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The New York Statewide
Wireless Network

A M/A-COM VIDA Network Solution



The logos for Tyco Electronics and M/A-COM. The Tyco Electronics logo consists of the word "tyco" in a lowercase, italicized font, followed by a vertical line and the word "Electronics". The M/A-COM logo consists of the letters "M/A-COM" in a bold, italicized, uppercase font.

WHAT IS SWN?

In today's world, nearly every emergency incident has the potential to call into service a variety of local, state and even Federal responders. Communication among these responders is paramount in order to keep everyone involved equipped, safe and protected. In these situations, access to voice, data information, and above all, the ability to achieve communications interoperability, is crucial in getting the job done.

That's why the State of New York chose M/A-COM's VIDA network solution for their Statewide Wireless Network. VIDA is an Internet Protocol (IP)-based, secure, flexible and scalable network

solution. It is the only system of its kind available in the public safety/public service industry.

What makes the New York Statewide Wireless Network so Unique?

The New York Statewide Wireless Network - or "SWN" - will be one of the most advanced communication systems for public safety and public service in the world. It is an integrated network that provides optimal levels of coverage, capacity and features for New York State's varied geography and populations. Led by the New York State Office for Technology and based on M/A-COM's VIDA network technology

(see page 9), SWN will provide reliable, secure, unified statewide voice and data communications.

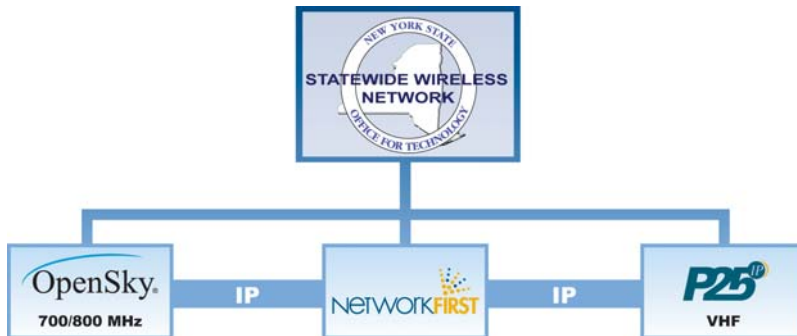


The mission of the Statewide Wireless Network is “to develop and implement an integrated statewide wireless radio network to provide a common communications platform for State public safety and public service agencies, and to enhance interoperability. The SWN will encourage partnerships with local governments to enhance communications and achieve economies in network build out.”

As counties, cities and towns throughout New York join the system, SWN will increase coordination of police, fire,

emergency medical, volunteer and other necessary response services across the state. SWN will also improve communications between public safety and public service professionals in both day-to-day and emergency situations.

M/A-COM's innovative VIDA network approach will allow New York State to mix-and-match technologies to best fit their regional and fiscal needs, all on a single, unified network. The New York SWN will utilize M/A-COM's OpenSky, P25^{IP} and NetworkFirst solutions.



OPENSky

OpenSky is the most flexible and advanced technology available for a public safety communications network that will meet the State of New York's need for superior day-to-day communications. OpenSky is a fully interoperable IP-based digital communications solution that will provide high capacity and high functionality for New York's densely populated areas.



- End-to-end IP technology means unprecedented capacity, scalability and flexibility.
- Spectrally efficient TDMA allows high channel capacity per frequency.
- Most advanced, highest capacity public safety grade technology in the U.S. today.
- 700/800 MHz integrated voice and high-speed data.
- Most effective end-to-end encryption (AES) for communication security.

V-TACS and the use of low-profile pole mount sites make OpenSky environmentally friendly.

- Mobile repeaters (V-TACS) provide users with enhanced in-building penetration and coverage.
- Utilizes software agile radios.



M/A-COM's OpenSky 700/800 MHz IP-based technology is a key component for SWN's statewide day-to-day communications.

High Speed Mobile Data

High performance OpenSky packet data communications, with standards-based application interfaces.

The key to the high performance level of OpenSky is its TDMA packet-switched technology. OpenSky is based on IP and Cellular Digital Packet Data (CDPD) IS-732 protocols. This allows New York to leverage many off-the-shelf applications from multiple manufacturers. Because IP is based on standards developed by worldwide partici-



pants, new technological advancements and products will continue to be IP focused, resulting in a SWN network backbone that is future ready.

OpenSky data features include:

- Robust, high capacity data transmission for a new generation of mobile computing applications.
- 19.2 kbps data speed.
- Mobile applications that provide end-to-end TCP/IP connectivity, simplifying application-to-network integration.
- Network efficiency which carries short messages and GPS data as well as file transfers, maximizing the number of data users supported by each radio channel.

P25^{IP}

M/A-COM has taken Project 25 (P25) and enhanced it with the introduction of IP technology. M/A-COM's P25^{IP} (P25 to the power of IP) is the first completely IP-based mobile radio communications system developed for users requiring P25. P25^{IP} uses an advanced IP framework that allows New York to take advantage of a cost-effective implementation and the most advanced voice and data communications available. Because the system is an end-to-end IP solution, SWN users gain the flexibility and scalability that will per-

mit them to add features and functionality never before available to them.

P25^{IP} features include:

- VHF coverage in less dense and environmentally sensitive areas, like the Adirondacks and Catskills.
- Federal standards compliance.
- IP connectivity for P25 standard.
- Integrated voice and data across the State and to OpenSky users.



M/A-COM's P25^{IP} offers standards based communications for New York's less dense areas.

NETWORKFIRST


M/A-COM's NetworkFirst interoperability solution will be deployed to connect legacy systems for almost immediate communications interoperability.

NetworkFirst uses IP to provide a fast, cost-effective means to achieving multi-system interoperability, regardless of radio type, frequency or manufacturer. NetworkFirst enables interoperability across all frequencies and supports all radio and system level

voice types - analog, digital, conventional and trunked. This means legacy systems can quickly become part of the SWN/IP network.


Features of NetworkFirst include:

- The ability to use legacy equipment from any manufacturer, even non-standard radios, and still be connected.
- Allows a planned migration of SWN users over time.

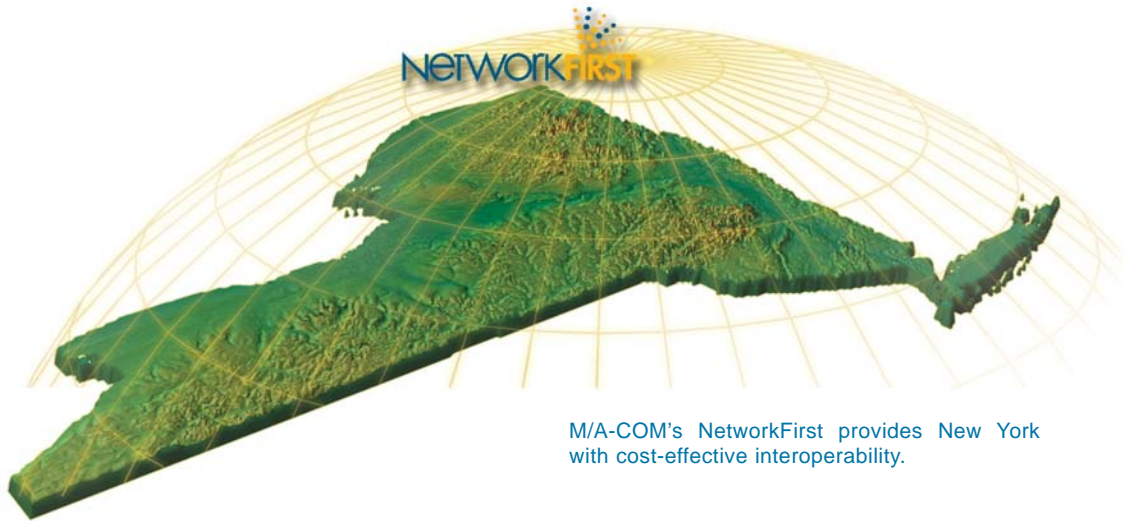


NetworkFirst has been Designated as a Qualified Anti-Terrorism Technology (QATT) by the Department of Homeland Security:

On July 13, 2005, the U.S. Department of Homeland Security granted M/A-COM, Inc.'s ("M/A-COM") application to have its NetworkFirst Interoperability Radio Network ("NetworkFirst") designated as a "qualified anti-terrorism technology" under the Support Anti-terrorism by Fostering Effective Technologies Act of 2002 ("SAFETY Act"), 6 U.S.C. §§ 441-444, and the implementing regulations, 6 C.F.R. Part 25 (2004). This designation provides significant protection to M/A-COM, its vendors, suppliers, subcontractors, and customers, in the event of a lawsuit in the face of a terrorist attack. M/A-COM is the only land mobile radio network provider able to offer this protection to their customers.



- Minimizes the financial impact on local and State agencies by using commercially available equipment.
- Provides interoperability with Federal agencies, in addition to full statewide interoperability.
- Allows all users in New York to have network access, even with their existing equipment.
- Recently designated as a Qualified Anti-Terrorism Technology (QATT) under the Department of Homeland Security's SAFETY Act.



M/A-COM's NetworkFirst provides New York with cost-effective interoperability.

VIDA

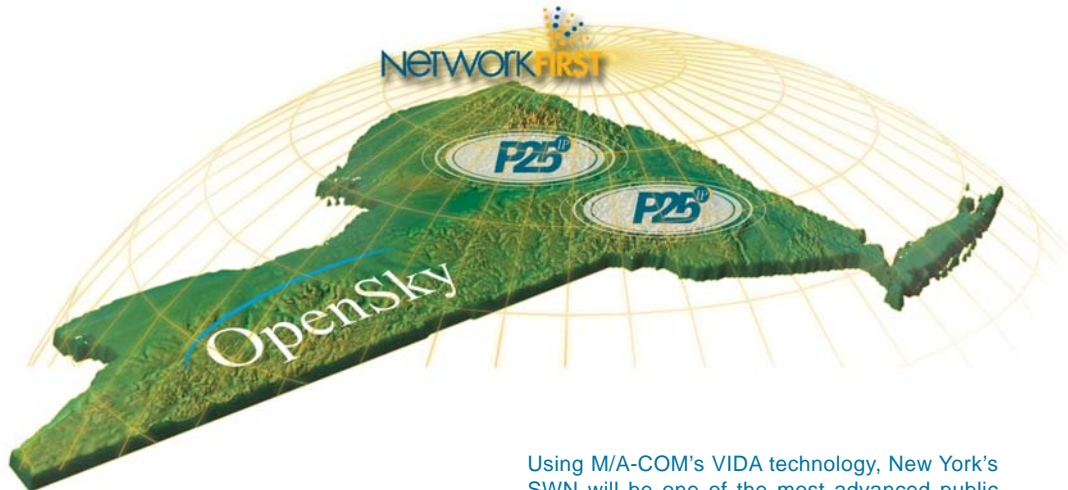
The New York SWN will be based on M/A-COM's VIDA network platform. VIDA (Voice, Interoperability, Data, Access) represents a new approach to critical communications, unifying different communications systems and equipment onto a single network solution. Through the power of IP architecture, SWN's VIDA network will enable unparalleled access to a combination of voice and data functionality, interoperability and network security with the flexibility to cost-effectively build and easily upgrade critical communications systems now and in the future.

Until the development of the VIDA network concept, users generally had no choice but to select a single technology and frequency band for their critical wireless communications. That choice required many compromises on coverage, features and cost. For New York's SWN, the freedom to mix and match technologies and accommodate them all on a single network is essential.

Features of the SWN VIDA network include:

- One unified statewide communications network.
- Ability to selectively add capacity, coverage and additional features as specific needs arise.
- Support of SWN's multiple air interfaces, allowing each system to operate independently while maintaining network compatibility.
- Support of simultaneous multiple frequency bands to maximize/optimize spectrum efficiency and usage.
- Ready for future developments to enhance communications systems.
- Based on open architecture that accepts multiple applications and technologies.
- Every agency - big or small - can plan its migration to SWN at a rate commensurate with its needs and budget.

- With the VIDA network, SWN will provide optimal levels of coverage, capacity and features for New York's varied geography and populations.



Using M/A-COM's VIDA technology, New York's SWN will be one of the most advanced public safety/public service systems available.

**For More Information on SWN
Contact the New York Office for
Technology**

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