The right choice for today is also the smart choice for tomorrow.
ASTRO® 25 Network

MOTOROLA

ASTRO 25 | *Project 25 voice and data solution. Designed for mission critical users.*

ASTRO 25 is the most widely used Project 25 mission critical voice and data (IV&D) communication network for public safety agencies. Installed worldwide, ASTRO 25 solutions meet and exceed public safety agency voice and data requirements for day-to-day operations as well as emergency response in the most demanding situations.

ASTRO 25 is a wireless platform that combines uncompromising real-world performance and legendary Motorola reliability. This powerful and reliable solution continues to evolve, adding practical innovations and performance-driven capabilities that enable public safety agencies to help protect the communities they work in and support neighboring communities through interoperability.

A platform with unparalleled flexibility

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

Reliable voice and data integrated as one

ASTRO 25 is optimized for the rigorous demands of public safety agencies – providing 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 & control can deploy resources efficiently, maintain communication security, and track personnel.

ASTRO 25 SOLUTION

Using the Project 25 standards, share information & coordinate response

Immediate voice when it is needed most

ASTRO 25
Integrated Voice & Data Network

Interoperability with other agencies for multi-agency response

Flexibility & modularity built in taking you into the future

When lives are at stake – public safety agencies need a mission critical system they can rely on. With over 200 ASTRO 25 systems worldwide, Motorola supports thousands of public safety agencies.

Motorola is committed to interoperability standards

Project 25 (P25) is a Land Mobile Radio standard that has been adopted by the Department of Homeland Security and a growing number of public safety organizations worldwide as the standard for interoperable communications. Motorola has been shipping ASTRO 25 P25 Phase 1 trunked systems since 2001.

The next evolution of Project 25 is the Phase 2 standard. Phase 2 will include TDMA (Time Division Multiple Access) technology to increase spectrum efficiency and voice capacity without added frequencies. ASTRO 25 software defined G series site equipment and APX™ subscriber radios are Phase 2 TDMA ready. Motorola's Dynamic Dual Mode will allow agencies to dynamically operate on both Phase 1 and Phase 2 TDMA providing the utmost in seamless interoperability and improved voice capacity.

Linking multiple Project 25 systems together with the Inter RF Sub-system Interface (ISSI) can aid multiple agencies in establishing interoperability across multiple networks. Through ISSI users can roam across autonomous networks while still maintaining connectivity to their home network.

As agencies work toward interoperability goals, Motorola is designing the ASTRO 25 platform to support increasing levels of interoperability.

3

Getting a practical and reliable solution – for now and the future.

As public safety agencies look to expand their mission critical communication capabilities, they must consider how the system will perform in the most challenging situations. They also have to consider future needs, and how to maximize any investment for the long term.

Immediate and assured voice in an emergency
Because critical incidents often require a large number of first responders, a two-way 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 Network is a dedicated communication network that can help ensure that voice and data services will be available in times of emergency and peak demand. With optimized networking and allocating 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
First responders often work in wireless communication environments that create call interference such as tunnels, high-rise buildings, and sub-basements. When coverage becomes limited, communication can be compromised. An ASTRO 25 network can be designed with simulcast sites to minimize interference in specific environments, helping to ensure that calls get through.

Access to real-time information for improved effectiveness
Officers need to be out in the community with access to information that will help them to do their job better, responding to the needs of the community. ASTRO 25 dedicated data networks allow officers to receive critical information in real-time, complete routine reports, access databases plus much more.

Availability built in even for the most grueling environments
First responders often 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 always need to be available and intuitive. ASTRO 25 networks are built for the needs of public safety with redundancy built in at multiple points to help ensure that communications always gets to the intended receiver.

Leverage investment for years to come
The ASTRO 25 network provides Project 25 interoperability today, plus it 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 Project 25 capabilities while gradually migrating an existing SMARTNET™ or SmartZone™ system to ASTRO 25.

When there is an emergency, multiple agencies need to work together and interoperable communications is the critical link.

ASTRO 25 has a complete line of mobile and portable radios from the popular XTS/XTL family to the newest APX multiband radio which combines leading audio technology with the latest data functionality in a rugged and user-friendly design.

ASTRO 25 provides complete dispatch solutions from the CENTRACOM™ Gold Elite to the MCC 7500 IP console plus robust digital recording. These proven solutions provide mission critical functionality: emergency calls 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.

Every day, ASTRO 25 integrated voice & data networks are meeting the demands for mission critical communications.

+ Flexible Radio Access Network
ASTRO 25 is a very flexible voice and data platform allowing agencies to utilize conventional, trunking, simulcast and dedicated data all on one integrated network. Supporting multiband (VHF,UHF, 700/800) ASTRO 25 allows multiple agencies to share one network. Adding additional capabilities such as TDMA is easy with software definable equipment.

+ Unparalleled System Availability
The ASTRO 25 network has been designed to help ensure it is always available for public safety agencies from resiliency and redundancy built in to new capabilities that allow the network to automatically switch, in case of catastrophic loss, to a geographically separated ASTRO 25 core to maintain system operation.

+ Interoperability With Multiple Agencies
ASTRO 25 enables seamless communications with other agencies and jurisdictions. With Agency partitioning, agencies can share a system to save costs and improve interoperability yet manage and maintain control over their own resources. Subscribers can work across multiple digital and analog networks from conventional, to SMARTNET and SmartZone to ASTRO 25 providing true interoperability.

+ Modular Design
ASTRO 25 has a modular design to handle the needs of any agency – large or small. Start with the functionality needed today and have the confidence that the system will grow to meet future needs.

Enhance ASTRO 25 voice communications with data applications

Practical applications to improve safety and efficiency

Voice communications have always been a lifeline to first responders. The ASTRO 25 system offers an Integrated Voice & Data (IV&D) network plus a dedicated data only network. ASTRO 25 data networks and applications can help you improve productivity and efficiency.

A dedicated data network can be installed as a standalone ASTRO 25 system or integrated into a voice and data network.

Integrated into ASTRO 25 networks are data applications developed by Motorola engineers:

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

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

Programming Over P25
Allows the subscriber radios to be configured over the air via programming software. This allows radios to remain in the field while receiving critical or routine programming updates.

Provide information remotely to enhance productivity

With its open software platform, Motorola ASTRO 25 data networks can host applications developed by independent software companies so that police, fire and EMS personnel can:

+ **Increase time in the field:** Complete field reports without the need to go to the station keeping officers in the community.
+ **Support investigations:** Conduct mobile fingerprinting or receive Be On the Look Out (BOLO) broadcast messages with digital photographs (Amber Alerts) to enhance investigations.
+ **Deliver more information:** Check license plate information against local or national databases to have more information at the scene.
+ **Improve logistics and speed response:** Access building plans and blueprints to plan for entry or direct personnel on escape routes.
+ **Manage resources:** Automatic Vehicle Location (AVL) to locate the nearest response.

Complete end-to-end solution with single-source accountability.

Benefit from the experience, knowledge, and know how of the world leader in mission critical communication – Motorola. Our leading public safety technology and sound methodologies ensure intelligent growth strategies and best-in-class standards based solutions.

Information Assurance
Keeping your network up and running is critical for public safety. Information assurance helps to manage information related risks on an ASTRO 25 network in order to ensure the confidentiality, integrity and availability of information. This is accomplished through prevention, detection and response.
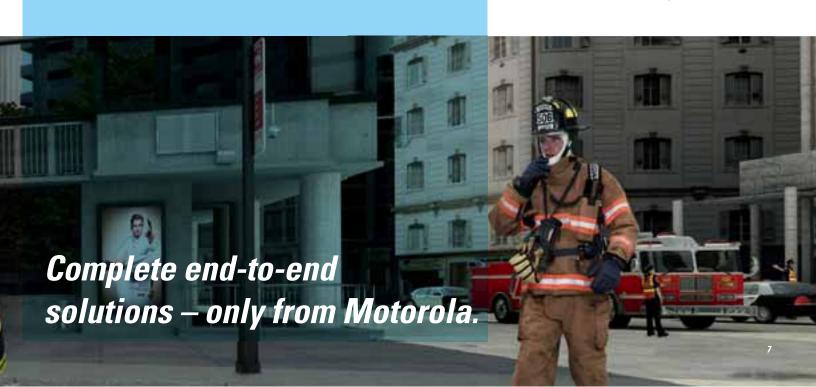
System Management
A robust portfolio of system management tools are available which allows a public safety agency to remotely manage the health of the system plus configure & manage the network and subscriber equipment from a central control point. Centralized network configuration and fault management allow changes to be automatically distributed throughout the ASTRO 25 network saving valuable technician and administrator time.

Integration & Support Services
Motorola provides robust network design plus centralized pre-build and testing for timely and efficient network deployment. We can provide ongoing support to maintain peak technical and operational performance including 24x7 network monitoring, anti-virus support, firewall and intrusion management, basic repair, and network management and operations.

Customer Center for Solution System integration (CCSi)

Motorola brings together software and hardware development engineers as well as systems integration specialists and manufacturing teams under one roof at the Customer Center for System Integration. Systems are pre-built, configured and tested to meet precise project specifications. Customers are invited to visit the system during set-up to test the system with engineers. The process verifies the system operation and functionality before the system is sent to customer sites for final installation and optimization.

Complete end-to-end solutions – only from Motorola.

MOTOA⁴ ™

MOTOA4: Technology That's Second Nature™
The ASTRO 25 network is part of the MOTOA4 Mission Critical Portfolio of products that offer seamless connectivity between first responders. Motorola puts real-time information in the hands of public safety personnel to provide better information that enables better decisions for better outcomes. It's Technology That's Second Nature.

For more information on the MOTOA4 portfolio and Motorola's commitment to the public safety industry, please visit our website at **motorola.com/secondnature** or contact your local Motorola representative.

Work directly with a Motorola specialist.

Consider all the advantages of ASTRO 25, and work directly 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.

MOTOROLA