



Statewide Wireless Network

Briefing Document for State Officials

December 2006

New York State
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Section

1

Executive Summary

The Statewide Wireless Network (SWN) is a project to replace the obsolete communications infrastructure for the State. The goal is to implement a radio network for State public safety and public service agencies that works statewide. The SWN is intended to provide interagency and intergovernmental communications—or interoperability—and allow emergency personnel to communicate with one another. Local governments may opt into the system but will need to purchase their own equipment.

The need for an improved radio system network has been apparent since 1996, but the interest in a state-of-the-art emergency communications system was heightened after September 11, 2001. The State twice attempted unsuccessfully to enter into exclusive agreements with private firms to develop a network before initiating a competitive process to select a vendor in 2002.

The Office for Technology (OFT) awarded a \$2 billion contract, approved in September 2005, to M/A-COM to design and build the SWN. The contract is a lease purchase agreement, wherein the State is not obligated to make payments to M/A-COM until a regional build-out is completed, tested and accepted.

The contract will result in a communications infrastructure requiring specialized equipment, using M/A-COM licensed technology, for actual communication. Although the not-to-exceed contract price includes most, but not all, costs for development of the infrastructure, no real estimate of the total cost of equipment to access the network has been provided by the vendor or OFT. During a public hearing convened by the New York State Assembly, when pressed, a M/A-COM representative offered a rough

estimate that the cost of equipment to access the network would be more than \$100 million. It was not clear whether this estimate included financing costs of equipment which may be obtained through purchase, lease or lease-purchase. Given the size of the expense, State entities, like the State Police, typically have entered into arrangements where they lease communications equipment for a period of 60 months, at which time they would either: (a) return the item, (b) pay a one-time buy-out fee and purchase the item, or (c) continue to lease the item.

In June 2006, M/A-COM provided the Office of the State Comptroller with an estimate of savings on equipment financing costs as a result of the lower financing rate insisted upon by the Comptroller before approving the contract. Specifically, M/A-COM represented that the change from the 8 percent financing rate it originally proposed to 6.5 percent insisted upon by the Comptroller would save State and local government entities at least \$10 million (if SWN only achieved the minimal number of users) and more likely \$29 million, based on probable number of users. Based on those figures, the Office of the State Comptroller estimates that equipment to access the SWN may cost an additional \$790 million, including financing costs.

There are expected to be more than 21,000 State users of the system; the remainder of the capacity may be used by local public safety entities. Equipment costs are estimated to be \$300 million, \$100 million for the State and \$200 million for local governments. Financing costs for equipment is estimated to be \$490 million, \$160 million for State users and \$330 million for local government users.

The SWN will be constructed in a series of regional phases. The first phase has begun in two regions simultaneously: in Erie and Chautauqua counties and in New York City in partnership with the Metropolitan Transportation Authority (MTA).

The primary build-out in the Erie and Chautauqua region is on schedule and is expected to meet the June 2007 deadline. Chautauqua County has entered into a Preliminary Planning Agreement and appears to be negotiating a Full System Partnership with SWN. Erie County is in negotiations to develop a partnership with SWN and has purchased public safety equipment and consulting services associated with upgrading the County emergency communications system and outfitting the Erie County Public Safety Campus. The Office of the State Comptroller approved a contract in September 2006 to reimburse Erie County for these purchases

with \$2.0 million from the Byrne Formula Grant Program.¹ All funding from the Byrne Grant is in addition to the \$2 billion contract for the SWN.

Metro-21, the portion of the State Police radio communications system serving New York City, was completed in 1993 and is also scheduled for modernization as part of the first SWN build-out. Retrofitting Metro-21 for interoperability with M/A-COM's Open Sky technology will provide above ground coverage; underground coverage is the responsibility of the MTA.

The build-out to retrofit Metro-21 is expected to be completed by the end of December 2006. In addition to the MTA, the New York City Department of Information Technology and Telecommunications is also negotiating a Preliminary Planning Agreement with SWN. A \$4.6 million order was placed for radio equipment for New York City and equipment for the Cell on Wheels (COW) for SWN in September 2006 with funding from the Byrne Grant for State and Local Emergency Preparedness.

All Executive agencies were directed to participate in the SWN, and OFT estimates that the State agencies and public authorities acting as full partners will involve 21,886 users. The system's anticipated capacity of 65,000 users includes planned participation by local governments, as well. Local governments are offered various levels of participation ranging from full partnership, which would involve adoption of SWN as the local government's fully integrated operational communications network, to no participation at all.

Orders to purchase radios for the Department of Environmental Conservation, the Department of Transportation, the Division of the State Police, and the Office of Parks, Recreation and Historical Preservation, valued at \$1.5 million, were in place by October 2006. This equipment was also funded by the Byrne Grant. The 2006-07 Budget includes a \$25.5 million appropriation to support the preliminary costs associated with the SWN project, including personnel and funding for ten System Operations Centers (SOCs). The SOC's are the dispatch centers for SWN users—the State public safety agencies. The Office for Technology estimates the State's cost for the SOC's will be \$60 million, which is in addition to both the

¹ The Edward Byrne Memorial State and Local Law Enforcement Assistance Grant Program (Byrne Formula Grant Program) is a partnership among federal, state, and local governments to create safer communities. Local jurisdictions are not eligible for direct Byrne Formula Grant Program funding; however, local practitioners may seek funding for innovative projects through subgrants. In each state, the governor appoints a State Administering Agency (SAA) to handle the subgranting of these funds to local and state criminal justice operations. In New York State, the SAA is the Division of Criminal Justice Services.

\$2.0 billion contract and the estimated \$790 million in State and local equipment costs to access the SWN.

Other entities, outside of New York City, currently in negotiation for some level of partnership with SWN through Preliminary Partnership Agreements include the counties of Delaware, Essex, Genesee, Niagara, Onondaga, Schuyler, Sullivan, Tompkins and Ulster, and the Unified Court System.

Clearly, the involvement of local governments will serve to increase the value of the infrastructure investments and advantages of the system in coordinated emergency response. Failure to adequately include first responders in development of the SWN was one of several concerns raised by Comptroller Hevesi in a letter to Governor Pataki in September 2005, when the SWN contract was approved. Other concerns included the lack of central coordination of SWN as a program—development of the infrastructure under the direction of OFT is only a single project within a larger program, yet there was no clear leader in coordinating development of all aspects of that program. While efforts to both involve first responders and provide leadership have improved since that time, there is a need to continue these efforts to ensure the success of this critical project.

The Comptroller also has raised concerns about a reliable funding stream for the SWN. Wireless surcharge revenue has been identified as the funding stream for SWN, but both OFT and the Division of the Budget agree that it will not be an adequate source of funding for the long term. The letter also raised concerns about the placement of transmission towers in environmentally sensitive areas and the elimination of current dead zones.

An equally important issue to be addressed is the interaction between M/A-COM and State and local governments acquiring equipment to access the system. An audit recently issued by the Office of the State Comptroller found overcharges, unreasonable interest rates, maintenance paid for but not performed and continued assessment of user fees after agency payments had reached the full value of the equipment. M/A-COM is negotiating amendments to existing contracts with State Police, the Division of Correctional Services and the Department of Transportation to address audit findings. While seeking recovery of monies spent on preventive maintenance for which there is no record of delivery, the Office of the State Comptroller has initiated a further audit of M/A-COM's preventive maintenance practices. All of these issues would best be addressed in a centralized contract subjecting all users of M/A-COM equipment to consistent contract terms.

EXECUTIVE SUMMARY

Given the size of the investment in the SWN infrastructure, the anticipated costs for equipment to access the network and the importance of achieving a state-of-the-art communications system for the State, this project must be carefully managed and monitored. The Office of the State Comptroller is committed to a rigorous series of audits and scrutiny of payments associated with SWN. The following briefing document is intended to provide necessary background and heightened awareness of concerns to others with an opportunity to influence the outcome of this important project going forward.

Section

2

Background

In 1996, the State Police "began research and planning to address the deteriorating radio systems."² A number of weaknesses were uncovered in the State's radio system network.

- The State Police communications infrastructure was obsolete and in disrepair.
- The State's current radio systems were analog VHF voice-only systems that lacked the capacity to effectively transmit data or interact with one another. Such capacity is vital in crisis situations and for the day-to-day operations of government.
- It would be impossible to adequately upgrade the State's existing radio systems due to a lack of VHF frequencies and the increasing obsolescence of equipment. If not replaced, these systems will ultimately fail.
- The amount of radio spectrum available for public safety access is a limited resource. Adequate radio spectrum is only available in the existing 800 MHz band and the newly allocated 700 MHz band.
- These frequencies may not be available if New York delays procurement of a new radio network.
- Public safety issues existed because of coverage dead spots.

² James T. Dillon. Chief Information Officer. Testimony. New York State Assembly Hearing. Statewide Wireless Network. May 19, 2004: 3.

- Multiple State agencies and authorities had similar needs for radio communications and communications upgrades.
- A single-shared network may accommodate the radio communications requirements of all agencies for less overall cost than multiple single agency systems.
- A single-shared network would provide better interaction between agency users than linking separate systems.

Following the State Police assessment, the Division of the Budget (DOB) assigned the State Police as the lead agency to begin exploring options for the procurement of a single new statewide radio network to serve all State agencies. As a public safety first responder agency with statewide jurisdiction, it determined that a network built to satisfy State Police public safety grade communication requirements could accommodate the requirements of other agencies as well.

Phase I of the State Police effort began in early 1997 and examined the existing and future user requirements of the State Police, researched technology options for large statewide networks and began searching for the appropriate frequency band(s) containing adequate available spectrum to support the State's agency users. Phase II of the State Police effort began in 1998 and expanded the identification of user requirements to other State agencies. Numerous meetings were held between 1998 and 2000 with the Department of Correctional Services, the Department of Environmental Conservation and the Department of Transportation to discuss operations and identify specific user needs. It was through these meetings that State authorities, such as the New York State Thruway and the Metropolitan Transportation Authority Police Department, began to participate in the process. Both had similar communications requirements as State agencies, and each had aging communications systems in need of replacement. The concept of partnering with local first responders began to evolve.

At the same time, the State considered whether, due to recurring problems with radio communications systems individually operated by the Department of Correctional Services, the Department of Environmental Conservation, the Office of Parks, Recreation and Historic Preservation, and other State agencies, a single statewide network infrastructure would be a more cost effective way to enable a statewide communications system. A statewide wireless network could save the State and partnering local agencies significant costs, improve interoperability among State and local government users, and reduce

the environmental impact of radio towers in New York State. DOB concluded that a statewide network infrastructure would not only be more cost effective, the increased coordination would also benefit the State and its residents.

The Executive Budget, proposed in January 2000, included funding of \$10 million for the new Statewide Public Safety Communications System. The press release announcing budget provisions noted: “The current State Police radio system is more than 35 years old and needs to be replaced. A new, statewide emergency communications system would better serve all New York citizens, enabling emergency response agencies at all levels of government to communicate with each other, while still providing localities the ability to maintain control over their own 911 systems.”³ The Enacted Budget included the proposed \$10 million appropriation for the State Police.⁴

Based on an existing contract between the Division of State Police and Crown Castle International (Crown), in July 2000, the Office for Technology (OFT) proposed a strategic partnership with Crown to provide a state-of-the-art radio network for public safety.⁵ The New York State Technology Enterprise Corporation (NYSTEC) analyzed potential vendors for OFT and concluded that Crown was the only vendor who, at the time, was a radio provider with a vested interest in a particular technology. The Office of the State Comptroller rejected this proposal.

By February 2001, OFT had developed a new strategic partnership; the new proposal involved Motorola, instead of Crown. OFT cited new standards established by the Federal Communication Commission—Project 25 Standards—as its reason for selecting Motorola, maintaining that Motorola was the only company capable of manufacturing mobile wireless radios to this standard.⁶ Discussions and correspondence occurred between OFT and the Office of the State Comptroller with the

³ Press Release. “Governor Pataki Introduces 2000-2001 Executive Budget.” January 11, 2000.

⁴ Enacted Budget Bills, Public Protection and General Government S.6404B/A.9504B, signed into law May 15, 2000.

⁵ Paragraph f of Subdivision 4 of Section 163 of the State Finance Law provides for “strategic partnering between the state and non-state entities for the enhancement of the business interests of the State.”

⁶ In the glossary of the request for proposals (RFP) issued by the Office for Technology in June 2002, “Project 25” is said to refer to a suite of standards and requirements intended for digital public safety radio communications systems.

Office of the State Comptroller rejecting the premise that the proposed agreement constituted a strategic partnership within the meaning of the law. At the same time, another vendor contested the assertion that Motorola was the only vendor capable of designing a Project 25 system. In April 2001, the Office of the State Comptroller formally rejected the proposed strategic partnership between OFT and Motorola. The correspondence from the Office of the State Comptroller stated that it remained unconvinced that the proposed SWN project was a logical extension of an existing Motorola contract to sell proprietary radios. It further noted that the existing contract was valued at approximately \$2.5 million, while the SWN contract for infrastructure construction was expected to cost at least \$350 million. The correspondence acknowledged the option of proceeding with Motorola on a single or sole source basis but, noting that competition may exist for the project, recommended a competitive process.⁷

In May 2001, OFT announced its intention to seek “competitive bids on an estimated \$300 million project to construct a statewide wireless communications system.”⁸ An advance notice of future release of the SWN request for proposals (RFP) was printed in the Procurement Opportunities Newsletter, commonly referred to as the Contract Reporter, on May 13, 2002.

On June 3, 2002, OFT issued a voluminous RFP to facilitate the design, construction, network operations and maintenance of a new Statewide Wireless Network (SWN).⁹ The stated purpose of the project, described as critical in the aftermath of the events of September 11, 2001, was “to enable public service and public safety entities operating within the State of New York to better respond to and protect the citizens of New York State.” The RFP noted that the SWN would “provide essential connectivity to coordinate the delivery of governmental services to the citizens of New York, and to enable immediate coordination of public safety resources in emergency situations to ensure the public’s safety and welfare.” Further, it said: “The new state-of-the-art communications network will significantly enhance the safety of both the State’s emergency service responders, and the citizens they serve.”¹⁰

⁷ Letter from Assistant Deputy Comptroller Ruth S. Walters to Mr. Hanford Thomas, Director, Statewide Wireless Network, April 16, 2001.

⁸ Odat, James M. “Wireless Project’s Bid Effort at Issue.” *The Times Union*. May 11, 2001.

⁹ Volume 1 of the RFP is available via the OFT website; Volume 2 was shared with potential vendors with restrictions on access due to homeland security concerns. <https://www3.oft.state.ny.us/swn/docs/RFPVol1_Requirements.pdf>.

¹⁰ New York State Request for Proposals (RFP) No. 01-007.

Information about SWN included on the OFT website describes SWN features as follows: SWN will be used in day-to-day operations, as well as disaster and emergency situations, to more effectively and efficiently coordinate the deployment of resources of all levels of government. The SWN will incorporate the latest technologies in land mobile radio and coordinate the use of additional bandwidth reserved for public safety. The design will provide:

- A digital trunked radio network for both voice and data transmission,
- Autonomous talk groups among the various participants,
- Interoperability through special/ad hoc talk groups for large-scale emergency situations, and
- Voice and data encryption to ensure that public safety communications are secure.¹¹

On September 19, 2005, the Office of the State Comptroller approved a contract between OFT and M/A-COM, Inc. for the development of a Statewide Wireless Network (SWN or Network). The Network is intended to provide the infrastructure for State public safety and service entities to communicate and enhance communication capabilities for local police, fire and other emergency personnel. Under law, as with most State contracts, approval by the Comptroller was necessary before the contract could become effective. Given the complexity of the contract, the anticipated associated costs to the State and significance of the system it is intended to create, the Office of the State Comptroller conducted an exhaustive review of the proposed contract, which took more than the 90 days typically allowed by law.¹²

Review of the materials submitted with the proposed contract involved a 12-member interdivisional task force within the Office of the State Comptroller, analysis of similar programs in other states and assessment of the SWN program approach by an external consultant. During the review process, OFT submitted eight sets of written answers in response to questions posed by the Office of the State Comptroller. In addition, five meetings involving staff from both the Office of the State Comptroller and OFT were held to discuss specific issues.

¹¹ <<https://www3.oft.state.ny.us/swn/swninfo.cfm>>.

¹² Although the law provides the Office of the State Comptroller with 90 days to issue approval of a proposed contract, decisions on proposed contracts occur, on average, in fewer than ten days. As was the case with SWN, in instances where contracts are particularly complex or when the agency is required to provide additional information necessary to complete the procurement record, the Office of the State Comptroller can request from the agency additional time for review as an alternative to returning the contract unapproved.

The ultimate approval of the contract with M/A-COM by the Office of the State Comptroller was granted after certain concessions were made on financing rates for equipment to be acquired by State and local government agencies in order to access the Network. It is expected that these concessions will produce tens of millions of dollars worth of savings in interest costs for governments over the life of the SWN contract.

Although, the Office of the State Comptroller granted approval of this contract, appropriate leadership is necessary to address certain weaknesses identified in review of the proposal. The need for improved communications capability has been clear for nearly a decade and initial attempts to select a contractor without a competitive process unnecessarily delayed progress toward an important goal. A wide field of potential bidders responded to the initial RFP, but ultimately only two firms offered a total of four proposals. The selected proposal is technically sound. The contract affords protections to the State and, despite the Comptroller's concerns about financing, does not appear to drive unreasonably high costs. Further, it is unlikely that another competitive process would produce better results or provide an adequate network at a lower cost. With approval by the Office of the State Comptroller, steps must be taken to ensure that the Statewide Wireless Network program—of which the current infrastructure project is only a part—is effectively carried out to promote the health and safety of all New Yorkers. On September 22, 2005, Comptroller Alan G. Hevesi sent a letter to Governor George Pataki outlining his concerns.¹³ To date, no formal response has been received.

The letter detailed recommendations that the Office of the State Comptroller believes are necessary for the project to result in successful implementation of a SWN program that provides the most significant benefits. First and foremost, a funding stream for the project must be established for the long term; both DOB and OFT have acknowledged that proceeds from the wireless 911 surcharge will be inadequate. In addition there is a need to continue to draw in the expertise of local first responders in the development of the Network since it is they who ultimately will rely on the Network. This is of concern not only for public safety reasons, but also because it creates the potential for increased costs and delayed implementation. Also of concern is the ongoing need for central coordination of the program through a multi-faceted process with a variety of stakeholders. While the development of the

¹³ Please see Appendix A.

infrastructure is critical, it is a single project within an overall emergency response program. A successful program will require clear protocols governing use of the system, and the establishment of such protocols requires centralized leadership. As the coordinator, OFT plays a crucial role in the management and success of the program.

Upon approval of the contract by the Office of the State Comptroller, Assembly Speaker Sheldon Silver and Governmental Operations Committee Chair RoAnn Destito called on the Governor to include local first responders in the SWN planning process. They noted that localities still appeared to have insufficient information about SWN more than a year after the Assembly issued its 2004 report highlighting the need for OFT to involve local first responders in the SWN planning process: *First Responders: A Last Priority?* It should be noted, however, that outreach efforts to local first responders have increased during the past year.

At the same time, the Assembly requested a briefing on the analysis performed by the Office of the State Comptroller to review the contract.¹⁴ Verbal briefings were provided for members of the Assembly and Senate and related staff in separate sessions of November 30 and December 20, 2005. This document is intended to provide additional detail to supplement those briefing sessions for use by both the Assembly and Senate, which must play a critical role in continued oversight of this important project. It also should prove useful to the current and upcoming Executive administrations.

Development, implementation, operations, maintenance and financing of the infrastructure for the SWN alone is expected to cost New York taxpayers more than \$2 billion. Approximately \$790 million more will be spent by State and local government agencies to acquire equipment to access the Network. The current commitment will drive decisions for at least two decades. The Office of the State Comptroller is committed to vigilant oversight of the SWN program and its finances and will work with both the Legislature and Executive to help ensure its goals to promote the health and safety of New Yorkers.

¹⁴ New York State Assembly Speaker Sheldon Silver. News Release. "Silver, Destito Urge Governor to Involve Local First Responders In Statewide Wireless Network Planning." September 22, 2005.

Existing Radio Communications System

The State Police currently use two radio systems: a statewide system that operates in the VHF frequency band and a radio system covering only the New York City metropolitan area that operates in the 800 MHz frequency band. The State Police VHF system is more than 30 years old and, although the system has been upgraded periodically, its basic technology has long been outdated. The New York City system, called Metro-21, utilizes an M/A-COM product called Enhanced Digital Access Communications System (EDACS). Metro21 was refitted with an upgraded EDACS system after the events of September 11, 2001. The EDACS system is an older Frequency Division Multiple Access (FDMA) system that does not afford the same spectral efficiency as the newer Time Division Multiple Access (TDMA). TDMA provides greater spectral efficiency in that it divides a frequency into four channels, thereby allowing more conversations to take place simultaneously, as opposed to the older FDMA which divides a frequency into only two channels.

Similarly, the Department of Environmental Conservation and the Department of Transportation both have separate statewide radio systems of like vintage and condition as the State Police VHF system. Other State agencies have a patchwork of aging and incompatible systems that have also passed the point of replacement. For example, the Office of Parks, Recreation and Historic Preservation operates several antiquated regional radio systems for the State Park Police.

The Department of Correctional Services and the State University of New York each maintain a series of separate campus-based systems across the State. OFT has advised the Office of the State Comptroller that the Department of Correctional Services "in-building" system is not in immediate need of replacement.¹⁵

As a region is built-out, State agencies will begin to transition to the SWN. Existing State agency legacy systems will be connected to the new SWN region(s) via a gateway to sustain operations and provide interoperability until the SWN is built-out statewide and State agency migration is complete.

¹⁵ The Department of Correctional Services utilizes the State Police system for external radio communication.

Section

3

Identification of Statewide Wireless Network Contractor

Certain technical descriptions in the following sections are excerpted from documents in the procurement record.

The SWN Request for Proposals (RFP) was released on June 3, 2002 and distributed to approximately 390 organizations. On June 26, 2002, consistent with the schedule set forth in the RFP, the Office for Technology (OFT) hosted a pre-bid conference. Attendance at the pre-bid conference and the filing of a notice of intent to bid were mandatory prerequisites for participation in the procurement. Over 170 individuals representing 87 organizations attended the mandatory pre-bid conference held on June 26, 2002, and 20 organizations submitted the mandatory notice of intent to bid.¹⁶

Bidder Qualifications

The RFP required the bidder to be a commercial entity with an established track record operating in its field. In addition, the bidder had to meet one or more of the following criteria:

¹⁶ A listing of organizations participating in the pre-bid conference is available on the Office for Technology website: <<http://www.oft.state.ny.us/contract/ListingBidConfAttendees.htm>>.

1. LMR Product Manufacturer

- Bidder is a company that is a product manufacturer of standard commercial land mobile radio (LMR) communications equipment for public safety use of the type required for this project.
- Bidder must have engineering, project management, product integration resources and demonstrable manufacturing capacity sufficient to produce and deliver the specified equipment in quantities adequate to meet the project.

2. Systems Integrator

- Bidder is a company that is a systems integrator with demonstrable successful experience in integrating large scale wireless or large scale LMR implementation(s).
- Such entity must have engineering, project management and product integration resources, and must propose a technology solution and project team for the SWN that incorporates an LMR product manufacturer meeting the requirements of paragraph 1, above.

3. Large-Scale Wireless Communications Service Provider

- Bidder is a company that is a large-scale wireless communications service provider with demonstrable experience in providing wireless networks on a scale equal to or greater than the proposed SWN. Such entity must propose a technology solution and project team for this procurement that incorporates an LMR product manufacturer and a systems integrator meeting the requirements of paragraphs 1 and 2, above.¹⁷

Bidder Response

Ultimately, two bidding consortiums, one led by M/A-COM and the other by Motorola, submitted a total of five proposals by the January 7, 2003 deadline.¹⁸

¹⁷ RFP, Section 1.02, Bidder Eligibility - Mandatory Requirements.

¹⁸ M/A-COM's two alternate submissions included the same technical proposal with different cost proposals.

MOTOROLA, Inc., as Bidder/Prime Contractor, identified the following project team: Motorola, Inc., Harris Corporation, Lockheed Martin Management & Data Systems, TRW Inc., Bechtel Corporation, o2wireless Inc/ d/b/a Baran Telecom, IBM Corporation, GDP Telecom, Inc., Vyteck Public Safety Solutions Inc., Buford Goff & Associates, and Parsons Brinckerhoff.

M/A-COM, Inc., as Bidder/Prime Contractor, identified the following project team: M/A-COM, Inc., General Dynamics, Verizon, Alcatel USA, Black & Veatch, Sun, Cisco, ADT, LA Group, Niagara Mohawk, Intergraph, and Bear Stearns.

Evaluation of Proposals

The basis for award of the contract was the best value as determined by the highest composite score. The technical evaluation was weighted at 70 percent; 30 percent was assigned to the financial evaluation. Based on the process developed prior to initial receipt of proposals, M/A-COM's mandatory proposal received a composite score of 950.1 points, and Motorola's mandatory proposal composite score was 565.9. Motorola's mandatory and alternate proposals were also scored lower than both of the M/A-COM alternate proposals. Motorola's proposals were determined to be non-responsive due to its proposal that the SWN be financed with debt issued by a public benefit corporation. Public financing was specifically prohibited in the RFP. Notwithstanding its determination of non-responsiveness, OFT decided it was in the best interest of the State to evaluate the Motorola proposals to ascertain that M/A-COM had, in fact, offered the best value.

Initially, documents were reviewed for required submissions on a pass/fail basis, as the viability of the financial plan was assessed by the Department of Taxation and Finance. The technical categories that were scored included past performance and experience, the proposed technical solution and the environmental preservation plan. The technical review team consisted of staff from the OFT SWN Project Team, the New York State Police, the New York State Thruway Authority and the State Emergency Management Organization, as well as the Syracuse Research Corporation, U.S. Air Force Rome Labs, New York State Technology Enterprise Corporation (NYSTEC) and retired academicians. Each team of evaluators was assigned specific sections of the proposal based on its particular area of expertise.

When evaluated against the State's technical criteria, the winning M/A-COM solution received a technical proposal score superior to the proposed Motorola solution by a nearly two-to-one margin. The primary contributing factors to that scoring difference were:

6.25 kHz TDMA (Times Division Multiple Access) Solution: M/A-COM's solution offered a technology which immediately met the State's requirements for a 6.25 kHz TDMA system, without the need for any future upgrade or transition for SWN users. Motorola, however, proposed an FDMA (Frequency Division Multiple Access) solution with a subsequent migration to a TDMA. At the time of proposal submission, Motorola's TDMA technology solution had not yet been deployed in the United States.

Environmental Profile: M/A-COM's siting plan relies heavily on low-profile sites in compliance with SWN criteria. M/A-COM's Mandatory Proposal provides for a total of 1,066 SWN sites, of which only 40 require the building of new towers and 722 are low-profile sites. The balance of sites use existing towers. Motorola's siting plan relies heavily on newer, standard tower construction. Motorola's Mandatory Proposal provides for a total of 1,145 SWN sites, of which 798 require the building of new towers, and none are low-profile sites. The balance of sites use existing infrastructure.

With respect to the proposals submitted, it should be noted that the State expressly set forth the terms and conditions of the contract in the RFP, and required any exceptions to those terms to be detailed by the bidders in the proposals. M/A-COM took no exceptions to the contract terms. In contrast, Motorola submitted 160 exceptions and extraneous terms, some of which were deemed by OFT to constitute material deviations from the mandatory contract terms and conditions. (Please see discussion of contract provisions below.)

Finally, there was also a significant disparity in the financial evaluation scores due to the large difference in the bid prices. M/A-COM's guaranteed not-to-exceed cap was \$2,005,343,896, while Motorola proposed a cap of \$4,623,209,432.

Announcement of the tentative award of the SWN contract to M/A-COM was made by the Office for Technology on April 29, 2004.

Bid Protest

Motorola protested the tentative award of the contract to M/A-COM in submissions filed with OFT between May 21 and November 4, 2004.

The principal arguments advanced by Motorola in its bid protest and OFT's position, documented in the procurement record, are as follows:

Motorola Issue

The RFP was fundamentally flawed. The design specifications were excessively stringent, resulting in the stifling of competition, excessive cost, needless delays of time from start of project to completion and enormous adverse impact on the environment. Motorola asserts as evidence that the terms of the RFP were ambiguous, unduly complex and inflexible due to the fact that OFT received only two proposals in response to the RFP.

OFT Response

Although only two companies submitted proposals in response to the RFP, that fact should not be surprising given the magnitude and complexity of the SWN project, and does not establish that the RFP requirements stifled competition. When the participation of all of the companies making up the two consortia that were involved in the bidding process is considered, there were more than 20 entities involved in the process.

Motorola makes numerous unwarranted and unsubstantiated assertions regarding the anticipated cost of the project, its impact on the environment (primarily in the form of an unnecessarily high number of towers) and certain technical requirements of the RFP. In addition, to the extent that the RFP imposed specifications that led to higher costs and limited design flexibility, OFT had a rational basis for such requirements, as they were justified by public safety concerns.

Motorola Issue

The M/A-COM technology solution is unproven. The unfavorable experience of Pennsylvania in attempting to implement the technology calls into serious question M/A-COM's capability to serve as the contractor for the SWN project.

OFT Response

Motorola failed to establish that M/A-COM will be incapable of performing the contract or that the experience of Pennsylvania in implementing its statewide wireless network utilizing M/A-COM technology (documented by Motorola largely in the form of newspaper articles) calls into question M/A-COM's ability to complete New York's SWN project successfully. OFT cites a report prepared by a consulting firm engaged by the state of Pennsylvania, in support of OFT's position that problems with the network implementation oversight structure adopted by Pennsylvania, rather than defects in the M/A-COM technology, were the primary factor in the delays and cost over-runs experienced by Pennsylvania.

Motorola Issue

OFT materially altered or ignored the RFP in making its award of the contract to M/A-COM by (a) eliminating an RFP requirement that the SWN contractor be obligated to ensure compliance with local zoning laws, and (b) failing to enter into its contract with M/A-COM within 60 days of contract award.

OFT Response

OFT did not materially alter or ignore the RFP specifications.

The RFP placed responsibility for compliance with applicable laws, including zoning laws, on the contractor, and Motorola is charged with knowledge of those laws. Case law existing at the time of the award had established the general principle of the State's sovereign immunity, and court decisions subsequent to the contract award reaffirmed this principle in the specific context of a private entity, which builds and operates telecommunications towers on State property (*Matter of Crown Communication New York, Inc. v. Department of Transportation of the State of New York et al.*, 4 N.Y.3d 159, 2005). Furthermore, OFT intends to require compliance with local zoning laws where applicable and where the vendor's design requires it. The specifications were written in advance of the receipt of bid proposals and remain unchanged.

In response to Motorola's contention that OFT's failure to enter into a contract with M/A-COM within 60 days of the notice of award was a material change from the RFP requirements, OFT asserts that the time

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limitation was intended to be binding only on the contractor and that OFT had the authority to waive it. Furthermore, even if this were a deviation from the terms of the RFP, it was not material.

(Please see discussion of the Office of the State Comptroller review and determination of bid protest below.)

Section

4

Legislative Review

Results of a public hearing held in Albany on March 8, 2004 are described in the Assembly Report, *First Responders: A Last Priority?* The hearing provided a forum for first responders to identify their needs and concerns relating to New York's emergency response preparedness. One of the consistent themes expressed at the hearing was risks associated with outdated or obsolete radio equipment and communication systems.¹⁹

The hearing raised concerns among members of the Assembly that the Office for Technology (OFT) had failed to adequately involve first responders in the planning process to ensure that they have the technology and resources to make effective use of the SWN system. As a result, the Assembly recommended that the SWN be truly a statewide endeavor, not just a link for State agencies, but a network for first responders across the State. It also recommended the establishment of a Task Force consisting of State agencies, local governments and local first responders, including communications specialists, to provide for broad-based input from stakeholders.²⁰ On July 21, 2004, agreement on anti-terrorism legislation, including a provision for the creation of a Statewide Wireless Advisory Council, was announced.²¹ At the time approval of the M/A-COM contract

¹⁹ New York State Assembly, Sheldon Silver, Speaker; RoAnn M. Destito, Chair, Committee on Governmental Operations; Robert K. Sweeney, Chair, Committee on Local Governments; Joseph R. Lentol, Chair, Committee on Codes; and Richard N. Gottfried, Chair, Committee on Health, *First Responders: A Last Priority?*, April 2004.
<<http://assembly.state.ny.us/comm/GovOps/20040426/>>.

²⁰ *Ibid.*

²¹ Governor's Press Release. "Governor, Attorney General, Speaker, Senate Majority Leader Announce Agreement on Anti-Terrorism Legislation." July 21, 2004.
<http://www.ny.gov/governor/press/04/july21_1_04.htm>.

by the Office of the State Comptroller was announced, the Assembly expressed disappointment that localities still appeared to have insufficient information about SWN and urged the Governor to use the Statewide Wireless Advisory Council as intended.²² Shortly after the tentative award of the SWN contract to M/A-COM was known, on May 19, 2004, the Assembly held a public hearing on the statewide wireless network procurement process. Testimony was provided by:

- John McFadden, Sales Vice President, Motorola,
- John Vaughan, Vice President and General Manager, M/A-COM,
- James Dillon, New York State Chief Information Officer,
- Michael McCormack, Director, Office for Technology,
- Dan De Federicis, President, New York State Troopers PBA,
- Tom LaBelle, Executive Director, New York State Fire Chiefs, and
- J. Jeffrey Anzevino, AICP, Senior Regional Planner, Scenic Hudson, Inc.

The more than 230-page transcript of the proceedings indicates that concern was expressed by members of the Legislature that the projected SWN price, originally estimated to be in the \$300-\$500 million range, had grown to more than \$1 billion.²³ It was noted that despite the Legislature's ultimate obligation to pass bills that will include funding for this project, members had not been kept fully informed of the cost and parameters of the SWN. Concern about the failure to adequately involve local first responders also was reiterated by members of the Legislature.²⁴

Mr. McFadden, representing Motorola, suggested that the priorities of timely deployment, price and environmental protection would not be achieved under the proposed contract with M/A-COM. At the hearing, Mr. McFadden reiterated several of the points made in Motorola's bid protest and

²² New York State Assembly Speaker Sheldon Silver, Press Release. "Silver, Destito Urge Governor To Involve Local First Responders In Statewide Wireless Network Planning." September 22, 2005.

²³ In July 2000, when proposing a strategic partnership with Motorola, OFT estimated the cost to build the SWN would range from \$300-\$750 million. This range did not include the costs to operate, maintain and finance the SWN over the 20-year term of the contract. In light of the cost proposed by Motorola pursuant to the competitive procurement, the Office of the State Comptroller's decision not to approve the strategic partnership may have saved the State approximately \$2 billion.

²⁴ New York State Assembly Standing Committee on Governmental Operations; Assembly Standing Committee on Oversight, Analysis and Investigation; Assembly Standing Committee on Local Governments; Assembly Standing Committee on Ways and Means; Assembly Standing Committee on Codes; and Assembly Standing Committee on Corporations, Authorities and Commissions. Transcript of Public Hearing. Statewide Wireless Network. May 19, 2004: 3-11.

addressed, specifically, concerns with the proposed technology.²⁵ During questioning, Mr. McFadden also expressed astonishment at the reported \$2 billion difference in price between the proposals submitted by his firm and M/A-COM.²⁶

In contrast, Dr. Vaughan, testifying on behalf of M/A-COM, noted that his firm's solution was technically, financially and environmentally superior to other proposed approaches. He pointed out that he could not offer details of the firm's financial proposal as it was still under negotiation with OFT.²⁷ Dr. Vaughan was pressed on this matter by Assemblyman Richard L. Brodsky, who summed up the reasons for M/A-COM's lower price as follows: "You are building less towers, therefore you have less cost, and you're filling it in with [VOIP—Voice Over Internet Protocol] and mobile repeaters." Dr. Vaughan concurred. Further, Dr. Vaughan agreed with earlier testimony offered by Mr. McFadden during questioning that costs for equipment to access the network would be "more than \$100 million."²⁸

Also of interest to members of the Assembly was each firm's use of lobbyists as consultants during the procurement process. Motorola employed John O'Mara and acknowledged that he had conversations with staff of the Governor's office to better understand what the State was seeking.²⁹ M/A-COM, at the suggestion of former New Hampshire Governor John Sununu and apparently under the firm's existing contract with JHS Associates, employed former Senator Alphonse D'Amato. Dr. Vaughan stated he had no knowledge of conversations Senator D'Amato may have had on behalf of M/A-COM.³⁰

In the State Senate, the Committee on Veterans, Homeland Security and Military Affairs has been closely following the developments of the Statewide Wireless Network. The Committee, under the leadership of State Senator Michael Balboni, played a critical role in the development and passage of anti-terrorism legislation that created the Statewide Wireless Advisory Panel to oversee development of the Statewide Wireless Network. *Smarter, Safer...But Still in the Bull's Eye*, a report

²⁵ *Ibid.* 11-21.

²⁶ *Ibid.* 27.

²⁷ *Ibid.* 73-77.

²⁸ *Ibid.* 77-87. Note: Mr. McFadden had estimated this cost at \$150 million - \$175 million, p. 46. The Office of the State Comptroller now estimates the amount, including financing, to be approximately \$790 million.

²⁹ *Ibid.* 52-54.

³⁰ *Ibid.* 92-94.

published by the Committee in January 2005, notes that “the Committee will continue to grapple with the difficulties of coordinating emergency services among and between neighboring municipalities.” It cites the SWN as a mechanism that may help ease that transition, while playing “an integral part in helping the State meet national protocols for responding to disasters.”

Senator Balboni serves as an appointee to the Council and has been actively monitoring the progress of the Network to ensure appropriate oversight of this substantial, long-term investment. The Senator also has been active in national efforts to develop emergency response protocols, providing information to the Committee, the Council and the State about national developments and security initiatives.

Statewide Wireless Network Advisory Council

In 2004, the New York State Legislature enacted New York State Technology Law, sections 401 and 402, creating the “Statewide Wireless Network Advisory Council” to assist in the development and implementation of the SWN.

The Statewide Wireless Network Advisory Council responsibilities are as follows:

- Assist in the development and implementation of an integrated statewide communications system linking State and local first responders,
- Consult and advise the Office for Technology regarding State purchases of information and communications technology,
- Examine and make recommendations to State elected leaders concerning the availability and reliability of means by which residents of the State receive a timely response in all geographic areas of the State, and explore ways in which new technologies may be introduced or enhanced so that such communications effectively lead to timely assistance, and
- Submit a preliminary report by June 1, 2005 and annual reports by December 31, 2005 and each year thereafter to elected leaders that detail the recommendations of the Advisory Council regarding an

integrated statewide emergency communications system and the issues examined pertinent thereto.³¹

The Advisory Council consists of 27 members:

- Two gubernatorial appointees (1 from local first responder, 1 discretionary),
- One Senator,
- Four Senate appointees (3 from local first responder, 1 discretionary),
- One Assembly member,
- Four Assembly appointees (3 from local first responder, 1 discretionary), and
- 15 ex-officio members
 - New York State's Chief Information Officer serving as Council (Chairperson),
 - Office of Homeland Security Director,
 - State Police Superintendent,
 - Office for Technology Director,
 - Department of Health Commissioner,
 - Department of Correctional Services Commissioner,
 - Environmental Conservation Commissioner,
 - Department of Transportation Commissioner,
 - Thruway Authority Chairperson,
 - Division of Criminal Justice Services Commissioner,
 - Metropolitan Transportation Authority Chairperson,
 - State Fire Administrator,
 - Chief Judge of the State of New York,
 - City of New York Mayoral designee, and
 - Law Enforcement Council designee.

One each of the appointees of the Senate and Assembly are required to possess expertise in communications technology. The law, however, expressly forbids any appointee to be the owner, principal or employee of an entity that has a contract with New York or that vends communications products to any State or local government. The Council's first meeting was held on October 28, 2005, and it finalized the required Annual Report to the Governor and the Legislature at its meeting on December 12, 2005.

At the May 19, 2004 hearing, New York State Chief Information Officer James Dillon testified that he had created a Governance Board in 2002, which was superseded by the Advisory Council, "to facilitate collaboration

³¹ New York State Statewide Wireless Network Advisory Council Annual Report 4-5.; Since the Council was not yet functional, the June 2005 preliminary report deadline was not met.

among and between participating State agencies and local jurisdictions.” When pressed by Assemblywoman Destito to elaborate on the membership of the Council, Mr. Dillon acknowledged that he was still calling the local government members.³² According to the September 22, 2005 press release from Assembly Speaker Silver and Assemblywoman Destito, local officials were still not being adequately involved at that time.

Speaking on behalf of the New York State Fire Chiefs, Mr. LaBelle described the lack of coordination this way: “The proposal in front of us for several years now is one, as far as we’re concerned, of great vision, but not necessarily a shared vision.”³³ In his September 22, 2005 letter to the Governor, Comptroller Hevesi indicated that this matter needed to be addressed in order for the SWN program to succeed.

At a hearing regarding the proposed Executive Budget on January 23, 2006, a representative of the New York State Association of Counties responded to a question about local involvement by saying there needs to be better outreach. He noted that elected officials representing counties are not up-to-speed and are not interacting with the State Advisory Council.

In its annual report, the SWN Advisory Council recommended OFT develop a comprehensive Communication/Outreach Plan that addresses partner education and training initiatives, staff resources, local partnering protocols, user needs, agreements, training, interoperability opportunities, transition and other factors that must be addressed to ensure that localities have timely access to the information needed to make informed decisions.³⁴ In mid-November 2006, the SWN Communications and Outreach Plan was posted to the June minutes on the OFT website. The Office of the State Comptroller plans to undertake a series of audits that will assess the adequacy of the Outreach Plan to ensure success as the project progresses.

³² *Ibid.* 131 and 136-137; On January 12, 2006, Governor Pataki appointed Michael R. Mittleman as CIO to replace James Dillon.

³³ *Ibid.* 217.

³⁴ New York State Statewide Wireless Network Advisory Council Annual Report. 43.

Section
5

Statewide Wireless Network Contract

The Statewide Wireless Network will serve as a single, common radio communications system that will meet the needs of individual State and local public safety/public service agencies by providing state-of-the-art voice and data wireless communications for up to 65,000 State, federal and local users. It is important to note that the SWN contract is for a *network infrastructure* and not a complete public safety *communications program*. This distinction has important implications for expectations about the functionality, effectiveness, adoption and overall cost of the statewide public safety communications system that SWN seeks to enable.

The SWN will operate on 700, 800 and VHS bandwidths. System requirements include:

- Integrated voice and data transmission capabilities,
- Coverage for 95 percent of the area of New York State,
- 97 percent road and navigable river coverage, as well as 97 percent on-hip (portable) street coverage in New York City,
- Capacity for up to 65,000 users and 25,000 talk groups,
- Availability factor of 99.99 percent,
- Interoperability with local first responders (e.g., the New York Police Department and Fire Department of New York radio communications systems), and

- Digital trunked system, enabling callers to be “queued up” and assigned a channel as soon as one becomes available. (In an analog system, the caller has to surf for a free channel.)

The SWN infrastructure proposed by M/A-COM is based on a set of individual technologies and a design-build integration of those individual technologies into the network. The core technologies, utilizing off-the-shelf hardware, will operate on proprietary software: M/A-COM’s OpenSky® technology. OpenSky® employs an Internet Protocol (IP) for voice and data transmission. In conventional radio systems, communication is one-to-one and users must navigate to access an open frequency. With OpenSky®, users share a pool of channels. If the system is busy, users are queued up and then automatically connected to an open channel as soon as one becomes available. In addition, OpenSky® can be programmed to give certain types of calls priority in the queue. The OpenSky® system may also be programmed for pre-emption; an incoming call from a radio so programmed cuts off an existing call to free up a channel immediately.

OpenSky® operates at 6.25 kHz spectrum efficiency. In effect, the frequency is split into four channels, allowing multiple conversations or data transmissions simultaneously. Federal Communications Commission (FCC) requirements have been pushing license holders to get the most use from their allocated frequencies. The 6.25 kHz represents the most efficient use of spectrum currently available to the public safety industry.

Although OpenSky® is not brand new technology, the Commonwealth of Pennsylvania and Florida are the only states to date that are using OpenSky® on a public safety network.³⁵

The contract requires that the SWN provide coverage for 95 percent of the State’s geographic area and 97 percent of the State’s roads. The Office for Technology (OFT) has stated that coverage for 100 percent of the State’s geographic area would be cost prohibitive. Additionally, full in-building coverage would increase the SWN cost four-fold.

³⁵ Please see Appendix B for a description of the Pennsylvania Statewide Public Safety Radio System. Completion of Florida’s Statewide Law Enforcement Radio System was announced in July 2006.

M/A-COM has proposed 1,066 sites to meet the SWN coverage requirements.³⁶ Included in the number are 202 existing government towers, most of which are State-owned and 40 new towers, 4 of which will be located in the Adirondacks. The RFP required that proposers maximize the use of existing government sites as much as possible to minimize the need to construct new sites. In addition, M/A-COM proposes to use 102 third-party commercial towers. Collectively, these are called high profile sites. In addition, M/A-COM proposes to use 722 low profile sites. Low profile sites are radio transmission equipment that is affixed to utility poles. The 722 low profile sites will account for only 5-7 percent of the coverage requirements, while the 344 high profile sites will account for 90 percent of the coverage requirements.³⁷

Although the SWN will be a statewide network, it was never intended to cover the entire State or to provide capacity for all of the State's first responders. According to OFT, there are more than 300,000 first responders in New York State, of which 118,000 are located in New York City. State agency first responders total more than 20,000.

The SWN will be designed to accommodate up to 65,000 concurrent users. This is not to say that 65,000 first responders at a single location will be able to communicate on the SWN at the same time. Capacity is predicated on the number of transmitters placed on towers and low profile sites, as well as the number of frequencies licensed by the FCC. M/A-COM's contractual obligation is to design an infrastructure that would allow concurrent use provided the 65,000 users are appropriately spaced throughout the State. Capacity on the SWN may be enhanced at an additional cost, although OFT is on record that designing a system for 100 percent capacity is cost prohibitive. OFT has concluded that capacity for 65,000 users is appropriate given the number of State agency first responders, the projected use by local entities and budget limitations.

Interoperability will be achieved through M/A-COM's Network First Gateways. Gateways take voice and data from an existing legacy communications system and convert it into a transmission that can be communicated over the SWN, and conversely, convert a SWN transmission into one that can be understood by another legacy

³⁶ The actual number and type of sites will be determined by the engineering design of the SWN.

³⁷ The siting plan proposed by M/A-COM is for evaluation purposes only. A preliminary engineering plan is due approximately 18 months after the contract becomes effective (is approved by the Office of the State Comptroller) and the final engineering plan is due no more than six months later.

communications system. Gateways do not increase the legacy systems' function or ability. Therefore, if a legacy system interacting with the SWN does not have a particular functionality, legacy users will not be able to use that functionality through the SWN. Conversely, some functionality of the legacy systems may not be available to other SWN users.

The SWN will include a Primary Network Operations Center (PNOC) that is the nerve center of the SWN, as well as an Alternate Network Operations Center (ANOC) for backup. Eight Regional System Operations Centers (RSOCs) will route and switch communications throughout the SWN. Collectively, this is the SWN backbone. Separate and apart from the PNOC, ANOC and RSOCs, are System Operations Centers (SOCs), which will serve as dispatching centers for the SWN users.

Recognizing that State and local government agencies will have to purchase equipment necessary to access the Network, the RFP required the proposal to include some means by which SWN users could competitively purchase equipment. M/A-COM has licensed its proprietary OpenSky® technology to three other radio manufacturers. The following companies will manufacture and sell radios under the SWN contract:

- M/A-COM,
- Sepura Ltd,
- General Dynamics, and
- Kenwood USA Corp.

Anticipated Participation in the Statewide Wireless Network

The SWN Project anticipates three levels of partnership designed to maximize operation and coordination between State and local government entities in their wireless radio communication projects:

- Full SWN Partnership,
- Interface/Gateway Partnership, and
- Infrastructure Partnership.

State Agencies

On July 19, 2000, then Director of State Operations, James G. Natoli advised all State agency heads and commissioners that all Executive Department agencies would participate in the SWN, and that their

existing aging radio systems would not be replaced. On May 5, 2003, consistent with Executive Order No. 117, the New York Chief Information Officer issued Statewide Technology Policy P03-003, *Required Notification of Actions Involving Wireless Communications Infrastructure*. The Executive Order and Policy requires all wireless communication initiatives involving State government entities to be centrally coordinated in advance through OFT. Accordingly, all State agencies with radio equipment are required to utilize SWN as its primary radio system, making all State agency users full system partners.

OFT estimates that the State agency and public authorities which will be full SWN partners will involve participation by as many as 21,886 users. The top five full SWN partners by number of users are identified as follows:

- Department of Correctional Services, Campus Operations (6,000 users),
- Department of Transportation (4,543 users),
- Division of State Police (3,650 users),
- Thruway Authority (1,404 users), and
- Office of Mental Health, Campus Operations (1,000 users).

Local Governments

Level 1 – Full SWN Partner

Level 1 partnership agreements contemplate a local government's adoption of the SWN as its fully integrated operational radio communications network. Under this arrangement, the locality would anticipate replacing its existing infrastructure with a migration to the SWN as its primary radio communications network over time. Level 1 partnership enables the State and locality to utilize resources to the maximum benefit of both parties.

This partnership level is advantageous for localities that have aging infrastructure, or where an enhanced level of features/interoperability is needed for public safety. By adopting the SWN, the locality will not have to invest in duplicate infrastructure, which can potentially result in substantial savings for the local partner. Local governments that choose to partner and operate directly on the SWN will not be charged a subscriber fee to participate.

This partnership level is also advantageous for the State in that the partnership agreement could provide the State access to local sites,

which could facilitate the build-out of the SWN. Further, by operating on one statewide network, maximum features/functionality acquired by full system partners could potentially be coordinated to the mutual benefit of the State users.

Features of the Level 1 Partnership

Mutual Site Sharing

Level 1 partnership agreements incorporate all of the mutual State and local benefits of the Level 3 partnership agreements (see detail below).

Full System Integration

Level 1 partnership agreements further provide localities with the ability to utilize the SWN as their primary radio network at no additional infrastructure cost to the partner, to the extent that loading capacity exists and that the localities' needs can be met within the State's SWN Engineering Design.

Enhanced Capacity/Features/Functionality

To the extent that a full partner entering into a Level 1 partnership agreement requires additional capacity, features and/or functionality outside the scope of the SWN functionality ("enhanced local features/functionality"), the Level 1 partner will be solely responsible for the costs associated with the design, acquisition and implementation of such enhanced local features/functionality, at no cost to the State. In such cases, the State SWN Office will retain an oversight and control role to ensure maximum efficiency and coordination with the State project. Examples of enhanced functionality may include in-building coverage, dispatch consoles, computer-aided dispatch, portable in-street coverage outside of New York City and paging/alerting.

Subscriber Equipment

A locality entering into a Level 1 Partnership Agreement will retain sole responsibility for determining the nature and quantity of its end user subscriber equipment requirements and for the costs thereof. OFT will ensure that localities are able to acquire this equipment and enhancements in accordance with General Municipal Law Article 5-A by working with the Office of General Services (OGS) and M/A-COM to execute a statewide centralized contract that incorporates the relevant terms, conditions and prices of M/A-COM's SWN proposal.

Level 2 - Interface/Gateway Partnerships

Level 2 partnership agreements contemplate that a locality will maintain its existing local radio infrastructure and systems, but achieve greater interoperability through the use of the SWN backbone by operation of an interface or gateway between the partner's communication system and the SWN. OFT anticipates the majority of local agencies will interoperate through gateway partnerships (75-80 percent). Level 2 partnership enables the State and locality to utilize resources to the maximum benefit of both parties.

This partnership level is advantageous for localities that do not have an immediate need to invest in or replace their existing radio system, but rather have existing radio communications networks that substantially meet their needs. By using the SWN primarily to achieve enhanced interoperability, the locality can maximize its investment in the existing local communications system, while at the same time improving existing communications capabilities.

This partnership level is also advantageous for the State in that the locality's sharing agreement could expand the available physical sites to the benefit of the State, and the additional gateways will further the State's objective of greater interoperability in times of crisis.

Features of the Level 2 Partnership

Mutual Site Sharing

Level 2 partnership agreements incorporate all of the mutual State and local benefits of the Level 3 partnership agreements (see detail below).

Interoperability Gateways

Level 2 partnership agreements provide localities with the ability to interface with and utilize the SWN network backbone via a defined gateway while maintaining their existing radio network for basic communications needs. This partnership level will involve design, development and operations of technical system interfaces in order to achieve interoperability.

Enhanced Capacity/Features/Functionality

Same as Level 1 partnership described above.

Level 3 - Infrastructure Partnership

Level 3 partnership agreements are the basic, entry-level partnership for the SWN. Level 3 partnerships contemplate collaboration and cooperation in the development of the State and local government partner's independent communications networks. These partnerships involve the State and locality each maintaining separate radio communications networks, while cooperating and sharing existing and/or later acquired physical infrastructure to the extent practical and available.

Level 3 partnership enables the State and locality to utilize their limited physical resources to benefit both parties. The mutual sharing agreement could potentially expand physical infrastructure available to either side, while at the same time reduce the quantity of sites and avoid duplicative costs attendant to parallel site development. This mutual sharing of assets has the potential to further reduce the overall State environmental impacts associated with site construction.

Features of Level 3 Partnership

Mutual Site Sharing

Level 3 partnership agreements contemplate cooperation and mutual sharing of existing and future physical infrastructure and resources to the extent practical and available. The partnership will enable ongoing collaboration and coordination of existing physical site and other infrastructure resources of either partner to the mutual benefit of the State and locality.

Basic SWN Interface or Integration

None. Level 3 partnership agreements contemplate mutual collocation or other physical site sharing agreements, but do not involve network interface or integration.

New York City

Metro-21, the portion of the State Police radio communications system serving New York City, was completed in 1993 and is also scheduled for modernization as part of SWN. A central site for Metro-21 radio signal coverage was located at 2 World Trade Center. The site was destroyed in the terrorist attack of September 11, 2001 and, as a result, radio communications were severely curtailed for the State Police and ten other State and local agencies using the Metro-21 system. Consequently, it became imperative that the system coverage be replaced rapidly. The

rebuilt signal used an upgraded Enhanced Digital Access Communications System (EDACS), which was compatible with the portion of the Metro-21 system that was not destroyed. However, as the SWN is rolled out, the Metro-21 system will be fully re-fitted with the same OpenSky® technology, the proprietary product proposed by M/A-COM, as will be used throughout the State: the effect being that the SWN replaces the Metro-21 system.

In recognition of New York City as a high risk area, deployment of the OpenSky® technology will occur early in the contract term to replace Metro21 technology. The cost of this installation is included within the contract's not-to-exceed price.

Metropolitan Transit Authority (MTA)

In the aftermath of September 11, 2001, and as recently as October 2005, the Metropolitan Transit Authority (MTA) tunnels in New York City were identified as a major potential target and highly vulnerable to future terrorism. The March 2004 terror bombings in Madrid and the July 2005 London bombings raised additional concerns regarding commuter rail lines in and out of New York City. In 2004, the New York State Office of Homeland Security (formerly the Office of Public Security) was approached by the MTA Police Department looking for a short-term solution to its severe communications shortfalls, particularly between MTA Police Department officers and New York State Troopers who were recently assigned to ride MTA trains as additional security.

OFT was tasked with leading an effort to expand the State Police Metro-21 radio system for MTA Police Department use. The older Metro-21 technology was scheduled to be transitioned to OpenSky® technology as part of the SWN build-out, but the Madrid bombings have increased the priority of replacing Metro-21 and expanding it into train stations and tunnels in New York City, onto Long Island and along the Metro-North rail lines upstate so as to improve MTA Police Department communications more quickly. It was determined that expanding the SWN into the tunnels is the quickest and most cost effective way to ensure communications within the tunnels in the event of an emergency. The transition of the Metro-21 system to the larger statewide network is linked to a plan to improve the short-term communications capability of the MTA Police Department for homeland security reasons.

OFT has indicated that the MTA has executed a Preliminary Partnering Agreement for full SWN partnership and to expand the coverage of the network along their rights of way and in train stations, as well as for bridges and tunnels in New York City. The MTA has committed \$50

million to cover the cost of its increased coverage requirements, and will separately contract with M/A-COM for those added construction and equipment costs.³⁸

The New York City Department of Environmental Protection

OFT also has received a letter of intent from the New York City Department of Environmental Protection to operate on SWN as a full SWN partner.

New York City Police Department (NYPD) and the Fire Department of New York City (FDNY)

It is anticipated that both the New York City Police Department and the Fire Department of New York City will operate their own radio communications system and not become full SWN partners. The SWN will communicate with both systems via a gateway.

Statewide Wireless Network Costs

According to OFT, SWN contract costs will be paid from an annual appropriation with the source of funds being the Wireless 911 Surcharge. OFT acknowledges that both it and the Division of the Budget (DOB) are aware that the 911 surcharge may not cover all of the annual SWN lease payments. OFT and DOB are continuing to discuss how the shortfall will be paid. The ultimate determination will rest with DOB.

The contract provides for a guaranteed not-to-exceed (NTE) lease purchase price of \$2,005,343,896, which includes the cost of system engineering and design, the cost of the regional build-outs, and the cost to operate and maintain the SWN for a period of 20 years. In the event that the cost to design and build the SWN is lower than estimated in M/A-COM's proposal, the price to be paid will be revised downward accordingly. At the end of the lease term, ownership of the SWN transfers to the State.

The cap can be increased if the State, acting through OFT, decides to enhance the system requirements beyond those set forth in the contract. For example, the contract requires the SWN cover 95 percent

³⁸ Outside of New York City, Preliminary Partnering Agreements have also been executed with ten counties and the Unified Court System.

STATEWIDE WIRELESS NETWORK
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of the State’s geographic area. Should the State want to enhance the area coverage to 98 percent or more, the cap may be increased to cover the cost of additional infrastructure needed. Another example would be a decision by the State that in-building coverage should not be paid for by the various State agencies, but rather incorporated into the SWN lease purchase payments. Any modification in the SWN that might enhance the system would require a change order, and any change order over \$25,000 that is outside the parameters of the contract, such as expanding coverage, requires approval by the Office of the State Comptroller. In addition, third-party service costs are subject to adjustment during the contract term to reflect changes in actual utility rates from the base line assumptions.

Overview of SWN Not-To-Exceed Costs

The chart below identifies the not-to-exceed costs of the SWN contract, which total more than \$2 billion, including some detail where precise dollar figures are known.

Network Development Capital Expenses		\$642,817,500
Engineering and Design Costs	\$46,072,641	
Regional Build Outs	\$477,175,848	
PNOC and ANOC	\$3,600,000	
Environmental Testing and Filing Costs	\$1,954,494	
SWN Ancillary Services/Consulting	\$9,344,800	
Delayed Milestone Financing Acceptance Costs	\$104,669,716	
Interest on Capital Expense at 6%		\$388,755,088
Network Development Non-Capital Expenses		\$213,486,775
Third-Party Site Leases	\$193,588,667	
Bonds, Letter of Credit and Insurance Costs	\$19,486,775	
Other	\$411,333	
Network Operations and Maintenance		\$680,284,533
Technology Refreshment*		\$80,000,000
TOTAL		\$2,005,343,896

*Technology Refreshment is potential future system upgrades and enhancements. The amount included in M/A-COM's proposal was mandated in the RFP to be \$5 million/year starting in year five of the contract and continuing through the end of the contract term.

Additional Costs

The not-to-exceed cap does not include the cost of radio equipment, in-building or in-tunnel coverage, paging services, System Operations Centers (SOCs) or computer aided dispatch (CAD) as these costs are to be paid by the SWN Full Partners based on unit pricing contained in the contract.

As noted above, all State agencies are required to be full SWN partners. The individual State agencies are responsible for buying the radio equipment to be used on the SWN. Additionally, any State agency wanting enhanced functionality, such as in-building coverage or paging, must also pay for the enhancements out of its own budget.

The not-to-exceed cap also does not include the cost to acquire land for new tower sites. Pursuant to the contract, M/A-COM will acquire any necessary sites in the State's name, and the cost will be passed through. OFT estimates the cost to the State of land acquisitions at \$1 million, assuming 40 sites at a cost of \$25,000 each. Approval by the Office of the State Comptroller would be necessary for all land acquisition contracts in excess of \$15,000. Review and approval will ascertain that the cost of land acquisition is representative of fair market value.

OFT also estimates the State's cost for SOCs will be \$60 million. The estimate assumes ten SOCs at a cost of \$6 million each, including the price of CAD. The SOCs are the dispatch centers for the State public safety agencies. The cost of the SOCs will be paid for by the State public safety and public service agencies. Additionally, these agencies are responsible for manning the SOCs and covering the cost of operations.

OFT maintains that State costs for mobile and portable radios, as well as in-vehicle repeaters, have not been estimated as referenced previously. In his testimony before Assembly Committees on May 19, 2004, M/A-COM representative John Vaughan estimated these costs to be "\$100 million or so."³⁹

³⁹ New York State Assembly Standing Committee on Governmental Operations; Assembly Standing Committee on Oversight, Analysis and Investigations; Assembly Standing Committee on Local Governments; Assembly Standing Committee on Ways and Means; Assembly Standing Committee on Codes; and Assembly Standing Committee on Corporations, Authorities and Commissions. Transcript of Public Hearing. Statewide Wireless Network. May 19, 2004: 87.

In June 2006, M/A-COM provided the Office of the State Comptroller with an estimate of savings that would result from the lower interest rate negotiated to achieve contract approval. Specifically, M/A-COM represented that the change from the 8 percent financing rate it originally proposed to 6.5 percent negotiated by the Comptroller would save State and local government entities at least \$10 million (if SWN only achieved the minimal number of users) and more likely \$29 million, based on probable number of users. Based on those figures, the Office of the State Comptroller estimates that equipment to access the SWN may cost an additional \$790 million, including financing costs.

There are expected to be more than 21,000 State users of the system; the remainder of the capacity may be used by local public safety entities. Equipment costs are estimated to be \$300 million, \$100 million for the State and \$200 million for local governments. Financing costs for equipment is estimated to be \$490 million, \$160 million for State users and \$330 million for local government users.

A local government entering into a Level 1 partnership agreement will retain sole responsibility for determining the nature and quantity of its end user subscriber equipment requirements and for the costs thereof. With regard to System Operation Centers, a full SWN partner has three options:

- Delegate dispatching to the State SOC's where feasible,
- Pay for additional dispatch consoles to be located in the State SOC's if space is available, or
- Build, equip and operate its own SOC.

As noted above, the contract provides a means by which SWN users can competitively purchase equipment via M/A-COM or the radio manufacturers to whom M/A-COM has licensed its proprietary OpenSky® technology. It is anticipated that OGS will facilitate competition in the form of a centralized contract with M/A-COM and the three other radio manufacturers to assist State and local government agencies in acquiring needed equipment. Centralized contracts are essential to ensure consistent contract terms and reasonable costs for State agencies and local governments. (Please see discussion of M/A-COM audit findings below.)

For equipment acquisitions by both State and local government agencies, the contract originally assumed lease prices would include a financing rate of 8 percent. Maintenance costs would be in addition to the lease and financing. During review of the contract by the Office of

the State Comptroller, it was determined that these financing rates were too high. Following negotiations that resulted in a concession by M/A-COM, a contract amendment was submitted lowering these rates to a more reasonable 6.5 percent, pending eligibility for tax-exempt financing. Although the cost of equipment has not been officially calculated, the Office of the State Comptroller estimates this change in financing rate will save State and local government agencies tens of millions of dollars over the life of the contract.

Statewide Wireless Network Financing Structure

The SWN contract is a lease purchase agreement wherein the State is not obligated to make payments to M/A-COM, the primary contractor until a regional build-out is completed and accepted. The State has the right to purchase the SWN in whole or in part at any time during the contract term.

The contract consists of a master agreement, the RFP, amendments to the RFP and M/A-COM's proposal. Key subcontractors include General Dynamics, Verizon and Alcatel.

Lease Payments for Build-Outs

Lease payments for regional build-outs are contingent upon successful completion of regional acceptance testing. Before payment is due for any region, the region must: 1) be completely built, 2) be tested, and 3) meet acceptance and conformance testing requirements and be fully interoperable with previously completed contiguous regions. The Office of the State Comptroller has been informed that when the primary region of Erie and Chautauqua Counties is built-out, a technical test can be set up to reasonably assure OFT that the primary region will be able to communicate with the still-to-be-built regions. If contiguous regions cannot communicate, M/A-COM must remedy the problem or lease payments for accepted regions may be suspended and the contract may be terminated without liability if the problem cannot be remedied.

Guarantor of Project

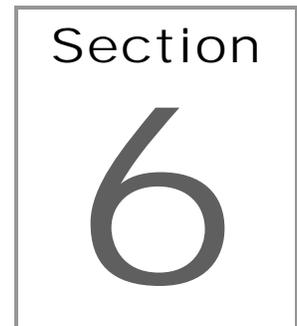
M/A-COM is a business unit of Tyco Electronics, part of Tyco International, Ltd. Tyco International, Ltd. is contractually committed as the guarantor of the project. As of the date of the Office of the State Comptroller's approval of the contract, M/A-COM is proposing to pay for the SWN build-out from revenues generated by its business operations. M/A-COM had incorporated into its cost proposal an assumed interest

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rate of 6 percent. The State has the right to direct M/A-COM to seek alternative (tax-exempt) financing to achieve lower overall project costs.

On January 12, 2006, Tyco International, Ltd. announced that its Board of Directors had approved a restructuring plan that will divide the company into three separate companies. According to the Company's press release, Tyco expects to complete the transactions during the first quarter of calendar 2007. The three separate companies produced by the restructuring plan are: Tyco Healthcare, Tyco Electronics and Tyco Fire & Security/Engineered Products & Services (TFS/TEPS).⁴⁰

⁴⁰ <<http://www.tyco.com/livesite/Page/Tyco/Who+We+Are/Press+Center/Press+Releases/?>>.



Office of the State Comptroller Review Process

On February 17, 2005, the Office of the State Comptroller received from the Office for Technology (OFT) a contract to build a statewide network infrastructure to meet the needs of user entities. The goal of this Statewide Wireless Network (SWN) is to develop and implement a statewide radio network to provide a common communications platform for State public safety and public service agencies, and enhance interoperability. The procurement record delivered by OFT consisted of seven boxes of documents and was delivered to the Office of the State Comptroller on hand trucks. These documents include the contract, the evaluation records, financial proposals and more. These records were placed in a secure room under lock and key at the Office of the State Comptroller's 110 State Street Office as soon as they were received. Additional documentation on the bid protest submitted by Motorola was delivered to the Office of the State Comptroller's Legal Services Division on February 25, 2005.

Inter-Divisional Team

Given the size and complexity of this contract and the many issues surrounding it, an inter-divisional, multi-disciplinary team was formed within the Office of the State Comptroller to conduct the review of this contract. Issues addressed by various sub-committees included:

- Procurement Process Review,
- Contract Review,
- Tower Siting, Local Issues,
- Environmental Review, SEQR Review,

- Bid Protest, Legal Issues,
- Vendor Responsibility Issues, and
- Feasibility of Solution, Technical Issues.

Periodically throughout the course of review, the team developed questions to be posed to OFT. In total, OFT submitted eight sets of written answers in response to these questions, and five meetings involving OFT and Office of the State Comptroller staff were held to discuss various issues.⁴¹

Technology Consultant

During the review process, the Office of the State Comptroller entered into a contract with iXP Corporation, a company specializing in public safety communications, to assist with evaluation of the feasibility of the technical proposal. Specifically, iXP was directed to identify both benefits and potential risks with the proposed approach, suggest ways to mitigate the identified risks, and provide other relevant technical information for consideration in the Office of the State Comptroller's review.

iXP Corporation concluded that the OpenSky® solution is a fundamentally sound technology on which to base a statewide wireless network infrastructure. It noted that the major risk to the success of the SWN technology initiative is “the lack of a [S]tate entity that looks beyond just the infrastructure project and recognizes what must be done [programmatically] to achieve the State’s larger public safety and homeland security goal.”⁴²

Legal Review of Bid Protest

A formal bid protest was filed with the Office of the State Comptroller on February 25, 2005 and took the form of a “Memorandum of Motorola, Inc. to Supplement the Procurement Record Regarding Award of Contract to Construct the New York Statewide Wireless Network Pursuant to New York State Office for Technology RFP 01-007.” Motorola was seeking disapproval by the Office of the State Comptroller of the contract awarded by OFT to M/A-COM.

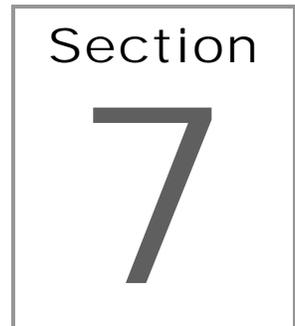
⁴¹ Please see Appendix C for the Office of the State Comptroller letters to OFT.

⁴² Please see Executive Summary attached as Appendix D.

OFFICE OF THE STATE COMPTROLLER
REVIEW PROCESS

Based on a review of the record by the Office of the State Comptroller's legal staff, none of the arguments advanced by Motorola led to the conclusion that there had been any material deviation from the terms of the RFP, nor did the record present any legal theory compelling the conclusion that the contract should be disapproved.

Please see Appendix E.



Ongoing Concerns

Long-Term Program Funding

Several considerations should be noted regarding the proposal to fund the Statewide Wireless Network (SWN) with the wireless 911 surcharge. First imposed in 1991 to enhance the emergency 911 system, the surcharge revenues have long been utilized for General Fund relief. In accordance with legislation effective August 2002, approximately 42 percent of the surcharge is currently deposited to the General Fund and 58 percent is deposited to the Public Safety Communications Account. The 2002 legislation also broadened the use of the wireless surcharge revenue beyond the enhancement of the emergency 911 system to include homeland security, as well as State public safety and security programs.

In both 2005 and 2006, the Executive recommended depositing all wireless surcharges into the Public Safety Communications Account, with the primary intention to fund the SWN with this revenue stream. Although the Legislature subsequently rejected this proposal each year, the intention remains to fund the SWN with the wireless surcharges.

At the same time, enhanced emergency 911 capability has not yet been achieved throughout the State. Compounding this issue, federal legislation enacted in 2004 would make states that divert any wireless 911 surcharge revenue to other purposes ineligible for funding in the event Congress appropriates matching funds for emergency 911 enhancement. Although federal monies have not been appropriated to date, New York would lose out on such funding if the State dedicates 911 surcharge revenue to the SWN.

In State fiscal year (SFY) 2005-06, \$152.1 million was collected in wireless surcharge revenue. While this is the largest amount collected in any fiscal year to date, it appears insufficient to fund the SWN. Surcharge revenue totals for the most recent SFYs were as follows:

- \$137.8 million in 2004-05,
- \$129.3 million in 2003-04,
- \$109.4 million in 2002-03,
- \$55.6 million in 2001-02, and
- \$43.3 million in 2000-01.

In a review of the surcharge issued in February 2004, the Office of the State Comptroller found some improvement in the level of detail required in the filing of surcharge revenues by wireless service providers since a previous audit issued in March 2002.⁴³ The Department of Taxation and Finance (Tax Department), however, lacks the authority to audit service providers' records, and this significantly limits attempts to verify revenues. Furthermore, the review noted that the Tax Department does not estimate what surcharge revenues should be during a given period by incorporating independent data filed with the Federal Communications Commission (FCC) reflecting the number of subscribers. Without such measures, the State does not have adequate assurance that all surcharge revenues are being accurately reported by all wireless service providers. In other words, there is no guarantee that all money is being collected.⁴⁴

Contract Consistency

The Office of the State Comptroller conducted an audit of mobile radios, portable radios and other radio communications equipment leased from M/A-COM by the Division of State Police (State Police), the Department of Transportation (Transportation) and the Department of Correctional Services (Correctional Services). Each agency has its own contract with M/A-COM, enabling the agencies to lease individual equipment items for a period of 60 months and retain the items after the lease period. The contracts provide for maintenance agreements for the items.

⁴³ The Office of the State Comptroller. *Division of the State Police, Cellular Surcharge Revenues*. Report 2001-S-27. March 20, 2002.

⁴⁴ The Office of the State Comptroller. *Status of Wireless 911 Surcharge in New York State*. Report 2003-F-9. February 2004.

State Police's contract with M/A-COM began in 1960, Transportation's contract began in 1985 and Correctional Services' contract began in 1998. As of February 18, 2005, agencies spent \$126 million of the \$150 million contracts' value. The audit studied equipment leased and/or maintained during the period April 1, 2003 through March 31, 2004. This included reviewing all historical and future costs associated with the equipment—from installation dates to projected retirement dates.

The review found that the equipment leased from M/A-COM was unnecessarily costly because of a lack of centralized coordination in the negotiation of contract terms and ineffective management oversight at the three agencies. Auditors identified a total of \$35.3 million in excess costs and potential cost savings. The audit recommends the three agencies recover \$14.5 million from M/A-COM for excessive and inappropriate charges and further recommends improvements that will significantly reduce the agencies' future costs under the contracts with M/A-COM.

Of particular significance to the SWN contract was a finding that the three agencies paid, or were committed to pay, about \$3.3 million in excessive interest cost for the items included in the audit sample. During the period studied, M/A-COM was charging the State Police 10.78 percent, Department of Transportation 9.25 percent and Department of Correctional Services 5.95 percent. The interest rates associated with equipment financing were not disclosed to officials of two of the entities (the State Police and the Department of Transportation) entering into the leases. Had interest rates been disclosed, and had agencies attempted to negotiate rates, it is likely that much more favorable financing terms would have been secured by the State Police and Transportation, as well as by Correctional Services after its two-year fixed rate had expired when interest rates were significantly declining. Alternative financing rates, some of which were tax-exempt, were available to the State agencies entering into these contracts at the time. For example, financing was available from the Statewide Lease Finance contract at 3.14 percent.⁴⁵

Although agency personnel failed to negotiate lower interest rates as provided in the contracts, officials at the State Police and Transportation were not even aware of the interest rates on their leases because M/A-COM never disclosed the rates. In contrast, as the SWN program

⁴⁵ The Statewide Lease Finance contract is provided by a pool of pre-qualified vendors who bid interest rates.

proceeds, any State or local government agency doing business with M/A-COM must scrutinize the interest rates associated with equipment acquisition.

Similarly, State and local government agency officials should critically examine monthly fees charged by M/A-COM. The audit found that State Police and Transportation paid exorbitant monthly fees, sometimes for years, to continue using equipment after the items were fully paid for and their leases had expired. Together the two agencies either paid, or were likely to pay, about \$8 million in such fees, just for the items in the audit sample. The agencies paid the unreasonable fees because agency officials did not fully understand the contract provisions and agency fiscal managers were not actively involved in acquisition decisions. The audit recommends the two agencies recover \$2.6 million in excessive fees from M/A-COM and take action that could prevent the payment of about \$6.9 million in future excessive fees.

The audit also uncovered irregularities in equipment maintenance and associated charges. Specifically, scheduled preventive maintenance services that agencies paid for and M/A-COM was required to coordinate under terms of the contract were rarely provided; the need for maintenance and associated charges was questioned by auditors who noted that the equipment stayed in good working order without the services. The maintenance agreements were especially questionable during the first year of the leases because the items were under warranty. Auditors further determined that some of the prices M/A-COM charged for the maintenance agreements were unreasonably high (e.g., an item's monthly maintenance fee could be higher than its monthly lease payment).

Also recommended for recovery were overcharges (e.g., double-billings and excessive annual escalations in maintenance fees). Billing errors have been corrected and M/A-COM has credited the State Police with more than \$170,000. Various amendments to the three State agency contracts have been proposed.

The Office of the State Comptroller is working with the Executive to develop a means to improve coordination of State agency contracts with M/A-COM to ensure equitable treatment. In addition, the findings of this audit will be shared with State and local government agency officials acquiring equipment to access the SWN so that they may take steps to prevent the company from profiting unnecessarily at taxpayer expense.

Project Financing Costs

The contract states: "M/A-COM shall pursue tax-exempt securitization for this project" and provides for M/A-COM to continue to pursue tax-exempt financing if it is not fully in place at the time of the commencement of the contract term (upon Office of the State Comptroller approval)." The State is to help M/A-COM secure tax-exempt financing, but is not obliged to issue financing instruments as State-supported debt for this project.

There is a provision for M/A-COM to finance work under the contract with its own financial resources, or with those of its corporate parent, in the event that tax-exempt financing cannot be fully put in place by the commencement of the contract term. M/A-COM can continue this "self-financing" if tax-exempt financing cannot be secured despite best efforts.

Network Development Capital Expenses not-to-exceed cap includes principal costs of \$642,817,500 and interest payments of \$388,755,088. The cap also includes Delayed Milestone Financing Costs of an additional \$104 million to cover M/A-COM's carrying costs until a region is built-out and accepted.

An interest rate of 6 percent was assumed by M/A-COM in establishing its not-to-exceed cap. OFT maintained that the 6 percent rate was justified due to the non-traditional risks to which investors would be exposed and necessary to compensate investors for such risks had taxable financing been pursued.

When the Office of the State Comptroller inquired about the reasonableness of the 6 percent financing rate, OFT stated: "The 6 percent interest rate is comparable to tax-exempt financing rates which the State could expect if it sought its own third-party financing."⁴⁶ In responding to a question pertaining to the Delayed Milestone Costs, OFT responded, "We conclude that the interest rate quoted by M/A COM was at the time of evaluation and is currently at or below tax-exempt borrowing rates."⁴⁷

⁴⁶ OFT answer number 75 in response to SWN #1. March 23, 2005.

⁴⁷ OFT answer number 151 in response to SWN #4. July 27, 2005.

Despite recommendations from Office of the State Comptroller financing experts that lower financing rates could and should be obtained, OFT retained the 6 percent financing rate originally offered by M/A-COM.

The Office of the State Comptroller did prevail, however, in achieving a lower financing rate for equipment acquisition. Originally the rate included in the contract was 8 percent. A contract amendment lowered the rate to 6.5 percent, pending eligibility for tax-exempt financing. It is estimated that this will save State and local government agencies between \$10 million and \$29 million, depending on the number of users, over the life of the contract.

Going forward, the State must monitor financial markets and progress of the project to determine the most advantageous time to require M/A-COM to restructure the financing for the SWN. At the same time, government agencies purchasing equipment to access the SWN should take steps to ensure they are paying the contract rates.

SWN Program Management

The implementation of the SWN radio communication system is a program requiring numerous activities and disciplines. Without effective management and oversight, the State is exposed to risks that jeopardize the overall success. Effective management and oversight includes policy, operational and technical considerations. It also includes reporting mechanisms that provide key State officials with information at important milestones throughout the life of the program.

OFT places significant weight in its ability to “walk away” from the infrastructure without a significant monetary outlay if M/A-COM is unable to meet the infrastructure functional specifications. However, if M/A-COM builds an infrastructure that meets the functional specifications, but first responders are reluctant to use the SWN because they are not satisfied with the infrastructure or are ill-prepared to use it, the State will nonetheless be contractually obligated to pay. Importantly, there still will be no new, improved radio communications system, as promised, to provide enhanced public safety in the post 9/11 world. In addition, the time and effort invested by the State in the SWN program up to that date would be lost.

The building of the SWN infrastructure, which is the scope of the contract recently approved, is merely one project necessary to successfully implement the larger program. Developing the infrastructure functional specifications is, of course, a key component of program management. Acceptance testing, managing the transition of

users to the SWN (Change Management) and the setting and coordination of operational protocols by the SWN users (Operations Management) are equally critical components to the program's success.

Program management involves a structure through which OFT, the SWN users, other program stakeholders and the vendor are involved and participate, thereby protecting the State's investment. SWN program management would assure that the infrastructure functional specifications reflect users' operational protocols and practices to the maximum degree feasible, that M/A-COM builds the infrastructure to specifications, that SWN users are appropriately involved in all phases of acceptance testing, that users are properly trained by OFT and M/A-COM as to SWN capabilities and use, that OFT and M/A-COM assistance is readily available to the users when migrating to the SWN, and that the SWN users are ready and able to successfully work together when communicating on the system once build-out is complete.

Failure to involve end users in the development of the backbone of the system in a meaningful way is likely to increase costs and may result in a system that is not used. The Office of the State Comptroller has witnessed the failure of this approach in many State contracts, most notably the CONNECTIONS Statewide Automated Child Welfare Information System. Office of the State Comptroller audits found that State officials were not effective in overseeing the development of the CONNECTIONS system. Among the specific issues identified were the failure of the Office of Children and Family Services to adequately involve end-users in the development of the System and an approach by which contractors told end-users what they needed, instead of listening to needs and developing the system in response. As a result, scheduled completion dates were not met, numerous revisions were made after the system was put into production, and many users were dissatisfied with the system.⁴⁸ Moreover, the contract costs doubled and the system, initiated in 1995, is not expected to be completed until September 2007.⁴⁹

It is important to note that the original contract value for CONNECTIONS was \$114 million and involved 58 end-users. SWN costs start substantially higher and the project involves, potentially,

⁴⁸ Office of the State Comptroller Audit 97-S-68.

⁴⁹ Assembly Report, March 2001.

65,000 users.⁵⁰ It is important that OFT continue efforts to provide central coordination, as well as continue to involve users at the local level and include their input throughout the build-out of the SWN.

Dead Zones

In addition, the Office of the State Comptroller has raised concerns about communication dead zones identified in prior audits as an impediment to the ability of security officials to do their jobs completely. For security reasons, the results of these audits have been shared only with officials in a position to correct the problems. These issues must be addressed as the SWN program moves ahead.

Environmental Concerns

Although the M/A-COM proposal includes fewer towers, which is both sound environmental policy and increases the likelihood of success, resistance to tower siting can be anticipated in various communities and must be carefully managed going forward.

As part of its compliance with the State Environmental Quality Review Act (SEQRA), OFT undertook a generic environmental review of environmental issues associated with the project as a whole.⁵¹ The Generic Environmental Impact Statement (GEIS) issued on March 30, 2005 makes clear that several environmental issues will have to be addressed as specific sites are identified, and it describes considerations that will influence siting decisions. The GEIS responds to comments from 34 entities, including 7 environmental advocacy groups, most of which expressed concerns about siting of transmission facilities—specifically the State’s intention to comply with local land use

⁵⁰ According to OFT, there are more than 300,000 first responders in New York State, of which 118,000 are located in New York City. State agency and public authority users are expected to total 21,886.

⁵¹ Segmented environmental review is generally prohibited under SEQRA because it tends to avoid or diminish the cumulative adverse environmental impacts associated with a project. A reviewing agency may not avoid SEQRA requirements by treating as unrelated or independent, parts of a project that are, in fact, related. Under limited circumstances, segmentation of the environmental review is allowed if the reviewing agency provides appropriate justification that a detailed, site-specific review was impracticable, and that the segmenting of the review is no less protective of the environment. OFT provided justification for its segmented review. While some may quarrel with the sufficiency of OFT’s justification and while it is clear that tower siting would not occur but for the SWN (at least on the scale contemplated by the SWN), it can be argued that identification of particular tower sites is impossible at this point. Objections based on segmentation likely would fail.

laws, mitigate environmental impacts and preserve the goals of existing protections, such as the “forever wild” constitutional provisions limiting development in the Adirondacks.⁵²

Decisions on where transmission facilities will be sited are important for two reasons: first, facilities may adversely affect the environment and, second, municipalities and agencies with jurisdiction over areas where facilities will be sited may have limited ability to influence siting decisions.

The SWN will be a network of 500 to 1,200 interconnected receiving and transmitting antenna sites located throughout the State. OFT has established a hierarchy for the siting of these facilities, favoring existing facilities over new construction and siting on already developed land over previously undeveloped sites. The majority of antenna sites will be additions to existing towers (“co-locations”), antennas mounted on existing utility or other poles (“pole mounts”) and antennas added to the sides or rooftops of existing buildings (“roof mounts”). A small number of antenna sites will be located on undeveloped sites or will involve the modification of existing towers. It is the undeveloped sites and proposed modifications that are of greatest concern environmentally and to local governments.

The SWN RFP established as a priority for the State environmental preservation, including, but not limited to, reducing the proliferation of towers and minimizing the number and height of standard tower sites. M/A-COM’s proposal was responsive to this priority as it relies heavily on low profile sites and contemplates the construction of only 40 new standard tower sites. In contrast, Motorola’s proposal contained more total sites (1145 vs. 1066) and required the building of 798 new standard towers.

Transmission facilities can adversely affect the environment by degrading view sheds, impairing historic properties, corrupting open space and allowing development of constitutionally protected forest preserves. Case law indicates that governmental agencies are immune from local laws when the interests of the public outweigh the interests to be served by zoning and land use laws.⁵³ Further, OFT cites a recent

⁵² The seven environmental advocacy groups to comment were the Adirondack Council, Adirondack Mountain Club, Broome County Environmental Management Council, Nature Conservancy, Open Space Institute, Friends of Grafton Lake State Park and Scenic Hudson.

⁵³ *Matter of County of Monroe*, 72 N.Y.2d 338 (1988).

case (*Crown Communication New York, Inc. v. New York State Department of Transportation, 2005*) in which the Court of Appeals confirmed that State-owned telecommunications towers that are managed by a private entity are also immune from local land use regulations. It is important to note, however, that OFT has stated its commitment to comply with local land use provisions to the extent practicable.

Specifically, OFT proposes to limit the negative environmental and zoning impacts first by following certain siting criteria and second by subjecting each proposed site to a Site Consistency Review Process. The siting criteria are as follows: 1) completion of full SWN implementation in the shortest period of time, 2) emphasis on the use, refurbishment or replacement of existing tower infrastructure, 3) minimization of the need for new tower construction, 4) minimization of tower costs, 5) minimization of overall site acquisition time frames, 6) minimization of overall site acquisition costs, and 7) minimization of visual impact of towers on the environment. The GEIS identifies a series of 69 screens in 10 categories that will be part of the review process (e.g., coastal impacts, potential blasting or dredging, watershed or other public water supply impact, threats to endangered flora or fauna, environmental justice issues, consistency with local land use provisions and consistency with constitutional provisions). If the answer to any of the screen questions is yes, additional study or evaluation will be performed with input from the municipality and other interested parties.

No individual siting determination or facility configuration decision will be made until the Site Consistency Review Process is completed for each proposed site. SEQRA dictates the process that must be followed if potential negative environmental impacts are identified and OFT has expressed its intention to exceed the SEQRA standards, including by imposing certain requirements on the contractor.

As OFT makes public the specific locations of towers or other transmission sites, additional commentary and stronger opposition can be anticipated from environmental groups and local officials or organizations.⁵⁴

⁵⁴ To date, to the knowledge of the Office of the State Comptroller, no legal action has been initiated by environmental groups in an attempt to stop the SWN. It is likely that such action, if any, would be in response to specific siting decisions. Given the case law cited by OFT, it may be difficult to mount a legal challenge to siting decisions, unless it can be demonstrated that the agency ignored the criteria set forth in the Environmental Impact Statement.

Appendix

A



STATE OF NEW YORK
ALAN G. HEVESI
COMPTROLLER

September 20, 2005

Honorable George E. Pataki
Governor of New York State
State Capitol
Albany, New York 12224

Dear Governor Pataki:

On September 19, 2005 my Office approved the contract between the Office for Technology (OFT) and M/A-COM, Inc. for the design, implementation, operation and maintenance of the Statewide Wireless Network (SWN). This contract will allow for the modernization of existing land mobile radio emergency communications used by State entities and create the possibility for first responders to access the system to improve the safety of the public. As a result of our review, however, significant concerns remain that must be addressed if New York State is to realize the true benefits of a statewide communications system.

Interest Rates Charged by M/A-COM

During our review, we raised with your staff and M/A-COM our concern over the financing terms built into the contract. We continue to contend that these interest rates are too high. At our insistence M/A-COM did concede to lowering the cap on the financing rate applied to equipment leases made by State and Local Governments. This action alone has the potential of saving tens of millions of dollars over the life of the contract. I urge the State to exercise its option to require a refinancing of the overall contract to achieve a lower tax-exempt rate soon as it is feasible.

Standards for Success and Managing the Overall SWN Goals

Only the most basic standards for SWN success were included in the scope of the contract. Once standards are met, the system must be accepted by the State and payments on this \$2 billion contract begin. Success standards in the contract could fail to maximize the satisfaction and full use of the SWN radio system by public safety officials. Without careful management of the success standards to include these critical areas, the anticipated outcomes of improved communications and increased homeland security can not be ensured. As currently structured, the State could plan, design, build and pay for a new and improved communication system that would still require considerable additional investment in order to make it operational for the State's network of public safety officials.

It is of critical importance, therefore, that the State expand the success standards and the development of a statewide communications infrastructure be assigned to an appropriate State entity for management. The top priority of this management entity should be the inclusion of local first responders in this process and the development of management protocols that ensure maximum coordination in the event of public emergencies. By doing so, OFT will be allowed to focus on the design and implementation of the infrastructure.

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Further an independent Quality Assurance Group should be formed to assess the overall program plan going forward and to monitor the progress up to and including full statewide implementation.

Ensuring Adequate Funding Exists to Cover the Costs of the Contract

SWN contract costs were to be paid from an annual appropriation from the Wireless 911 Surcharge Fund. However, it has been acknowledged by both OFT and the Division of the Budget that the 911 Surcharge may not cover all annual anticipated lease payments. In fact, an audit by my Office of the Surcharge Fund found that while the Department of Taxation and Finance has taken steps to improve the level of documentation from providers supporting wireless surcharge collections, there remains little assurance that all surcharge revenues owed by providers are being collected. It is critical that these revenues are maximized and that a review of State agency budgets is performed to ensure that the cost of radios and any other required optional costs are covered.

While our review provided insight into the value of the proposed OpenSky® technology, we could not ignore the fact that the response to Hurricane Katrina in the Gulf Coast region required the deployment of satellite communications equipment. Since our decision to approve this contract will pave the way for the implementation of a statewide communications system in New York State, it will take several years and a continued commitment at the highest levels of government before we will have in place an effective system. In the interim, I urge you to review local, state and federal protocols that facilitate communication in an emergency situation. In response to Hurricane Katrina, communication among those responding to the disaster was delayed and they ultimately had to rely on **donated** satellite equipment – this should never happen again in the United States. Initiating the development and implementation of a statewide system does not negate the need for an emergency communication plan to be in place now.

While significant risks exist with this contract, I feel that these can be effectively managed through strong leadership from the Executive. Therefore, I believe approval of this contract is in the best interest of the State in order to allow this critical public safety initiative to move forward. Throughout the life of the contract, the Office of the State Comptroller will be vigilant in its oversight of the project and its finances.

Sincerely,



Alan G. Hevesi

Appendix
B

PENNSYLVANIA STATEWIDE PUBLIC SAFETY RADIO SYSTEM

In 1999, the Commonwealth of Pennsylvania awarded M/A-COM OpenSky® multiple contracts for a state-of-the-art Statewide Public Safety Radio System (SPSRS). The new system was intended to replace more than 20 legacy systems operated by various state agencies. Implementation of this new system has suffered delays and cost overruns and has been the subject of negative press. In 2004, newspapers reported that the project, scheduled for completion in 2001, was not finished and that the original cost of \$179 million had increased to \$238 million. The newspapers also reported speculation that the cost could rise to more than \$400 million. It is not known whether the figures reported represented aggregate system costs or the cost of the M/A-COM equipment alone. (Note: a press release by two members of the Pennsylvania House of Representatives shortly after newspaper reports stated that aggregate project costs incurred to date were more than \$400 million.)

When comparing the Pennsylvania experience to New York it is important to understand the difference in approach to the two projects. Pennsylvania elected to assume responsibility for overall project management itself and to award separate contracts as follows:

Contractor

M/A-COM, Inc.
Rohn Industries, Inc.
Alcatel USA, Inc.

Contract Scope

Trunked Land Mobile Radios (LMR)
Site Construction (towers, shelters, generators, etc.)
Microwave Equipment

M/A-COM's Pennsylvania contract requires only the provision of LMR equipment. M/A-COM's New York Statewide Wireless Network (SWN) contract includes full responsibility for all contract deliverables, including but not limited to:

- Phase I –SWN Engineering Design,

- Phase II – SWN statewide implementation including site acquisition, construction, installation, integration and network configuration, acceptance testing and environmental compliance,
- Training,
- Network operation and maintenance over the 20-year term,
- Infrastructure site management, and
- Subscriber equipment.

To further elaborate, the Pennsylvania and New York contracts differ in the following ways:

- Funding structure and assignment of risk - Pennsylvania's project is a capital project, while New York's project is structured as a lease with an option to buy. New York has no responsibility for any payments until each regional system passes separate acceptance testing. One would assume that this risk mitigation strategy, whereby risk is transferred to the contractor, would cause the vendor to increase pricing to cover such risk. While it is difficult to determine the exact difference in pricing M/A-COM associated with the assumption of risk, the \$493.4 million in interest payments alone accounts for an additional cost in New York as opposed to the Pennsylvania model.
- Prime Contractor and Systems Integration Responsibilities - in NY, M/A-COM is solely responsible for the success of the network infrastructure where in Pennsylvania the Commonwealth assumed this role.
- Total Cost of Ownership - network infrastructure operations and maintenance costs for the 20-year term are captured in the New York contract's not-to-exceed price. Costs related to hardware upgrades, hardware obsolescence, discontinuation of production, parts unavailability, software upgrades and software obsolescence can add significantly to the cost of a system over its life cycle. New York elected to include these costs in the contract where Pennsylvania did not. Similarly, the tower infrastructure, antenna support structures and site infrastructure must also be maintained. Further, with a land mobile radio network, the backbone network is vendor specific and proprietary. The Office for Technology (OFT) believes that the best mechanism for containing ongoing maintenance costs is to utilize the competition at the time of the initial proposal, before New York becomes locked into a proprietary backbone infrastructure. OFT determined that the State would be at a disadvantage if the successful bidder was only held responsible for construction and initial operation of the network, but was not required to maintain its technical currency over the life of the network. To exclude the downstream maintenance would increase risk to the State at the future date(s) when hardware or software obsolescence occurred and when the State would have less negotiating leverage. If the

downstream maintenance was not included upfront, the State would be left with three options:

1. Upgrade its network with the existing proprietary vendor at a later time (and lose control over upgrade costs by having little negotiating leverage),
2. Re-bid the entire network at that later time, and fully replace and/or lose the State's initial backbone investment, or
3. Let the network fail through obsolescence.

Pennsylvania's SPSRS and New York's SWN project scope do have similarities, such as:

- The frequency bands used,
- The proposed technology protocols (e.g. TDMA 6.25 kHz)
- The proposed technology configuration (e.g. OpenSky® technology digital trunked with voice and/or capable voice & data), and
- The capability for multi-agency (or intergovernmental) participation.

Beyond these common elements there are significant differences in the scope of the projects that make a comparison of costs between the two projects difficult, if not impossible. These factors include:

- Project Scale - The NY project encompasses more geographic terrain, more infrastructure, more users and more extensive coverage requirements than the Commonwealth's network.
- Geographic and Environmental Factors - New York is larger geographically and is more mountainous, and it has differing legal requirements than the Commonwealth (e.g. NY's constitutional "forever wild" protections). New York's contiguous border with Canada requires M/A-COM to consider interference issues and mitigation strategies as an element of the network design.

As a result of various problems, the Pennsylvania Office of Information Technology retained iXP Corporation in the summer of 2004 to review the project, identify issues and propose options for solving the problems. When proposed by M/A-COM, OpenSky® was not brand new technology but it was state-of-the-art. However, OpenSky® had never before been deployed for a public safety purpose nor used on a statewide basis. iXP concluded that the selection of the OpenSky® technology was a "well-founded choice."

iXP found that most of Pennsylvania's problems stemmed from its decision to act as its own integrator. (Note: Adding to the problem was the fact that the site developer hired by Pennsylvania filed for bankruptcy protection.) iXP also concluded that the pre-existing siting plan was inaccurate and, most importantly, it was erroneously anticipated

that traditional technology would be deployed. The Radio Project Office (RPO) “was not structured to support the implementation and management of a newly developed technology.” Essentially, the RPO failed to obtain input from end users regarding functionality needs. Furthermore, the RPO could not explain to the end users what the new technology does, what the new system could not do and, most importantly, the differences between the new and old technology. Furthermore, since the RPO could not mandate use of the SPSRS, state agencies have been slow to transition to the system.

As a result of the iXP report issued in August 2004, Tom Reidy was named the new SPSRS project director. In April 2005, Office of the State Comptroller staff spoke with Mr. Reidy who stated the following:

- Pennsylvania has achieved an average geographic area coverage of 87 percent, up from 78 percent last year.
- Thirty-seven new towers will be constructed by February 2006, bringing the SPSRS to 95 percent geographic area coverage.
- Six thousand users are currently on the system. The SPSRS is designed for 50,000 users.
- The Pennsylvania State Police use the SPSRS for data and are expected to transition to voice communications in November 2005. The SPSRS will allow the Pennsylvania State Police to operate with 5 dispatch centers, as opposed to 80 under the old system.
- Software and hardware upgrades have been completed. These upgrades resulted from meetings with the end users regarding the functionality of the SPSRS.
- The RPO is hoping to increase spectral efficiency and add frequencies to increase capacity.
- Feedback on the OpenSky® technology has been positive. There have been no system access issues, message collision or similar communication problems reported. Any communication interference has been caused by commercial cell phone use. As a solution, the Federal Communications Commission (FCC) has mandated that public safety groups, e.g., New York and Pennsylvania, swap frequencies with the commercial cell phone entities to avoid this kind of interference.

PENNSYLVANIA STATEWIDE PUBLIC SAFETY
RADIO SYSTEM

- Pennsylvania has not yet achieved interoperability with non-SPSRS proprietary communications systems. Developing and implementing interoperability will be the responsibility of the state Emergency Management Agency.

Appendix

C

ALAN G. HEVESI
COMPTROLLER



110 STATE STREET
ALBANY, NEW YORK 12236

STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

February 18, 2005

Mr. Hanford Thomas
Deputy Director
New York State Office for Technology
Swan Street Building Core #4
Albany, NY 12220-0062

Dear Mr. Thomas:

Re: SWN #1

Enclosed are the initial questions and comments regarding the Comptroller's review of the contract awarded to M/A-COM for the Statewide Wireless Network (SWN).

Due to the magnitude of this project, we will utilize an attachment format as follows:

- Attachment A – Technical
- Attachment B – Procurement Evaluation and Selection
- Attachment C – Financial
- Attachment D – Environmental
- Attachment E – Local Issues
- Attachment F – Contract Terms and Conditions
- Attachment G – Miscellaneous

Additionally, we will designate each letter numerically with this being SWN #1.

It is likely that concerns within the various areas will present themselves at different times of our review. Therefore, it may be noted on one or more attachments to any particular letter that there are no questions or comments at this time. Furthermore, there may be instances where the same or substantially equivalent questions are asked in more than one category. When this occurs, please feel free to answer once and cross-reference in the other attachments.

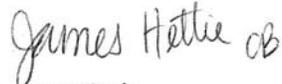
Given the complexity and cost of the SWN, we cannot predict how many rounds of questions and comments will be needed. However, be assured that we will proceed as expeditiously as possible. And while we generally ask that the agency respond within five business days of submission of questions, if this timeframe is ever not feasible, please let me know. In this regard, be advised that it is not necessary that all the answers to all questions on all

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attachments to each letter be compiled before submitting a response. Feel free to submit the responses whenever a particular attachment is complete.

If you have any questions at any time, I can be reached me at 486-3037.

Sincerely,

Handwritten signature of James Hettie in cursive script.

James Hettie
Contract Management Specialist

Encs.

cc: Susan Zeronda, OFT
John Moriarty, OSC Contracts
Charlotte Breeyear, OSC Contracts
Arlene Van Pelt, OSC Contracts
Richard Redlo, OSC Legal Services
Mary Anne Tommaney, OSC Legal Services
William Howard, Executive Chamber

SWN #1

Attachment A - Technical

The SWN RFP includes the following requirements:

- 95 percent area coverage; 97 percent road & waterway coverage; 97 percent on NYC street coverage
- 99.99 percent reliability
- Data transmission at 28.8 kbps on 25 kHz channel
- Capacity for 65,000 users
- Interoperability at FCC 90.547 for voice; FCC 90.548 for data
- Ultimate spectrum frequency of 6.25 kHz
- Public safety frequencies within the 700 and 800 bandwidth with VHF overlay for off road augmentation

The M/A-COM proposal includes the following technologies:

- Open Sky microwave transmission
- Network First gateways
- Voice Over Internet Protocol
- High profile and low profile sites
- Vehicle repeaters including cross band repeaters

Please fully describe, in non-technical language if possible, how you have determined that the successful proposer's described design architecture, network and equipment appear to be a technologically feasible solution meeting the requirements set forth in the RFP.

Additional Questions

1. Initially, SWN was envisioned to be interoperable based on APCO Project 25 standards. Conversely, the M/A-COM proposal utilizes proprietary technology. Specifically, how does the M/A-COM proprietary network differ from APCO Project 25. Additionally, in what ways do these differences enhance or detract from the

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- concept? Are there existing work products from independent or staff evaluators that explore and reconcile these variations and, if so, can copies be provided to OSC?
2. Satellite technology was discarded as a potential solution to the State's needs when this project was first initiated.
 - a. Has satellite technology changed since then to make it a feasible public safety solution?
 - b. Please explain why a combination of terrestrial, satellite and wireless telephony technologies could not provide a more dependable, less costly solution for the SWN?
 - c. The proposed system will take several years of testing and implementation until it is fully in place. What expert(s) opinion has been relied upon by the State to determine that wireless technology will be in the most appropriate technology in five years? Ten years?
 3. Explain, for the procurement record, how you determined that the successful proposer's planned solution is appropriately secure.
 4. M/A-COM's solution incorporates Voice Over Internet Protocol. Is this technology new to public safety communications systems?
 5. The National Institute of Standards and Technology has warned of significant security issues when switching telephone systems to Voice Over Internet Protocol. It has been reported that common security measures such as firewalls and encryption can cause poor voice quality and blocked calls.
 - a. Are the same risks present for land mobile radio systems?
 - b. If so, how does M/A-COM propose to mitigate these risks?
 6. Reference is made throughout the contract file to various types of sites including state sites, government sites, third party sites, third party co-tenant sites, third party co-location sites and green sites. Please clarify the various categories of sites that are referenced and how they are intended to be used (i.e. for towers, for towers and other facilities, etc.), please be specific.
 7. The SWN must allow for a maximum of 65,000 users and must utilize public safety bands within the 700 MHz and 800 MHz bandwidths with VHS overlays allowed in certain regions.
 - a. What is the availability of these bandwidths?
 - (1) Please discuss any issues regarding broadcasters' use of these bandwidths.

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- (2) Please discuss any issues regarding coordination with Canada.
 - b. What are the FCC licensing requirements, including timelines, for bandwidth use?
 - c. Does the State have all of the necessary licenses? If not, what are the costs associated with obtaining licensing and who will bear these costs?
 - d. If not, what is the status of activities that NY must complete with respect to acquiring the licenses?
 - e. Is the timing of the build-out appropriately coordinated with the State's acquisition of bandwidths?
 - f. Is there any risk that the State will build a system for frequency bandwidths that may never materialize?
 - g. How do users on different bandwidths communicate with each other?
8. What is the difference between a user and a talkgroup?
 9. The NYSTEC report recommending land mobile radios is dated approximately two months after the date the RFP was issued. Explain why you finalized and issued the RFP before your consultant's report had been issued.
 10. Interoperability defined in Exhibit #1 of the RFP as full functionality between all participating authorized SWN entities according to their level of authorization, tier level of equipment and equipment personality configuration, incorporation of FCC national mutual-aid channels, and compliance with ANSI/TIA/EIA-102 series as required by FCC Rules in 47 C.F.R. 90.547 and 47 C.F.R. 90.548, is of paramount importance to the state. What remedies are available if interoperability cannot be achieved?
 11. What are the consequences and contract remedies should a responder's call be cut-off or lost?
 12. M/A-COM's solution uses Time Division Multiple Access as a means to support more than one conversation per radio channel by assigning each conversation a timeslot.
 - a. Is this technology new to public safety? Where has this technology been deployed? What reports were relied upon by OFT to determine TDMA's value to this project, and, who (name and phone number) did you rely upon for verification?
 - b. If so, does it present any security or other concerns? Please explain.

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13. According to the NYSTEC report, Open Sky has achieved a spectral efficiency of 12.4 kHz. When did Open Sky achieve 6.25 kHz as required?
14. Can voice and data on a VHS bandwidth transmit at a 6.25 spectral efficiency?
15. Bidders must describe radio transmission problems. Did M/A-Com describe any such problems?
16. What is a microwave overdesign?
17. What is the state's contractual obligation if the primary build-out is successful but subsequent regional build-outs cannot be completed or contiguous communication is not achieved?
18. Motorola maintains that M/A-COM's proposed technology is untested. M/A-COM refutes this contention.
 - a. Is the technology unproven?
 - (1) What was the scope of the testing?
 - (2) If unproven, why is there not an undue risk?
 - b. What experts were utilized by OFT to resolve these conflicting claims (names and phone numbers)? Please provide OSC with any written work products that bear on this point.
19. Please explain in detail, your understanding of the Pennsylvania statewide wireless network project - the problems, solutions, costs, including overruns, and current status of the project. Does Pennsylvania's experience have any relevance to the SWN with respect to any lessons learned, the feasibility of the proposed technology and M/A-COM's performance on that project?
20. Motorola claims that the RFP specifications are inconsistent with the State's priorities of timely deployment, price and environmental protection. For the record, please provide your response to the claim.
21. It has been asserted that meeting the State's requirements for the SWN will result in a system that is far more costly than that of other states. Motorola has said that since the RFP mandates a line of site signal, more sites are needed in the mountains, and that the requirements for tower sites regarding backup batteries, 7 days of fuel/generators propane reserve, bullet-proof bunker/shelter, HVAC, 8' fence and subsequently roads to be built are excessive and there is no need to do it this way. Please explain why the SWN specifications are a prudent measure to protect the public in a cost effective manner?

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22. Did Motorola propose the use of VHF overlays?
23. Please provide a detailed briefing on the current level of coverage in the Adirondack Mountains, including security risk analysis that establishes a baseline understanding of the challenges faced by the State. Describe how the four new towers in the Adirondacks will address the issue of coverage and security risks. Will the four tower plan achieve the required coverage and interoperability goals of the network?
24. M/A-COM states that it has an agreement with Niagara Mohawk (NiMo) for attaching low profile sites to NiMo utility poles. Are there any other utility's poles on which low profile sites will be attached? Are the necessary agreements in place?
25. The federal government has issued a Request for Comment to an RFP for an Integrated Wireless Network for voice and data utilizing land mobile radios. Could this system provide the State with a feasible and less costly alternative to the SWN?
26. How will the proposed system address the problems of communication and dead zones identified in OSC Audit Report No. 2001-S-27, and how will the proposed system address the additional problems uncovered in the follow-up to that audit? If OFT is unfamiliar with this security audit, have they reviewed the SWN contract with DOT/DSP to confirm that these concerns are adequately addressed with the proposed system? If not, why not?

SWN # 1

Attachment B – Procurement Evaluation and Selection

1. Is M/A-COM's proposed technology consistent with the requirements as stated in the RFP?
 2. Have you waived any mandatory RFP requirements in this award to M/A-COM? If so, please explain in detail which requirements were waived and why.
 3. Has the successful bidder proposed a solution that is fully consistent with the RFP with respect to guaranteeing a non-proprietary, open competitive environment for acquisition by SWN End Users of network compatible subscriber equipment?
 4. Is there any indication that M/A-COM's bid is an unrealistic "lowball" bid and that they can't fulfill the requirements for the proposed cost?
 5. No record of the Administrative Proposal Evaluation was found. Absent this documentation, OSC is not able to thoroughly evaluate OFT's process for determining vendor responsibility. Specifically:
 - Bidder and Subcontractor Responsibility Questionnaires - Please provide documentation of OFT's evaluation of information provided on bidders' and subcontractors' responsibility questionnaires.
 - Demonstration of Financial Viability – Please provide documentation of OFT's evaluation of the Tax Compliance Division and Bureau of Fiscal Services summary report of the required financial viability review to the Source Selection Evaluation Board.
 - Contract Administration Team Member – Please provide documentation of OFT's evaluation of the proposed contract administration team member's resumes, depth of experience and capability to manage contracts for comparable projects.
 - Conflicts of Interest Disclosure – Please provide documentation of OFT's evaluation of potential conflicts of interest disclosed.
- Documentation of OFT's analysis could be provided in the form of a Vendor Responsibility Profile which records any potential issues identified and the basis for the determination that the issue is resolved to OFT's satisfaction. A copy of OSC's standard profile is available at:
<http://www.osc.state.ny.us/vendrep/templates.htm>.
6. Has OFT performed a review of M/A-COM's performance on other system implementations? If so, how can M/A-COM's performance be characterized? Did OFT verify the reported performance with M/A-COM's customers? Are there written reports that can be provided to OSC?
 7. Has M/A-COM had any issues or problems with other systems/products that have been provided to other jurisdictions?

SWN #1

Attachment C - Financial

General

1. Please provide a copy of the cost evaluation performed prior to the August 2004 M/A-COM clarification. Additionally, please provide details of the changes made to M/A-COM's mandatory cost proposal as a result of the clarification.
2. Please provide an electronic copy of M/A-COM's financial proposal.
3. Please provide an electronic copy of OFT's completed financial evaluation tool.
4. Motorola identified the following major issues with creating a financing structure for the SWN. How was M/A Com able to overcome these issues?
 - Implications of lease payments after acceptance
 - Interest rate contingency
 - Capital lease financing structure without available financing conduit for SWN project
5. Have the costs associated with land acquisitions that were specifically excluded from proposals by direction of the RFP (page 48 of RFP) been estimated based on both bidders' plans? Is it possible or likely that these costs may be higher with one bidder's proposed plan than the other?
6. Is there a long-term revenue sharing consequence based on the number sites proposed by Motorola versus M/A-COM's proposed site and telephone pole approach? Has this potential revenue been included in the cost analysis (Table F-17)?
7. Motorola proposed ~\$44,306 for site acquisition while M/A-COM proposed ~\$347 to ~\$1,334. Is there a reason for this significant difference in proposed acquisition costs?
8. Per paragraph G of the RFP financial section (page 46), what information was provided to bidders with respect to System Operation Centers?
9. The RFP identifies a cost category of "site lease" for third party sites. It appears both bidders proposed third party site acquisition in lieu of third party site lease. Is this acceptable and compliant with the RFP? Will third party site acquisition result in State ownership of the property?

M/A-COM

1. What are the implications of the delayed milestone financing acceptance cost identified on table F-5?
2. M/A-COM documents several cost assumptions on Table F-8.14. Please clarify M/A-COM's assumptions as follows.
 - Note b** – What other zoning reviews could occur?
 - Note d** – Are appeals and litigation likely to occur?
 - Note h** – Is a formal agreement required for the utility to accept this responsibility? Why would a utility accept this responsibility at their own expense?
 - Note j** – Is this statement appropriate since M/A-COM is proposing its plan to meet RFP coverage requirements and should reasonably know where sites will need to be constructed and the total effort involved to accomplish site development?
 - Note l** – Is detuning for AM a significant issue?

Note g & h – Is the provision of “up to 100 ft” appropriate? What would occur if a greater length is needed?

Note k – What labor costs would the State be responsible for? Are there any other costs the State would have to assume? Will the State or municipality be responsible for these costs?

3. What is the rate of interest Tyco is charging M/A-COM that, in turn, is being passed on to the State in the bundled lease payments? Why is it reasonable?
4. What costs, if any, does the contract allow M/A-COM to charge, that are outside the “Not to Exceed” price?

Motorola

1. Motorola did not include any site cost for Region 22, Seneca, is this correct?
2. Region 38, Lewis, of Motorola’s proposal identifies two third party sites @150 ft, is this correct or is it a typographical error?
3. Motorola expressed a concern with the scope of the maintenance refresh compared to the scope of the technology refresh requirements. Is it possible that either bidder proposed efforts/costs under the maintenance refresh that were intended to be performed as part of the technology refresh?
4. Please provide a copy of Table 15 of Motorola’s Alternate proposal.
5. Did Motorola’s cost proposal include the cost for a demolition bond?

Cost Evaluation

1. The following costs were used to complete Factor #2 calculations for Motorola. Please explain the reasons for the difference between the costs used in the calculation and the costs identified in the proposal?

Prepayment Criteria	Evaluation Cost	Proposed Cost
10 year Phase 1 @ 1/2014	\$232,255,000	\$216,075,000 (Mandatory & Alt)
15 year Phase 1 @ 1/2019	\$143,850,000	\$123,645,000 (Mandatory & Alt)
15 year Phase 2 @ 1/2019	\$832,005,000	\$715,155,000 (Mandatory)
	\$608,810,000	\$521,285,000 (Alt)

2. Factor #4, Motorola’s O&M price for both the mandatory and alternate proposal (Table F-16.01) was adjusted to remove proposed training costs of \$2,661,935. However, Motorola’s training price also evaluated under Factor #4 is identified as \$2,655,361, from Table 15. Where in the cost evaluation is the Table 16.01 training costs of \$2,661,935 accounted for?
3. Factor #4, how was M/A-COM’s total training costs over a 20 year period calculated based on the \$80,000 rough order of magnitude (ROM) pricing? Is the ROM estimate compliant with the RFP requirements?
4. Motorola’s training cost is based providing training through year 5. How many years were assumed in M/A-COM’s proposed training costs and how was it calculated?
5. Please provide details of how Factor #5 total costs were calculated.

OFFICE OF THE STATE COMPTROLLER LETTERS
TO THE OFFICE FOR TECHNOLOGY

6. Factor #8 identifies Motorola's mandatory and alternate Annual Maintenance Cost for CAD Hardware as \$20,404; however, on Table 21.01 Motorola proposed a cost of \$20,040. Is this a typographical error or is there a reason for the difference?
7. Factor #8, how were the extended prices for CAD Hardware and Software calculated for all proposals?
8. Factor #9, how were the costs for paging services purchase and lease prices calculated? Both bidders provided several different models, which model was selected and why?
9. Motorola's proposed CAD on-line help, Table 21.01, identifies a cost of \$148,139. A cost of \$59,837 was used in the evaluation of Factor #8. Is there a reason for the difference?
10. Table F-23.01 of M/A-COM's proposal identifies an annual O&M cost of \$6,023,840. Should this cost have been multiplied by 20 to arrive at the total cost of paging services over the entire contract period? Did Motorola take a similar approach?
11. Factor #7, disadvantaged location, M/A-COM's cost is based on the average cost of TX/RX and Mikom systems. Why was the average price used and not the cost for the system most likely to be used?
12. If OFT determined that Motorola's proposals were non-compliant with the RFP per Decision of SWN Project Director of 8/16/04, why were Motorola's costs used in the financial evaluation? Motorola had the lowest costs for Factors #5, #8, and #9 and therefore the scores assigned to M/A-COM's costs in these areas were based on a non-compliant proposal. Also, since M/A-COM proposed a similar financing arrangement in its Alternate #2 proposal, is this proposal also non-compliant with RFP requirements?

SWN #1

Attachment D - Environmental

1. Tower siting in remote and undeveloped locations, especially within the Adirondack Park, raises serious concerns for environmental groups, some of whom are threatening litigation. How does OFT intend to address this issue?

SWN #1

Attachment E – Local Issues

1. How will the proposed system work in NYC?

SWN # 1

Attachment F – Contract Terms and Conditions

No questions or comments at this time

SWN #1

Attachment G – Miscellaneous

1. Excessive exposure to microwave signals presents a health risk to those subjected to such exposure. Please discuss the health risks present in the SWN and measures taken to minimize these risks.
2. Is funding available for the entire contract amount? If not, how much funding is available?

OFFICE OF THE STATE COMPTROLLER LETTERS
TO THE OFFICE FOR TECHNOLOGY

ALAN G. HEVESI
COMPTROLLER



110 STATE STREET
ALBANY, NEW YORK 12236

STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

March 10, 2005

Ms. Susan C. Zeronda
Deputy Director and General Counsel
NYS Office for Technology
Swan Street Building Core #4
Albany, NY 12220-0062

Dear Ms. Zeronda:

Re: SWN #2

In our telephone conversation last week, you indicated to me that we had requested in SWN #1 certain documentation pertaining to OFT's determination of vendor responsibility that was never compiled. Consequently, we are restating our questions regarding this issue in Attachment B – Procurement Evaluation and Selection. We also have further questions regarding technical issues. These are addressed in Attachment A.

Please note that we have no questions or comments at this time regarding the following areas:

- Local Issues
- Contract Terms and Conditions
- Miscellaneous

If you have any questions, please feel free to call me at 486-3037.

Sincerely,

A handwritten signature in black ink, appearing to read 'James Hettie', written over a horizontal line.

James Hettie
Contract Management Specialist

emm
Enc.

cc: Hanford Thomas, OFT
John Moriarty, OSC Contracts
Charlotte Breeyear, OSC Contracts
Arlene Van Pelt, OSC Contracts
Richard Redlo, OSC Legal Services
Mary Anne Tommaney, OSC Legal Services

OFFICE OF THE STATE COMPTROLLER LETTERS
TO THE OFFICE FOR TECHNOLOGY

ALAN G. HEVESI
COMPTROLLER



110 STATE STREET
ALBANY, NEW YORK 12236

STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

July 8, 2005

Ms. Susan C. Zeronda
Deputy Director and Counsel
Office for Technology
State Capitol
Empire State Plaza
P.O. Box 2062
Albany, NY 12220-0062

Dear Ms. Zeronda:

Re: Statewide Wireless Network #4

After reviewing the answers to the questions presented in SWN Nos. 1, 2, and 3 and considering the discussions in our meetings held to date, we have a number of follow-up questions and concerns. For those questions in follow up, I have referenced the number of previous question.

1. As requested at our June 29, 2005 meeting, please provide OFT's plan for managing the transition to the SWN for all anticipated users during the 20 year life of the contract. Anticipated user groups include direct SWN users, such as DSP, state agencies, MTA, and other major entities, as well as potential gateway users, such as NYPD, NYFD, local public safety providers, and local government operating units, such as highway and utility departments. Please describe all activities you believe critical to ensure successful implementation effort.
2. How many of the government sites proposed by M/A COM are not owned by New York State? Have site agreement negotiations begun and if so, what is the state of these negotiations? (Refer to OFT Answer #11.)
3. Please confirm or correct our understanding that the State has licenses for sufficient frequencies in the 700, 800, and VHF bandwidths for 65,000 full SWN partners. Also, please update the availability of these frequencies. (Refer to OFT Answer #12.)

OFFICE OF THE STATE COMPTROLLER LETTERS
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4. OFT Answer #66 states that the Delayed Milestone Financing Acceptance Costs reflect the actual infrastructure and equipment deployed and the time associated with the acceptance of regional build-outs.
 - a. Please confirm or correct our understanding that these payments are carrying costs M/A COM incurs due to a delay in the time it takes for the State to accept a regional build-out.
 - b. Why should the State agree to a charge that is essentially additional financing?
 - c. Why should the Capital Expenses on which interest is charged include the Delayed Milestone Financing Acceptance Costs? Does this not constitute interest on interest?
 - d. How was it determined that the amount quoted is reasonable?
 - e. What kinds of delays does this charge apply to?
 - f. Is responsibility for the delay a factor?
 - g. Has it been verified that that the regional lease payments do not already factor in delayed milestones?
5. In OFT Answer #74, it is stated that the interest rate being charged M/A COM by Tyco is not relevant. We maintain that the State should not be paying M/A COM a rate of interest higher than that charged Tyco. Consequently, the rate Tyco is charging M/A COM is relevant and we ask that OFT determine what that rate of interest is.
6. How many gateways are included in the not-to-exceed price? When a gateway is contractually provided, are costs, such as SWN programming, gateway programming, the analysis of the gateway users operational requirements, and other technical and operational support associated with the implementation included? When the hardware for a gateway is provided, please enumerate and estimate each additional cost that would not be covered by the contract. Can a gateway that is deployed to connect the SWN to a legacy be re-deployed elsewhere if the entity subsequently migrates to the SWN? (Refer to OFT Answer #99.)
7. When a gateway is not contractually provided, please explain the process and enumerate and estimate each cost to both the SWN and the user associated with implementing a gateway.
8. How will SWN partnership agreements be valued for purposes of determining whether the partnership agreement is subject to State Finance Law, section 112? (Refer to OFT Answer #101.)

OFFICE OF THE STATE COMPTROLLER LETTERS
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9. Were any local first responders represented on the SWN Coordinating Committee? Please discuss the agreements reached amongst the committee members and summarize the unresolved issues. (Refer to OFT Answer #120.)
10. Please provide a copy of the SWN Advisory report that was due on June 1, 2005. (Refer to OFT Answer #120.)
11. Please confirm or correct our understanding that M/A Com will train State employees who will train SWN users. (Refer to OFT Answer #142.)
12. How will M/A COM certify user proficiency under the train the trainer concept? (Refer to OFT Answer #142.)
13. Please confirm or correct our understanding that the not-to-exceed price includes annual training for five SWN system administrators. (Refer to OFT Answer #124.)
14. Please confirm or correct our understanding that all necessary land will be acquired by M/A COM in the name of New York State and will be paid for by the State.
15. At our meeting on June 29, 2005, we were advised that OFT is building three Cells on Wheels (COWS). How is this being done? Who is doing the work? Has the transmission equipment already been procured? If so, how? What other procurements are necessary to build the COWS? Were competitive procurements conducted?
16. We remain concerned as to the total cost to New York State and its political subdivisions for designing, building, operating, maintaining, and using the SWN. Please submit a total 20-year cost analysis that enumerates and estimates of the costs not included in the not-to-exceed price.
17. The Procurement Record does not document whether building and operating the SWN is more cost beneficial to the State over 20 years than maintaining and/or replacing the legacy systems. Has a cost benefit analysis for any part of the SWN implementation and/or the entire anticipated implementation been conducted by OFT, Division of Budget, or any other state entity? If so, please provide a copy of that analysis.
18. How would subscriber equipment problems be handled where the problems result from a SWN system change necessitated by some network obsolescence? Who would be responsible for the cost of remedying the subscriber equipment problems? If the subscriber equipment must be replaced due to the SWN system change, must the SWN user bear that cost?
19. Please provide additional clarification on the subscriber equipment and particularly the radios and supporting equipment:

Ms. Susan C. Zeronda

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July 8, 2005

- a. At our meeting on Wednesday, June 29, 2005, OFT indicated the subscriber equipment costs quoted in M/A-COM's proposal is ceiling pricing. Does this ceiling apply to the vendors other than M/A COM who have agreed to manufacture the subscriber equipment?
 - b. Will the three alternative manufacturers maintain service centers for repairs on the subscriber equipment, or will the SWN users be limited to using the service centers identified in M/A COM proposal? If the latter, how would this requirement effect the warranty on subscriber equipment that is manufactured by one of the three alternative vendors?
 - c. Maintenance for subscriber radios is not quoted. However, some of the cost schedules include charges for maintenance and other services such as emergency repair. For circumstances and subscriber equipment for which maintenance and other service costs are not quoted, how will the pricing be determined?
 - d. As regions are completed, what are the steps necessary for maximum usage by approved SWN users within that region? Is there a schedule that shows anticipated number of users within region and timetable as to when they can begin usage?
 - (1) Once a regional build out is certified, will the approved users within the region be able to communicate with each other using the OpenSky radios if a SOC operation has not been installed in the region? If a SOC is to be installed within the region, will this activity be concurrent with the development of the region?
 - (2) As regional build-outs progress, there will be certain SWN users, particularly among the state agencies, who will be utilizing OpenSky radios in part and legacy radios in part. How will these users be able to communicate with each other?
20. One of the vendors who have agreed to be an alternative manufacturer of subscriber equipment has indicated that they would share with M/A COM technology advances made by the alternative manufacturer to the subscriber equipment. If this should occur, will the technology advance be incorporated into all of the SWN radios? If so, at whose cost?
21. Please confirm or correct our understanding that legacy radios can, except in very limited circumstances, communicate with the SWN through the gateways only if the legacy radio is used within the geographic boundaries of the legacy system. Furthermore, is this the only limitation a legacy radio has with respect to communicating with the SWN?
22. Regarding vendor responsibility:

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TO THE OFFICE FOR TECHNOLOGY

Ms. Susan C. Zeronda

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July 8, 2005

- a. List and provide the status of outstanding litigation against and investigations of Tyco;
- b. Indicate if Tyco expects to file any additional restatements for the period of 1998 through 2003;
- c. Supply us with a copy of the policies of Tyco's policy on the 'Delegation of Authority';
- d. Provide an estimate of all potential liabilities relating to outstanding litigation and investigations, identifying and describing, what, if any, reserves have been established for these contingent liabilities; and
- e. Provide copies of Tyco's most recent credit reports by Moody's, S&P, and Fitch.

We look forward to your responses. If you have questions regarding this letter, please feel free to call me at 474-4622 or Jim Hettie at 486-3037.

Sincerely,



John G. Moriarty
Director of Contracts

vmk

OFFICE OF THE STATE COMPTROLLER LETTERS
TO THE OFFICE FOR TECHNOLOGY

ALAN G. HEVESI
COMPTROLLER



110 STATE STREET
ALBANY, NEW YORK 12236

STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

July 29, 2005

Ms. Susan C. Zeronda
Deputy Director and Counsel
Office for Technology
State Capitol
Empire State Plaza
P.O. Box 2062
Albany, NY 12220-0062

Dear Ms. Zeronda:

Re: Statewide Wireless Network #6

In its draft report, iXP Corporation, technical consultants to the Office of the State Comptroller (OSC) in our review of the contract awarded to M/A-COM for the design, build-out, operation, and maintenance of the Statewide Wireless Network (SWN), have offered the following findings and identified the associated risks. Please discuss in detail how the Office for Technology (OFT) would propose to mitigate these risks. In addition, certain of the identified risks have raised a concern within OSC regarding the responsiveness of the M/A-COM proposal to the functional requirements set out in the RFP. The concern is noted and repeated accordingly.

Proposed Technology Solution

Transitioning to New Technology

Findings

1. The OpenSky® technology implements three major technology advances beyond that found in many legacy radio systems: Trunking, digital voice modulation, and Internet Protocol packet transmission techniques.
2. Migration of legacy radio system users to these newer technologies is an area of organizational and operational risk not identified in the SWN documentation.
3. The OpenSky® technology is predominantly a software-based product compared to the legacy radio systems being replaced. Techniques of project management are affected by this technology difference.

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Risk Issues

1. The implementation from older communications systems to more modern systems, such as the M/A-COM solution, is rarely a smooth transition.
2. Transitioning from the more traditional system to a Trunking such as the M/A-COM solution can be problematic for fire operations incident command channels as to the modified methods of operation to which fire operations must adapt. The more traditional or conventional operation often provides superior service and better personnel safety (Fire ground service operates in an Immediately Dangerous to Life and Health [IDLH] environment that has unique radio requirements).
3. Digital operation, as offered in the M/A-COM solution, is different from analog operation. Public safety user acceptance has not been uniform due to issues associated with the sound of the digital voice and the manner in which conflicting signals are handled.
4. The M/A-COM solution does not have a long history from either a technology or an operational implementation perspective. Packet Internet Transmission Protocols is very new to the radio communications market. This is the IP packet technique of sending messages from one location to another.
5. A project, such as the SWN, using the new IP technology needs to be considered more by the rules of a major software system procurement rather than a traditional hardware procurement activity so familiar to those current users experienced in two-way radio communications.

Site Acquisition and Development

Finding

Site acquisition is an area in which, historically, radio systems have encountered project schedule delays and technical problems. The rigorous contract relationship between site implementation, contract performance requirements, and schedule may be difficult to maintain.

Risk Issue

The largest predictable source of project delay will be with site acquisition and availability within the contract schedule requirement. The risk is anticipated project schedule slippages and ongoing redesign activities necessitated by changing site selections.

Radio Coverage Definition

Finding

Absent further clarification, the radio coverage definition in the contract should be viewed with caution, as it may not be achievable given the number and type of proposed sites.

Ms. Susan C. Zeronda

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Risk Issue

The radio frequency coverage levels described by M/A-COM in the RFP response are of questionable interpretation. The risk is an attempt by the vendor to use coverage measurement criteria that is inconsistent with the intent of the State.

Related OSC Issue and Questions

Notwithstanding the protections afforded in the lease-purchase contract, we are now concerned whether the M/A-COM proposal was responsive to the RFP. How did OFT determine that M/A-COM's proposed solution would meet the functional specifications and was, therefore, responsive?

Pole Site Reliability

Finding

The SWN project plan does not identify a specific standard or mechanism to recover pole site failures resulting from either acts of individual vandalism or widespread catastrophic natural disaster loss.

Risk Issue

Pole sites are vulnerable to damage and loss through natural and man-made events. The risk is extended outages of the affected network area.

Pole Site Interconnectivity

Finding

The SWN documentation does not identify the criteria by which pole site interconnectivity to the associated primary site by wireless or wire line means is determined.

Risk Issue

The criteria for determining pole site interconnectivity criteria with a primary site via wireless or wire line is not documented. This can have both a negative cost impact on the State and degrade system reliability. The risk is increased cost to the State and reduced network reliability.

Pole Site User Availability Calculations

Finding

The M/A-COM system availability calculations fail to account for the means by which pole sites are interconnected to their associated primary site.

Risk Issue

The system availability analysis does not consider all the pieces of equipment in the configuration. The risk is an unrealistic perception of system reliability resulting in inadequate management attention on establishing policies and practices for network operation and planning.

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Related OSC Issue and Questions

Notwithstanding the protections afforded in the lease-purchase contract, we are now concerned whether the M/A-COM proposal was responsive to the RFP. How did OFT determine that M/A-COM's proposed solution would meet the functional specifications and was, therefore, responsive?

System Capacity

Finding

The M/A-COM system capacity calculations are based on general, statewide considerations. This may fail to support the needs of individual areas of the State.

Risk Issue

The SWN system capacity analysis is done at a statewide system level and, therefore, is too broad to be meaningful for operational use. The risk is the failure of the network to support the necessary system loads in selected areas or regions of the State.

800 MHz Re-banding

Finding

FCC required frequency re-assignments for the 800 MHz radio spectrum needs to be integrated into the SWN plan.

Risk Issue

The impact of the recent FCC Report and Order 04-168, commonly referred to as the "800 MHz Re-banding Plan," requiring the re-assignment of existing 800 MHz frequencies (Re-banding) is not identified in the reviewed contract documents.

Microwave Path Availability

Finding

Many of the sites have not been physically determined (selected), and the final design has not yet been completed since it is a part of the contract deliverable. Microwave paths for the various sites that will be selected during the final design activities are not validated.

Risk Issue

The risk is unexpected delays, since the potential exists for project delays and the revision of the schedule. The only recourse to the implementation schedule is the formal change order mechanism.

Optional Paging System Component

Findings

1. Without a specific coverage acceptance test plan (CATP) in the final technical proposal, it is difficult to guarantee the performance of the proposed paging solution.
2. The lack of a defined CATP, in addition to a proposed coverage design level that is below industry standards, may result in a paging infrastructure that does not perform to user expectations.

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3. The use of eight separate paging regions, each requiring the use of a different subscriber device, is impractical and may result in a low acceptance rate by end users.

Risk Issues

There is no formal acceptance test plan. In addition, there is a concern regarding selected radio signal energy levels and the fact that the functional design approach may not be consistent with user needs. The risk is a paging system that fails to meet user requirements and an inability to test it to an acceptable standard of performance.

Related OSC Issue and Question

The proposed coverage design level using -99 dBm is below industry standards for 6400 bit/second 4-level FLEX® encoding. The industry standard is -88 dBm. Notwithstanding the protections afforded in the lease-purchase contract, we are now concerned whether the M/A-COM proposal was responsive to the RFP. How did OFT determine that M/A-COM's proposed solution would meet the functional specifications and was, therefore, responsive?

Paging System Acceptance Testing

Finding

An acceptable coverage acceptance test plan, that verifies network performance under the most stringent conditions, should be included in the technical proposal.

Risk Issue

The acceptance testing methodologies outlined in the Technical Proposal¹ do not address a means by which the statewide paging network will be tested.

Portable Radio Compatibility with VTAC Units

Finding

Low tier subscriber units may not be able to utilize the full resources of a vehicular tactical repeater. Users should be made aware of this issue prior to any acquisitions to prevent selection of equipment that is incompatible with the agency's mission.

Risk Issue

Some proposed vendor lower-end portable radio equipment is not compatible with the in-vehicle portable repeater unit (VTAC). End users preparing budgets and ordering equipment may be unaware of this limitation and put radios into service that will not fulfill the required need. The risk is end-users purchasing equipment incompatible with the expected level of performance.

Missing Functional Feature (Scan)

Finding

The lack of mention of any type of scan/scanning functionality from the system may become a significant area of concern to end users that require such a function for operations. Without any reference to scan, or any type of similar specification, SWN may find it difficult to require a feature from M/A-COM if it is later deemed necessary.

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Risk Issue

The functional specification for a common radio equipment feature known as “scan” (the ability to monitor talk groups other than the one to which the transmitter is selected) is absent from the SWN Functional Specifications section of the RFP. The risk is user expectation of a functional capability that fails to work appropriately with no contract redress by the State.

Off System Call Options

Findings

In order to meet the functional specification for “Off System Call Options,” the use of M/A-COM’s “Scene of Incident” mode would be required, and in turn a VTAC would be needed. The use of a VTAC may be inconsistent with the mission of the users that required these enhanced off system call options.

Risk Issue

The functional requirement for “Off System Call Options” may produce operational features and limitations that are incompatible with end user requirements. The risk is user rejection of the means by which the functional specification is provided by M/A-COM.

Related OSC Issue and Questions

Some lower tier radios are not compatible with the VTAC. Notwithstanding the protections afforded in the lease-purchase contract, we are now concerned whether the M/A-COM proposal was responsive to the RFP. How did OFT determine that M/A-COM’s proposed solution would meet the functional specifications and was, therefore, responsive?

Radio Coverage Testing

Finding

The radio coverage test program is scheduled around the time of year with the heaviest foliage conditions. This constraint, combined with unanticipated schedule delays, can introduce extended project slippages waiting for the appropriate time of year to test.

Risk Issue

Radio coverage testing is scheduled for those parts of the year during which coverage mitigation conditions are the highest (e.g., maximum foliage). Schedule delays for any reason can cause this test requirement to cause significant additional project delays. The risk is unexpected project schedule delays.

Software Version Maintenance

Finding

The project plan fails to address the need to integrate the end-user software version and upgrade control mechanism into the network management and control procedures.

Ms. Susan C. Zeronda

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Risk Issue

Management regulation and control over end user software version control is not addressed in the contract documentation. These issues will be critical to successful network management. The risk is that network management problems with the end users have different and potentially conflicting versions of software.

Operational and Functional Components

Limited Scope Definition

Findings

1. The Master Agreement quantifies a statewide network on which State users, separate from the Master Agreement, may join as their individual department needs dictate.
2. Local government users may join the network in a manner similar to State users, subject to specific requirements identified in the Master Agreement.

Risk Issue

Binding the contract to essentially technical performance and schedule issues associated with the system infrastructure without addressing the unpredictability of the end user implementation significantly reduces the immediate infrastructure project's performance risks, but significantly increases the risks to the SWN's overall success and acceptance.

The Importance of End User Involvement and Agency Implementation Support

Findings

1. The OFT office verbally indicated that it is prepared to support the individual agencies in the transition to the SWN, but no documentation or detail was available that demonstrated how this would be achieved, specifically the existence of transition planning and change management activities to be conducted by the OFT.
2. There appears to be no mechanism by which end user rejection of the proposed technology's approach to meeting the SWN Functional Specification addressing a requirement may be accommodated.
3. Beyond issues related to the nature of how this new technology chooses to address end user requirements, there are traditional and pragmatic mobile radio implementation issues associated with trunked radio systems.

Risk Issues

1. The risk is the delay of end user acceptance and ultimate usage, if there exists no mechanism by which end user rejection may be accommodated.
2. Failure to develop a written and detailed management plan to migrate and transition State and non-state user agencies to the SWN will cause schedule delays, increased costs, and generate a negative image for both the OFT and the SWN.

Ms. Susan C. Zeronda

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Although this procurement is for building the infrastructure and not intended to define the programmatic needs of the end users – once the system is ready for usage, implementation issues such as the development of transition plans, talk group fleet map for each agency must be in place. Without the active involvement of the OFT, M/A-COM, Emergency Management, Homeland Security and other policy setting groups, this task will not achieve the desired outcomes.

Operational Voice/Data Testing and Acceptance Process

Findings

1. The SWN documentation does not identify a schedule or process means to address this area of concern.
2. RFP language describing end-user involvement in the test and acceptance process versus the verbal discussion of intent by the OFT is inconsistent.

Risk Issues

1. The details by which one or more functional specifications are implemented by the OpenSky® technology may cause end user objections for operational reasons. User testing may identify operational conflicts with needs and requirements that are not addressed within the scope of the contract. The risks are: conflict with the end users over system performance; conflict with the vendor or the method by which a functional specification is met; and a dissatisfied end user community.
2. The risk of inconsistent language between the RFP and the OFT's verbally stated intent is a vendor interpretation of time and effort that results in a claim for a change order.

Management Oversight and Governance Structure

There are two (2) aspects to the overall SWN initiative:

1. The project, which is the proposed contract between New York State and M/A-COM, for the SWN infrastructure; and
2. The program, which includes the M/A-COM infrastructure project and all other projects and activities that will be pursued to add users and implement the overall purpose and goal of the SWN over its multi-year life.

Management of State User Agencies and Agency Implementation Support

Finding

The detailed means by which the OFT will provide management support to migrate and transition State agencies from their legacy systems to the SWN is not documented in a written management plan. Although the OFT has indicated verbally it recognizes this and will assist these agencies, a written management plan detailing specifically what services will be provided and what resources will be needed by the agency for these

Ms. Susan C. Zeronda

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activities provides a professional level of assurance required for a large complex effort such as SWN.

Risk Issue

Failure to develop a written and detailed management plan to migrate and transition State agencies to the SWN will cause schedule delays, increased costs, and generate a negative image for both the OFT and the SWN.

Management of External User Agencies and Agency Implementation Support

Finding

The detailed means by which the OFT will provide management support to migrate and transition non-state agencies from their legacy systems to the SWN is not documented in a written management plan. Although the OFT has indicated verbally it recognizes this and will assist these agencies, a written management plan detailing specifically what services will be provided and what resources will be needed by the agency for these activities provides a professional level of assurance required for a large complex effort such as SWN.

Risk Issue

Failure to develop a written and detailed management plan to migrate and transition non-state agencies to the SWN will cause schedule delays, increased costs, and generate a negative image for both the OFT and the SWN.

Schedule Management

Finding

The SWN project tightly links the schedule to the implementation of each region. Failure of critical factors in one or more regions may result in a cascade of negative schedule consequences across the entire project.

Risk Issue

Failure of timely installation of any site, particularly a primary site, will have both an effect on the acceptance of the specific region, but will also have a cascading effect on all subsequent components of the project. Site delays in multiple regions will have a compounding cascading effect on the project schedule.

Duplicate Contract and Related Documents Language

Finding

Multiple language descriptions of identical subject areas throughout the Master Agreement and the referenced documents may not be uniformly consistent.

Risk Issue

The RFP and M/A-COM proposal response both contain duplicate language discussing or describing a specific, identical subject in more than one location in the documentation. The risk is the potential for conflicting interpretations of subject areas.

Ms. Susan C. Zeronda

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OSC Issue and Questions

Redundancies occurring within a single document are not resolved by the order of precedence clause. Has OFT confirmed that there are no redundancies within any single contract document? If redundancies have been identified, how with the conflicts be resolved?

Quality Assurance Process

Finding

The Quality Assurance process is staffed only by vendor personnel. Sole delegation of this subject to the vendor may not represent the best interests of the State.

Risk Issue

The RFP calls for a detailed Quality Assurance (QA) program, but the QA Team as proposed by M/A-COM is staffed by M/A-COM personnel. In addition, the OFT is only designated as a recipient of the QA team's work. While the definition of the information that the OFT would receive is good, the lack of the QA Team's project independence is a weakness that should be addressed in the contract between New York State and M/A-COM, as well as by OFT for all the additional projects and activities that encompass the overall SWN initiative over its multi-year life.

Training Schedule and Budget

Finding

The proposed training plans do not appear to adequately address transitioning the users from their traditional systems and ways in which they use those systems to the new technology and its impact on their existing operational practices.

Risk Issue

If the training does not bring all users up to satisfactory performance levels with this new technique of wireless communications, users will form a negative attitude as to its value and use in their operational domain, and its acceptance by the user community, governmental leaders, and the public will be negatively impacted.

Governance and Program Management

Findings

1. The documentation required for the formal structure and organization required to manage complex, large, and multi-year initiatives was not available from the OFT, including a detailed management plan on the implementation of the M/A-COM project and all the other projects and activities external to the M/A-COM contract but critical to the successful achievement of the SWN purpose and goals. One may exist, but without reviewing a document addressing the management of the overall SWN Program, including the M/A-COM contract, there is no assurance that adequate attention is given to important management issues that impact the success of the M/A-COM project and the overall SWN Program.
2. No management plan addressing the detail of how and to what level user involvement would be structured and organized going forward was provided for review.

Ms. Susan C. Zeronda

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July 29, 2005

Risk Issue

The information available on the existence of entities, such as the Advisory Council and the SWN Outreach Unit, addressed the development of the SWN Functional Specifications. No material was reviewed that addressed the detail of how and to what level user involvement would be structured and organized going forward. The involvement of end users during the M/A-COM design phase does not appear to provide for the input and participation of the end users, nor does end user involvement appear to be sufficiently provided throughout the overall Program. Given the impact of a new technology on the existing operational practices and needs of the end users, this is problematic.

Achieving the overall success desired for the SWN will be seriously jeopardized without a sufficient Governance Structure and Program Management Office (PMO) to manage and oversee the many interests, projects, and activities consistent with a large, complex, and multi-year initiative, including the involvement of the end users. The absence of documentation describing a formal Governance Structure and PMO, and a management plan for the involvement of the end users, is a serious deficiency requiring immediate attention. If none exists, it could be a major problem jeopardizing the success of the overall SWN. Specifically, the following three (3) things should be considered:

1. A Governance Structure – Policy, Operations, and Working Groups.
2. A Program Management Office (PMO) – Project Management, Change Management, Risk Management, Contract Management, Financials, Acceptance Management, Quality Assurance, Public and Intergovernmental Relations.
3. A formally written, comprehensive Management Plan detailing how all aspects of the SWN will be managed, including both the M/A-COM contract and all the activities and projects in addition to the M/A-COM contract.

Project and Program Costs

In-Building Radio Coverage

Finding

Cost to provide specific in-building radio coverage is not specified in the detail design phase of the SWN project.

Risk Issue

The risk is an unknown degree of additional project cost that will accrue to the State.

Ms. Susan C. Zeronda

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New Site Land Acquisition Costs are Borne by the State

Finding

The SWN project does not identify the criteria by which specific site selection should be on land requiring additional State expenditures versus existing State-owned land.

Risk Issue

Final site selection may impose additional land acquisition costs on the State. The risk is that the vendor transfers site acquisition costs to the State (to the limit specified within the Master Agreement) to the detriment of overall network performance.

M/A-COM Staff Availability

Finding

No mechanism is articulated by which the OFT may be assured of the appropriate and timely provision of M/A-COM OpenSky® personnel expertise as necessitated by the needs of the SWN project needs.

Risk Issue

Non-availability of the key M/A-COM project staff or the timeliness of their availability is a risk as to schedule delays and less than appropriate technical expertise being provided by the vendor.

Software Maintenance

Finding

There is an English clarity error that describes the installation of “software errors” rather than FIXES to software errors.ⁱⁱ

Risk Issue

The risk is ambiguity in the interpretation of contract meaning.

Lack of Contract Description Definition

Finding

The Master Agreement contains a reference to “Delayed Milestone Financing Acceptance Costs” that is not further defined.

Risk Issue

“Delayed Milestone Financing Acceptance Cost” is a contract issue that is not clearly defined. The risk is ambiguity as to the meaning of this phrase.

Enhanced Contract Definition

Finding

The definition of “Failure to Materially Comply” can be enhanced to better protect SWN interests.

Risk Issue

Part of the definition of “Failure to Materially Comply” uses the term “Health Safety and Welfare.” The use of the term “and” requires all three components to exist in order to be

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a material failure. The risk is a more difficult interpretation for the State to justify a failure to comply situation.ⁱⁱⁱ

OSC Comment

OFT Counsel should discuss the need to amend the contract to resolve this potential ambiguity.

Process for End User Required Changes

Finding

The SWN project plan does not identify a means or process by which end user required changes or enhancements to the OpenSky® product can be accomplished.

Risk Issue

Without a project plan that specifically addresses end user required changes or enhancements, a higher probability of change request costs exist.

Pole Site Interconnectivity

Finding

The SWN project plan does not identify the criteria by which the cost analysis of the pole site interconnectivity means is evaluated.

Risk Issue

The cost impact can be the ongoing obligations to the State for wire line connections between pole sites and their associated primary site if an ISM wireless link cannot be established.

In addition to the findings and risks raised by iXP, OSC has the following questions and concerns:

1. Below what capacity level does OFT believe the SWN is not cost effective?
2. SWN #4, question 22 (b) is restated as follows: Please advise whether there is any information, publicly available from any source including Tyco, regarding additional restatements of earnings by Tyco for the period of 1998 through 2003 that are forthcoming. If such information is publicly available, please provide the details of such information.
3. When a strategic partnership with Motorola was being discussed in July 2000, the cost of the project was estimated at \$300 million to \$750 million. Did OFT analyze why the SWN bid prices were significantly higher? Please provide details of any such analysis. If no analysis was performed, what was OFT's speculation as to the reason?
4. In SWN #5, response to question #188, it is stated that M/A-COM will build and own the "improvements" including those towers located on government-owned land. Please

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confirm that new lands needed to finalize the engineering design, so as to meet the system requirements, will be acquired in the name of the State as per the RFP.

5. OFT has advised OSC that SWN Partnership Agreements will be submitted for approval where the value of the agreement exceeds the statutory threshold. Please be advised that OSC cannot foresee a Partnership Agreement that is below \$10,000 in value. Consequently, OSC expects to review and approve all Partnership Agreements.
6. We have previously asked for a copy of the Preliminary Planning Agreement executed with the MTA. Please be advised that our review will not be concluded until we have the opportunity to review this agreement. We are also requesting a copy of the letter of intent signed by the New York City Department of Environmental Protection to operate on SWN as a full SWN partner. Lastly, please provide copies of any other agreements with local users entered into to date and samples of any "marketing" or "outreach" materials used to solicit interest in the SWN.
7. How much will be saved if SWN capacity beyond the initial 25,000 is not needed?
8. The RFP requires that radio coverage to disadvantaged locations be offered as an option to be paid for by the SWN users. According to the RFP, a bidder was to detail in the Technical Proposal its proposed engineering solution for coverage in disadvantaged locations. In addition, for purposes of bid evaluation, the bidder was to include a technical solution with associated costs for the Disadvantaged Locations Hypothetical. M/A-COM's proposal satisfies these requirements, but it does not appear that contract sets disadvantage location pricing beyond the Hypothetical. Please comment whether OFT believes the contract contains specific unit pricing that would allow a SWN user to estimate a cost for their specific disadvantaged location requirements. If not, is the SWN user expected to negotiate its own pricing with M/A-COM?
9. An estimate of all costs to the end users for subscriber equipment, in-building and in-tunnel coverage and other options should be prepared and included as a part of the procurement record.
10. As indicated above, SWN end users are responsible for the cost of subscriber equipment, disadvantaged location coverage and more. However, OFT has indicated that the SWN contract is to be used to procure these items. How does OFT envision these procurements will be carried out? Will OFT purchase and pay for these items and then be reimbursed by the SWN end users? Will SWN end users piggyback on the contract? Will end users enter into separate agreements with M/A-COM incorporating the terms, conditions and prices of the SWN contract? Will OGS adopt the SWN contract as a centralized contract?

A contract of this magnitude deserves a full and thorough review and, as we have indicated previously, we have made this agreement our highest priority. We will continue to do so. However, in light of the questions and issues raised above, we have determined that good cause exists to extend the period provided for the review of this contract. Consequently, we

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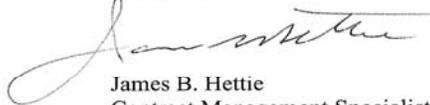
July 29, 2005

request your concurrence to extend the timeframe for OSC review for thirty (30) days after August 16, 2005 or the receipt of a response to this letter, whichever occurs later. If the responses received generate any further questions or concerns, we will notify you of those concerns as soon as possible including a notice as to any possible additional extension of time necessary to render our final determination.

Please indicate your concurrence by signing and returning one of the two copies of the signature page to this letter. If you do not agree to this additional period of time for review, please contact me so that I may make arrangements to return the contract to your office, unapproved.

If you have any questions regarding this letter, please feel free to call me at 486-3037 or, in my absence from August 1st through August 5th, John Moriarty at 474-4622.

Sincerely,



James B. Hettie
Contract Management Specialist

For the Office for Technology
Susan C. Zeronda
General Counsel and Deputy Director

Date: _____

ⁱ M/A-COM NY SWN Technical Proposal, Volume I, Part II, Section 6

ⁱⁱ NYS SWN RFP Volume I, Part 12, Article 12.21

ⁱⁱⁱ NYS SWN Master Agreement Volume I, Article 3.18 (C), page 19

NEW YORK STATE WIRELESS NETWORK PROPOSED
CONTRACT AWARD REVIEW

Appendix

D



IXP Corp., 989 Lenox Drive, Suite 124, Lawrenceville, New Jersey 08648

September 27, 2005

Mr. James Hettie
Contract Management Specialist
New York State, Office of the State Comptroller
11th Floor
110 State Street
Albany, NY 12236

Dear Mr. Hettie:

This letter confirms that the report submitted to the Office of the State Comptroller on September 16, 2005 entitled "A Review of the Proposed Contract Award of RFP No. 01-007 for the New York Statewide Wireless Network Project" is iXP's final report of its review of the Statewide Wireless Network.

Please contact me at (609) 406-7679 if you have any questions or require additional information.

Sincerely,

Phillip M. Winiarski
Senior Vice President

609.406.7600 / Fax 609.406.7699

1 Executive Summary

1.1 Introduction

1.1.1 Background

The State of New York has concluded that the existing land mobile radio emergency communications capabilities of its public safety and public services agencies must be modernized. This conclusion is driven by three key factors: (1) Homeland Security; (2) lack of interoperability of existing systems; and (3) deterioration of the State's existing communications infrastructure.

Specifically, it has been cited that a fully functional, modern interoperable wireless communications platform is needed, but not currently available within the State of New York. The deteriorating land mobile radio emergency communications systems that are currently in use are insufficient to meet the needs of federal, State, and local fire, police, emergency medical services and other emergency first responders as these needs have traditionally been addressed separately by each unit of government, with little coordination between municipalities or with other local, State or federal agencies. Recent growth, coupled with new technology and current world events have highlighted the shortcomings in the State's existing emergency services communications infrastructure and underscored this identified need for a fully interoperable, wireless communications system to protect the State's homeland security and enhance the safety of the people of New York.

As a result, the State Office for Technology (OFT) prepared and issued a competitive procurement Request for Proposal (RFP) to design and implement the infrastructure for a New York State Statewide Wireless Network (SWN), and to provide training on the new technology – RFP No.01-007 on June 3, 2002. This procurement included the following major components:

- Preliminary Engineering Design;
- Preliminary Regional Build-out;
- Final Engineering Design; and
- Construction, Operation and On-going maintenance of the SWN.

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New York State Office of the State Comptroller
NY SWN Proposed Contract Award Review

September 16, 2005

The OFT, based on the procurement process resulting from the responses received from RFP No. 01-007, has made a selection and notified the Office of the State Comptroller (OSC) of its intent to award a contract.

The Office of State Comptroller (OSC)

As required by State Finance Law, Section 112, the OSC must approve the contract before it becomes effective and binding on the State. The OSC has retained iXP Corporation to assist in their determination on whether to approve the contract awarded by the OFT. iXP was directed to identify both benefits and potential issues (risk areas) with the proposed approach, suggest ways to mitigate the identified risks, and provide other relevant technical information for consideration by the OSC in their review of the proposed contract award.

The Office for Technology (OFT)

The OFT, created in 1996 as the Governor's Task Force on Information Resource Management, was established as a means of managing technology in State government. In 1997, the Task Force officially became the New York State Office for Technology (OFT). The Director currently reports to the State's Chief Information Officer.

The mission of the OFT is to provide centralized technology services, shape technology policy, and coordinate statewide technology-related initiatives that improve efficiency for New York State government. The OFT is:

- Responsible for studying the technology needs of the State, and reviewing and coordinating its purchase;
- Authorized by statute to ensure that technology plays a pivotal role in the effective and efficient delivery of State government services. 1997 N.Y. Laws ch.430 § 28; and
- Authorized to establish, oversee, manage, coordinate and facilitate the planning, design and implementation of the State's common technology networks. N.Y. EXEC Law § 206-a(5) (McKinney 1997).

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The OFT mission is supported by the RFP which stated “... the principle goal of the SWN is to build a statewide network infrastructure sufficient to meet the needs of Authorized SWN Entities. This procurement is not intended to define the programmatic needs of the Authorized SWN Entities.” [Underline emphasis added].

In January of 2000, Governor Pataki established the Statewide Wireless Network *Project* to meet the following objectives:

- Implement a radio network that works Statewide;
- Provide interagency and intergovernmental communications (Interoperability);
- Encourage partnerships with local governments;
- Minimize the proliferation of towers; and
- Provide a network that is affordable for the taxpayers.

The mission of the SWN is to develop and implement an integrated statewide wireless radio network to provide a common communications platform for State public safety and public service agencies, and enhance interoperability.

This network will be a single, common radio infrastructure that will simultaneously meet the needs of individual State and local public safety/public service agencies by providing state-of-the-art voice and data wireless communications for up to 65,000 State, federal and local users.

Methodology Summary

The approach followed in the development of this report began with a validation of findings. Initially, contract and contract related documentation were reviewed and analyzed to form the baseline of facts.¹ These facts were then verified and expanded upon through written questions and interactive discussions with the OFT, NYSTEC (The New York State Technology Enterprise Corporation), and the OSC.

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The information collected was used to identify both the benefits and risks in four categories:

1. Proposed Technology Solution;
2. Operational and Functional Components;
3. Management, Oversight and Governance Structure; and
4. Project and Program Costs.

While some benefits and risks cross multiple categories, for purposes of this report, the benefits and risks are discussed in the category associated with the strongest impact. A risk mitigation strategy was then developed for each of the identified risk areas.

A traditional method of determining a technology project's "success" relies upon the required deliverables as defined by the acceptance criteria within a specific schedule and budget. iXP's evaluation experience for an undertaking of this size and complexity, however, dictates a broader view that includes the technology and the larger context in which it exists. Without consideration of the larger context (*Program*) the technology *Project* alone risks being misaligned with the State's larger purpose and goal, i.e., an enhanced communication system that provides additional capabilities and interoperability serving State, local, and federal public safety responders. This broader view of "success" includes:

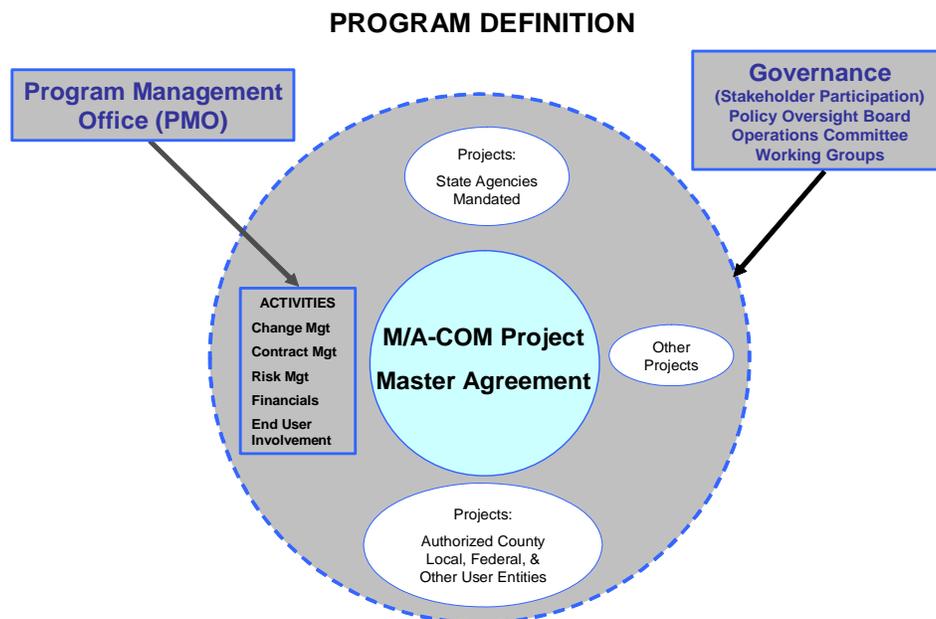
- The M/A-COM contract (the technology Project);
- All of the activities external to the M/A-COM contract requiring coordination, governance, and oversight over the multi year life of the SWN (the larger context Program); and
- The achievement of an adequate satisfaction level throughout the multi year life of the Program from all the intended end users, who are the ultimate judge of success or failure of the SWN (Will they come?).

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The following graphic (Figure 1.0) depicts the broader or Program view and the relationship of the Program and Project activities of the SWN as an integrated whole.

Figure 1.0 Program Definition



This broader view is required to assess not only the technology risks but also the risks associated with achieving the State's overall public safety and homeland security goal.

Organization of the Report

This Report is divided into six (6) Sections. Section 1.0 is this Executive Summary. Section 2.0 provides a more detailed description of the methodology used in developing this Report. The detail describing the risks, benefits, and risk mitigation strategies are found in Section 3.0 (risks),

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Section 4.0 (benefits), and Section 5.0 (risk mitigation strategies). Within these three (3) Sections, the specific content addressed is organized consistent with the four (4) categories described above in our methodology. Finally, Section 6.0 provides an overall conclusion outlining specific actions the Comptroller should consider.

Going Forward – Organizing for Success

A significant amount of effort has been expended by the OFT to define the Statewide Wireless Network (SWN) technology initiative. This initiative has been defined as a single, integrated public safety land mobile radio communications network for state and other governmental entities that operate within the state's geographic borders (i.e. the SWN is a network of systems). This effort has resulted in the selection of M/A-COM utilizing their OpenSky® solution as the provider of the infrastructure. The OFT effort has successfully:

- Assessed the current legacy radio systems;
- Determined that a new system was required;
- Researched best practices, and the technology and financial options best suited for New York State;
- Coordinated user input necessary to develop the functional requirements for a statewide system;
- Developed a strong lease/purchase approach that protects the financial investment of the State;
- Developed an RFP; and
- Conducted the procurement process.

In order to effectively implement the SWN technology initiative one must understand the importance of the larger context within which it exists, what constitutes overall success, and how to manage to that success. Managing to success includes: Selecting and implementing a trusted technology solution, ensuring effective end user involvement, and effective governance and management.

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Understanding the Larger Context in Which the SWN Exists

The reasons and rationale for SWN were stated in subsection 1.1.1 (Background). Based upon that Background, the scope of the SWN technology *Project* involves developing and implementing an integrated statewide wireless radio network to provide a common communications platform and enhanced interoperability for:

- Routine public safety incidents, such as the ones most often occurring within a single jurisdiction;
- Large scale manmade and natural disasters, which often are regional and multi jurisdictional in nature; and
- Added homeland security and anti terrorism protection, which require a higher level and more sophisticated State, county, local, and federal inter agency coordination since the terrorism events between 1992 and September 11th.

The growing emphasis on intra and inter agency real-time communications will result in the SWN technology initiative having a high public profile with significant user responsibilities as well as public, political, and media interest. These interests include anticipated communications benefits for law enforcement, fire, emergency medical, and emergency management responders from multiple jurisdictions at the State, local, and even federal levels within New York State. If implementation is delayed or problematic, it will be difficult to accept that the anticipated communications benefits have not been realized, especially those benefits that should enhance inter agency and multiple jurisdictional coordination given the State's two (2) plus Billion dollar investment and promotion of the SWN technology initiative.

Managing to Success

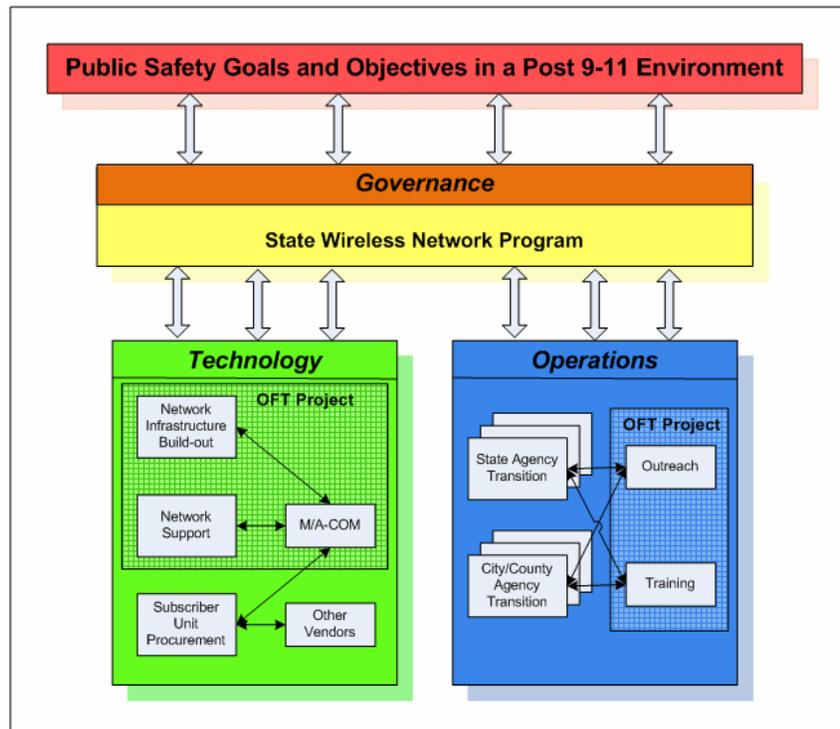
Based upon the above, how does the State manage to the overall success required while mitigating the many risks that exist with any large complex initiative such as the SWN?

The below diagram depicts the structure, role, and relationships of the components that iXP believes are required to effectively govern and manage the SWN technology initiative to a

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successful outcome. This view takes a *Program* approach versus only a technology *Project* approach for implementing this initiative.



The *red* area depicts the overall public safety and homeland security goal for which the SWN Program was intended to serve. Everything below this area must be constantly aligned to support this goal.

The *orange and yellow* areas depict the responsibility of the Governance body and the scope of the Program, which spans the M/A-COM Contract, the other technology aspects, and the operational aspects of the initiative. The Governance body and the *Program* is the single point of accountability for the success of the overall *Program*. *Program* management activities include such major components as change management, contract management, risk management, financial management, and user involvement and satisfaction of the overall SWN initiative.

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The *green* area depicts the technology components of the SWN initiative, including OFT's perspective of the SWN Infrastructure *Project*. It also includes the other technology components not included in OFT's view of their responsibility, such as the purchase of subscriber units.

The *blue* area depicts the operational components of the SWN initiative, which the OFT views as the user's responsibility. The ultimate acceptance of the SWN solution will rest with these users. This area also depicts outreach and training activities that OFT does view as their responsibility. iXP believes, however that these activities have not gone far enough to incorporate the larger Program view.

Given the perspective above, iXP's overall findings from the assessment indicates three (3) fundamental points are required to manage a successful implementation of an overall SWN *Program*. It is important to emphasize that all three components must function in concert with one another or the SWN initiative will lack focus and direction and, therefore, not be responsive to the State's overall public safety and homeland security goal.

1. **A Trusted Technology: *Ensuring a Sound Technology Solution That Offers Significant Benefits Over the Legacy Solution and Addresses the Specific Communications Needs of Its Users.***

The OpenSky® solution is technically sound and represents the direction in which the industry is moving. This is the critical link enabling the other communications systems to utilize the SWN as an integrated wireless network serving State, local, and federal public safety and homeland security needs.

The solution, however, does not possess a rich history of implementation and is a significant change from the legacy technology currently used by New York public safety personnel. As such, its success is directly dependent upon how effectively user operations are supported through the implementation of that technology. This is especially critical when transitioning from a legacy technology that provides specific features and functions and a comfort level consistent with the existing operational practices, to a newer technology that could significantly change existing communications protocols.

The benefits to be gained from the transition to the OpenSky® solution will be lost unless there is an effective marriage between the needs of users and the implementation of the

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technology. Two examples are the requirements of scan and in-building coverage. These are critical to the real life requirements of first responders and those who work on the “street”.

2. **Effective User Involvement and Participation: *Securing User Acceptance and Satisfaction during both the SWN Infrastructure Phase and the Follow on Phases***

End user involvement and participation as the OFT’s SWN *Project* is currently structured (including providing the Outreach support and training) is not sufficient to ensure consideration of the unique ways in which each agency applies the technology in real life incidents, and how the new OpenSky® solution will impact their operations.

The roles of public safety entities at the federal, state, county, and local levels are quite different, as is how they communicate and respond to emergencies and incidents. There are also differences between the communication needs of police, fire, emergency medical services, command, and executive decision makers.

It is critical, therefore, to obtain user input, address user concerns, and incorporate user participation during all aspects of this process. This includes the infrastructure design, the development of specific agency and user’s requirements, and the transitions of each agency to the SWN. This process will clearly identify how user differences will be affected by the new OpenSky® solution. It will also provide the agencies, users, and their jurisdictions with confidence that the new solution will meet their specific operational needs, be worth the investment, and enable the State to effectively manage the successful transition of the agencies and users to the new solution.

3. **Effective Governance and Management: *A Program versus Project View – Governing and Managing All of the Interests, Projects, and Activities***

The OFT role is directed at supporting the M/A-COM contract to design and implement the SWN infrastructure *Project*. It does not incorporate the larger *Program* of projects and activities that are necessary to accomplish the State’s public safety and homeland security purpose and goal. The absence of a single point of accountability that provides the governance and management structure needed to oversee all of the interests, activities, and projects involved in the SWN initiative is a risk to the success of the SWN.

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The OFT role to deliver the technology infrastructure *Project* should be accompanied by the assignment of the larger *Program* to another appropriate State entity. This will ensure that the larger *Program* view of all the interests, activities, projects, and larger public safety purpose are addressed and managed effectively. This also enables the OFT to effectively concentrate on and deliver the infrastructure project supported by the M/A-COM contract.

How well the State understands these fundamental points, and how effectively it organizes the SWN technology initiative and the larger Program to address them will determine the success of both the SWN technology *Project* and the State's goal for an integrated statewide radio network serving State, local, and federal public safety agencies.

Findings

The Report identifies specific risks, benefits, and risk mitigations strategies in Sections 3.0, 4.0 and 5.0. The subsections below summarize the main points of how these risks and strategies should be addressed by both the OFT (from a technology perspective) and the State (from a *Program* perspective).

The Fundamental Risk

The OpenSky® solution is a fundamentally sound technology on which to base a statewide wireless network infrastructure. The major risk to the success of the SWN technology initiative, however, is the lack of a State entity that looks beyond just the infrastructure project and recognizes what must be done to achieve the State's larger public safety and homeland security goal.

The specific risks associated with a technology oriented initiative are the operational impacts to the users transitioning from legacy technology on which they have been reliant to the new solution. These risks are best addressed by a consistent and organized input from users during all phases of the SWN design, and in the structured participation of all the key interests in an overall *Program* approach.

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It is unrealistic to believe that users must adapt their business practices to technology or that new technology cannot be adapted to user requirements. In addition, it is unreasonable to assume that user operations, practices, and processes do not need review and change. The process should be a mutual and interactive one between the solution provider and users with the State's *Program* managing the change management process. Anything less is unacceptable, as it will create unworkable gaps between the technology and user acceptance.

In the event that the M/A-COM infrastructure solution is not accepted by the OFT or by the end users, it will be politically unacceptable to announce that the State's financial investment has been protected, but that no new radio system is online to protect the safety and security of New York State residents as envisioned by the State's goal for an integrated public safety network for State, local, and federal public safety users.

The Benefits and Challenge of the Proposed Technology Solution

M/A-COM's OpenSky® technology solution is fundamentally sound. OpenSky® utilizes an AMBE+ (Advanced Multi-band Excitation plus) vocoder, a TDMA (Time Division Multi-Access) air interface, and a packet-switched IP (Internet Protocol) backbone for switching both voice and data. Use of such a commonly used protocol greatly increases open standards equipment availability of the network layer. This eliminates proprietary restrictions that may interfere with equipment needs and growth. In addition other benefits of the OpenSky® solution are:

- Scalability – Additional sites can easily be added to the network, and are not limited to the constraints of manufacturer-specific controllers or other proprietary hardware as found in other networks. The addition of another site in an OpenSky® network is functionally identical to adding 10 or 100 sites.
- Interoperability – The OpenSky® solution with open-ended scalability, and the availability of the NetworkFirst interoperability gateway product, enables the end user to design a flexible and robust interoperability network. Gateways can provide links to traditional communications systems, the public telephone network, all trunking systems, and other interfaces.

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- Easier Software Maintenance and Updates – The OpenSky® network allows the end user to receive complete software updates to the operating system of the subscriber unit over the air. Users are not required to return equipment to a depot facility, which greatly reduces downtime and inconvenience. In the event that issues with software are discovered, they can be corrected with minimal effort or intervention from the end user.
- User Configurability – The flexibility of the design allows individual user configurations of system access, features and capabilities. Profile and configuration changes are saved in the network and follow the user throughout the system, regardless of the subscriber unit (for example mobile and portable radios) that they may be using.

One of the major challenges, however, is that this IP architecture is quite different from traditional radio communications. The OFT should review and consider the risks identified in Section 3.0 and incorporate them into their existing risk management plan. These include important items such as: Scan, Off System Call Functions, Optional Paging, Disadvantaged Area Coverage, Pole Site Reliability, Pole Site Interconnectivity and User Availability Calculations, Portable Radio Compatibility with VTAC Units, and Radio Coverage Testing time criteria.

Operational and Functional Components

The ultimate success of the Program will be measured on user acceptance and transition to the new SWN. This is the most critical aspect in attaining the State's goal and, therefore, needs the highest priority of attention. All risks impacting user operations and user acceptance must be addressed through active user involvement throughout the Program's lifecycle.

The proposed OpenSky® IP technology solution has implementation considerations that are not found in traditional based mobile radio systems. While a different technique of meeting a requirement is not necessarily wrong, it does significantly influence the manner in which the end user is exposed to and trained in implementation details.

Some of the major issues supporting this requirement include Limited Scope Definition (only providing the wireless infrastructure on which users may join the network but not the responsibility for the specifics of their participation), End User Input and Agency

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Implementation Support, and Operational Voice/Data Testing and Acceptance Process. These are addressed in more detail in Sections 3.0 and 5.0

As such, the *Program* should be an operations driven initiative with the technology being a critical support element.

Management, Oversight and Governance Structure

Management, oversight, and governance are critical success factors to attaining the State's desired goals. The two (2) major aspects of these factors are:

- The *Project*, which is the proposed contract between New York State and M/A-COM for the SWN infrastructure; and
- The *Program*, which includes the M/A-COM infrastructure project and all other projects and activities that will be pursued to add users and implement the overall purpose and goal of the SWN over its multi-year life.

PROJECT MANAGEMENT

From the SWN technology *Project Management* perspective, the structure of the M/A-COM contract for this procurement provides protection to the State in terms of proven system performance prior to any payments. The tightly defined relationship between the vendor, the product to be provided, and the State management relationship is sound. The OFT responsibility to manage the vendor in delivering a trusted wireless network infrastructure is critical to the State's overall goal.

The OFT has committed to the continued use of the Advisory Councils, the SWN Outreach Unit, the Coordinating Committee, and OFT's staff to work with users and other pertinent interests, to seek their input, provide status reports, and involve them in the process throughout the project's life is crucial.

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Specifically the risks and risk mitigations strategies documented in Sections 3.0 and 5.0 cover issues such as: Management of State User Agencies and Agency Implementation Support, Management of External user Agencies and Agency Implementation Support, Schedule Management, Potential Duplicate Contract and Related Documents Language, Quality Assurance, Training Schedule and Budget.

PROGRAM MANAGEMENT

In terms of *Program Management*, the overall success of the SWN is directly related to its ability to effectively manage, oversee, and govern the larger picture of projects and activities of the *Program*, from planning, to establishing the infrastructure, to implementing the last end user's transition to the SWN, and to long term maintenance.

A more formal and effective Governance Structure and Program Management Office (PMO) sufficiently structured, organized and staffed is required to ensure success. Without such, the *Program* is in jeopardy no matter how state-of-the-art the technology solution may be. The elements of such a Governance Structure and PMO include, but are not limited to:

1. A Governance Structure – Policy, Operations, and Working Groups
2. A Program Management Office (PMO) – Project Management, Change Management, Risk Management, Contract Management, Financials, Acceptance Management, Quality Assurance, Public and Intergovernmental Relations.
3. A formally written, comprehensive Management Plan detailing how all aspects of the SWN will be managed, including both the M/A-COM contract and all the activities and projects in addition to the M/A-COM contract.

A *Program* approach that takes a holistic view of both technology and operations will promote accountability, coordination, single point of responsibility, risk/change management, and quality assurance for the mutual success of both the technology project and the State's public safety and homeland security goal.

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Project and Program Costs

Specific costs for the *Program* cannot be accurately estimated at this stage since the implementation is not thoroughly defined and the *Program* approach has not yet been structured.

Current technology *Project* costs are estimated at \$2 Billion plus over a 20 year life. Based upon iXP's review of the cited documentation these appear reasonable for the infrastructure project.

Potentially all the risks identified in this Report can have a schedule and/or cost impact. Delays, omissions, and the failure to involve end users in design, acceptance, and implementation matters all impact cost. Further discussion of these cost impacts are in Sections 3.0 and 5.0, including: Disadvantage Area Coverage Considerations, New Site Land Acquisition Costs, M/A-COM Staff Availability, Software Maintenance, Lack of Contract Description Definition, Enhanced Contract Definition, Process for End User Required Changes, and Pole Site Interconnectivity.

Conclusions

A significant amount of effort has been expended by the OFT to define the Statewide Wireless Network (SWN) technology initiative. This initiative has been defined as a single, integrated public safety land mobile radio communications network for state and other governmental entities that operate within the state's geographic borders (i.e. the SWN is a network of systems).

This effort has resulted in the selection of M/A-COM as the provider of the OpenSky® solution. The OFT effort has successfully:

- Assessed the current legacy radio systems;
- Determined that a new system was required;
- Researched best practices, and the technology and financial options best suited for New York State;
- Coordinated user input necessary to develop the functional requirements for a statewide system;
- Developed a strong lease/purchase approach that protects the financial investment of the State;
- Developed an RFP; and
- Conducted the procurement process.

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Technology is, however, only one of three major components needed to achieve the State's goal as originally intended. Governance and Operations are the other two.

The iXP Report identifies a series of risks associated with this large and complex multi-year effort. These risks have been organized into the three major components identified above:

1. Technology: Such as Disadvantaged Area Coverage Requirements (In-building, underground, and tunnel), Off System Call Options, Optional Paging System Coverage Design, and Scanning Requirements.
2. Operations: Limited Scope Definition (only providing the wireless infrastructure on which users may join the network but not the responsibility for the specifics of their participation), End User Input and Agency Implementation Support, Operational Voice/Data Testing and Acceptance Process.
3. Governance: A single point of responsibility for decision making and all aspects of the overall SWN *Program*, including a PMO, Independent QA, Change Management, Risk Management, and the participation of a cross representation of the SWN interests and users.

These types of risks are to be expected in a large, complex, multi year initiative transitioning from the planning phase to implementation. Although expected, risk identification is a required and constructive step in the development of proactive mitigation strategies geared toward a successful implementation. The majority of mitigation efforts focus on operations where setting user expectations and acceptance is critical. This can only be accomplished by creating a supportive transition environment throughout the implementation lifecycle where all users can identify and resolve issues from an overall "State Goal" perspective.

Based upon the Report's findings, iXP recommends that the M/A-COM Contract proceed supported by a two-fold approach that will create the desired transition environment from both an operational and technical perspective. Specifically, iXP recommends:

1. The OFT should continue their technology role and manage the M/A-COM contract and the statewide SWN technology *Project*. The OFT should take the following actions:

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- a. The *Project*-related items identified in the Risk and Associated Mitigation Strategies Sections of the iXP Report should be reviewed and considered by the OFT, and a *Project* Risk Management Plan developed describing each risk and the strategy for addressing its mitigation.
 - b. The OFT, with assistance from M/A-COM, should conduct educational sessions for all potential users under the OFT's management. The sessions should explain in detail how the new technology works and how it may impact their operations, beyond the functional level of requirements already established.
 - c. The OFT should develop a process that provides user input in the design phase of the infrastructure process, during the review of the features and functionality of the system technology, and in the development of the acceptance tests. The user involvement should be significant enough to provide M/A-COM with critical input as to how the users will "use" the technology in field situations, and give the users a heads up as to how they may need to change the way they use the technology.
2. The State should implement a *Program* with Governance and Management operations external to the OFT. This Program Management Office (PMO) would be responsible for the larger Program and manage all of the processes, activities, risks, and projects required to meet the State's Goal. A suggested model for this is included within the Report's appendices. These efforts would include:
- a. Coordinating all State, local and federal end user participation and input required throughout the life of the *Program* including the infrastructure project and from the user community.
 - b. Developing and executing a comprehensive *Program* Management Plan that includes both the infrastructure project and all the other activities and projects that will be required to implement the overall Program. The OFT *Project* Management Plan described above should be incorporated into the *Program* Management Plan, and further overseen by the PMO.

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- c. Developing and executing a Risk Management Plan based upon the risks and risk mitigations strategies identified in the iXP Report.
- d. Developing a Change Management Plan that will engage all SWN authorized entities in defining and establishing the transition environment including a forum where user
- e. processes can be clearly defined and holistic decisions can be made to accommodate both those processes and the OpenSky solution.
- f. Developing and managing the Quality Assurance Program that focuses on the infrastructure project, definition of the transition environment, and will be inclusive of all future projects necessary to implement the SWN as a true statewide system.

By taking the above actions, the State is proactively engaging in a *Program* that puts the critical components in place to ensure the implementation of a trusted technology, program accountability, and user acceptance, and therefore, the attainment of both the State's public safety and homeland security goal and the stated SWN mission to develop and implement an integrated statewide wireless radio network providing a common communications platform for State public safety and public service agencies, and enhance interoperability. A network that will be a single, common radio infrastructure that will simultaneously meet the needs of individual State and local public safety/public service agencies by providing state-of-the-art voice and data wireless communications for up to 65,000 State, federal and local users.

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Determination of Bid Protest (SF-2005147)

OFFICE OF THE STATE COMPTROLLER
STATE OF NEW YORK

In the Matter of the
Bid Protest filed by Motorola, Inc.
with respect to the procurement of a contract for
the New York State Statewide Wireless Network
by the New York State Office for Technology
Contract Number C000102

Determination
of Bid Protest
SF-20050147

September 19, 2005

This Office has completed its review of the above-referenced procurement conducted by the New York State Office for Technology (“OFT”) and the bid protest filed by Motorola, Inc. (“Motorola”) with respect thereto. As outlined in further detail below, we have determined that the grounds advanced by the protestor are without sufficient merit to overturn the procurement, and that the procurement was fair and was conducted in accordance with law. As a result, we hereby deny the protest.

BACKGROUND

Facts

On June 3, 2002, OFT issued an RFP for competitive proposals for the design, construction, network operations and maintenance of the New York State Statewide Wireless Network (“SWN”). The SWN is intended to operate as an integrated statewide wireless radio network to provide a common communications platform for State public safety and public service agencies.

Upon approval of the New York State Office for Technology, the network will include local governments at the option of the locality. A key goal of the system will be achievement of “interoperability”, i.e., the ability of public safety agencies to talk to one another via radio communications systems, and to exchange voice and/or data with one another on demand when needed.

The SWN is intended to enable public service and public safety entities operating within the State of New York to better respond to and protect the citizens of New York State by permitting immediate coordination of public safety resources in emergency situations.

The SWN project calls for three alternative levels of partnership intended to maximize cooperation among the State and local government entities:

1. Full system partnership, whereby a local government would adopt the SWN as its fully integrated operational radio communications network. The locality would replace its existing infrastructure and migrate to the SWN as its primary radio communications network.

2. Interface/gateway partnership, whereby the local government would maintain its existing local radio infrastructure and systems, but utilize a gateway to interface with the SWN network. This level of partnership would be favorable for localities that do not have an immediate need to replace their existing radio systems.

3. Infrastructure partnership, which is a basic, entry-level partnership. The State and a locality participating in this type of partnership would each maintain its separate radio communications network, but share infrastructure to the extent practical, such as by co-locating antennas at physical sites.

In accordance with State Finance Law Section 160(7) which provides, *inter alia*, that technology is to be deemed a service for purposes of the procurement laws, the RFP provided that the method of award would be based on “best value”.¹

This document is intended to provide the requested briefing for use by both the Assembly and Senate, which must play a critical role in continued oversight of this important project. It also should prove useful to the current Executive administration and through the anticipated transition to a new Executive.

Development of the infrastructure for the SWN alone is expected to cost New York taxpayers more than \$2 billion dollars. Hundreds of millions more will be spent by State and local government agencies to acquire equipment to access the Network. The current commitment will drive decisions for at least two decades. The Office of the State Comptroller is committed to vigilant oversight of the SWN program and its finances, and will work with both the Legislature and Executive to help ensure the program achieves its goals to promote the health and safety of New Yorkers.

The RFP described the administrative, technical and financial requirements that the proposal was to contain. The RFP also set forth the relative weight of the administrative, technical and financial proposals to be used in determining the award. The weighting was to be performed as follows:

1 st Level:	<i>Administrative Proposal Responsiveness of Proposal</i>	Pass/Fail
2 nd Level:	<i>Technical Proposal</i>	70%
3 rd Level:	<i>Financial Proposal</i>	30%

The administrative criteria required to be included in the proposals included:

- Formal offer
- Bidder eligibility certification
- Subcontractor declaration
- Bidder and key subcontractor certifications
- Conflicts of interest disclosure
- Financial viability submission
- Bid bond
- Letter of credit
- Contract administration team information
- Environmental preservation plan

The technical criteria required to be included in the proposals included:

- Proposed technical solution
- Experience and references
- Project implementation team information
- Subscriber equipment design architecture description
- Strategy for providing non-proprietary, open competitive environment for acquisition of system compatible subscriber equipment
- Siting plan
- Radio frequency plan
- Network technical design
- Network operations and maintenance
- Proposed migration plan

¹ See State Finance Law Section 163(1)(j) (defining “best value” as the “basis for awarding contracts for services to the offerer which optimizes quality, cost and efficiency, among responsive and responsible offerers.”)

- Paging services
- Environmental preservation plan

The financial criteria required to be included in the proposals included:

- Financial proposal identifying all services and products, and applicable rates and fees
- Guaranteed not-to-exceed price for each financial proposal category
- Description of lease with option to purchase payment structure
- Financing and amortization assumptions and costs
- Supporting details, assumptions, and calculations for pricing
- Details with respect to training, ongoing operations and maintenance costs
- Pricing data for subscriber equipment
- Pricing by category for system operations centers
- Information regarding optional services and equipment listed in the RFP
- Confirmation that proposal not include costs for land acquisition or certain taxes

In addition to the evaluation criteria identified in the RFP, prior to receipt of the proposals, OFT developed a methodology for evaluating the proposals based on the administrative, technical and financial criteria.

Five proposals were received pursuant to the RFP: three from M/A-COM, Inc. (“M/A-COM”) and two from Motorola. OFT disqualified the Motorola proposals from consideration for award, finding that they were non-responsive because they included numerous terms which materially deviated from the RFP requirements.

Notwithstanding the fact that OFT had found both Motorola proposals to be non-responsive, OFT allowed both Motorola bid proposals to proceed through the normal bid evaluation process for the purpose of obtaining a “best value” score, in order to see how the Motorola bid proposals would have been ranked had they been deemed responsive. In the interest of maintaining fairness and objectivity in this process, OFT withheld notice of the non-responsiveness determination from the technical evaluators until after they had finished their initial scoring process.²

The RFP called for the project to be structured as a capital lease, with the State to have the option to purchase the project infrastructure at any time during the contract’s twenty year term. The RFP required the contractor to be solely responsible for financing the cost of construction for each region of the project, with the State to have no payment obligation until after a region had been built and the State had accepted the region, following completion of acceptance and conformance testing. Thus, the contractor was to assume responsibility for the design and development costs associated with the project.

² If either of Motorola’s proposals had received the highest “best value” score, presumably at that time OFT would have notified Motorola that it was disqualified.

Motorola altered this payment structure, from payment upon completion of regional buildouts and successful conformance testing by the State, to interim milestone payments to Motorola prior to completion and acceptance by the State. The Motorola proposals were premised on the State using a public entity to assume responsibility for obtaining project financing, as the conduit/issuer of a tax-exempt bond issue, and assumed action on the part of the State Legislature to effect this financing model. Under this approach, Motorola would divest itself of ownership of the project infrastructure by sale to the public conduit.³

OFT found that this financing model proposed by Motorola would shift the risk of securing project financing away from the proposer and solely to the State. Further, OFT determined that this model would negate the State's rights to terminate the project at any time without further liability under the conditions provided for in the RFP, since principal and interest on the bonds that would be issued to finance the project would still be owed if the project were terminated short of full completion. OFT also determined that inherent in this financing model was the assumption by the State of the risk of interest rate fluctuations prior to the State's entering the market, with the result that the buy-out schedule furnished in the bid would not truly be a not-to-exceed buy-out amount, as had been required in the RFP.⁴

Scoring of each of the five proposals submitted was conducted by the OFT evaluation team, with the following results:⁵

³ As noted above, the SWN project is structured as a lease with an option to purchase. The RFP provided that "[f]inancing to support the design and development costs are the responsibility of the Prime Contractor". (RFP Volume # 1, Section 12.18(A)(5), p. 111). M/A-COM, as prime contractor, will guarantee all contractual obligations of its subcontractors. In addition, TYCO International, Ltd., M/A-COM's parent company, will guarantee all of M/A-COM's obligations under the contract.

⁴ In its first bid protest, filed with OFT on May 21, 2004, Motorola contended that OFT had acted arbitrarily and capriciously in finding that Motorola's financing model was non-responsive in a material respect. (Motorola, Inc.'s Bid Protest of OFT Solicitation [01-007], pp. 13-14). As this issue is not addressed in the Motorola protest document filed with this Office, it appears that the protestor has abandoned this argument. As part of its contract review process, this Office would normally independently assess a determination by an agency that a proposal was non-responsive, but in this case, since neither Motorola proposal attained the highest score, such a review was not necessary.

⁵ The scores represented the total points received by each proposer, based upon its overall evaluation scores. While the RFP required proposers to submit a "Mandatory Bid Proposal" satisfying all of the RFP requirements, it also permitted proposers to submit "Alternative Approaches" to the stated requirements as long as they did not constitute material deviations from the stated requirements. (RFP Volume # 1, Section 2.11, p. 22).

DETERMINATION OF BID PROTEST
(SF-2005147)

	Motorola Mandatory (with financing option)	Motorola Alternate	M/A-COM Mandatory	M/A-COM Alternate	M/A-COM Alternate
Overall Score	565.9	578.6	950.1	907.2	920.3
Rank	5	4	1	3	2

OFT determined that the M/A-COM Mandatory Bid Proposal offered the best value, and awarded the contract to M/A-COM in April 2004.

On May 19, 2004, the New York State Assembly held a public hearing on the SWN project. The Assembly heard testimony from representatives of OFT, Motorola, M/A-COM and other organizations. OFT and Motorola also provided the Assembly with supplementary documentation.

Following execution of a contract with M/A-COM, OFT forwarded the contract to the New York State Attorney General's Office for approval as to form. Such approval was provided on February 16, 2005, and the contract was formally submitted to OSC for review on February 17, 2005, pursuant to State Finance Law Section 112.

Motorola filed its bid protest appeal with the Comptroller on February 25, 2005. The relief requested by Motorola is not a determination that the contract for the SWN should be awarded to it, but rather, that the Comptroller disapprove the award of the contract to M/A-COM.

Procedures and Comptroller's Authority

The Comptroller is required by Section 112 of the State Finance Law ("SFL") to approve State agency procurement contracts which exceed \$15,000 before such contracts become effective. Because a contract has already been signed by OFT, the Comptroller has reviewed the bid protests filed by Motorola as part of his review of the contract award.

In determination of this protest, the following correspondence/submissions from the parties were considered:⁶

⁶ It should be noted that rather than labeling each of its six submissions as a separate protest (as they were treated by OFT), Motorola characterized its later submissions to OFT as supplements to earlier ones, apparently to deflect OFT's argument that Motorola's submissions were filed on an untimely basis. Since we have concluded that denial of the bid protest filed with OSC should not be predicated on a finding that Motorola's objections were presented to OFT too late, we need not undertake a detailed review to determine whether Motorola's multiple submissions should be regarded as separate protests or as supplements to earlier protests.

- Motorola Protest Memorandum, dated May 21, 2004 (1st Motorola Protest)
- Decision of the SWN Project Director, dated August 16, 2004
- Motorola Notice of Appeal, dated September 7, 2004 (Appeal No. 1)
- Motorola Protest Letter, dated June 29, 2004 (2nd Motorola Protest)
- Decision of the SWN Project Director, dated October 1, 2004
- Motorola Notice of Appeal, dated October 20, 2004 (Appeal No. 2)
- Motorola Protest Letter, dated July 16, 2004 (3rd Motorola Protest)
- Decision of the SWN Project Director, dated October 12, 2004
- Motorola Protest Letter, dated August 6, 2004 (4th Motorola Protest)
- OFT Notification to Motorola in response, dated September 20, 2004
- Motorola Protest Letter, dated October 20, 2004 (5th Motorola Protest)
- OFT Notification to Motorola in response, dated November 19, 2004
- Motorola Protest Letter, dated November 4, 2004 (6th Motorola Protest)
- OFT Notification to Motorola in response, dated December 17, 2004
- Decision of the Chief Administrative Officer of OFT, dated January 24, 2005
- The Memorandum of Motorola, Inc. to Supplement the Procurement Record Regarding Award of Contract to Construct the New York Statewide Wireless Network Pursuant to New York State Office for Technology RFP 01-007 (received by the Comptroller on February 25, 2005, and referred to hereinafter as the “Motorola Memorandum”), the exhibits to the Motorola Memorandum, and the supporting affidavit of Coyle Schwab, a Vice President of Motorola, dated February 24, 2005 (referred to hereinafter as the “Schwab affidavit”)

M/A-COM was provided with a copy of the protest which Motorola filed with OSC. While OFT afforded M/A-COM the opportunity to submit papers responsive to the protest, M/A-COM declined to do so.

Protesting Party

The protestor, Motorola, is one of two vendors which submitted a proposal in response to the RFP.

ANALYSIS OF BID PROTEST

PROTESTOR’S POSITION

Motorola’s protest is based upon the following allegations:

- The RFP was deeply flawed and resulted in a procurement that violates State standards. In this connection, Motorola contends:
 - The massive cost of the project far exceeds OFT's cost predictions.
 - The wide discrepancy in cost between the two proposers' bids demonstrates that the RFP must have been flawed.
 - The RFP resulted in inadequate competition, with only two companies submitting bids.
 - The RFP requirements were overly rigorous.
 - The State does not currently possess the licensed wireless spectrum required for the SWN and cannot obtain such spectrum until 2009 at the earliest.
- There are serious questions as to whether the contractor selected by OFT is capable of meeting the standards set forth in the RFP. In this connection, Motorola contends:
 - The technology solution offered by M/A-COM, unlike that proposed by Motorola, is unproven.
 - OFT failed to give due consideration to Pennsylvania's experience with the use of M/A-COM technology in connection with Pennsylvania's statewide wireless network. The Pennsylvania project has experienced significant delays and cost overruns, raising questions as to M/A-COM's ability to complete the New York SWN.
 - Deployment of the SWN is likely to have enormous environmental impact, especially in some of the most sensitive areas of the State.
- OFT has materially altered or ignored the terms of the RFP. In this connection, Motorola contends:
 - OFT reversed an RFP requirement that proposers be responsible for compliance with local zoning laws.
 - OFT failed to finalize the SWN contract within sixty days of the notice of award as required by the RFP.
 - OFT deviated from the RFP specifications that all towers be self-supporting steel structures.
- OFT failed to respond to Motorola's requests under the Freedom of Information Law ("FOIL").

AGENCY'S RESPONSE TO PROTEST

OFT's response to the protests is as follows:

- The Bid Protest Policy contained in the RFP clearly establishes a limitations period for the filing of formal protests “concerning errors, omissions or prejudice in the bid specifications or documents” of twenty days prior to the due date for proposals. Motorola failed to file a timely formal protest of the bid specifications, and therefore its challenges to the bid specifications are time-barred. (January 24, 2005 Decision of the Chief Administrative Officer, pp. 6-7).
- Motorola's argument that the contract price was far in excess of OFT's projected cost for the SWN is misplaced. The projected cost issue was addressed in the Question and Answer period provided to proposers. In response to a question citing a news article reporting a \$400 million projected cost, OFT advised that “[...]the actual amount that will be required to be spent to design, construct, operate and maintain the SWN will be determined based upon the bid proposals submitted in response to this solicitation...” (August 16, 2004 Decision of the SWN Project Director, pp. 14-15).
- Motorola's argument that the RFP was overly rigorous and prescriptive, leading to confusion and ambiguity, is without merit. OFT had a rational basis – primarily public safety – to support certain specifications that led to higher costs and limited design flexibility. Motorola failed to demonstrate that the specifications were defective or that competition was limited. (January 24, 2005 Decision of the Chief Administrative Officer, p. 9).
- Motorola has failed to establish that the procurement was defective because only two proposers participated. Given the magnitude, complexity, and technically specialized nature of the project, it was to be expected that the number of proposers would not be large. The RFP produced bids from two consortia collectively comprised of more than twenty entities. (January 24, 2005 Decision of the Chief Administrative Officer, p. 9).
- Motorola has failed to establish that the large discrepancy in the pricing of the proposals was tied to flaws in the RFP, or that the bid history of other procurements is of any relevance. The pricing difference is attributable to differences in the approaches toward building and maintaining the SWN which were proposed by each proposer. (January 24, 2005 Decision of the Chief Administrative Officer, pp. 9-10).
- The Project Director was correct in rejecting Motorola's argument that the RFP was arbitrary and capricious because it relied on the use of radio spectrum which

the State does not yet own. The State, not the contractor, has the burden of obtaining necessary licenses, and the State has identified a plan of action to scale back the project in the event frequencies cannot be obtained. Motorola's argument that the lack of spectrum made it impossible for bidders to price delays is refuted by the fact that Motorola did price such delays in its bid proposal. (January 24, 2005 Decision of the Chief Administrative Officer, p. 10).

- Section 12.23 of the RFP provides that “[t]he Prime Contractor shall comply with all present and future applicable laws” and requires the contractor to obtain all necessary approvals required by law to fulfill its contractual obligations. Motorola's contention that the RFP was altered after the proposals had been submitted, by OFT's removal of a requirement that it was to be the contractor's responsibility to ensure compliance with local zoning laws, is incorrect. Motorola is charged with knowledge of applicable case law establishing the principle that governmental agencies are immune from local zoning laws where the public interest outweighs the interests served by the local zoning laws. OFT did not change or waive any RFP requirements related to zoning but, even if it did, such a change would not have altered the essential character or purpose of the contract. (January 24, 2005 Decision of the Chief Administrative Officer, p.10-11).
- Motorola incorrectly asserts that OFT changed the terms of the RFP, post-bid submissions, by allowing M/A-COM to use antenna support structures which do not meet the RFP requirement that all towers be self supporting steel structures. Motorola misstates the RFP requirements, which do permit antenna support structures as well as standard towers (steel structures). (January 24, 2005 Decision of the Chief Administrative Officer, pp.11-12).
- Motorola's bid was non-responsive in that its proposed finance plan, based on a tax-exempt financing model, did not meet the RFP's requirements. (August 16, 2004 Decision of the SWN Project Director, pp. 40-48).
- Motorola has not been prejudiced by OFT's failure to respond to Motorola's FOIL requests. (August 16, 2004 Decision of the SWN Project Director, pp. 32-34).
- OFT cites a report prepared by a consulting firm with respect to the statewide wireless network being implemented by Pennsylvania (utilizing M/A-COM technology) to refute Motorola's claim that significant delays and cost overruns encountered on the Pennsylvania project are attributable to M/A-COM's technology solution rather than other factors. OFT also contends that Motorola failed to demonstrate that the Pennsylvania and New York projects are similar in scope and specifications, and therefore did not establish the relevance of the Pennsylvania experience to SWN. (January 24, 2005 Decision of the Chief Administrative Officer, pp. 13-15).

- OFT had the authority to waive the RFP provision requiring execution of a contract with the successful proposer within sixty days of contract award. (October 12, 2004 Decision of the SWN Project Director, pp. 8-14).
- OFT rejected Motorola's reference to the statewide wireless project being undertaken by Virginia as time-barred and lacking in substantiation as to relevance and materiality. (January 24, 2005 Decision of the Chief Administrative Officer, p. 15).

Applicable Statutes and Guidelines

The requirements of competitive procurements are set forth in section 163 of the SFL, which provides that contracts for services shall be awarded on the basis of "best value" from a responsive and responsible offerer.⁷ Best value is defined as the basis for awarding contracts for services to the offerer which optimizes quality, cost and efficiency, among responsive and responsible offerers.⁸

The SFL also requires that "[w]here the basis for award is the best value offer, the state agency shall document, in the procurement record and in advance of the initial receipt of offers, the determination of the evaluation criteria, which whenever possible, shall be quantifiable, and the process to be used in the determination of best value and the manner in which the evaluation process and selection shall be conducted."⁹

Section 163(2)(b) of the State Finance Law provides that the procurement process is "[t]o be based on clearly articulated procedures which require a clear statement of product specifications, requirements or work to be performed . . ."

DISCUSSION

Timeliness of Motorola's protests at OFT level

At the outset, we note that OFT's decisions to reject many of the arguments raised in the bid protests which Motorola filed with OFT were based, at least in part, on OFT's determination that Motorola did not comply with the Bid Protest Policy and procedures outlined in the RFP, in terms of timeliness.

We need not determine whether OFT's untimeliness determinations were proper, because OFT did not rely solely on procedural irregularities in making its decisions on the protests. Its review

⁷ SFL Section 163(10).

⁸ *Id.* Section 163(1)(j).

⁹ *Id.* Section 163(7).

of Motorola's arguments on the merits is substantiated in the procurement record and, for the reasons set forth below, we find that OFT adequately refuted those arguments, again on the merits. Accordingly, we need not examine in detail each and every procedural objection advanced by OFT, but are rendering our decision to deny the protest on the following substantive grounds.¹⁰

Applicable standards for OSC's review of protest

Position of Parties

The first argument advanced in Motorola's protest to OSC, which is procedural in nature, is that OSC has ample authority to reject OFT's recommendation on the award of the SWN contract to M/A-COM if it is determined that the agency failed to comply with State competitive bidding laws. Motorola cites State Finance Law Section 112 and various provisions of the New York State Procurement Council Procurement Guidelines in support of this argument. OFT on the other hand suggests that with respect to factual issues OSC should sustain the agency's position if OSC finds a rational basis for such decisions.

OSC's Position

Preliminarily, we note that it is, in our view, clear that OSC, in carrying out its responsibilities under section 112, can approve a contract only if it is satisfied that all applicable statutory requirements have been satisfied.

With respect to factual issues, we believe OSC may reject a contract award based upon its factual determination that such an award would be improvident.¹¹ Furthermore, in undertaking such review, we do not believe that OSC is limited in its analysis to consideration of whether there was a rational basis for the agency's determination (*see generally*, Konski v. Levitt, 69 A.D. 2d 940, Third Dep't, 1979, *aff'd* 49 N.Y. 2d 850, 1980, *cert. den.* 449 U.S. 840). Rather, OSC may conduct a *de novo* review of the record and make its own analysis of the facts pertaining to the procurement.

However, while recognizing that OSC is not legally required to defer to agency decisions on contract awards, as a matter of policy OSC may in its discretion give some deference to factual determinations of agencies, especially where such determinations are within the technical expertise of the agency and are reasonably supported by the record. Therefore, as outlined

¹⁰ Even if a State agency bars a protest argument on the grounds that it was untimely, such a determination would not prevent the Comptroller, upon appeal of such determination, from reviewing the underlying substantive arguments. This is especially true to the extent that a protest asserts that the award of the contract violates the provisions of a state statute governing such award.

¹¹ In City of New York v. State of New York (87 N.Y. 2d 982, 1996), Judge Bellacosa, though dissenting in part from the majority on other grounds, noted that "[t]he Constitution and the Legislature have designated the State Comptroller as the unique protector of the State's pocketbook (*see generally* NY Const, art V § 1; State Finance Law § 8)." (87 N.Y. 2d at 988).

below, in undertaking our review, we have exercised our discretion to give deference to OFT's factual determinations with respect to technical matters within its expertise.¹²

The merits of Motorola's substantive arguments

The substantive questions presented on this protest for OSC to determine are:

(1) Did inherent flaws in the RFP result in a procurement that stifled competition and violated State standards?

(2) Did OFT act properly in determining that M/A-COM was capable of performing its contractual obligations?

(3) Did OFT materially alter or ignore the terms of the RFP in making its determination to award the contract to M/A-COM?

Based upon our consideration of the assertions of Motorola, the responses of OFT, and our review of the procurement record, the contract, and the bid protest documents, we will consider each of these issues, including related sub-issues, in the discussion below.

(1) THE ALLEGEDLY FLAWED NATURE OF THE RFP

Motorola cites the variance between the alleged projected cost of the project and the costs that were actually proposed; the fact that proposals were received from only two firms; the large differential in price as between the two firms which submitted proposals; and requirements regarding radio frequencies and zoning¹³ in support of its position that the RFP was flawed.

OFT asserts that Motorola's contentions emanate from Motorola's bias toward its own established technology, which it has implemented in other states.

Section 163(9)(a) of the State Finance Law places on the state agency procuring commodities or services the responsibility of selecting a formal competitive procurement process, such process to include ". . . a clear statement of need; a description of the required specifications governing performance and related factors; a reasonable process for ensuring a competitive field; a fair and equal opportunity for offerers to submit responsive offers; and a balanced and fair method of award." (Emphasis added).

¹² Given the unprecedented magnitude and the highly technical nature of the SWN procurement, and the vital public interests to be served by this project, in order to further satisfy itself whether OFT's selection of M/A-COM as the contractor for the SWN was appropriate, OSC retained an independent consulting firm to review the M/A-COM technology solution and its suitability for attaining the goals of the SWN. Nothing in the consulting firm's findings has led us to conclude that the system proposed by M/A-COM lacks the functionality required for the SWN.

¹³ The zoning issues raised by Motorola are more appropriately dealt with in the context of Motorola's contention that OFT materially deviated from RFP requirements after the proposals had been submitted. (See pp. 22-26, *infra*).

OFT determined that public safety issues were of paramount concern in this procurement, and it contends that if the RFP stated rigorous and costly specifications in an effort to address that concern, it was the agency's prerogative to do so. (See August 16, 2004 Decision of the SWN Project Director, pp. 17-18).

That public safety concerns were of overriding importance for the SWN procurement is evident from a reading of the "Procurement Overview" introductory provisions of the RFP:

"Public Service and Public Safety Mission

This procurement is being undertaken by the State of New York, acting by and through the New York State Office for Technology, and is critical in the aftermath of the global events of September 11th, 2001, to enable public service and public safety entities operating within the State of New York to better respond to and protect the citizens of New York State. The SWN will provide essential connectivity to coordinate the delivery of governmental services to the citizens of New York, and to enable immediate coordination of public safety resources in emergency situations to ensure the public's safety and welfare. The new state-of-the-art communications network will significantly enhance the safety of both the State's emergency service responders, and the citizens they serve." (RFP Section 1.01(A), p. 8).

For the reasons discussed below, we find Motorola's arguments in support of the proposition that the RFP was fundamentally flawed to be unpersuasive, and further find that in light of the key objectives of this procurement, OFT acted reasonably in issuing the specifications which were prescribed.

(A) The difference between projected cost and costs actually proposed

In support of its position that the RFP was flawed, Motorola argues *inter alia* that one must come to that conclusion because the project will be much more costly than the \$400 million that had been projected, citing a newspaper report as factual support for that dollar amount as the projected cost figure.

OFT refutes the argument by stating that there was no preconceived understanding of, or cap on, the projected cost, as confirmed by a review of the Questions and Answers that became part of the Official record of the procurement (RFP, Vol. 1, Section 2.05, p. 19). Official Question No. 14 read as follows in relevant part:

"I read an article that states 'New York to Issue RFP for \$400 Million Statewide Wireless Network'. Does this mean that the most NY is planning on spending is \$400 million? . . ."

The Answer to Question 14 advised prospective bidders that ". . .[t]he actual amount that will be required to be spent to design, construct, operate, and maintain the SWN will be determined

based upon the bid proposals submitted in response to this solicitation . . .” (August 16, 2004 Decision of the SWN Project Director, pp. 14-15).

We believe that the Motorola argument is without merit. The competitive bidding process has determined the cost of the project, in accordance with statute. Furthermore, a significant difference between an estimate and actual bid prices does not necessarily mean that the RFP was flawed – although prior to approving a contract, we would require from the agency an explanation and justification for any major difference. In this case, we are satisfied that there is no such major discrepancy. OFT has advised us – and our audit has confirmed – that OFT did not estimate the cost of the entire project at the \$400 million figure reported in the newspaper article. While this figure was within the range of some early cost estimates for building the infrastructure only (but, in fact, toward the low end of the range of estimates), such estimate did not cover projected costs for financing of the project, or for operating and maintaining the SWN over the twenty year life of the contract. We have concluded, based upon the documentation in the procurement record, that there was not a significant discrepancy between the successful proposer’s not-to-exceed price for construction of the project infrastructure, and the estimated cost for that work.

(B) The large differential between the costs bid by the two proposers

Motorola submitted two alternative proposals, one costing \$3.4 billion and the other costing \$2.6 billion and, in its protests, asserted that the winning bid for the SWN was reported to exceed \$1 billion. Motorola contends that this wide disparity between its bids and the winning M/A-COM bid was inconsistent with historical differences between the two proposers’ submissions for other states’ wireless networks, which averaged between 5% and 15%, and further demonstrated that the RFP was inherently flawed.

OFT refuted Motorola’s argument on this point by noting that information provided to OFT by Motorola confirmed that there was a 200% pricing differential between M/A-COM’s and Motorola’s bids on the Pennsylvania statewide wireless network project. (Decision of the SWN Project Director dated August 16, 2004, pp.19-21). While Motorola dismisses the Pennsylvania example as irrelevant,¹⁴ we are not persuaded that the SWN proposers’ cost differential compels the conclusion that the RFP was flawed. We find that there is a reasonable basis for OFT’s conclusion that the large differential between the two proposers in terms of project cost was chiefly attributable to differences in each company’s technology solution, rather than to

¹⁴ Motorola, Inc.’s Notice of Appeal of Decision of the SWN Project Director, filed with OFT on September 7, 2004, pp. 9-10. Motorola points to Connecticut’s completion of its statewide wireless network at a cost of \$47 million and Virginia’s planned network projected cost of \$329 million as authority for its contention that the New York SWN could be built for far less than the cost proposed by M/A-COM. (Schwab affidavit, paragraph 4). Motorola has submitted nothing that would convince us that the nature and scope of the Connecticut project render that state’s network relevant to the SWN. The Virginia project is ongoing, and there is no assurance that the projected cost and the actual cost will be the same.

problems with the RFP specifications. (January 24, 2005 Decision of the Chief Administrative Officer, pp. 9-10).

(C) Only two firms submitted proposals, evidencing the stifling of competition in the procurement due to flaws in the RFP

OFT rejected Motorola's argument that, based on the fact that only two companies submitted proposals, one must deduce that competition for the award was stifled because of inherent flaws in the RFP. OFT notes that the proposals that it received from M/A-COM and Motorola reflected participation in the procurement by more than twenty companies making up two consortia, and that given the size and complexity of the project, it would be reasonable to expect that the pool of firms capable of performing the work would not be large¹⁵. (See paragraph (D) below for discussion of the rigorous technical specifications of the RFP which OFT required proposers to meet in order to attain the necessary functionality of the SWN).

All prospective bidders were held to the same RFP requirements. We find no factual basis in the record for concluding that OFT took any action in its conduct of the procurement, (whether motivated by favoritism or otherwise), which had the effect of limiting competition.

Rather, OFT's concern for the desirability of fostering competition with respect to the SWN project is evidenced by the fact that the RFP required the successful proposer to submit a technology solution that would provide SWN end-users with the opportunity to procure subscriber equipment (SWN-compatible land mobile radio communications equipment) on a competitive basis, over the life of the contract. Toward that end, the RFP required that all proposers submit a detailed strategy for guarantying a "non-proprietary, open competitive environment for acquisition by SWN Users of network compatible Subscriber Equipment throughout the Contract term." (RFP Section 11.01, p. 89). One such acceptable strategy provided for in the RFP was a commitment on the part of the contractor that all essential intellectual property rights relating to the equipment be licensed on a "on a fair, reasonable and non-discriminatory basis to multiple manufacturers of standard commercial land mobile radio communications equipment for public safety/service use that operate in the frequency bands proposed for SWN . . ." Indeed, the contractor's failure to fully implement its proposed strategy was to be deemed a material breach of the contract, constituting grounds for contract termination. (RFP Section 11.01, p. 89).

For the reasons stated, the limited number of proposals submitted does not lead us to conclude that the RFP was flawed.

¹⁵ The Motorola project team consisted of Motorola, Inc., Harris Corporation, Lockheed Martin Management & Data Systems, TRW, Inc., Bechtel Corporation, o2Wireless Inc. d/b/a Baran Telecom, IBM Corporation, GDP Telecom, Inc., Vytex Public Safety Solutions Inc., Buford Goff & Associates, and Parsons Brinkerhoff. The M/A-COM project team consisted of M/A-COM, Inc., General Dynamics, Verizon, Alcatel USA, Black & Veatch, Sun, Cisco, ADT, LA Group, Niagara Mohawk, Intergraph, and Bear Stearns.

(D) The RFP requirements were overly rigorous

Motorola claims that the RFP technical specifications were overly rigid and inflexible, thereby deterring other potential proposers from participating in the procurement, and unnecessarily driving up the cost of the project.

The RFP required, among numerous other technical specifications, a network system that would provide mobile voice communications and mobile data communications for 95% area coverage and 97% on-road/navigable waterways coverage throughout the State of New York, and also specified certain minimum delivered audio quality requirements. (RFP, Exhibit #1, Sections 2.07(B) and [C]). The SWN was to be designed to initially accommodate at least 25,000 users, and to ultimately accommodate a full capacity of at least 65,000 users. (RFP, Exhibit # 1, Section 2.08[D]).

Motorola contends that significant cost savings would be achieved if the RFP had called for only 95% on-road/navigable waterways coverage, rather than 97%, in that many tower sites could be eliminated. (*See Schwab Affidavit*, paragraph 1.1; *Motorola Memorandum*, p. 19). Motorola also asserts that the 95% area coverage requirement was overly rigorous, in that it “increased the number of towers, lengthened implementation time, exacerbated environmental impact, and ultimately drove up the overall system cost.” (*Motorola Memorandum*, pp. 11-12).

Mr. Schwab’s affidavit details numerous other coverage, spectrum, site construction, network operation, network maintenance, and infrastructure options which had been included in Motorola’s alternate proposal as alternatives to the RFP requirements. It is claimed that implementing these alternative approaches in the SWN would result in major cost savings without departing from industry norms.

OFT counters that it was fully aware of the cost implications when the RFP specifications were being prepared, and notes numerous instances where alternative design approaches were discussed.

“Several areas where less expensive alternative requirements could be pursued were brought to the State’s attention during the procurement. The written record shows that, having been made aware of cost saving alternatives, OFT made informed decisions which generally held to the higher standards in the interests of public safety rather than driving decisions based solely upon cost, while implementing a few cost saving alternatives where public safety would not be negatively impacted.” (*Decision of the SWN Project Director* dated August 16, 2004, pp. 17-18, footnotes omitted).

We find that the record establishes that OFT acted reasonably in setting the goal of obtaining for the State of New York a state-of-the-art network infrastructure system, rather than one which

employed more traditional technology.¹⁶ Accordingly, we will not overturn OFT's judgment as to the desirable functionality of the SWN as reflected in the RFP requirements, nor will we preempt OFT's selection of the M/A-COM technology solution as the means to implement those requirements.

(E) Availability of licensed wireless spectrum

Motorola asserts that OFT acted unreasonably in premising the RFP requirements on the availability of adequate 700 MHz spectrum, when that spectrum is not currently available because it is occupied by other users. Motorola further states (but without citation to a specific authority) that the FCC has confirmed that usable frequency will not become available until at least 2009. Also in this regard, Motorola argues that it was "impossible" for proposers to determine how to price and bid the delays that could occur, depending upon when adequate spectrum became available. (Motorola Memorandum, pp. 15-16).

OFT disputes Motorola's argument that the spectrum availability issue prevented proposers from determining how to price the project, based on the fact that Motorola itself submitted a proposal which crafted a solution to this problem.¹⁷ Furthermore, all prospective proposers were required to bid to the same specifications.

In the course of its contract review process, OSC solicited and obtained information from OFT as to the present status of appropriate spectrum availability for the SWN. OFT has advised that the State currently has adequate frequency licenses to support coverage for the anticipated 25,000 initial (primarily State agency) users. Furthermore, it is anticipated that as the project moves forward and partnerships with local governments are developed, those local partners will offer the opportunity to bring additional frequencies to the SWN to support coverage for what is expected may ultimately be a total of up to 65,000 users over the course of the contract. In addition, as the regional build-out process moves forward, additional spectrum is expected to become available. OFT has advised that it will apply for such spectrum as it becomes obtainable and when additional user capacity is required.

Under the terms of the RFP, the State retained the responsibility for obtaining adequate spectrum to implement the SWN, and advised prospective proposers in the RFP that it was in the process

¹⁶ The M/A-COM technology proposed for the SWN utilizes Time Division Multiple Access (TDMA), a means of supporting more than one conversation per radio channel by assigning each conversation to a timeslot. This technology offers significantly greater system usage efficiency than the more traditional Frequency Division Multiple Access (FDMA) technology. While Motorola's proposal contemplated an eventual conversion of the SWN to TDMA, it provided for use of FDMA in the initial stages of the project. The OFT Project Director has noted that Motorola has provided its own proprietary TDMA based technology solution outside of North America, and that the company has been awarded over 36 contracts incorporating this technology in 22 countries, including governments and law enforcement agencies in Great Britain and Asia. (October 1, 2004 Decision of the SWN Project Director, p. 18).

¹⁷ Motorola's proposal provided that in the event of delays caused by the State's failure to provide frequencies, it reserved the right to request payment for additional costs, to be handled through the change order process. (August 16, 2004 Decision of the SWN Project Director, p. 23).

of acquiring spectrum in the 700 and 800 MHz public safety bands. The RFP permitted proposers to offer alternative frequencies capable of public safety use (provided that appropriate documentation establishing availability were provided), and also specifically permitted the use of VHF highband in regions requiring off-road augmented coverage overlays to the mobile network. Finally, the RFP reserved to the State the right to scale back the project to reflect actual frequency availability in the event that sufficient frequencies could not be obtained by the State. (Decision of the SWN Project Director, dated August 16, 2004, p. 22).

As in the case of Motorola's objection to the RFP's allegedly overly rigorous requirements, we cannot conclude that OFT acted unreasonably on this issue which, we believe, falls within the realm of its technical expertise.

(F) OFT's failure to respond to Motorola's FOIL requests

Although Motorola asserted before OFT, as grounds for reversal of the award of the contract to M/A-COM, OFT's non-compliance with FOIL (New York Public Officers Law Section 87), Motorola alluded to, but did not stress the FOIL issue in the bid protest documents submitted to OSC. (Motorola Memorandum, p. 26).

At the outset we note that determinations of whether an agency has complied with FOIL are not within the jurisdiction of this Office. Indeed, in order to be successful on a bid protest on the grounds of a State agency's non-compliance with FOIL, a protestor would have to demonstrate that the FOIL non-compliance violated the Procurement Guidelines, which say that the State agency should debrief the losing offerer on the shortcomings of its own proposal. Motorola makes no such demonstration here.

However, in the course of our contract review process, OSC had access to and reviewed the entire procurement record. Nothing has come to our attention which would suggest that OFT's failure to provide Motorola with the documentation it had requested would have affected the propriety and outcome of the procurement.

(2) OFT'S DETERMINATION THAT M/A-COM IS CAPABLE OF PERFORMING ITS CONTRACTUAL OBLIGATIONS

(A) The Pennsylvania Statewide Public Safety Radio System Project

Motorola contends that the M/A-COM technology solution is "unproven"; that there are serious questions as to whether M/A-COM will be able to construct and implement the SWN in a manner that will attain the objectives of the project; and that OFT's selection of the technology solution proposed by M/A-COM "could result both in unexpected costs and delays in building the system and in a system that ultimately does not work." (Motorola letter to OFT of June 29, 2004, attached to OFT Decision of the SWN Project Director dated October 1, 2004 as Exhibit 3).

In support of its assertion that it proposed a “proven” technology, Motorola points to its already having developed statewide networks in 23 other states (although apparently none utilized the TDMA system which OFT selected by awarding the contract to M/A-COM). Motorola also relies heavily on Pennsylvania’s experience with its statewide wireless network, in which M/A-COM’s TDMA technology solution is being employed, as evidence that the M/A-COM technology selected for New York’s SWN is unproven. (Motorola, Inc.’s Notice of Appeal of Decision of the SWN Project Director, received by OFT on September 7, 2004, at p. 10).

With respect to the Pennsylvania statewide wireless network project, Motorola cites several newspaper articles detailing significant cost over-runs and delays in implementing the project. In support of its position that the problems with the Pennsylvania project were attributable to M/A-COM’s “unproven” technology, Motorola also relies on the August 31, 2004 report of iXP Corp.,¹⁸ a consulting firm retained by Pennsylvania to review and make recommendations with respect to that project. A review of the report, however, confirms that the consulting firm found that the cause of the difficulties experienced by Pennsylvania was not the M/A-COM technology, but rather, Pennsylvania’s decision to act as its own integrator on the project. The report concluded that:

“. . . the Radio Project Office (RPO) was not structured to support the implementation and management of a newly developed technology – this was less a decision of the RPO than a collective decision of the Commonwealth. This is the overriding issue hindering successful completion of this project. All other observations and findings in this report regarding issues impeding successful implementation, both real and perceived, have as their root the structure and charter of the RPO. It should be noted that purchasing and implementing a newly developed technology is neither a good or bad decision. It is simply the fact that if the decision is to go with a newly developed, state-of-the-art solution, then you must structure and manage the implementation and risks accordingly.” (iXP Corp. Report, Motorola Memorandum, Exhibit F, pp. 5-6, emphasis in original).

The iXP report indicates that the consulting firm found M/A-COM’s performance generally acceptable.¹⁹

On the issue of the “proven” versus “unproven” nature of the M/A-COM technology solution, the iXP report noted:

“1.1.2 Will the Technology Work?”

¹⁸ iXP Corp. is the consultant hired by OSC to assist in analyzing the technological issues raised in this procurement.

¹⁹ The iXP report concluded that “[p]rior performance-based experience suggests that M/A-COM has, and will continue to work diligently with the Commonwealth to complete and resolve any development issues. To date, although slow moving in some areas, their performance has been technically thorough and committed to the directed process of completion. From a business perspective, M/A-COM must make this project a success as they see the future of communications systems being this IP packet-based approach.” (iXP Corp. Report, Motorola Memorandum, Exhibit F, p. 6)

At a high level of technology development, the selection of an IP based, packet switched, software based communications infrastructure is a well-founded choice. This technology is the coming, future, or current state-of-the-art depending on the application and industry to which it is being applied. In future years, this investment will pay dividends compared to investing an equivalent amount of money in an older, traditional radio communications technology. The best evidence of this view is the massive success of the Internet in providing communications on a worldwide basis. Its success is largely based on the viability of its technology infrastructure; emulated by the M/A-COM system.”²⁰

In contrast to the situation in Pennsylvania, the New York SWN project is to be set up as essentially a “turn-key” operation, in that it places on the contractor the obligation to design and fully implement the system.

Motorola itself recognized the dissimilarities in the two projects in its Supplemental Testimony submitted to the Assembly. After disputing the OFT Director’s Assembly testimony that Pennsylvania represented an example of M/A-COM’s technology having been successfully deployed, Motorola’s Supplemental Testimony flatly stated that “. . . it is not appropriate to compare the Pennsylvania project to the New York project.” In support of this proposition, Motorola cited the fact that Pennsylvania – and not M/A-COM – was required to acquire and construct the sites. In addition, there are significant differences in the technological specifications for the two states’ projects. (Motorola Memorandum, Exhibit C, p.5).

In short, the record does not support the conclusion that Pennsylvania’s experience with the use of M/A-COM technology casts material doubt on M/A-COM’s ability to implement the SWN.

(B) Impact on the environment

Motorola contends that attainment of a key objective of the SWN project, namely, implementation of the SWN with minimum adverse impact on the environment, will not be attained utilizing the technology solution offered by M/A-COM.²¹ Motorola further claims that OFT’s decision to mandate 95% area coverage and 97% road coverage in every part of the State demands a tower-intensive design, which will, in particular, have aesthetically displeasing effects in the Adirondack and Catskill Mountain regions.

²⁰ iXP Corp. Report, Motorola Memorandum, Exhibit F, p. 6)

²¹ Section 1.01(B) of the RFP provides in relevant part: “Environmental preservation, including but not limited to, reducing the proliferation of towers and minimizing the number and height of standard tower sites, is also a priority for the State.”

Given the number of towers that a 700/800 MHz frequency system would require, the RFP authorized an approach permitting 700/800 MHz coverage to be augmented by the use of VHF channels in the Adirondack and Catskill regions, with the objective of significantly reducing the number of towers required to meet coverage requirements in those areas. (RFP Exhibit # 1, Section 2.05; August 16, 2004 Decision of the SWN Project Director, pp. 26-27).

As evidence of its contention that many towers will need to be constructed in the Adirondack Park area in order to implement the SWN, Motorola cites OFT's decision to approve Saratoga County's request that three new towers be constructed within the relatively small portion of the county that is within the Adirondack Park. OFT determined that construction of these new towers was necessary in order to attain 95% area coverage. This determination was based on the fact that, unlike the State, the county lacked adequate VHF spectrum and necessary 700/800 MHz spectrum to utilize a VHF overlay alternative solution, which would have limited the number of new towers required. In addition, because Saratoga County's existing communications system was seriously outdated, in order to be sure that citizens were protected there was a pressing need for a new system to be in place. (*See* New York State Office for Technology Statewide Wireless Network Report on a Review of Saratoga County's Selection of Radio Tower Sites inside the Adirondack Park, dated September 30, 2004).

Fundamentally, Motorola's environmental impact argument represents a challenge to the RFP's 95% area coverage and 97% road coverage specifications, since it is largely these requirements which drive the number of towers that will be needed for the SWN. In light of the importance of the public safety interests to be advanced by the SWN, we do not find OFT's imposition of these coverage requirements to be unreasonable.

(3) THE ALLEGATION THAT OFT MATERIALLY ALTERED OR IGNORED THE TERMS OF THE RFP

(A) Zoning issue

Section 12.23 of the RFP provides in relevant part as follows:

“The Prime Contractor shall comply with all present and future applicable laws, codes, ordinances, statutes, rules and regulations with respect to any of the duties or responsibilities of the Prime Contractor arising from the Contract . . .

“The Prime Contractor, including its agents, successors and/or assigns and Contractors and subcontractors shall obtain all necessary licenses, certificates and other approvals required by law to fulfill the Prime Contractor's obligations under the Contract at its sole expense . . .”

Section 12.26 of the RFP provides as follows:

“The State reserves the right to terminate or modify this Contract in part upon the happening of any of the following:

* * * * *

“(2) Inability to obtain rights and interests in site locations or zoning approvals sufficient for all or any portion of the system design, such inability to be determined by the State in its sole judgment . . .” (Emphasis added).

Motorola takes the position that the above quoted language in the RFP required proposers to comply with local zoning requirements, with the result that Motorola priced its proposal significantly higher than it would have absent this requirement. Motorola further contends that OFT dropped this requirement after award of the contract to M/A-COM, materially altering the RFP in a manner prejudicial to Motorola. Motorola also concludes that the RFP was flawed in that it did not require proposers to break down their expected compliance costs in their proposals, resulting in an inability on the part of OFT to take advantage of the cost savings. Furthermore, Motorola asserts that OFT should have given it an opportunity to adjust its proposal to reflect the alleged change in the RFP requirements.

In support of its position, Motorola relies on an excerpt from the testimony given by OFT Director Michael McCormack at the May 19, 2004 Assembly hearing on the SWN project, as well as the Draft Generic Environmental Impact Statement issued on the project.²²

In response to questions from Assemblyman Brodsky, Mr. McCormack testified, in substance, that while the RFP suggested that the process would be subject to local zoning, OFT later changed its position based on subsequent court decisions. He noted, however, that neither bidder was prejudiced, because both bid to the same specifications.²³

²² By the time the Draft Generic Environmental Impact Statement was issued on September 29, 2004, both proposers were already on notice of OFT’s intention to invoke (at least selectively) the zoning law exemption guidelines of the Appellate Division’s decision in the Crown case. (See pages 25-26 *infra* for a discussion of this court decision). Mr. McCormack’s testimony before the Assembly, which referred to that court decision, had taken place in May 2004.

²³ The following colloquy took place between Assemblyman Brodsky and Michael McCormack at the May 19, 2004 Assembly hearing:

“Mr. Brodsky: So it’s your testimony that the bidders are not subject to local zoning laws?”

Mr. McCormack: Based on where we are now, yes.

Mr. Brodsky: Two comments: One, they don’t seem to understand that. At least one of them, and perhaps the other. And two, you could choose to operate the system consistent with local zoning. That would be within the power of the State to do as a matter of contractual obligation; is that not correct?

Mr. McCormack: That would be correct.

Mr. Brodsky: You chose not to.

OFT admits, however, that Mr. McCormack's testimony may have been confusing, and for that reason OFT filed a supplemental submission with the Assembly on May 25, 2004 to clarify his testimony.

In the supplemental submission, Mr. McCormack advised the Assembly:

“As to some sites, the State is and would be immune from local zoning under the well established doctrine of sovereign immunity, and as further discussed in the recent legal

Mr. McCormack: In the bid we had described to both bidders that the process would be subject to local zoning. It's base upon subsequent court rulings.

Mr. Brodsky: Does the bid require them to abide by local zoning?

Mr. McCormack: In the bid and what was submitted, yes.

Mr. Brodsky: But now you are saying that's no longer the State's policy?

Mr. McCormack: Based upon recent court decisions.

Mr. Brodsky: What decision was that?

Mr. McCormack: I would have to give you that information.

Mr. Brodsky: Would you get me that? There's not a material change in the process.

Mr. McCormack: Both bidders had to bid to the same specifications.

Mr. Brodsky: But isn't the decision - - when were the bidders informed that they would not have to - -

Mr. McCormack: This occurred - - the decision, the legal decision occurred in the fall of last year. So it would have been after the bidders had submitted. There would have been no - -

Mr. Brodsky: Were they notified of the change in policy by the State?

Mr. McCormack: No.

Mr. Brodsky: I guess they have been now. For what reason would you change the policy, even if the law permitted you to change the policy, as it now apparently does?

Mr. McCormack: The issue about creating a statewide network, of going along and creating that, there may be some challenges in terms of how we would design a statewide network and conform in every instance to local zoning.

Mr. Brodsky: And therefore, the needs of the network became a superior value with respect to the observance of local zoning.

Mr. McCormack: I would emphasize as part of that, we would work with the local communities.

Mr. Brodsky: I understand that, but the answer to my question is, it was a superior value?

Mr. McCormack: That's based - - it's our determination.”

case mentioned in my May 19th testimony . . .”²⁴ “This immunity is not specific to this project. Therefore, to the extent that construction or development of specific SWN sites falls within the scope of this immunity, the State is and will be exempt from local zoning processes.

“However, the State will not extend its exemption from local zoning to activity that otherwise would not fall within the scope of the immunity. To that end, the State will require compliance with local zoning laws where applicable and where the vendors’ design requires it. We have not departed from the bid specification.” (Motorola Memorandum, Exhibit B to Exhibit I).

Thus, OFT contends that it did not deviate from the bid specifications which, as noted above, obligated the contractor to comply “with all present and future applicable laws.”

State of the law when RFP was issued

In Matter of County of Monroe, 72 N.Y.2d 338, 1988, the Court of Appeals adopted a “balancing of public interests” test as the basis for determining the extent to which local zoning laws apply to governmental entities, holding that governmental entities are immune from local zoning laws where the public interest outweighs the interests served by the local law.

State of the law when M/A-COM contract was executed

Subsequent to the issuance of the RFP and prior to the award of the SWN contract to M/A-COM, in October 2003 the Appellate Division of the Supreme Court, Second Department, decided the case of Matter of Crown Communication New York, Inc. v. Department of Transportation of the State of New York, et al., 309 A.D. 2d 863, Second Dep’t, 2003. The Court held that the installation of private antennae on two state-owned telecommunications towers was exempt from local zoning regulation.

In arriving at its determination, the Appellate Division held that the private telecommunications providers “are not precluded the State’s immunity simply because they are private entities or because colocating on the DOT’s towers will advance their financial interests . . . [I]t is not the private status of the Wireless Telephone Providers but, rather, the public nature of the activity sought to be regulated by the local zoning authority that is determinative of this case.” (309 A.D.2d at 866).

In February 2005, the Court of Appeals affirmed the Appellate Division decision in Crown. The Court of Appeals found that SWN - - the very project which is the subject of our determination here - - constitutes one of the public benefits that would be served by a holding that private

²⁴ In a footnote, Mr. McCormack cites Crown Communications v. NYS DOT, 309 A.D.2d 863, Second Dep’t, 2003, decided in October 2003. This decision was affirmed by the Court of Appeals on February 10, 2005. (4 N.Y.3d 159, 2005).

wireless providers are exempt from local zoning regulations under the balancing of public interests test. The Court noted:

“ . . . the State is currently in the process of developing its telecommunications infrastructure in anticipation of establishing a Statewide Wireless Network (SWN), which will replace outdated systems with a state-of-the-art digital land mobile radio network designed to permit interagency and intergovernmental communications across the state in emergency situations.” (4 N.Y. 3d at 166).

As a result of the Court of Appeals decision in Crown, the law of New York State on the subject of the applicability of local zoning regulations to SWN – which clearly was evolving during the course of the appellate journey of Crown -- is now more settled than it was when the RFP was issued.

Motorola apparently interpreted the RFP to require the contractor to comply with local zoning regulations without consideration of the State’s right to assert its immunity (Motorola Memorandum, pages 22-23).²⁵

Analysis

We reject Motorola’s interpretation of the RFP provision regarding compliance with local zoning regulations. Rather, we accept OFT’s argument that the language of the RFP was broad enough to encompass an obligation on the part of the contractor to comply with present and future zoning laws as they apply to State projects, including new laws and laws that might be amended during the term of the contract. (Decision of Chief Administrative Officer dated January 24, 2005 at 10-11). We also find the language broad enough to encompass changes brought about by developing and controlling case law with respect to such State projects.

Motorola does not contend in its submissions that any potential proposer had a competitive advantage by reason of having more information with respect to OFT’s position on zoning requirements than did any other potential proposer.

We conclude that OFT did not materially alter or deviate from the RFP with respect to the applicability of local zoning regulations to SWN. The RFP requirement that the contractor

²⁵ OFT’s official response to a proposer’s question on this issue was not specific with respect to OFT’s intention that immunity could be invoked in dealing with local zoning regulations. Official Question and Answer No. 274 reads as follows:

“Q: If we modify existing Third Party sites on behalf of state are they exempt from local zoning?”

“A: “OFT can not (sic) address or interpret the applicability of local zoning laws to this project during the pre-submission phase. Additionally, any answer is dependent upon several variables, is site specific and is contingent upon the siting plan selection.

“However, the State is undertaking, separately from this procurement, a procurement of land use counsel services which will be engaged to assist the State in complying with all applicable federal, state and local laws.”

comply with all applicable present and future laws did not change. Rather, the state of the applicable law – and thus the extent of the contractor’s obligations - became more settled after the RFP was issued.

To the extent that it may be possible for OFT to achieve cost savings or to obtain some other advantage for the State as a result of decisions which OFT may make in implementing the SWN, it was reasonable for OFT to rely on the Crown holding to achieve such objectives. It is well settled that the State may negotiate a better deal with the winning contractor. (*See Matter of Palette Stone Corporation v. State of New York Office of General Services*, 245 A.D. 2d 756, Third Dep’t, 1997; *Matter of Taub’s Carpet and Tile Corporation v. Ringler*, 1 A.D.3d 730, Third Dep’t, 2003).

(B) OFT’s failure to enter into a contract with M/A-COM within sixty days of the Notice of Award

OFT announced that M/A-COM was the successful proposer on April 29, 2004. OFT and M/A-COM signed the contract for the SWN on December 6, 2004.

Motorola contends that OFT materially deviated from the terms of the RFP by not entering into a contract with M/A-COM within sixty days of the Notice of Award, and by not calling for a forfeiture of the bid bond submitted by M/A-COM by reason of the delay.

Section 12.15 of the RFP provides in relevant part:

“Submission of the properly executed Bid Bond as part of the Bid Proposal shall constitute an undertaking that the Bidder, if selected as the successful Bidder, guarantees to the State of New York to timely (1) properly execute and deliver to the State the resulting Contract setting forth the final agreement of the parties within sixty (60) days of receipt of a Notice of Contract Award from the Issuing Entity, and (2) deliver to the State within sixty (60) days of Notice of Contract Award all performance, labor and material bonds and certificates of insurance (as more specifically set forth in this Section 12.16 (sic)); time being of the essence. Upon timely and successful completion of the foregoing, the obligation under the bond shall become null and void.

“Upon failure by the Bidder to satisfy any of the foregoing obligations, the State shall be entitled to forfeiture of the bond.” (Emphasis added).

Motorola argues that OFT had consistently impressed upon prospective bidders that time was of the essence in this procurement and that OFT would strictly enforce all deadlines provided for in the RFP. Question and Answer number 110 of the RFP’s Modifications, Clarifications and Answers to Questions read as follows:

“Q: Is there a provision for extension of the 60-day deadline for negotiations provided all parties are negotiating in good faith?

“A: “No. Time is of the essence in the build-out of this network. As such, there will be no extension of the 60 day contract negotiation period. The contract must be executed by the successful bidder within the timeframe stated or be subject to the penalties set forth in the RFP.”

Question and Answer 135 said substantially the same thing.

Motorola contends that OFT’s failure to execute the contract with M/A-COM within the sixty day period violated the RFP, and was arbitrary and capricious. Motorola claims it was anticipating that OFT would strictly adhere to this time period, and therefore “assumed that it would not have an opportunity to change or negotiate any of the terms of its bid, and hence, prepared a bid that would comply, in all respects, with the RFP, including the sixty-day contract provision. In order to meet the RFP’s requirements, Motorola made certain assumptions and incorporated certain bid terms that it would not have in the absence of OFT’s insistence on rigid compliance with the terms of the RFP.” (Letter from Kenneth Denslow of Motorola to OFT dated July 16, 2004).

Motorola does not specify what “certain” assumptions it made or what “certain” bid terms were incorporated based upon its expectation that the contract negotiation phase of the procurement would be limited to sixty days. Indeed, Motorola appears to be arguing that the reason it submitted a proposal that was intended to comply in all respects with the RFP was that the sixty day limitation period would not have provided sufficient time for it to negotiate more favorable terms with OFT after the successful proposer had been selected. Even if we agreed with Motorola’s argument that waiving the sixty day limit constituted a deviation from the RFP requirements, we cannot deem such deviation to be “material”.

RFP Section 4.03(F) provided:

“The Director [of the New York State Office for Technology] reserves the right . . . to conduct Contract negotiations with the next offeror capable of receiving award should the State be unsuccessful in executing an agreement with the selected Bidder within the timeframe specified; such time frame is to be determined solely by the Director based on the best interests of the State.” (Emphasis added).

Thus, OFT reserved the right to modify the time frame, if such were required in order to advance the best interests of the State.

Motorola’s proposals were both disqualified as non-responsive. Had the sixty day period been strictly adhered to, and had that contract execution deadline been missed with respect to M/A-COM (thereby precluding implementation of the award of a contract to M/A-COM), Motorola would not have been able to receive the contract award in any event, because it was not “the next offeror capable of receiving award . . .”

We concur with OFT's argument that the sixty day time frame was included for the benefit of the State; that it represented a deadline that was imposed on the successful proposer, not on OFT; and that OFT had the discretion to waive this irregularity as a non-material deviation from the RFP terms.

It is well settled law that a governmental entity may waive a technical noncompliance with bid specifications if the defect is a mere irregularity and it is in the best interest of the governmental entity to do so. (Matter of T.F.D. Bus Co., Inc. v. City School District of Mount Vernon et al., 237 A.D.2d 448, Second Dep't, 1997). In Matter of Varsity Transit, Inc. v. Board of Education of the City of New York et al., 130 A.D.2d 581, Second Dep't, 1987, *appeal denied*, 70 N.Y. 2d 605, 1987, the Court held that "[n]oncompliance is considered material only when it would impair the interests of the contracting public authority or place some of the bidders at a competitive disadvantage." (130 A.D.2d at 582).

Section 2.07 of the RFP gave the successful proposer the right to withdraw its proposal if the contract were not executed by the parties and approved by OSC within one year of the proposal due date of January 7, 2003. M/A-COM, however, waived this withdrawal right on April 30, 2004, making it very unlikely that the interests of OFT would be impaired by extension of the sixty day period. In light of the ongoing contract negotiations, OFT acted reasonably in not requiring forfeiture of M/A-COM's bid bond, which M/A-COM has a continuing obligation to maintain in force. (October 12, 2004 Decision of the SWN Project Director, pp. 12-13). In addition, both proposers were subject to the same RFP terms, which applied equally to both in preparing and submitting their proposals. OFT's waiver of the sixty day limitation, post-award, did not disadvantage Motorola, since its proposals had already been disqualified.

Therefore, in our view, OFT's waiver of the sixty day contract award period was not a material deviation from the RFP, and does not constitute a basis upon which the contract should be disapproved.

(C) OFT's alleged departure from RFP specifications for tower construction

In the first bid protest it filed with OFT, as well as in the protest documents filed with OSC, Motorola asserted that the RFP specifications were modified after the proposals were submitted to OFT, by deleting a requirement that all new and existing sites utilized in the SWN be steel structures. This had the effect, so Motorola contends, of it having factored into its proposal new tower construction and existing tower modification requirements (at significantly greater cost) than will now actually be needed. Motorola cites Q & A 66 of the Official RFP Modifications, Clarifications and Answers to Questions²⁶ as authority for its interpretation of the RFP

²⁶ Q & A 66 reads as follows:

"Q: Given the repeated reference in the specification [referencing RFP Exhibit #1, Section 3.01] to the need to establish a system that must operate under the worst of conditions, is it the State's intent to have the Prime Contractor make improvements to all structures (with the exception of 3rd party structures) such that all State owned structures used on this project will be upgraded to meet standards that are applied to newly erected structures?"

requirement, and (but without citing specific provisions) Mr. McCormack's testimony before the Assembly on May 19, 2004 as authority for OFT's alleged change in position. (Motorola, Inc's Bid Protest of OFT Solicitation [01-007], undated, received by OFT on May 21, 2004, p. 11).

OFT contends that in making this argument, Motorola misstates the RFP requirements with respect to tower and antenna supporting structure construction.

OFT notes that the Glossary that was included as part of the RFP defined both of the terms, "Standard Tower" and "Antenna Support Structure".²⁷ Only Standard Towers were required to be self-supporting steel structures.

Section 4.06 of RFP Exhibit # 1, entitled "Standard Towers", required that new towers were to be steel self-supporting structures unless specifically waived in writing by the State. While Section 4.06(A) of Exhibit #1 did impose certain requirements on Antenna Support Structures which are not material to the issue raised by Motorola, it does not appear that Antenna Support Structures were subject to the "steel self-supporting structures" requirement that clearly applied to new Standard Towers.

Support for OFT's assertion that the RFP did not require each site to be a steel self-supporting structure is also found at Table 9, "Site Technical Documentation", part of RFP Exhibit # 1, Section 4.02. The section lists various differing document submission requirements, depending upon whether steel was a specified construction material for a site, leading to the conclusion that steel was not the mandatory material at every site.

Therefore, we find insufficient support for any conclusion that OFT materially deviated from the RFP requirements regarding tower construction.

"A: New antenna tower sites must be constructed and many existing antenna tower sites may need to be upgraded to achieve high-performance transmission across the state. The Prime Contractor shall apply the quality standards specified in the RFP to the construction or modification of radio communications facilities comprising the SWN."

This language tracks language included in Sections 4.01 and 4.02 of the RFP itself, virtually verbatim.

²⁷ "Standard Tower: A steel structure constructed for the express purpose of supporting radio, television, microwave, and/or satellite antennas and dishes. Types of towers within this definition include, but are not limited to, self-supporting lattice, guyed, or monopole designs.

"Antenna Support Structure: Any structure, of any height, material, or type of construction, intended, designed or constructed for a primary purpose other than the support of radio, television, microwave, and/or satellite antennas and dishes, but specifically modified, engineered, or renovated to accommodate their installation at a later time." (Emphasis added). (RFP Glossary).

CONCLUSION

We find that the procurement process followed by OFT was fair and in accordance with law. Therefore, the protest is denied.

OFFICE OF THE STATE COMPTROLLER

Appendix

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FOR IMMEDIATE RELEASE

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**TYCO ANNOUNCES INTENT TO SEPARATE INTO
THREE PUBLICLY TRADED COMPANIES**

PEMBROKE, Bermuda – Jan. 13, 2006 – Tyco International Ltd. (NYSE:TYC; BSX:TYC) today announced that its Board of Directors has approved a plan to separate the company’s current portfolio of diverse businesses into three separate, publicly traded companies – Tyco Healthcare, one of the world’s leading diversified healthcare companies; Tyco Electronics, the world’s largest passive electronic components manufacturer, and the combination of Tyco Fire & Security and Engineered Products & Services (TFS/TEPS), a global business with leading positions in residential and commercial security, fire protection and industrial products and services.

The company intends to accomplish the separation through tax-free stock dividends to Tyco shareholders, after which they will own 100% of the equity in three publicly traded companies. Each company will have its own independent Board of Directors and strong corporate governance standards. Tyco expects to complete the transactions during the first quarter of calendar 2007.

According to Tyco Chairman and Chief Executive Officer Ed Breen, “In the past several years, Tyco has come a long way. Our balance sheet and cash flows are strong and many legacy financial and legal issues have been resolved. We are fortunate to have a great mix of businesses with market-leading positions. After a thorough review of strategic options with our Board of Directors, we have determined that separating into three independent companies is the best

approach to enable these businesses to achieve their full potential. Healthcare, Electronics and TFS/TEPS will be able to move faster and more aggressively -- and ultimately create more value for our shareholders -- by pursuing their own growth strategies as independent companies.”

Tyco’s Board of Directors and senior leadership have evaluated a broad range of strategic alternatives, including continuation of Tyco’s current operating strategy, sales of select businesses, and separation of only one of the businesses. The company and Board concluded that separating into three businesses is the best way to position these market-leading companies for sustained growth and value creation.

Three Leading Global Companies

TYCO HEALTHCARE

With 2005 revenue of nearly \$10 billion, Tyco Healthcare is one of the foremost global providers of healthcare products and services. The company is well-positioned to capitalize on the attractive dynamics of the healthcare industry and to realize more robust growth. Its product portfolio includes advanced surgical instruments and supplies, respiratory care products, contrast media and diagnostic imaging products, needles and syringes, vascular therapies, sutures and wound care products, and generic pharmaceuticals. Healthcare has more than 40,000 employees.

This proposed separation will create a leading stand-alone healthcare company, which is expected to benefit from a focused and independent healthcare culture to help attract top industry talent and strategic partners, as well as increasing access to emerging healthcare-related technologies. This business will continue to be led by current Tyco Healthcare President Rich Meelia, who will become the company’s Chief Executive Officer. Chief Operating Officer Kevin Gould and Chief Financial Officer Chuck Dockendorff will also continue in their current leadership positions with the company.

TYCO ELECTRONICS

Tyco Electronics is one of the world’s largest suppliers of electronic components, including connectors, switches, relays, circuit protection devices, touch screens, magnetics, resistors, wire and cable, as well as fiber-optic and wireless components and systems. Electronics has 88,000 employees worldwide.

As a \$12 billion stand-alone enterprise, Tyco Electronics will be positioned to move quickly and strategically as competition requires, and will be better able to participate in ongoing electronics industry consolidation. The company’s Chief Executive Officer will be Tom Lynch -- current President of Tyco’s Engineered Products & Services segment -- who brings broad experience in the communications and electronics industries. Dr. Juergen Gromer, who has led Tyco Electronics since 1999, will continue as President, and will also assume additional responsibilities as Vice Chairman. Jacki Heisse will continue to serve as the company’s Chief Financial Officer.

TYCO FIRE & SECURITY/ENGINEERED PRODUCTS & SERVICES

TFS/TEPS will be led by Tyco International Chairman and CEO Ed Breen as well as Tyco International's Chief Financial Officer, Chris Coughlin. TFS/TEPS is an \$18 billion world leader in electronic security solutions for residential, business, and governmental customers, fire protection and sprinkler systems, and industrial valves and controls. With more than 118,000 employees, TFS/TEPS has a large, stable recurring revenue base and generates strong cash flow. Dave Robinson will continue to serve as President of Tyco Fire & Security. Naren Gursahaney will succeed Tom Lynch as President of Engineered Products & Services.

Breen added, "We believe this separation is a logical next step in Tyco's evolution and we are absolutely convinced that this is the right decision for the long-term success of our businesses, employees and shareholders."

Transaction Details

It is anticipated that all three companies will be capitalized to provide financial flexibility to take advantage of future growth opportunities. They are expected to have financial policies, balance sheets and credit metrics that are commensurate with solid investment grade credit ratings. Tyco will continue to follow financial policies that are consistent with its current credit ratings until the planned transactions take place. The company's existing debt is expected to be allocated among the three companies or refinanced. Any existing or potential liabilities that cannot be associated with a particular entity will be allocated appropriately to each of the businesses, and a sharing arrangement among the three companies will be established.

The three entities together are initially expected to pay a dividend that is equal in sum to the current Tyco dividend. Until the planned transactions are completed, Tyco expects to pay its current quarterly dividend of \$0.10 per share.

One-time transaction costs are expected to total approximately \$1.0 billion – largely for tax and debt refinancing. Under the proposed transaction structure, each of the companies is expected to remain incorporated in Bermuda.

Consummation of the proposed separations is subject to certain conditions, including final approval by the Tyco International Board of Directors, receipt of a tax opinion of counsel, and the filing and effectiveness of registration statements with the Securities and Exchange Commission. The separations are also subject to the completion of any necessary refinancings. Approval by Tyco International shareholders is not required.

First Quarter and Full-Year 2006 Update

Tyco expects first quarter 2006 earnings per share (EPS) from continuing operations -- excluding special items -- to be about \$0.38 per share compared to its previous guidance of \$0.40 to \$0.42 per share. Organic growth will be approximately 4 percent for the quarter, with 7 to 8 percent

organic growth in Electronics and Engineered Products & Services partially offset by flat organic growth in Fire & Security and Healthcare.

In Fire & Security, revenue and margins were adversely impacted by weakness in the commercial security and Worldwide Fire Services businesses, partially offset by improved performance in residential security. In Healthcare, strong growth in revenue and operating profit in International was offset by revenue and profit shortfalls in the Imaging and Respiratory businesses, primarily due to the impact of product recalls and regulatory compliance issues, as well as capacity limitations in the Pharmaceuticals business. The issues in Imaging and Respiratory have been identified and are in the process of being resolved. The company expects to have additional pharmaceutical capacity coming on-line in the second quarter.

For the full year 2006, the company is now expecting EPS from continuing operations excluding special items to be in the range of \$1.85 to \$1.92 per share. The change from the company's previous guidance is mostly due to the items in Fire & Security and Healthcare noted above. The estimated transaction costs related to the separations will be treated as special items and are therefore excluded from this guidance. EPS from continuing operations excluding special items and organic revenue growth are non-GAAP financial measures and are described below.

As previously announced, the company will release its full first quarter results on Feb. 2, 2006.

About Tyco

Tyco is a global, diversified company that provides vital products and services to customers in five business segments: Fire & Security, Electronics, Healthcare, Engineered Products & Services, and Plastics & Adhesives. With 2005 revenue of \$40 billion, Tyco employs approximately 250,000 people worldwide. More information on Tyco can be found at www.tyco.com.

CONFERENCE CALL AND WEBCAST

The company will hold a conference call for investors today beginning at 10:00 a.m. ET. The call can be accessed in two ways:

- At Tyco's website: <http://investors.tyco.com>. A replay of the call will be available through Tues., Jan. 31, 2006 at the same website.
- By telephone: For both "listen-only" participants and those participants who wish to take part in the question-and-answer portion of the call, the telephone dial-in number in the United States is (877) 531-2987. The telephone dial-in number for participants outside the United States is (612) 332-0819.

An audio replay of the conference call will be available beginning at 3:15 p.m. ET on Fri., Jan. 13, 2006 and ending at 11:59 p.m. ET on Fri., Jan. 20, 2006. The dial-in number for participants

in the United States is (800) 475-6701. For participants outside the United States, the replay dial-in number is (320) 365-3844. The replay access code for all callers is 814596.

NON-GAAP MEASURES

“EPS from continuing operations excluding special items” and “organic growth” are non-GAAP measures and should not be considered replacements for GAAP results.

The company has forecast its EPS from continuing operations results excluding special items related to divestitures, early retirement of debt, transaction costs related to the separations, and other income or charges that may mask the underlying results and trends and make it difficult to give investors perspective on underlying business results. Because the company cannot predict the amount and timing of such items and the associated charges or gains that will be taken, it is difficult to include the impact of those items in the forecast.

“Organic revenue growth” is a useful measure used by the company to measure the underlying results and trends in the business. The difference between reported net revenue growth (the most comparable GAAP measure) and organic revenue growth (the non-GAAP measure) consists of the impact from foreign currency, acquisitions and divestitures, and other changes that do not reflect the underlying results and trends (for example, revenue reclassifications and changes to the fiscal year).

Organic revenue growth is a useful measure of the company’s performance because it excludes items that: i) are not completely under management’s control, such as the impact of foreign currency exchange; or ii) do not reflect the underlying growth of the company, such as acquisition and divestiture activity, or revenue reclassification. It is also a component of the company’s compensation programs. The limitation of this measure is that it excludes items that have an impact on the company’s revenue. This limitation is best addressed by using organic revenue growth in combination with the GAAP numbers.

FORWARD-LOOKING STATEMENTS

This release may contain certain "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995. These statements are based on management's current expectations and are subject to risks, uncertainty and changes in circumstances, which may cause actual results, performance or achievements to differ materially from anticipated results, performance or achievements. All statements contained herein that are not clearly historical in nature are forward-looking and the words "anticipate," "believe," "expect," "estimate," "plan," and similar expressions are generally intended to identify forward-looking statements. The forward-looking statements in this release include statements addressing the following subjects: future financial condition and operating results. Economic, business, competitive and/or regulatory factors affecting Tyco's businesses are examples of factors, among others, that could cause actual results to differ materially from those described in the forward-looking statements. Tyco is under no obligation to (and expressly disclaims any such obligation

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SEPARATE INTO THREE PUBLICLY TRADED COMPANIES

to) update or alter its forward-looking statements whether as a result of new information, future events or otherwise. More detailed information about these and other factors is set forth in Tyco's Annual Report on Form 10-K for the fiscal year ended Sept. 30, 2005.

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