

Town of Woodstock

Information Technology

FEBRUARY 2019



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

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Report Highlights

Town of Woodstock

Audit Objective

Determine whether Town officials ensured the Town's Information Technology (IT) systems were adequately secured and protected against unauthorized use, access and loss.

Key Findings

- Employees accessed nonbusiness websites although it is prohibited by policy.
- Officials did not adopt a breach notification, security management or written disaster recovery plan.
- Employees were not provided with security awareness training.

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

Key Recommendations

- Design, implement and enforce procedures to monitor the use of IT resources, including personal use.
- Adopt written IT policies and procedures to address breach notification, disaster recovery and security management.
- Provide IT security awareness training to personnel who use IT resources.

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

Background

The Town of Woodstock (Town) is located in northern Ulster County and has a population of approximately 5,900.

The Town is governed by an elected five-member Town Board (Board), composed of the Town Supervisor (Supervisor) and four Board members. The Board is responsible for the general oversight of the Town's operations and finances. The Supervisor, as chief fiscal officer, is responsible for the day-to-day management of the Town.

The Town contracted with a third-party consultant to operate and maintain the Town's IT system. The Supervisor was responsible for overseeing the IT consultant.

Quick Facts

Servers	2
Computers	60
Employees	97
2018 General Fund Appropriations	\$5,111,033

Audit Period

January 1, 2017 – May 2, 2018.
We extended the scope to August 22, 2018 for IT information collection.

Information Technology

How Should IT Assets Be Safeguarded?

Acceptable use policies describe what constitutes appropriate and inappropriate use of IT resources, along with the Board's expectations concerning personal use of IT equipment and user privacy.¹ Monitoring compliance with the acceptable use policy involves regularly collecting, reviewing and analyzing system activity for indications of inappropriate or unusual activity and investigating and reporting such activity.

Officials should monitor and analyze activities for signs of possible violations or imminent threats of violations of computer security policies, acceptable use policies or standard security practices. Automated mechanisms may be used to perform this process and can help security professionals routinely assess computer security, perform investigations during and after an incident and even recognize an ongoing attempt of unauthorized access.

New York State Technology Law requires local governments to adopt a breach notification policy that details actions to be taken to notify affected individuals if personal, private and sensitive information (PPSI)² is compromised.

A disaster recovery plan should be adopted to anticipate and plan for an IT disruption involving the corruption or loss of data and the plan should be tested to ensure that employees understand their roles and responsibilities in a disaster situation. Such a plan, sometimes referred to as a business continuity plan or business process contingency plan, describes the plans, policies, procedures and technical measures for recovering IT operations after a destructive event – whether a natural disaster (such as a flood) or human error, hardware failure or malfunctioning software caused by malware or a computer virus.

To ensure the highest level of security over town data, a board also should adopt policies and procedures for information security management, including cybersecurity awareness training to inform employees of security risks and train them in practices that reduce internal and external threats to IT systems and data. Training programs should be directed at the specific audience (e.g., system users or administrators) and include everything they need to perform their jobs.

Town Officials Did Not Properly Monitor Computer Use

The Town adopted a computer privacy policy that states that computers are to be used for business purposes only. However, officials did not design or implement

¹ For example, management may reserve the right to examine email, personal file directories, web access and other information stored on computers, at any time and without notice.

² PPSI is any information which – if subjected to unauthorized access, disclosure, modification, destruction or disruption of access or use – could severely affect critical functions, employees, customers, third parties or residents of New York State in general.

procedures to monitor compliance with the policy or determine the amount of employees' personal use.

We examined eight³ computers to determine whether they were used for nonbusiness purposes and found evidence of personal use on every computer. Such use included games, hobby sites, social media, video streaming, shopping, travel and other questionable use, including personal income tax software applications. When employees access websites or download software for nonbusiness or inappropriate purposes through the network, productivity is reduced and there is an increased risk that IT assets and users' information could be compromised through malicious software infections (malware).

The Town's failure to develop procedures and monitor computer use increases the risk of improper computer use by employees and puts the IT system at risk, which can result in the manipulation, destruction or theft of valuable Town data.

The Board Did Not Adopt IT Security Policies or Provide Security Awareness Training

The Board did not adopt policies and procedures for breach notification or security management and awareness training. Although the Town performs data backups daily, the Board did not have a disaster recovery plan. In the event of a disaster, Town personnel have no guidelines or plan to follow to prevent the loss of equipment and data or appropriately recover data. The lack of a disaster recovery plan could lead to the loss of important data and a serious interruption to Town operations, such as not being able to process payroll or vendor claims.

In addition, the Board did not provide users with security awareness training to help ensure they understand security measures needed to protect the network. As a result, the Town's IT assets were vulnerable to loss and misuse.

What Do We Recommend?

The Board should:

1. Design and implement procedures to monitor the use of IT resources, including personal use.
2. Adopt written IT policies and procedures to address breach notification, disaster recovery and security management.
3. Provide IT security awareness training to personnel who use IT resources.

³ Refer to Appendix B for further information on our sample selection.

Appendix A: Response From Town Officials

TOWN OF WOODSTOCK • 45 COMEAU DRIVE, WOODSTOCK NY 12498

PHONE: (845) 679-2113:

Ext. 1: Assessor

Ext. 3: Building Dept, Code Enforcement

Ext. 4: Town Clerk; Fax: (845) 679-8743

Ext. 4: Commission for Civic Design

Ext. 4: Environmental Commission

Ext. 4: Zoning Board of Appeals

Ext. 6: Planning Board

Ext. 7: Supervisor; Fax: (845) 679-7915

FAX: (845) 679-8743:

Assessor, Bldg. Dept., Planning Board

Zoning Board of Appeals, CCD, WEC

Incorporated 1787



Colony of the Arts

Highway Department: (845) 679-2805

Fax: (845) 613-0127

Justice Court: (845) 679-6345

Fax: (845) 679-6826

Police/Fire/Emergency: (845) 679-2422

Fax: (845) 679-2009

Water/Sewer Dept: (845) 679-2356

Fax: (845) 679-0317

Youth Center: (845) 679-2015

Fax: (845) 679-8032

WEBSITE: www.woodstockny.org

E-MAIL: info@woodstockny.org

February 11, 2019

Dear Ms. Blamah,

As Town Supervisor, I am in receipt of the Town of Woodstock Draft Report of Examination, 2018M-211. I and the Town Board are in agreement with the findings presented in the report. The Town is in the process of correcting these deficiencies and in fact has already completed some issues. It is my belief that our CAP document will read more like a list of completed actions taken than a plan to be carried out.

I want to take a moment to thank your office. I have viewed this from the first day as a great learning opportunity. I appreciate the professional attitude of the examiners. I believe the Town of Woodstock to be well served by this endeavor.

Sincerely,

Bill McKenna
Woodstock Town Supervisor

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 Board minutes and policies.
- We interviewed Town officials to gain an understanding of the processes and procedures over the IT system and applications.
- We judgmentally selected four computers from the Town's business office and Town Clerk's office that contained PPSI and were used to process financial transactions. We also selected four other computers from separate departments within the Town Hall. The sample represented 42 percent of the total population of non-MAC computers (19 PC computers).⁴ We then ran Internet web history and Windows audit scripts on the selected computers.

Our audit also examined the adequacy of certain 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 Town 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.

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.

A written corrective action plan (CAP) that addresses the findings and recommendations in this report should be prepared and provided to our office within 90 days, pursuant to Section 35 of General Municipal Law. 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 Town Clerk's office.

⁴ Of the 60 computers owned by the Town, 17 were standalone computers that were not on the network. Of the 43 computers on the network, there were 26 computers (19 PCs and seven Macs) on the Supervisor's network and 17 on the police network. We were unable to test the seven Macs because the scripts we used ran only on Microsoft Windows programs. This left a total of 19 PCs on the Supervisor's network that we could test.

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

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