
- Maintain a list of authorized user accounts and routinely evaluate and disable any unneeded network user accounts.

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

### Background

The District serves the Towns of North Salem and Somers in Westchester County and Carmel and Southeast in Putnam County.

The District is governed by an elected seven-member Board of Education (Board) that is responsible for the District's general administration through setting policies and expectations.

The Superintendent of Schools (Superintendent) is appointed by the Board and is responsible for managing the District's day-to-day operations and establishing regulations governing the use and security of the District's technology resources.

#### Quick Facts

IT Vendor Payments for Audit Period	\$563,497
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#### Network User Accounts

Student	834
Employee	266
Other	127
Total	1,227
Reviewed	512
Determined Unneeded	181

### Audit Period

July 1, 2020 – September 14, 2021. We extended our audit period through December 28, 2021 to complete our IT testing.

# Network User Accounts

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Network user accounts are potential entry points for attackers because, if compromised, they could be used to inappropriately access the network and view personal, private and sensitive information (PPSI),<sup>1</sup> make unauthorized changes to records, deny legitimate access to electronic information or to gain access to or control over other IT functions.

The District contracts with a vendor for the IT Director (Director) position, which is responsible for managing network user accounts and providing oversight of the District's IT staff, who are provided by a second vendor. The Director of Instruction and Human Resources is the District's chief information officer (CIO) and is responsible for overseeing the Director and ensuring that the Director performs his duties in accordance with his contract.

## How Should District Officials Manage Network User Accounts?

School districts (districts) should have written procedures for granting, changing and disabling user accounts, and they should be distributed to all applicable staff to be used in carrying out their duties.

District officials should maintain a list of authorized user accounts and regularly review enabled network user accounts to determine whether they are still needed. Officials should disable network user accounts as soon as they become unneeded.

## District Officials Did Not Ensure Network User Accounts Were Adequately Managed

The Director and IT staff were responsible for managing network user accounts in a timely and satisfactory manner. However, they did not adequately manage the District's network user accounts.

District officials had an automated system in place to add and disable employee and student network user accounts. However, we found they did not have procedures for managing (granting, changing and disabling) network user accounts. Also, the Director and IT staff did not ensure that the automated system was working properly. In addition, the Director did not maintain a list of authorized network users or periodically review enabled network user accounts to confirm they were still needed.

We reviewed all 393 nonstudent network user accounts and identified 163 accounts that had not been used in at least six months. We further examined

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Officials should disable network user accounts as soon as they become unneeded.

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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, third parties or other individuals or entities.

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these 163 accounts, and discussed them with the Director and IT staff, to determine whether they were still needed. We identified 63 enabled network user accounts that were no longer needed and should have been disabled, of which seven belonged to employees who left the District between 2011 through 2019. These employees included paraprofessional teachers, substitutes, a custodian and an accounts payable clerk. We also reviewed 119 student network user accounts used by students in the class of 2021 and found that 118 of these accounts belonged to former students, were unneeded and should have been disabled.

The Director told us that the nonstudent accounts were not disabled because, before he was hired in June 2021, District officials did not always notify IT staff when employees retired or left District employment. Therefore, IT staff would not know to disable those user accounts. However, had accounts been properly reviewed, the risk these accounts posed would have been avoided because the accounts would have been identified and disabled.

The District has since developed an automated process for creating network user accounts for new employees and disabling network user accounts when employees leave District employment. However, the District did not have procedures for reviewing and disabling unneeded nonstudent, nonemployee accounts. The CIO told us that the District's processes had become so routine that officials did not feel the need to develop written procedures and, therefore, did not have any. Automated and routine processes are not a substitute for procedures. To ensure network user accounts are actively managed in a timely manner, District officials should establish procedures for their automated and routine processes.

In addition, the Director told us that the update server that managed the automatic disabling of network user accounts had an issue that prevented update synchronizations, which has since been corrected. The Director also told us that IT staff started disabling unneeded network user accounts after we inquired about the various accounts that had not been used in six months. As a result, we performed a follow-up review and confirmed that the District's IT staff had disabled 146 of the 181 unneeded network user accounts.

When unneeded network user accounts remain enabled, they are at an increased risk to be compromised.

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## What Do We Recommend?

District officials should:

1. Develop adequate procedures for granting, changing and disabling network user accounts. To help ensure that employees implement and comply with the procedures, the procedures should be in writing and distributed to applicable staff.

The Director and IT staff should:

2. Ensure that the automated system for disabling user accounts is operating properly.
3. Maintain a list of authorized user accounts and routinely evaluate and disable any unneeded network user accounts in a timely manner.

# Appendix A: Response From District Officials

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Central School District  
230 June Road  
North Salem, NY 10560

Kenneth R. Freeston Ph. D.  
Superintendent of Schools

Eric M. Stark  
Director of Business Administration

March 13, 2023

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

Dear Ms. Disko-McCagg,

The North Salem Central School District wishes to thank the State Comptroller's Office for its audit of the District's IT controls. We have reviewed the key findings and are in agreement with them. The district has already disabled any unneeded network accounts and is in the process of developing procedures for granting, changing and disabling network accounts moving forward.

The District would like to recognize the professionalism exhibited by the auditor while conducting the audit. We appreciate the recommendations and intend to use them to help manage our network user accounts in the future.

Upon receipt of the final report the district will review the report and your recommendations with the Audit Committee, Board of Education and all Administration. We will submit our corrective action plan addressing all recommendations after final discussions.

Sincerely,

Dr. Kenneth R. Freeston  
Superintendent of Schools

## 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 the IT vendors' contracts, to gain an understanding of how the District managed its network user accounts. We also determined whether the procedures were adequate.
- We interviewed District officials, the Director and IT staff to gain an understanding of how the District managed its network user accounts.
- We ran a computerized audit script on the District's domain controller<sup>2</sup> on December 28, 2021. We reviewed a list of nonstudent network user accounts, generated by the script, that had not been logged into within six months and compared it to a list of current employees and contractors. We then verified the employment status of the employees (who used some of these accounts) with the payroll clerk and verified current contractors (who used some of the accounts) with the accounts payable clerk, to determine whether the nonstudent network user accounts were still needed. (The remainder of the nonstudent network user accounts were service accounts.) We also compared a list of 2021 student network user accounts with a list of 2021 enrolled students (provided by the high school principal's secretary) to verify student enrollment as of December 31, 2021 and determined whether any of the accounts were unneeded. We discussed our results with the Director, IT staff and District officials to determine whether there were potentially unneeded network user accounts.

Our audit also examined the adequacy of certain sensitive IT 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

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<sup>2</sup> The server that controls or manages access to network resources



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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**

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## Contact

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