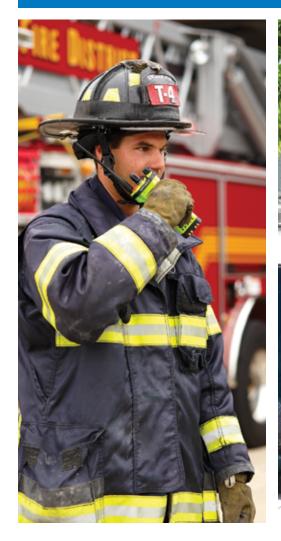# THE RIGHT CHOICE FOR TODAY IS THE SMART CHOICE FOR TOMORROW
ASTRO® 25 SYSTEMS

WHEN LIVES ARE AT STAKE.

RELY ON THE SYSTEM TRUSTED BY OVER A MILLION FIRST RESPONDERS EVERYDAY.

Around the world men and women, who protect our communities, put their lives at risk to make our lives safe. Whether running into a burning building, pursuing a speeding car or knocking on the door of a domestic disturbance, they need the confidence that there is a system behind them that will provide the help needed.

With over 750 ASTRO 25 systems and thousands of conventional sites, two million users rely on a Motorola radio for daily communications as well as emergency response in the most demanding situations.

With uncompromising real-world performance and legendary Motorola reliability, the ASTRO 25 solution continues to evolve, adding practical innovations and performance-driven capabilities that enable public safety agencies to protect the communities they work in and support neighboring communities through interoperability.

IMMEDIATE AND ASSURED VOICE IN AN EMERGENCY

Because critical incidents often require a large number of first responders, the radio system must have the capacity to handle heavy call volumes. Public safety agencies need to know their voice communications will not have to compete with consumers or other non-mission critical data traffic. The ASTRO 25 system is a dedicated communication system that can help ensure voice and data services will be available in times of emergency and peak demand. With the ability to allocate channels between voice and data as needed, ASTRO 25 supports more users, more calls and more information on the same spectrum.

ACCESSIBILITY IN CHALLENGING ENVIRONMENTS

When an officer is dispatched, he needs to be prepared and that includes his communications. Environments such as tunnels, high rise buildings and sub-basements can create unique challenges for wireless communications. An ASTRO 25 system has been optimized for the most challenging urban environments. Our field engineering team can design a system to meet your coverage requirements with solutions such as simulcast sites to minimize interference in specific environments, helping to ensure that calls get through.

RELIABLE VOICE AND DATA INTEGRATED AS ONE

Optimized for the rigorous demands of public safety agencies, ASTRO 25 provides reliable, always available communications. For example, in an emergency involving multiple agencies, first responders can share voice and data communication among their teams. Plus, centralized command and control can deploy resources efficiently, maintain communication security and track personnel.

STANDARDS-BASED PROJECT 25 INTEROPERABILITY

ASTRO 25 is a Project 25 (P25) standards-based system giving state, local and federal agencies the confidence that interoperability between multiple agencies and jurisdictions is achievable. Linking multiple P25 systems together with the P25 ISSI standard allows agencies to establish interoperability across multiple networks. A vibrant standard, P25 is endorsed by organizations around the world, and continues to evolve with the improved spectrum efficiency of P25 TDMA.

GETTING A PRACTICAL AND RELIABLE SOLUTION, NOW AND IN THE FUTURE

As your agency looks to expand mission critical communication capabilities, you must consider how the system will perform in the most challenging situations. In addition, you have to consider future needs and how to maximize any investments for the long term.

AVAILABILITY FOR THE MOST GRUELING ENVIRONMENTS

First responders must work in adverse conditions, such as an approaching hurricane, traffic lights out or a multi-building fire. Communications are often the only lifeline, so systems must be intuitive and always available. From built-in resiliency and redundancy to new capabilities that can allow the system to automatically switch, in case of catastrophic loss, to a geographically separated ASTRO 25 core to maintain system operation, the ASTRO 25 system has been designed to help ensure it is always available for public safety agencies.
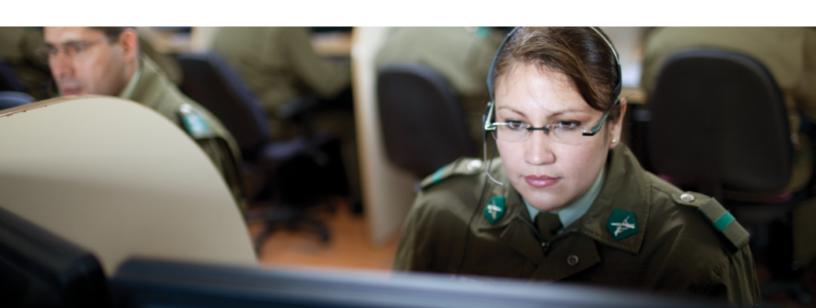
FLEXIBLE RADIO ACCESS

When the communication system is needed, it must provide the required access. ASTRO 25 is a very flexible voice and data platform that allows agencies to use conventional, trunking, simulcast and dedicated data — all on one integrated system. With its support of multiband (VHF, UHF, 700 MHz, 800 MHz and 900 MHz), ASTRO 25 also allows multiple agencies to share one network. And it's easy to add capabilities such as P25 TDMA with software-definable equipment.

INTEROPERABILITY WITH MULTIPLE AGENCIES

When an incident demands a coordinated response, the first responder wants to be able to communicate with the right set of resources to get the job done. ASTRO 25 enables seamless communications with other agencies and jurisdictions using P25 systems. With agency partitioning, agencies can share an ASTRO 25 system to save costs and improve interoperability, yet manage and maintain control over their own resources. The modular platform allows an existing SMARTNET® or SmartZone™ system to be leveraged while building out an ASTRO 25 system. Plus, subscriber radios can work across multiple bands and multiple digital and analog systems from conventional to SMARTNET and SmartZone to ASTRO 25 for true interoperability.

CONSTANT CONTACT AND CONTROL

Command operations are a critical cornerstone to any public safety operations. As a dispatcher coordinates response to an incident, the system must be intuitive and easy to use. The MCC 7500 and MCC 7100 IP Dispatch Consoles are robust solutions that deliver mission critical functionality: emergency calls that are prioritized no matter how busy the network; high quality audio even with high traffic loads; calls set in a fraction of a second regardless of system size and true end-to-end encryption.

YOUR RADIO HAS ONE JOB TO DO
KEEP YOU SAFE

IN AN EMERGENCY OTHER FIRST RESPONDERS MAY BE TEN FEET AWAY OR TEN MILES AWAY. WHEN EVERY SECOND COUNTS, PUBLIC SAFETY AGENCIES NEED A RADIO THEY CAN RELY ON TO GET THE JOB DONE.

Working with public safety communities around the world, we have redefined safety in two-way radio communications. Understanding how first responders operate radios under stress and in harsh environments is a science we pioneered, and this science of high velocity human factors plays a pivotal role in the way we design radios. The result is the APX™ series of radios; designed with the user in mind – from the rugged, easy-to-operate controls, to the loudest, clearest audio, to Integrated Voice and Data and mission critical features – APX radios keep your personnel and the community safe.
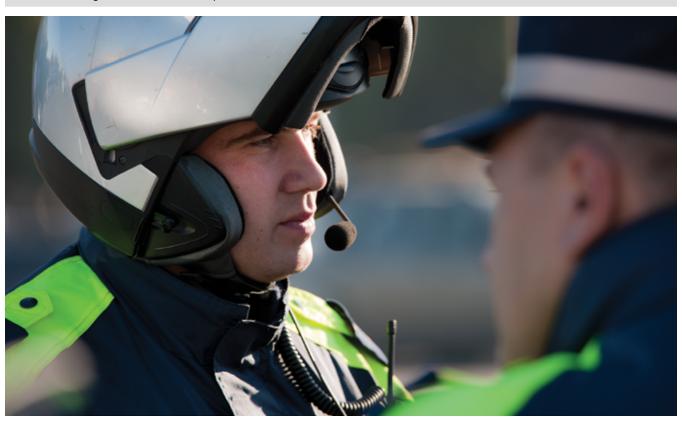
TODAY.
ACCESS TO REAL-TIME INFORMATION

Officers need to be out in the community with access to information that will help them to do their jobs better, while responding to the needs of the community. ASTRO 25 dedicated data systems allow officers to receive critical information in real time, complete routine reports, access databases and much more.

In addition to voice communications, a lifeline for first responder, the ASTRO 25 system can provide a P25 standards-based Integrated Voice and Data system, Enhanced Data functionality, plus a dedicated data-only network. A dedicated HPD data network can be installed as a stand alone ASTRO 25 system or integrated into a voice and data system providing more capacity for data applications.

- ASTRO 25 Integrated Voice and Data systems and applications can help you improve safety, productivity and efficiency.

- Enabled by GPS technology, the location of remote personnel can be quickly identified, providing faster response to an incident and improved officer safety.

- Dispatchers and mobile users can easily send and receive text messages, providing a valuable tool in maintaining communication in any environment.

- Radios can remain in the field where officers need them, while receiving critical or routine programming updates over the air.

- With an open software platform, you can add the applications you require such as field reporting, database look-ups, Be On the Look Out (BOLO) broadcast messages, license plate checks and more.

TOMORROW.
THE NEXT GENERATION OF PUBLIC SAFETY

At the heart of every mission is the ability to communicate in an instant each and every time to coordinate response and protect lives. The starting point for any public safety communications, the ASTRO 25 system is uniquely designed to deliver uncompromising voice services and provide a lifeline to the first responders. As your agency moves to the future, Motorola will stand by your side building the next generation of public safety communications systems.

INTEGRATING THE COMMAND CENTER
Maximizing situational awareness for safer, faster, better incident resolution is the goal of every command center operation. Today it means integrating voice and data dispatch. Tomorrow it means correlating voice, video and data from multiple sources, prioritizing and distributing the most relevant data to first responders in the field.
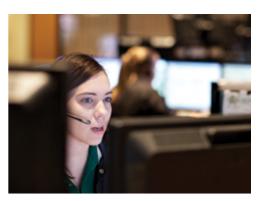
CONVERGING INFORMATION
As an officer moves across multiple P25 systems, visibility in the home network is important. Converging voice-centric workflows in the future will provide a more holistic understanding of an incident and better decision making where it matters most.

INTEROPERATING ACROSS PLATFORMS
Public safety needs to communicate regardless of technology or jurisdiction boundaries. Today you can interoperate across multiple P25 systems and multiple bands. In the future, bridges will be built between P25 systems and Public Safety LTE broadband systems.

COLLABORATING DEVICES
Receiving the right information over the right device is critical to any public safety operation. Pairing mission critical two-way radios with companion data devices allows you to supplement voice with rich-media content for improved decision making. In the future, responders will access voice talkgroups to push images or video to the accompanying data devices over a broadband network.

IMAGINE A WORLD WHERE TECHNOLOGY IS SECOND NATURE

INCREASE RELIABILITY
DECREASE COSTS
NEUTRALIZE THREATS

Benefit from our experience, knowledge and know-how. Our leading public safety technology and sound methodologies ensure intelligent growth strategies and best-in-class, standards-based solutions.

UNPARALLELED FLEXIBILITY IN SYSTEM DESIGN

From single site to country-wide deployments, ASTRO 25 is a flexible, modular system with advanced call processing capabilities designed to meet the needs of public safety. ASTRO 25 can adapt and change to accommodate additional users, increased geographic coverage, trunked and conventional systems, Enhanced Data applications and connectivity to other systems to ensure an efficient and cost-effective solution for decades to come.

LEVERAGE INVESTMENT FOR YEARS TO COME

Standing by your side over the life of your system, the ASTRO 25 system provides P25 interoperability today and is a flexible solution that can support future advancements in mission critical communications. Motorola provides a modular platform that allows agencies to start investing in P25 capabilities while gradually migrating an existing analog, SMARTNET or SmartZone system to ASTRO 25.

INFORMATION ASSURANCE

Keeping your system up and running is critical for public safety. Information assurance helps to manage information-related risks on an ASTRO 25 system to ensure the confidentiality, integrity and availability of information. This is accomplished through prevention, detection and response.

SYSTEM MANAGEMENT

A robust portfolio of system management tools allows a public safety agency to remotely manage the health of the system, as well as configure and manage the system network and subscriber equipment from a central control point. Centralized network configuration and fault management enable changes to be automatically distributed throughout the ASTRO 25 system, saving valuable technician and administrator time.

BRINGING IT ALL TOGETHER SO YOU CAN FOCUS ON YOUR MISSION

Motorola provides robust network design plus centralized pre-build and testing for timely and efficient system deployment. We offer ongoing support to maintain peak technical and operational performance including 24 x 7 network monitoring, anti-virus support, firewall and intrusion management, basic repair, and system management and operations.

DESIGN	Systems designed to optimize mission critical operations and enable interoperability with other P25 systems, Public Safety LTE networks, commercial carrier networks, two-way radio systems and agency enterprise data networks.
IMPLEMENT	Unparalleled expertise and experience in deploying large-scale public safety networks that marry IP-based networks with optimized transport of voice and data services across wide and local area networks in the most challenging environments.
SUPPORT	ASTRO 25 system performance and continuity assured with 7 x 24 x 365 network monitoring and triage. Emergency response teams engage directly with development, production and factory engineers for rapid resolution.
SECURE	Defend against threats and protect data resources for gap-free security across the entire communication platform from applications, RF system, IP transport, down to the data on a user's device.
MANAGE	Our experienced team of system managers, project managers and IT professionals can manage the support of public safety and government agencies for maximum cost-of-ownership efficiencies.

AT ANY MOMENT…

SEVERAL CARS WILL COLLIDE IN AN INTERSECTION
A FIRE WILL SPREAD TO MULTIPLE BUILDINGS
HAIL AND HEAVY RAIN WILL CAUSE A POWER OUTAGE

YOUR MOMENT IS COMING.

WHEN YOU NEED MISSION CRITICAL COMMUNICATIONS,
WHO WILL YOU RELY ON?

APOPKA, FLORIDA
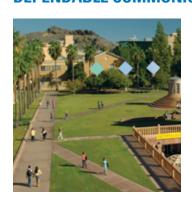### LATEST TECHNOLOGY DOUBLES RADIO CAPACITY, DELIVERS INTEROPERABILITY

"As a Motorola customer for more than 30 years, we were confident that Motorola Solutions' P25 TDMA solution would double our system capacity and improve our overall operations. Multiple agencies share our system; it did not matter that we adopted P25 TDMA and some others have not done so. We can communicate seamlessly with all of them, including public works operating in 700 MHz FDMA. The support provided by Motorola's product and systems groups was invaluable in meeting the challenges of implementing this new technology."

Richard Anderson, Chief Administrative Officer, City of Apopka

ARIZONA STATE UNIVERSITY
DEPENDABLE COMMUNICATIONS MEAN A SAFER CAMPUS

"Our primary objective is the security of the residents and property of Arizona State University (4 campuses and 65,000 students). In the past, we didn't really have a means of communicating with other agencies. We had the Insight Bowl game played at Sun Devil Stadium. I was able to go to a Tempe traffic channel and talk to their traffic sergeants about our post game plan as things changed. I didn't have to rely on phone contact, and the information was immediately shared with others across the radio system."

Corporal Larry Fuchtman, Special Events Coordinator, Arizona State University

COBB COUNTY, GEORGIA
THE STORM OF THE CENTURY STRIKES

September 19, 2009 marked one of the worst storms in the history of Georgia. Rivers swelled from two feet to 20 feet. Vehicles were swept away. 250 roads were closed. Lightning hit the Sandy Plains repeater site. Tracy Roberts explained the importance of having 24x7 system and site monitoring on the radio system during the disaster, " I received three different emails from the Motorola Network Operations Center about three component failures. Not only did I receive this information, but Motorola's certified service shop did and immediately sent technicians out to evaluate and repair the site. I can't emphasize how important it was that we had the situation stabilized before the first user in the field even called in."

Tracy Roberts, Communications System Manager, Cobb County, GA

MISHAWAKA, INDIANA
WORKING SMARTER AND FASTER

"Street guys receive so much more information on their way to the call. Cross streets can pop up if you need directions to the scene. Officers can look up information without having to tie up voice traffic or drive to the station. It's a huge time saver", Russ Haimbaugh explains about the HPD overlay on the ASTRO 25 citywide system. "Another great feature is car-to-car messaging. Officers can quickly share information with other officers on duty. The more data we make available to officers, when they're working the beat, the more comfortable they will be going into a situation and once they get there, they will be able to make better decisions."

Russ Haimbaugh, NetRMS Administrator, Mishawaka, IN

At the heart of every mission is the ability to communicate in an instant to coordinate response and protect lives.

Come with us as we lead the way to the next generation of public safety solutions. Start with the world's most widely deployed P25 voice and data platform. Build on it in the future with broadband connectivity, rich-media applications and collaborative devices that carry crucial voice, data and video into the field and into the hands of first responders.

Work directly with a Motorola specialist. Consider all the advantages of ASTRO 25 and consult with Motorola specialists to design or upgrade a system to meet your requirements. Motorola's extensive experience in delivering hardware, software, service, and support can enable any agency or municipality to assess current capabilities, measure system baselines, and design and implement solutions to optimize communications when it is needed most.

For more information on how your organization can gain the benefits of an ASTRO 25 solution that fits your needs and your budget today, contact your Motorola representative or visit **motorolasolutions.com/ASTRO25**.

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