



# Erie County Emergency Communication System

## Report of Examination

Period Covered:

October 2007 — May 2008

2008M-130



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**

August 2008

Dear County 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 County 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 Erie County entitled Emergency Communication System. 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*



## State of New York Office of the State Comptroller

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### EXECUTIVE SUMMARY

Erie County's (County) Department of Emergency Services (Department) is responsible for maintaining a countywide radio system for use by all emergency responders within the County, including its largest user, the Erie County Sheriff's Office (ECSO). The Department includes the Fire Safety and Emergency Medical Services Divisions as well as the Disaster Office, which maintains a comprehensive emergency management plan. In January 2008, the County committed to design, purchase, install and maintain a new emergency communication system. The County expects to spend at least \$10.7 million on this project with an anticipated completion date of July 2009. According to information provided by the County, "the new system is expected to be a multi-discipline, multi-jurisdictional, multi-agency countywide radio system for all first responders."

In 2005, the New York State Office for Technology (OFT) contracted with a technology provider to develop and operate a Statewide Wireless Network (SWN) for emergency communications. The SWN is an 800 megahertz (MHz)<sup>1</sup> system that is intended to enable first responders to be "interoperable;" that is, to have the ability to exchange voice and/or data communications on demand so they can work effectively with one another. Local government entities, such as counties, while not required to use the SWN, can choose to participate in the SWN as Level 1 partners, who can share SWN infrastructure, but cannot actually access the SWN; Level 2 (Gateway) partners, who can communicate with the SWN, as necessary, through their existing legacy networks; or Level 3 (full) partners, who are always connected to the SWN. Erie County (County) was expected to participate in SWN as a Level 3 partner, but elected instead to participate as a Level 2 partner.

#### **Scope and Objective**

The objective of our audit was to review the County's process in choosing its emergency communication system for the period October 2007 through May 2008. Our audit addressed the following related question:

- Did the County's choice for an emergency communication system, including its decision to change its SWN partnership level, provide an appropriate level of interoperability in a cost effective manner?

#### **Audit Results**

We found that the County's current administration has effectively used existing information and resources to help ensure that the County's emergency communication system provides an appropriate level of interoperability for end-users with the installation of a new countywide 400 MHz system. With

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<sup>1</sup> This refers to the range of frequencies that will be used in the new radio network.

its decision to scale back its partnership level to a Gateway rather than a full partnership with the SWN, the County will be spending approximately \$28 million less than it would have spent had it purchased radio equipment for all end-users throughout the County. Instead the County will be purchasing considerably less radio equipment, primarily for the ECSO and infrastructure for certain responders in southern Erie County. The County will also save approximately \$1.3 million on this equipment purchase, since the 400 MHz radio units needed for the countywide system are less expensive than the SWN-compatible 800 MHz units.

In addition, the 400 MHz system, upon installation, could provide at least 73 percent, and upon completion, approximately 95 percent of end-users with the capability of interoperable communications and could provide the County with access to the SWN, when needed, during statewide emergencies. Furthermore, that same percentage of first responder agencies throughout the County can likely use their existing equipment, rather than have to buy new equipment. Because most new equipment that will be needed for the countywide system will not vary dramatically from existing equipment, the County and other agencies should be able to save time and resources in training. In addition, the County anticipates that the majority of users should experience a smooth transition from existing communication systems to the new system.

We identified certain improvement opportunities in the planning process. Although the overall cost of the 400 MHz system is estimated to be \$10 to \$11 million, current officials have yet to document all costs associated with the design and implementation of the system. Furthermore, the County still needs to develop a formal written migration plan to ensure that existing systems throughout the County are supported while the new system is being established.

### **Comments of Local Officials**

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

# Introduction

## Background

Police, firefighters and other emergency responders need to have a reliable communication network and adequate radio equipment to exchange voice and data communications when necessary. To function efficiently, first responder agencies need to have “interoperable” capability, that is, different responding agencies need to be able to exchange voice and/or data communications on demand or in real time so they can work effectively with one another. Factors that impede effective emergency communication capabilities include aging infrastructure, incompatible and outdated equipment, limited funding, and lack of planning and cooperation among multiple users of the same system.

In 2005, the New York State Office for Technology (OFT) contracted with a technology provider to develop and operate a Statewide Wireless Network (SWN) for emergency communications. The SWN is an 800 megahertz (MHz) system that is intended to replace aging communication infrastructure and enable police, firefighters, and other first responders to function more efficiently, both on a day-to-day basis and during a crisis.

Local government entities, such as counties, are not required to use the SWN. Local governments that choose to participate in the SWN can do so as Level 1 partners, who can share SWN infrastructure, such as towers, but cannot actually access the SWN; Level 2 (Gateway) partners, who can communicate with the SWN, as necessary, through their existing legacy networks; or Level 3 (full) partners, who are always connected to the SWN. Erie County (County) was identified in the contract as a primary region where the contractor would design and operate the initial “build-out” of the SWN. The County was expected to participate in SWN as a Level 3 partner.

In January 2008, the County committed to design, purchase, install and maintain a new 400 MHz emergency communication system and to scale back its SWN participation to Level 2 partnership. The County expects to spend at least \$10.7 million on this project with anticipated completion in July 2009. According to the County, “the new system is expected to be a multi-discipline, multi-jurisdictional, multi-agency countywide radio system for all first responders.” There are 224 first responder agencies in the County, and all but approximately 60 operate on a 400 MHz system. The County’s Department of Emergency Services (Department), which is responsible for maintaining a countywide radio system for use by all emergency responders within the County, has determined “that the quickest most economical way

to achieve interoperability is to combine existing 400 MHz systems already in place throughout Erie County.”

According to the Department’s current Commissioner of Emergency Services (Commissioner), he began reviewing the estimated costs and available funding to join the SWN as a Level 3 partner beginning in late 2007. He stated that he questioned the availability of certain funding sources. In addition, he learned that emergency responder officials were not satisfied with the test results of SWN performance after the initial operational testing was complete. Therefore, citing funding concerns and poor operational test results, the current administration officially notified OFT that they no longer intended to maintain full partner status in the SWN and opted to become a Level 2 (Gateway) partner. The County has since moved forward with the implementation of its 400 MHz emergency communication system. The County plans to finance this project through a combination of grants and debt proceeds.

**Objective**

The objective of our audit was to review the County’s process in choosing its emergency communication system. Our audit addressed the following related question:

- Did the County’s choice for an emergency communication system, including its decision to change its SWN partnership level, provide an appropriate level of interoperability in a cost effective manner?

**Scope and Methodology**

We reviewed documents and actions taken by the County in relation to this project for the period October 2007 through May 2008. Certain portions of this audit relate to actions taken, and information gathered and documented by County officials, prior to our audit period and date as far back as 1999.

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

The County Legislature has the responsibility to initiate corrective action. Pursuant to Section 35 of the General Municipal Law, the

County Legislature should prepare a plan of action that addresses the recommendations in this report and forward the plan to our office within 90 days. For guidance in preparing your plan of action, you may refer to applicable sections in the publication issued by the Office of the State Comptroller entitled *Local Government Management Guide*. We encourage the County Legislature to make this plan available for public review in the Clerk of the Legislature's office.

## Emergency Communication System

The U.S. Department of Homeland Security (Homeland Security) issued a planning guidebook to be used when considering the implementation of a wireless communications network.<sup>2</sup> It is a step-by-step guide for developing an interoperability plan.<sup>3</sup> The guidebook lists governance, technology, standard operating procedures, training and usage as the five critical elements in the implementation process.<sup>4</sup>

We used the guidebook's directives for those five critical elements, as well as funding, as criteria in determining whether the County's emergency communication system provides for an appropriate level of interoperability in a cost effective manner. We found that the County effectively used existing information when it made its decision to reduce its involvement with SWN. The County's decision could result in a County emergency communication system that will provide an appropriate level of interoperability for the County's emergency responders while costing as much as \$28 million less than if the County joined SWN as a full partner.

Using the new system:

- The County will still be able to access the SWN as a Gateway partner when needed (e.g., in widespread emergencies)
- Upon installation of the new system, the majority (73 percent) of emergency responders (164 of 224) in the County should be able to communicate with one another during emergencies; upon completion, approximately 95 percent will be interoperable
- The County can provide mobile and in-building (or portable) radio coverage at a \$1.3 million savings because 400 MHz radio equipment is less expensive than 800 MHz SWN compatible equipment

<sup>2</sup> Statewide Interoperability Planning Guidebook — March 2007

<sup>3</sup> The Office for Interoperability and Compatibility's (OIC) SAFECOM and Disaster Management (DM) programs published a set of criteria for statewide interoperability plans in the *Recommended Federal Grant Guidance for Emergency Response Communications and Interoperability Grants for Fiscal Year 2007*.

<sup>4</sup> From the SAFECOM and DM Communications Interoperability Continuum in the planning guidebook

- The County and other agencies should be able to save time and resources in training exercises because most of the new 400 MHz equipment that will be needed will not vary dramatically from existing equipment
- The majority of end-users, (e.g., ECSO, City of Buffalo Police and Fire Departments, the Town of Amherst Emergency Services and the Town of Cheektowaga Police Department) should expect a smoother transition because they are familiar with the equipment, and the majority of end-users already operate on a 400 MHz system.

However, we also identified certain improvement opportunities with the County’s planning process for the new system. Although current County officials estimate the system’s cost at between \$10 and \$11 million, they have yet to document all the costs associated with the design and implementation of the system. Furthermore, the County has not developed a formal written migration plan to ensure that existing systems throughout the County are supported while the new system is being established. However, the County has developed a governance structure that provides for contacting and obtaining feedback from emergency responders, the end-users of the new system.

## **Governance**

The guidebook states, “Governance refers to the establishment of a shared vision and collaborative decision-making process that support interoperability efforts to improve communication, coordination, and cooperation across disciplines and jurisdictions. This vision is set and maintained by a group of individuals representing the broadest possible group of relevant organizations.” The governance structure should be a formal process that includes defined goals, leadership and established roles and responsibilities. The governing entity should ensure that goals are met, that risk is managed and that funds are used in a cost effective manner.

We found that the County has established an appropriate governance structure to guide its interoperability efforts. The Public Safety Communication Committee (Committee) has played an integral role in the decision-making<sup>5</sup> and planning process and has been working with County officials over the past 10 years. There are approximately 60 members on the Committee from various emergency agencies throughout the County and they are representative of all stakeholders in these first responder agencies. A review of meeting minutes shows the Committee has stated goals, assigns roles and responsibilities,

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<sup>5</sup> Although the Committee plays an important role in the decision-making process, all Committee recommendations are ultimately forwarded to the Legislature for approval.

lists priorities, provides project status updates and sets meeting dates to maintain momentum in the planning process.

In addition to using the expertise of County officials and various first responder agencies, the County hired a consulting firm to assist in the integration “of the County’s disparate public safety information and communications system.” The consultants assisted County officials in designing and implementing the new Public Safety Communications Center and evaluating the different partnership levels of the SWN. County officials recently ended the contractual relationship with the consultant. As of the end of audit fieldwork, the County has spent approximately \$2 million on their services and the firm appears to have been an integral part of the planning process. The Commissioner informed us that the County still anticipates relying on outside consultants, but may use County departments to assist in certain areas (i.e., information services) that may have been previously outsourced.

## Funding

The guidebook states “Interoperability projects require significant time and financial resources. To ensure that projects maintain a continued level of support, agencies (i.e., local governments) are required to have adequate funding to continue the project. Included in the funding plan should be the identification of both long- and short-term funding strategies and an outline of anticipated costs and benefits of the program.”

In a presentation to the County Legislature two years ago, the prior Commissioner identified \$54 million<sup>6</sup> as the estimated coverage and equipment costs for the County’s participation in SWN as a full partner over the three phases of the implementation plan. The \$36 million local cost, shown in the following table, included radio equipment costs for all first responder agencies throughout the County, enhanced in-building or portable radio coverage<sup>7</sup> and other end-user equipment. At that time, it was understood by end-users in the County that the County would purchase all equipment needed to participate on the SWN. This included a “one for one” radio swap of older equipment for new 800 MHz equipment for each agency.

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<sup>6</sup> According to the current Commissioner, this amount was based on a request for proposal for a countywide 800 MHz system in 1999. The County could not provide us with a copy of that proposal.

<sup>7</sup> County officials could not provide us with a breakdown of enhanced in-building versus equipment costs for the entire project.

<b>LEVEL 3 ENHANCED COVERAGE AND SUBSCRIBER EQUIPMENT COSTS</b>	
<b>Project Phases</b>	<b>Estimated Local Cost (in millions)</b>
Phase 1 — Erie County Sheriff’s Office (ECSO) and Southern Erie County	\$9
Phase 2 — City of Buffalo and Eastern Erie County	\$14
Phase 3 — Northern Erie County Agencies	\$13
<b>Total Local Cost</b>	<b>\$36</b>

In the same presentation, the prior Commissioner identified \$54 million in funding sources. The County anticipated that it would be able to generate its \$36 million share from State and Federal grants (e.g., COPS, Byrne, Homeland Security) and County debt proceeds, and that the State would provide the remaining funds to support the County’s full partnership status in the SWN.

However, exclusive of the State’s contribution of funds, the current Commissioner has been able to identify only \$10.7 million<sup>8</sup> in other funding. Since the County’s total local projected costs were \$36 million, proceeding with full partnership in SWN would have resulted in a large funding gap. To participate as a full partner, and purchase radios for all agencies, the County would have needed significant additional funding. In fact, a survey of end-user agencies showed that the 7,089 pieces of equipment needed for the “one for one” swap alone would cost the County an estimated \$28.2 million. Since initial funding sources were overestimated, the current administration has advised agencies that the County will not be purchasing new equipment for them to participate in either the SWN or in the new countywide system. Rather, the County is purchasing equipment primarily for the ECSO, the system’s largest user, and infrastructure for certain agencies operating on low-band frequencies in the southern part of the County.

Overall, the funding reduction and change in plans regarding equipment purchases may not affect a significant number of end-users in the County. We compared the preliminary planning for the 400 MHz system and plans for the SWN partnership. We determined that both plans for Phase 1 appears to cost approximately the same amount, from \$9 to \$11 million, and provide about the same service: upgraded equipment for the ECSO and other County agencies (fire and emergency) and infrastructure upgrades to users in the southern portion of the County who are still operating on low-band frequencies. With the County no longer purchasing equipment for other emergency responders, the costs of any new equipment will be borne by the emergency service agencies themselves. However, because many of

<sup>8</sup> According to the Commissioner, he has applied for an additional \$1.6 million grant.

the agencies in Phases 2 and 3 are already operating on 400 MHz analog systems, and some may already have digital-ready equipment, these agencies may not require equipment upgrades.<sup>9</sup>

However, some emergency responders are concerned that they will not be able to afford the equipment needed to access the County's 400 MHz digital system. We interviewed representatives of seven agencies, and found that six were troubled about equipment costs. Four of those six are still operating on low-band systems and two are operating on 400 MHz analog systems. At least one agency representative said that the agency's recent radio equipment purchases will not be compatible with the new 400 MHz digital system, but would work on an analog system. Some agencies are also frustrated by the loss of upgrade opportunities. Seven fire companies were awarded Federal Emergency Management Agency grants to purchase 800 MHz, or SWN-compatible radio system equipment, but lost the funding, according to County officials, because OFT did not give them the necessary information about the type of equipment needed. Since this funding for the 800 MHz radios is no longer available, agencies choosing to upgrade their equipment will also save money by buying 400 MHz equipment instead of the more expensive 800 MHz radios. For illustrative purposes, if all agencies<sup>10</sup> currently operating on low-band were to purchase the same 400 MHz radios as the County, the estimated cost would be approximately \$3.6 million. Since the estimated cost for the same number of 800 MHz radios would be \$6.9 million, the savings would be approximately \$3.3 million.

According to the Commissioner, the \$10.7 million in County funding currently available should be adequate to complete at least an analog 400 MHz countywide system and possibly fund the eventual conversion to a digital system.<sup>11</sup> However, the County has not completed or provided us with cost projections for the entire project. The consultant's detailed outline of the various components of the project also did not include cost projections.

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<sup>9</sup> According to the Commissioner, equipment purchased in the past several years would already be compatible with the new countywide digital system. However, some users stated that their equipment may only be compatible with analog, not digital systems.

<sup>10</sup> Based on a list provided by County officials

<sup>11</sup> Voice and data transmissions are converted from analog sound waves to digital code at the user's radio, transmitted and reconverted from digital code to analog in the receiving user's radio. This process eliminates much of the noise and static associated with analog systems and provides a clear more consistent transmission.

Source: [www.oft.state.ny.us](http://www.oft.state.ny.us)

We found that County officials have yet to identify costs for the following items:

- infrastructure and equipment maintenance<sup>12</sup>
- updates to existing shelters at tower sites
- additional frequencies
- consultant fees
- equipment needed for Gateway partnership.<sup>13</sup>

Some of these costs could be significant. For example, the County’s consultants indicated that shelters can cost up to \$70,000 each to provide adequate protection of equipment located at tower sites. According to the Commissioner, however, less than half of the existing shelters will need updating. He also stated that some maintenance costs (e.g., equipment repair) will continue to be funded through the County’s annual operations and maintenance budget.

## **Technology**

The guidebook describes technology as the “networking infrastructure, equipment and applications that emergency response disciplines use to exchange critical information when responding to incidents. This includes land mobile radios, the infrastructure that supports them and other communications devices such as satellite phones.” An important step in the development of an emergency communication system is identifying critical equipment and infrastructure needs. This can be done by completing a needs assessment to identify the types of radio systems, data and incident management systems and frequency assignments of each emergency responder organization. Also included should be the migration plan for continuing the support of legacy systems while migrating to newer technologies.

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<sup>12</sup> Full partnership with the SWN would have the State absorbing infrastructure costs for 20 years.

<sup>13</sup> To date there is still a question as to whether or not there will be a cost to the County. Information on the OFT website shows that Gateway equipment cost is an expense of the partnering municipality.

We found that the County has adequately assessed its needs for the current plan to install a 400 MHz system. Once County officials decided to implement the 400 MHz system, with Gateway partnership to the SWN, the stated goal was to “have a Countywide P25 digital 400 MHz trunked system<sup>14</sup> providing in-building coverage.<sup>15</sup> A short-term goal will be 95 percent in-street coverage<sup>16</sup> and part of the final goal will be 95 percent in-building coverage.” It is expected that this system, upon completion, will provide approximately 95 percent of first responders with the capability of interoperable communications.

In 2005, the County’s consultants prepared a needs analysis to evaluate the viability of, and planning for, a consolidated 911 center including an assessment of the County’s current voice radio systems and radio consoles. The consultants recommended the creation of a migration plan; continued support of existing, or legacy systems until full system implementation is complete for all agencies; identification of those agencies with critical needs to include them in the first part of the migration plan; and an assessment of whether in-building coverage is adequately addressed. With the exception of a formal written migration plan, the Committee has addressed these recommendations during the planning for the new countywide system.

According to the needs analysis, two driving factors in the migration plan are user expectations and resources. The Committee identified the ECSO and agencies operating on low-band frequencies (mainly agencies in the southern portion of the County) as critical needs. These needs will be met in Phase 1 of the project and, as stated in the Funding section of this report, the Commissioner indicated that there is available funding to ensure these needs are met. In response to other recommendations in the needs analysis, the County is addressing the following:

- Equipment — A benefit of implementing the 400 MHz system is that all but approximately 60 end-users are already operating on compatible systems and should have radio equipment

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<sup>14</sup> “Trunked” refers to how frequencies are utilized. Outdated systems dedicate certain frequencies for specific kinds of communications, which leaves channels unused, wasting frequency resources and severely limiting the number of radio transmissions that can occur. In a trunked system all available frequencies are pooled by the system and when a call is initiated it is assigned to use the first available channel. This technology is much more efficient, allowing more users to communicate effectively over the system. Source: [www.oft.state.ny.us](http://www.oft.state.ny.us)

<sup>15</sup> Portable, or “in-building,” coverage refers to radios that are held in hand rather than operating in mobile units. Enhanced in-building coverage would refer to needed upgrades to infrastructure (cell sites) to allow for better signals when using portable radios inside large buildings. In-building coverage could also be enhanced through the use of equipment know as Vehicular Tactical Repeaters (V-TAC).

<sup>16</sup> “In-street coverage” could refer to radios attached to vehicles.

that can be used on the new system.<sup>17</sup> The County should also realize substantial cost savings for its purchase of new equipment for the ECSO and other County agencies. Estimated costs for the purchase of new 800 MHz radio equipment for the ECSO and other County agencies, if the County joined the SWN as a full partner, would have been \$2.8 million. That same number of radios for the 400 MHz system will cost \$1.5 million, resulting in a \$1.3 million (46 percent) savings on radio equipment alone. Furthermore, because the 400 MHz radio equipment has multiple vendors available, the County will be able to solicit competitive bids, which could result in additional cost savings. Conversely, there currently is only one source for SWN compatible equipment.

- Infrastructure — The Commissioner stated that the County will be able to use many of the existing tower sites. This will avoid additional costs to construct and maintain new sites. Furthermore, the County has the option to “share” sites that are being constructed for the SWN. The Commissioner indicated there would be no cost to the County for sharing these sites.
- Coverage — When the overall project goal is achieved, the Committee anticipates that the 400 MHz system will provide 95 percent mobile as well as 95 percent in-building radio coverage. The Commissioner expects that the 400 MHz system will increase in-building coverage without additional infrastructure. The County could achieve enhanced in-building coverage using SWN, but it would likely require additional infrastructure and equipment paid for by the County.
- Gateway — There is no cost for County end-users to access the SWN, but the County will be required to purchase equipment and may be required to share infrastructure costs. The OFT web site indicates that the County would be required to share infrastructure costs. However, the Commissioner stated that OFT has not provided the County with any associated costs, or identified who is responsible for those costs. He also stated that OFT indicated that any municipality that the State has to communicate with will be provided a Gateway at no cost. Because the County communicates with the State, County officials believe that there will be no cost to the County to use the Gateway.

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<sup>17</sup> According to the current Commissioner, any equipment purchased in the last several years should be compatible with the 400 MHz system.

- Migration Plan — The County has yet to formalize a migration plan. However, in March 2008, the consultants presented a plan to the Committee that outlined the project. The outline included assigned job duties, procurement needs and a timeline for completion. The Commissioner estimates that the total migration period will last 18-24 months. However, it is unknown at this point how long existing systems will continue to operate once the new system is fully implemented.

## Standard Operating Procedures/Training/Usage

The guidebook indicates that part of an effective emergency communication system is to have formal written instructions, or standard operating procedures (SOPs), for incident response that enable responders to act in a coordinated fashion across disciplines and jurisdictions. Additionally, instructional support, or training, should be designed to develop the knowledge and skills required to implement and operate a successful interoperability solution. Unless emergency response agencies have SOPs in place and have training in using interoperable equipment, they may not be prepared for more infrequent large-scale incidents.

In January 2007, Homeland Security released its Tactical Interoperable Communications Scorecards for urban/metropolitan areas across the nation.<sup>18</sup> According to this report, each scorecard provides an assessment of the progress each urban area has achieved with its available means of tactical interoperable communications across three elements: governance, standard operating procedures, and usage. For the Buffalo Urban Area,<sup>19</sup> the report noted that although there were no pre-existing SOPs, the participating agencies were able to effectively follow the SOPs and achieve interoperable communications during the usage exercise. Recommendations stated that regional SOPs should be developed and system operators should be trained on the SOPs.

According to the Commissioner, part of the anticipated grant funding (in addition to the \$10.7 million already identified) will be used to address the issues noted in the report. He also stated that the County's established SOPs require updating<sup>20</sup> and that a team has been established to develop and update them. In addition, since the report's release, County officials added interoperability as a component of their major mutual aid incident and training exercises. Along with the addition of interoperable communications to training exercises, it will

<sup>18</sup> "January 2007 Tactical Interoperable Communications Scorecards Summary Report and Findings"

<sup>19</sup> The Buffalo Urban Area includes the counties of Erie and Niagara.

<sup>20</sup> These SOPs pertain to fire agencies throughout the County. A representative from the ECSO stated that they are trained in the use of communication equipment during their police academy training and also receive field training.

be important to include training on the SWN Gateway system as well. Because the Gateway will not be used routinely, it is imperative that users of the system know how to operate the Gateway when needed.

County officials stated that one benefit of implementing their own system is that users of current 400 MHz systems have already been adequately trained in equipment operations; therefore, fewer resources will be needed in this area. For example, the ECSO, the largest user of the County system, currently operates on an analog 400 MHz system and will require little, if any, training on the use of the new digital radios. In addition, the Department already has an ongoing training and fire safety program that includes basic system and operator training. The Commissioner has acknowledged that additional training will be required for users who currently do not operate on a 400 MHz system. Although no specific training for the 400 MHz system has been developed, the Commissioner is aware of this need and indicated that such training is planned for the future.

The goals of the County and the SWN are basically the same: to develop and implement a wireless emergency radio network. Although the County could have opted to join the SWN as a full partner, which would have allowed County agencies full-time access to the SWN, the current administration decided that the 400 MHz County system is a more viable — and definitely a more economical — option at this point. This decision will allow the County to immediately address its critical needs by upgrading equipment for some users and improving interoperability for the majority of emergency responders in the County, while retaining the option of accessing the SWN when needed as a Level 2 SWN partner.

## **Recommendations**

1. The Commissioner, the Committee, and other appropriate County officials should work together to complete and fully document the cost estimates for all phases of the 400 MHz system.
2. The Commissioner should continue to identify funding sources to ensure that future equipment purchases, as well as system maintenance and upgrades, are adequately funded.
3. County officials should develop a formal migration plan to ensure that existing communication systems are supported during the transition process.
4. The County should continue its formal training exercises and ensure that operators are adequately trained on the SWN Gateway equipment.

## **APPENDIX A**

### **RESPONSE FROM LOCAL OFFICIALS**

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



## COUNTY OF ERIE

**CHRIS COLLINS**

COUNTY EXECUTIVE

August 6, 2008

Office of the New York State Comptroller  
Division of Local Government & School Accountability

██████████  
295 Main Street – Room 1050 (1032)  
Buffalo, New York 14203

Dear ██████████

On behalf of Erie County taxpayers, I would like to thank you for your hard work performed on the audit regarding the County's position and participation in New York's Statewide Wireless Network. Your findings support my administration's decision to decline full partnership on the 800 MHz emergency communication system, but rather sign on as a 'gateway' partner. As a 'gateway' partner, Erie County's emergency services personnel and volunteers can continue to operate day-to-day on our upgraded 400 MHz system and link effectively and rapidly into the Statewide Wireless Network during a true statewide emergency.

The decision to become a gateway partner does not impact public safety, and in some cases, it ensures proper emergency response in many of our rural communities. As Erie County Executive, I am committed to the public safety of our community. I also have a responsibility to invest taxpayer dollars wisely. My administration's decision to become a 'gateway' partner in the Statewide Wireless Network accomplishes both of these critical priorities.

Your audit brings forth certain recommendations regarding emergency service protocol that my administration is working to implement, and others we are currently reviewing. In closing, I would like to thank you for the opportunity to comment on your audit, its findings, and recommendations.

Sincerely,

Chris Collins  
Erie County Executive

CC/gl;bf

## APPENDIX B

### AUDIT METHODOLOGY AND STANDARDS

We examined County records and reports, and actions taken by County officials for the period October 2007 through May 2008. In some instances we reviewed documents and obtained information back to 1999.

To achieve our objective we included the following steps in our audit:

- We interviewed current County officials including the County Executive, the Commissioner of Emergency Services, the acting Commissioner of Police Services, representatives from the ECSO, a representative from the consulting firm L. Robert Kimball & Associates, Inc., and several members of police and fire agencies from throughout the County. We obtained information from the County Comptroller's Office and the Director of Purchasing. We also spoke with representatives from the New York State Office for Technology during the planning stages of our audit. We did not interview any members from the previous County administration.
- We reviewed planning documents, consultant reports, meeting minutes, agreements, newspaper articles, presentations, purchasing reports, invoices, grant applications and related correspondence from the current, as well as, the prior County administration.
- We utilized State and Federal websites to gather information pertaining to the New York State Statewide Wireless Network, guidelines for establishing a wireless communication network and Federal regulations and industry standards pertaining to wireless communications. See Appendix C for a list of those sources.

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.

## APPENDIX C

### LIST OF SOURCE DOCUMENTS

The following is a list of websites and source documents that were used during the conduct of this audit:

- Erie County Government  
<http://www.erie.gov/>  
The County's Department of Emergency Services  
[http://www.erie.gov/depts/community/emergency\\_fsd.asp](http://www.erie.gov/depts/community/emergency_fsd.asp)
- New York State Chief Information Officer and Office for Technology  
<http://www.oft.state.ny.us/oft/swnindex.htm>  
The Office for Technology is acting as the lead agency for the Statewide Wireless Network (SWN). This website includes information about the SWN and lists additional resources. Further information about the project can be found in the SWN Advisory Council 2007 Annual Report, which can be found at:  
[http://www.oft.state.ny.us/SWN/swndocs/123107SWNAnnualReport\(FINAL\).pdf](http://www.oft.state.ny.us/SWN/swndocs/123107SWNAnnualReport(FINAL).pdf)
- United States Department of Homeland Security  
Information pertaining to emergency management and first responders  
<http://www.fema.gov/emergency/nims/index.shtm>  
  
National Integration Center (NIC) Incident Management Systems Integration Division provides oversight of the National Incident Management System (NIMS).  
[http://www.dhs.gov/xprepresp/gc\\_1167770109789.shtm](http://www.dhs.gov/xprepresp/gc_1167770109789.shtm)  
  
Department of Homeland Security: Urban/Metropolitan Area January 2007 Tactical Interoperable Communications Scorecards  
<http://www.safecomprogram.gov/SAFECOM/>  
  
SAFECOM is a communications program of the Department of Homeland Security designed to assist the public safety community in addressing interoperability needs. We used guidebooks and other information found on the following two sites:  
<http://www.safecomprogram.gov/NR/rdonlyres/18F02413-CC4D-41B2-9097-F5FF04E080C7/0/StatewidePlanningGuidebookFINAL.pdf>  
<http://www.safecomprogram.gov/SAFECOM/tools/continuum/default.htm>
- Federal Communications System  
<http://www.fcc.gov/aboutus.html>

## APPENDIX D

### HOW TO OBTAIN ADDITIONAL COPIES OF THE REPORT

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<http://www.osc.state.ny.us/localgov/>

## APPENDIX E

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