

Dover Union Free School District

Information Technology

SEPTEMBER 2018



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

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Report Highlights

Audit Objective

Determine whether the District’s information technology (IT) system was adequately secured and protected against unauthorized use, access and loss.

Key Findings

- Employees accessed websites for social networking, shopping, travel, entertainment and blogging.
- District officials did not properly secure the server room.

In addition, sensitive IT control weaknesses were communicated confidentially to District officials.

Key Recommendations

- Develop procedures and controls that restrict access to inappropriate websites.
- Secure the server room so that only authorized individuals have access.

District officials agreed with our recommendations and indicated they have begun to initiate corrective action.

Background

The Dover Union Free School District (District) serves the Towns of Amenia, Dover, Union Vale and Washington in Dutchess County. The Board of Education (Board) is responsible for managing the District’s operations. The Superintendent of Schools (Superintendent) is responsible for the District’s day-to-day management, budget development and administration.

Quick Facts

Enrollment	1,373
Employees	241
Desktops, laptops and tablets	1,521
Servers	1

Audit Period

July 1, 2016 – February 13, 2018. We expanded our audit scope period through March 14, 2018 to review Internet use.

Information Technology

How Can School Officials Safeguard IT Assets?

While using the Internet is a nearly indispensable resource for conducting business, users are susceptible to significant threats from cybercriminals exploiting IT system vulnerabilities to gain unauthorized access to sensitive data. Internet browsing increases the likelihood that users will be exposed to some form of malicious software that may compromise data confidentiality. District officials should ensure there is an adequate web filtering process in place to limit vulnerabilities resulting from Internet browsing and ensure the network is used for appropriate purposes. District officials can reduce the risks to sensitive data and IT assets by monitoring Internet use and using web filtering software to block access to unacceptable websites.

Effective internal controls restrict physical access to critical IT equipment such as servers and wiring closets. Unrestricted access to this type of equipment creates a security risk to IT resources. Not only could an unauthorized individual gain access to personal or confidential information, but they could also damage, destroy or steal equipment that would require considerable time and money to replace or repair. Therefore, access to servers and wiring closets must be restricted to key IT personnel.

Internet Use Is Not Monitored

We examined the computers of seven of 37 non-instructional employees. The computers selected were assigned to the Treasurer, account payable clerk, personnel assistant, Director of information Systems (Director), high school principal, District Clerk and Assistant Superintendent of Curriculum and Development (Assistant Superintendent).

We found that employees used six of these computers to visit social networking, shopping, travel, entertainment and blogging websites, apparently for non-school purposes, and performed other Internet research and browsing of a personal nature.

We informed the Assistant Superintendent for Business Affairs of this inappropriate internet use on April 18, 2018. Although the Board adopted an acceptable use policy and web filters were in place, District officials did not monitor for inappropriate use in accordance with the board-adopted acceptable use policy. Because these types of websites are commonly used to spread malicious software, such use unnecessarily exposes the systems to malicious software infections.

Access to Server Room Could Be Improved

The District's server is located in a room that is also used as storage for computer supplies and old computers. Although the room is locked, some custodial workers have access to it. The Assistant Superintendent for Business Affairs told us that they will ensure that the server is safe by trying to separate the server from the storage.

If access to the server is not controlled, the risk increases that unauthorized access to the network could be obtained and the server could be damaged. The hard drives in the old computers may also contain personal information about staff or students that is at risk. This weakness leaves the District vulnerable to the manipulation or loss of data with potentially costly consequences.

What Do We Recommend?

The Director should:

1. Develop procedures and controls that restrict access to websites.
2. Secure the District's server room so that only authorized individuals have access.

Appendix A: Response From District Officials

DOVER UNION FREE SCHOOL DISTRICT

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DOVER PLAINS, NEW YORK 12522

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Office of the State Comptroller
Local Govt & School Accountability

Dover Union Free School District
845-877-5700

Mr. Michael Tierney
Superintendent of Schools
Fax 845-877-5762

Mr. Christopher Prill
Assistant Superintendent
for Business Affairs
Fax 845-877-5766

Mrs. Donna Basting
Assistant Superintendent
of Curriculum, Technology and
Staff Development
Fax 845-877-5763

Mrs. Patricia Rizzo
Director of Special Education
Fax 845-877-5761

Mrs. MaryBeth Kenny
Principal
Wingdale Elementary School
Tel. 845-877-5720
Fax 845-877-5729

Mr. Herman Harmelink
Principal
Dover Elementary School
Tel. 845-877-5730
Fax 845-877-5739

Mr. Henry Pollinger
Principal
Dover Middle School
Tel. 845-877-5740
Fax 845-877-5749

Ms. Eugenia Angelis
Principal
Dover High School
Tel. 845-877-5750
Fax 845-877-5759

Mr. Stephen Hicks
Assistant Principal
Dover High School
Tel. 845-877-5750
Fax 845-877-5759

September 10, 2018

State of New York
Office of the State Comptroller
Attn: Tenneh Blamah
110 State Street
Albany, NY 12236

Subject: Dover UFSD Response to the Office of the State
Comptroller Audit and Corrective Action Plan Response

Dear Ms. Blamah:

At our September 10, 2018 meeting to review your draft report, we appreciate the compliments you gave us about implementing all the recommendations from our prior Office of the State Comptroller report.

Thank you for your current findings and recommendations. We have implemented many of your recommended changes to improve our security and procedures including access to the server closet. The access to this area is now restricted and the recommended inside cage is now not needed to separate the server from the IT storage.

We will continue to have discussions regarding technology that finds the balance between safety, access to the internet, and usability. We appreciate the findings and recommendations as we look for our IT to be as safe and secure as possible.

Respectfully,

Michael Tierney
Superintendent of Schools

MT/am

THE DOVER UFSD IS A UNITED COMMUNITY COMMITTED TO
ENRICHING THE LIVES OF STUDENTS THROUGH EDUCATION.

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 reviewed the District's policy and procedure manuals to identify IT-related policies and evaluated those policies to gain an understanding of internal controls over IT.
- We interviewed the IS Director and personnel to obtain an understanding of the District's IT operations.
- We judgmentally selected seven computers and by running audit software examined specific activities on those computers, such as Internet history. The computers were chosen by selecting the computers of all four business office employees who were present the day we reviewed the computers (March 14, 2018) and three other employees, the Director of Information Systems, high school principal, and Assistant Superintendent of Curriculum and Development, who we believed had access to sensitive information.
- We performed a physical observation of the server room.

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 GAGAS (generally accepted government auditing standards). 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 relevant population size and the sample selected for examination.

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 2116-1(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 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. We encourage the Board to make the CAP available for public review in the Clerk's office.

Appendix C: Resources and Services

Regional Office Directory

www.osc.state.ny.us/localgov/regional_directory.pdf

Cost-Saving Ideas – Resources, advice and assistance on cost-saving ideas

www.osc.state.ny.us/localgov/costsavings/index.htm

Fiscal Stress Monitoring – Resources for local government officials experiencing fiscal problems

www.osc.state.ny.us/localgov/fiscalmonitoring/index.htm

Local Government Management Guides – Series of publications that include technical information and suggested practices for local government management

www.osc.state.ny.us/localgov/pubs/listacctg.htm#lmgm

Planning and Budgeting Guides – Resources for developing multiyear financial, capital, strategic and other plans

www.osc.state.ny.us/localgov/planbudget/index.htm

Protecting Sensitive Data and Other Local Government Assets – A non-technical cybersecurity guide for local government leaders

www.osc.state.ny.us/localgov/lgli/pdf/cybersecurityguide.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/localgov/finreporting/index.htm

Research Reports/Publications – Reports on major policy issues facing local governments and State policy-makers

www.osc.state.ny.us/localgov/researchpubs/index.htm

Training – Resources for local government officials on in-person and online training opportunities on a wide range of topics

www.osc.state.ny.us/localgov/academy/index.htm

Contact

Office of the New York State Comptroller
Division of Local Government and School Accountability
110 State Street, 12th Floor, Albany, New York 12236

Tel: (518) 474-4037 • Fax: (518) 486-6479 • Email: localgov@osc.ny.gov

www.osc.state.ny.us/localgov/index.htm

Local Government and School Accountability Help Line: (866) 321-8503

NEWBURGH REGIONAL OFFICE – Tenneh Blamah, Chief Examiner

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