SECURITY.
SITUATIONAL AWARENESS.
INTERAGENCY CONNECTIVITY.

MIGRATE YOUR NETWORK TO SECURE YOUR COMMUNICATIONS FUTURE

Whether you're a federal agent on a drug bust interacting with local law enforcement agencies or a county sheriff talking to the FBI after a bank robbery, you must be able to communicate together easily and coordinate a response effectively. You need to hear every word clearly and receive every message securely on any radio and any system you use – from analog to APCO 16 compliant to Project 25.

You cannot afford to carry extra radio equipment to receive a complex mix of radio network protocols and frequency bands. A lack of information or a delay in situational awareness can be life-changing. Executing your mission depends on secure interagency interoperability, no matter where the mission unfolds or how many federal, state and local jurisdictions are involved.

GENERATIONS OF RADIOS ARE AGING FAST

The state of digital radio equipment is evolving. Without question, the APCO 16 compliant network with 3600 baud control channel system has been a tireless workhorse. It laid the groundwork for basic operational requirements for public safety communications system in 1979 and was the foundation for Project 25 ten years later, which defined the suite of technical standards for digital radio communication. However, like most aging infrastructure, APCO 16 compliant radios are mature.

Federal government officials know a radio is a lifeline on the front lines. It assures access to secure, real-time information for enhanced decision making and delivers critical data to improve situational awareness,

personnel safety and response time. It provides mission critical features such as integrated voice and data, extreme audio, background noise suppression, and secure Bluetooth® connectivity – "must haves" for today's federal government agents.

FEDERAL AGENCIES SEEK SMARTER WAYS TO OPTIMIZE FUNDS

While many federal law enforcement agencies grasp the importance of migrating to a next generation solution that delivers these critical features, they may lack the funding to see it through. Some replace only non-functioning equipment; others using three or four different older technologies are concerned about compatibility if they migrate to a new radio system.

BRIGHT SPOT FOR COMMUNICATIONS SPENDING

According to a recent market research report on the 2013 U.S. budget, while IT spending is expected to decline, communications and network services are projected to increase at a compound annual rate of 1.1%, from $18.7 billion in 2012 to $19.8 billion in 2017.

Deltek, Inc., June 2012

YOUR MOMENT IS COMING….. IS YOUR RADIO READY?

Are federal government personnel prepared? Are your field teams situationally aware? Do your people have the real-time information they need to make the right decision when that mission critical moment happens?

Federal government agencies walk a fine line between holding onto mature technologies and making the best investment in a communication solution that lets them migrate at their own pace and budget — especially a backwards compatible system that is capable of mission support for many years.

The challenge federal law enforcement agencies face is clear. How do they upgrade their legacy radio systems while maintaining interagency connectivity?

ASK THESE KEY QUESTIONS AS YOU REVIEW YOUR COMMUNICATIONS TECHNOLOGY:

1. **Are your radios backwards compatible and future ready?**

2. **Will they interoperate easily with three, four, or even five generations of radios?**

3. **Will they interoperate easily with any communication system (analog to APCO 16 to P25)?**

4. **Are they FIPS 140-2, Level 3 capable to secure information at the highest level?**

5. **Are all the layers of protection in place to assure any unauthorized radio, without the correct key, is denied access to the system?**

6. **Does your radio have the features you need to communicate effectively in extreme environments and high-stress, high noise situations?**

7. **Does your radio have secure Bluetooth, so your teams can communicate covertly?**

APX™ SERIES P25 RADIOS DELIVER WHAT MATTERS MOST TO YOUR AGENCY

BACKWARD COMPATIBILITY WITH ALL ANALOG AND APCO 16 COMPLIANT SYSTEMS

With APX radios, you don't have to replace your existing radio system or set up a second network. That's because APX is so backwards compatible, it works with previous generations of systems, including analog, digital conventional, digital 3600 trunking (P16), and P25 TDMA Phase 1.

The APX Series brings 25 years of legacy systems forward and is compatible with the new TDMA Phase 2 narrowbanding solutions for increased trunking capability.

ENCRYPTED PROGRAMMING OVER PROJECT 25 (POP 25) FOR TRUNKING OR CONVENTIONAL

For nearly 40 years, Motorola Solutions has worked together with federal law enforcement and intelligence agencies to deliver the highest levels of encryption in the industry. Our legacy of information assurance continues with APX.

The FIPS 140-2 Level 3 certified hardware encryption on every APX radio provides tamperproof security to ensure the highest level of secure communications. POP25 enables subscriber radios to be programmed securely over the air while your agents are in the field, without interrupting voice operations.

INSTANT INTEROPERABILITY WITH FEDERAL, STATE AND LOCAL AGENCIES

APX portables work across multiple P25 systems and digital and analog networks to achieve true interoperability, no matter the system. When it comes to multiband operation, the APX 7000 series delivers seamless interoperability.

EXTREME AUDIO FOR CLEAR COMMUNICATION IN NOISY ENVIRONMENTS

APX radios deliver best-in-class audio that is the loudest and clearest in the industry, with a powerful 1-Watt audio speaker that makes sure every word gets through loud and clear. With dual microphone noise suppression to filter out unwanted noise, Advanced Multiband Excitation (AMBE) digital voice vocoder and extreme audio profiles, APX is ideal for communicating clearly over background noise.

WHEN THE MOMENT ARRIVES, APX RESPONDS

SCENARIO #1

**DRUG BUST
IN RURAL DETROIT**

0512 HRS

Federal drug enforcement agents (DEA) communicate over their APX 7000 Series radios with Michigan State Police and City of Detroit Police on 800 MHz radios to clear the streets.

0515 HRS

SWAT team suits up for back-up support and pairs their APX 7000 radios instantly with secure Bluetooth earpieces for wireless communication.

0527 HRS

Advance team hears instructions clearly, even over commotion on the street, with the powerful 1-Watt audio speaker on their APX remote speaker microphones.

0529 HRS

Task force members confirm from the street using their APX radios. The advanced noise suppression and dual microphones filter out loud background noise, so they can clearly understand the command "don't shoot" instead of "shoot".

0535 HRS

DEA agents converge on the alleged drug house. Using their APX radios, they communicate with the Michigan State Police helicopter on its 800 MHz mobile radio to follow any fleeing offenders.

0536 HRS

Dispatch at headquarters monitors task force members using GPS location tracking in the APX radio to ensure all are accounted for. The "man down" application alerts them if an agent is in trouble.

0604 HRS

Drug assets are seized and suspects apprehended. Using their APX portable and mobile radios, DEA agents interoperate with state and local agencies on 400 MHz and 800 MHz frequencies linked to an APCO 16 compliant radio system to confirm the mission is complete.

SCENARIO #2

BANK ROBBERY
IN SUBURBAN KANSAS

0034 HRS

Two robbers armed with semi-automatic weapons hold up a Kansas City bank. Local law enforcement arrives at the scene.

0037 HRS

The FBI is alerted and using their APX 7000 radios, agents communicate with the county sheriff and Kansas City Police on their 800 MHz radios.

0038 HRS

With a potential hostage situation looming, FBI agents use their APX radios to contact the SWAT task force. SWAT team suits up, pairing their APX radios with just a touch to secure Bluetooth earpieces. Bio-metric monitors on each member will transmit vital health statistics wirelessly to headquarters as the mission unfolds.

0046 HRS

FBI agents and additional local law enforcement officers converge at the bank and set up a perimeter. Using their APX radios and APX remote speaker microphones, the FBI agents communicate seamlessly with all jurisdictions, which are on different radio systems. Dispatch monitors SWAT team members' bio-metrics as they move through the streets and alley.

0101 HRS

Robbers surrender without incident. SWAT team stands down and FBI agents use their APX radios to coordinate arrest and delivery of suspects to U.S. Marshals on VHF radios.

SCENARIO #3

VICE PRESIDENT
VISITS CITY OF CHICAGO

1858 HRS

The Vice President of the United States arrives for an awards ceremony. All interagency security operations are deployed as planned. Seven special federal agents are hand-picked to defend against a security breach in the operation.

1859 HRS

As an additional security check, the seven agents use their APX radios to acknowledge receipt of the equipment to headquarters via voicemail. For added security, they authenticate themselves by punching in their individual codes on their APX radios.

1900 HRS

Dispatch receives seven different codes and confirms each is the correct agent.

1902 HRS

Agents are approved to accompany the Vice President when his limousine heads toward downtown Chicago.

KEEP FOCUSED ON YOUR MISSION, NOT YOUR TECHNOLOGY

Behind every APX radio is a complete support team to help you at every phase: Professional, Integration, Support and Managed Services. Especially for federal government agencies challenged with rising operational costs and increasing technological complexity, we can reduce risk, lower capital and operational costs, deliver higher levels of service, tailor networks to reflect organizational needs, and ultimately free your agency to focus on its core mission.

SECURING MISSION CRITICAL COMMUNICATIONS

Why look to Motorola Solutions? It starts with the industry-leading techniques we pioneered to provide end-to-end encryption in the P25 environment for millions of mission-critical users around the world. We've served the U.S. government for 80 years strong with innovative technology, proven platforms and complete solutions. What's more, for 35 years our teams have worked closelywith military, intelligence, federal law enforcement and public safety communities to deliver information assured communications, from the mission to the base and battlefield.

APX FITS YOUR AGENCY, YOUR SYSTEM AND YOUR OPERATION

Radio	APX 7000	APX 6000	APX 7500	APX 6500	APX 3000
Backward compatible with previous analog and APCO 16 compliant radios and previous Motorola systems	X	X	X	X	X
Multiband operation with intrinsically safe certification	X		X		
Extreme audio including dual microphone noise suppression and 1-Watt audio speaker	X				
IMPRES™ Smart Energy charging for long battery life	X	X			X
Delta T water immersion for 2 hours at 2 meters	X	option/standard			
T-grip prevents radio from slipping out of hand	X	X			
Display remote speaker microphone	X	X			
Integrated Voice and Data					
Encrypted Programming Over Project 25(POP25) for trunking or conventional	X	X	X	X	X
Secure text messaging	X	X	X	X	
"Man down" application	X	X			X
Internal GPS – Blue Force tracking	GPS	GPS	GPS	GPS	GPS
Option slot for 3rd party applications	X	X	X		
Security					
Information Assurance: FIPS 140-2, Level 3	X	X	X	X	X
Authentication	X	X	X	X	X
Code plug locks and password software protection	X	X	X	X	X
Secure Bluetooth connectivity with audio accessories and applications	X	X			X
Secure integrated voice and data utilizing data packets	X	X	X	X	X

To learn how to achieve security, interoperability and backward compatibility with one radio system, visit www.motorolasolutions.com/apx

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