



# Town of North East

## Internal Controls Over Information Technology

### Report of Examination

Period Covered:

January 1, 2011 — November 15, 2012

2013M-31



Thomas P. DiNapoli

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# State of New York Office of the State Comptroller

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## **Division of Local Government and School Accountability**

May 2013

Dear Town Officials:

A top priority of the Office of the State Comptroller is to help local government officials manage government resources efficiently and effectively and, by so doing, provide accountability for tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of local governments statewide, as well as compliance with relevant statutes and observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations and Town Board governance. Audits also can identify strategies to reduce costs and to strengthen controls intended to safeguard local government assets.

Following is a report of our audit of the Town of North East, entitled Internal Controls Over Information Technology. This audit was conducted pursuant to Article V, Section 1 of the State Constitution and the State Comptroller's authority as set forth in Article 3 of the General Municipal Law.

This audit's results and recommendations are resources for local government officials to use in effectively managing operations and in meeting the expectations of their constituents. If you have questions about this report, please feel free to contact the local regional office for your county, as listed at the end of this report.

Respectfully submitted,

*Office of the State Comptroller  
Division of Local Government  
and School Accountability*

# Introduction

## Background

The Town of North East (Town) is located in Dutchess County, has a population of approximately 3,500, and encompasses about 44 square miles. The Town provides various services to its residents including general governmental support, street maintenance, improvements, snow removal, and code enforcement. The Town's budget for the 2012 fiscal year was approximately \$1 million, funded primarily with real property taxes, sales tax, justice court fines, departmental income (e.g., building permits and zoning fees), and State aid.

The elected Town Board (Board) is comprised of four Board members and the Supervisor. The Board is the legislative body responsible for managing Town operations, including establishing effective internal controls. The Town contracts with three vendors for the management of the Town's computer network system including troubleshooting, installing and upgrading hardware and software, providing technical assistance for the Town's accounting system, and providing a backup system of the Town's data.

## Objective

The objective of our audit was to assess internal controls over information technology (IT). Our audit addressed the following related question:

- Are internal controls over the Town's IT system appropriately designed to protect electronic data?

## Scope and Methodology

We examined internal controls over IT for the period January 1, 2011 to November 15, 2012.

We conducted our audit in accordance with generally accepted government auditing standards (GAGAS). More information on such standards and the methodology used in performing this audit are included in Appendix B of this report.

## Comments of Local Officials and Corrective Action

The results of our audit and recommendations have been discussed with Town officials and their comments, which appear in Appendix A, have been considered in preparing this report. Town officials generally agreed with our recommendations and indicated they planned to initiate corrective action.

The Board has the responsibility to initiate corrective action. A written corrective action plan (CAP) that addresses the findings and recommendations in this report should be prepared and forwarded to our office within 90 days, pursuant to Section 35 of the 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 Town Board to make this plan available for public review in the Town Clerk's office.

## Information Technology

Internal controls over IT seek to ensure that computer systems and the data they process, transmit, and store can be trusted, are available when needed, and are adequately protected from unauthorized access and use. Local governments increasingly rely on third parties to provide a variety of IT-related services. For the protection of the local government and to avoid potential misunderstandings, there should be a written agreement with the IT service provider that states the local government's needs and expectations, and specifies the level of service to be provided. In addition, New York State Technology Law requires counties, cities, towns, villages, and other local agencies to establish an information breach notification policy. Such a policy should detail how the local government would notify residents whose personal, private and sensitive information was, or is reasonably believed to have been, acquired by a person without a valid authorization. A system of strong IT controls includes a disaster recovery plan that describes how a local government will deal with potential disasters.

The Board does not have a written agreement with one of the Town's IT service providers and can't be assured the Town is receiving IT services that meet the Town's needs and expectations. Although the Board has adopted a breach notification policy, it has not designated responsible parties to implement the policy, nor educated Town officials and employees on the existence of the policy. In the event that private information is compromised, Town officials and employees may not understand or be prepared to fulfill their legal obligation to notify affected individuals. In addition, the Town does not have a disaster recovery plan. As a result, the Town's computer systems and data are at risk of damage and loss.

### **Written Agreements**

To avoid potential misunderstandings, the Town should have written agreements with IT service providers that address the Town's needs and expectations, and specify the level of service to be provided by the IT service provider. The components of an agreement vary but should include identification of the parties to the agreement, duration of the agreement, scope of work to be performed, roles and responsibilities of the parties to the agreement, security procedures, pricing, billing, and terms of payment.

The Town uses three third-party IT service providers for various IT services, including network services, backup services, troubleshooting, and technical assistance for the accounting software. Two of the three vendors have written agreements with the Town. One vendor, an IT

consultant, does not have a written agreement with the Town. Town officials were not aware a written agreement was not in place. Town officials told us that the IT consultant is providing important network services that include critical hardware and software support, such as anti-virus and anti-spam software, a firewall, and server support. Given the essential nature of these services, the Town should have a written agreement with the IT consultant that clearly states the expectations, roles, and responsibilities of the involved parties to ensure Town systems and data are protected and supported. The agreement should stipulate a reasonable response time for the IT consultant to address a problem to minimize lost time or data. The written agreement, should also establish whether the IT consultant is permitted to subcontract and, if so, what can be subcontracted.

Since there is no written agreement, it is difficult for the Board to determine if the IT consultant is providing the needed services and if there is adequate security over the Town's IT system and the data it contains. Furthermore, without a written agreement there can be confusion over who has responsibility for various aspects of the IT environment (i.e., the local government or the IT consultant), which ultimately puts the Town's data and computer resources at greater risk for unauthorized access, misuse, or loss.

### **Breach Notification Policy**

An individual's private and/or financial information, along with confidential business information, could be severely affected if security is breached or data is improperly disclosed. New York State Technology Law requires counties, cities, towns, villages, and other local agencies to establish an information breach notification policy. Such a policy should detail how the agency would notify residents whose personal, private and sensitive information was, or is reasonably believed to have been, acquired by a person without a valid authorization. It is important for the disclosure to be made expediently and without unreasonable delay, consistent with the legitimate needs of law enforcement or any measures necessary to determine the scope of the breach and restore the reasonable integrity of the data system.

The Board has adopted an information breach notification policy. Although the policy complies with the law, the policy does not designate the responsible party who is required to implement the steps outlined in the policy. In addition, most Town officials and employees were not aware that the policy existed. Without designating responsible parties to implement the policy and educating Town officials and employees about the existence of the policy, the Town officials and employees may not be prepared to notify affected individuals in the event that private information is compromised.



## **Disaster Recovery Plan**

A system of strong IT controls includes a disaster recovery plan that describes how an organization will deal with potential disasters. A disaster could be any sudden, unplanned catastrophic event, such as a fire, flood, computer virus, vandalism, or inadvertent employee action that compromises the integrity of the data and the IT system. Contingency planning to prevent loss of computer equipment and data and to document the procedures for recovery in the event of an actual loss is crucial to an organization. The plan needs to address the roles of key individuals and include precautions to be taken to minimize the effects of a disaster so officials will be able to maintain or quickly resume day-to-day operations. In addition, disaster recovery planning involves an analysis of continuity needs and threats to business processes and may include a significant focus on disaster prevention. It is important for Town officials to distribute the plan to all responsible parties and to periodically test and update the plan to address changes in the Town's IT security requirements.

Although the Town does perform nightly data backups, the Board has not established a formal disaster recovery plan. Therefore, in the event of a disaster, Town personnel have no guidelines or plan to follow to prevent the loss of equipment and data or to appropriately recover data. The lack of a disaster recovery plan could lead to the loss or destruction of private and essential data and a serious interruption to Town operations, such as not being able to process payroll or vendor claims. Town officials were unaware that a disaster recovery plan had not been established by the prior administration.

## **Recommendations**

1. The Board should ensure that it has written agreements between the Town and all third-party IT service providers that clearly define the services and the related security to be provided to the Town.
2. The Board should educate Town officials and employees about the adopted information breach notification policy and designate the Town officials and/or employees responsible for implementing the information breach notification policy.
3. The Board should adopt a comprehensive disaster recovery plan that details specific guidelines for the protection of private and essential data against damage, loss, or destruction and the recovery of the Town's IT system and data in the event of loss. The plan should be distributed to all responsible parties, and periodically tested and updated to address changes in IT security requirements.



**APPENDIX A**  
**RESPONSE FROM LOCAL OFFICIALS**

The local officials' response to this audit can be found on the following pages.

# TOWN of NORTH EAST

19 North Maple Avenue  
P.O. Box 516  
Millerton, New York 12546

Town Supervisor  
Phone 518-789-3300 x 608 ~ Facsimile 518-789-3399  
email – [ne.supervisor@taconic.net](mailto:ne.supervisor@taconic.net)

April 22, 2013

Mr. Christopher J. Ellis - Chief Examiner  
Office of the State Comptroller  
33 Airport Center Drive  
Suite 103  
New Windsor, NY 12553

Re: Town of North East  
Report of Examination

Dear Sir:

The Town Board of the Town of North East agrees with the findings of the State Comptroller during this audit. The Town Board thanks the Comptroller's Office for their guidance and recommendations which we will use to strengthen our policies. Many of these recommendations have already been put in place, with the remainder scheduled to be remedied shortly.

This letter is in response to your Report of Examination for the audit period from January 1, 2011 - November 15, 2012.

The Town of North East would like to thank the auditors for their support and guidance during this process.

## **Audit Recommendations:**

1. The Board should ensure that it has a written agreement between the Town and all third-party IT service providers that clearly defines the services and the related security to be provided to the Town.

## **Response:**

A written agreement with the IT service provider will be secured by June 1, 2013. This agreement will specify the Town's needs and expectations, and will specify the level of service to be provided, agreement duration and scope of work to be performed, roles and responsibilities of the parties to the agreement, security procedures and pricing.

2. The Board should educate Town officials and employees about the adopted information breach notification policy and designate the Town officials and/or employees responsible for implementing the information breach notification policy.

**Response:**

As outlined in the report, the Town of North East does have a Breach Notification Policy. This policy has been amended to specify the designated party (Town Clerk) who will implement the policy. A meeting for all Town officials and relevant employees has been scheduled for April 30, 2013. The purpose of this meeting is to outline the provisions of this policy and how it is to be implemented.

3. The Board should adopt a comprehensive disaster recovery plan that details specific guidelines for the protection of private and essential data against damage, loss, or destruction and the recovery of the Town's IT system and data in the event of loss. The plan should be distributed to all responsible parties, periodically tested and updated to address changes in IT security requirements.

**Response:**

The Disaster Recovery Plan with the criteria outlined by your office, is currently being developed. The projected adoption date is June 13, 2013. The Disaster Recovery Plan will be distributed to all responsible parties. The plan will be tested and upgraded on a yearly basis.

Once again, the Town Board thanks the Office of the State Comptroller for their recommendations and assistance in strengthening the policies and procedures used to safeguard North East taxpayer funds.

Sincerely,

John Merwin  
Town Supervisor

## **APPENDIX B**

### **AUDIT METHODOLOGY AND STANDARDS**

Our overall goal was to determine adequacy of the internal controls put in place by officials to safeguard Town assets. To accomplish this, we performed an initial assessment of the internal operations so that we could design our audit to focus on those areas most at risk. Our initial assessment included evaluations of the following areas: financial oversight, cash receipts and disbursements, purchasing, payroll and personal services, IT, and the internal operations of the individual Town departments.

During the initial assessment, we interviewed appropriate Town officials, performed limited tests of transactions, and reviewed pertinent documents, such as Town policies and procedures manuals, Board minutes, and financial records and reports.

After reviewing the information gathered during our initial assessment, we determined where weaknesses existed and evaluated those weaknesses for the risk of potential fraud, theft, and/or professional misconduct. We then decided on the reported objective and scope by selecting for audit those areas most at risk. We selected internal controls over IT.

We made inquiries and observations to determine if the Town had adequate controls over IT, including policies and procedures related to acceptable use, breach notification, and disaster recovery. In addition, we took temporary custody of three computers and the Town's server and reviewed specific activities, such as Internet use and general application installations.

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 objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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**AND SCHOOL ACCOUNTABILITY**

Andrew A. SanFilippo, Executive Deputy Comptroller  
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