COMMUNICATION SYSTEMS

Public Safety and Professional Communications

HARRIS®

assuredcommunications®

Your Partner in Mission-Critical Communications

At Harris, we understand that our communications solutions and equipment play a vital role in our customers' lives every day. Leveraging the latest technologies, listening and responding to customers' needs and constantly seeking ways to improve is just who we are. It shows in the value we create today and in the progress we're making for tomorrow.

Our highly skilled team provides a wide variety of communication solutions to industry, federal, state and local government agencies in the U.S. and around the world. With several decades of focus in mission-critical systems, our experience shows in our many innovative communication platforms and first-of-kind successes. Harris was the first manufacturer to deploy fully end-to-end IP-based Project 25 (P25) systems, and we continue the list of firsts with our first-of-kind deployable public safety mobile broadband solution via satellite.

It's that kind of innovative thinking that has led customers to choose the benefits that Harris products, services and technology has to offer. More than 500 trunked radio systems, including implementation of digital trunked statewide multi-agency systems for the State of Florida, the Commonwealth of Pennsylvania and the State of Nevada have been successfully deployed. Large, wide-area and multi-state Land Mobile Radio (LMR) systems have also been deployed for some of the nation's largest utility companies. In addition, the U.S. Department of Defense Joint-National Capitol Region network in the Washington D.C. area has deployed a wide-area, IP-based P25 network. The network provides the U.S. Army, Navy, Air Force and Marine Corps with wireless communication on base and throughout the National Capitol Region. This IP-based P25 network links nearly 20 military bases and allows interoperability with local public safety agencies to provide one integrated regional network. The delivered product provides the highest levels of critical radio communications interoperability. With new state and province-wide contracts for the Province of Alberta, State of Oregon, State of Maine, State of Delaware and State of Vermont, customers are recognizing that our communication solutions are powerful tools that can carry them forward to support their communication needs far into the future.

HARRIS FIRSTS **TIMELINE**

1987

FIRST with Digital Trunking

1995

FIRST with TDMA in North America

1997

FIRST Over-the-Air programming and software upgrades

FIRST with Voice-Over-IP

2002

FIRST with 6.25kHz equivalence (4-slot TDMA)

2004

FIRST P25 infrastructure with multiple third party radios

FIRST end-to-end IP P25 network

2007

FIRST harmonized P25 Phase 2 standard adopted

FIRST radio to include two digital standards in one unit

2009

FIRST P25 composite control channel single channel site-VDOC

FIRST First to introduce full-spectrum multiband radio to public safety

2010

FIRST radio manufacturer to meet P25 CAP standards

2011

FIRST to demonstrate P25 and LTE interoperability

2012

FIRST P25-based Push-to-Talk application over broadband

2013

FIRST to demonstrate Band 14 LTE mobile deployable via satellite

FIRST fully virtualized and redundant network core

2014

FIRST virtualized simulcast control point

FIRST P25 Cloud Core with government ATO

2015

FIRST multi-vendor native interface for system interoperability

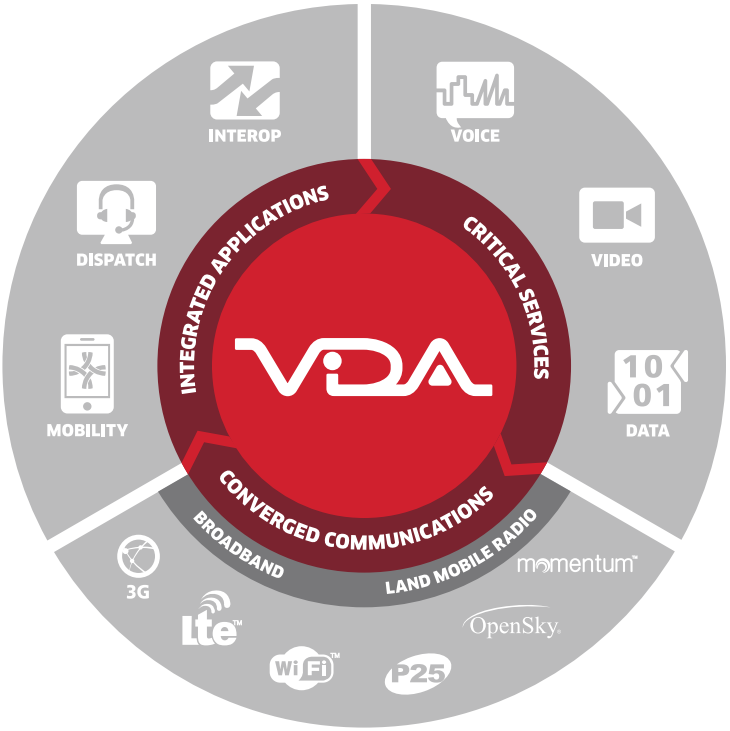
FIRST quad-band converged radio with built-in LMR, LTE-capable and streaming video

VIDA®
Reliable. Flexible. Affordable.

The VIDA services platform is a fully integrated network solution that provides unified interoperable communications for voice, data and applications across a multitude of technologies ranging from LMR narrowband to LTE broadband data networks.

This new mission-critical communications services platform does not limit users to a single radio technology with the inevitable tradeoffs in coverage, cost and features. Instead, the VIDA platform supports the co-mingling of appropriately selected technologies that best serves the diverse needs of all user groups operating on the system.

The latest evolution of VIDA integrates critical services, converged communications and integrated applications to form a services platform that is the first fully scalable, full-featured communications solution for the public safety/public services market. VIDA's virtualized data center allows you to add features without adding more equipment for a smart, economical way to expand your communication solution as your needs grow. In short, VIDA is a single, integrated, cost-effective IP-based communications infrastructure that is scalable, flexible and easily expanded.



Network Solutions

What does all this mean for you?

It means that not only do we know how to design your P25 system; we literally helped write the standard. No one can offer a better P25 solution than the experts at Harris.

P25 SOLUTIONS

Harris offers complete, APCO P25 standards-based solutions; from full end-to-end encrypted networks to feature-rich, end-user equipment such as radios, tablets, dispatch consoles and P25-integrated mobile applications. Using the VIDA core, our P25 solutions are scalable to meet your needs now and in the future.

P25 STANDARDS LEADERSHIP

As a supporter of P25 standards, we have committed significant resources to both the development of P25 technical standards and the development of P25-compliant systems and products for the critical communications marketplace. In 2009, the U.S. Department of Homeland Security's Office for Interoperability and Compatibility announced approved laboratories as part of the P25 Compliance Assessment Program (CAP). We're pleased to say that our Harris laboratory in Lynchburg, Virginia met the stringent approval process and is a P25 approved laboratory. Harris is also the first radio manufacturer to have a radio meet the demanding standards required by the Department of Homeland Security's P25 CAP compliance process.

Compliance with P25 standards is key to achieving much-needed interoperability among the emergency response community. Our team of professionals actively participates in the standards committees concerned with public safety communications products and systems. Focused leadership, contribution and participation are provided in the dominant LMR standards bodies for the U.S. and North America, including the Telecommunications Industry Association (TIA) and APCO Project 25 Digital Radio Standards. Several of our senior engineers contribute and participate in the four week-long meetings of the TIA TR-8 and P25 standards bodies each year. In addition, our top engineers contribute and participate in the various task groups and subcommittees. Harris has provided strong leadership and contribution in the key areas of the P25 Phase 2 TDMA air interface, the P25 wireline Inter RF Subsystem Interface (ISSI), P25 trunking and conventional control, and P25 encryption. This strong leadership and contribution has led to efficient and complete standards development and publication of more than 15 core standards in these key areas.

More Network Solutions

FOR PUBLIC SAFETY

Harris' end-to-end LTE broadband solutions provide the tools to ensure that mission-critical video, voice and data are available through secure, private and prioritized connections. Building on a base of cellular technology, our LTE solutions offer enhanced data capabilities, secure wireless transmissions and prioritized access control to manage network resources under high traffic conditions.

With Harris LTE, you can experience crucial first response interoperability across broadband, cellular carrier and LMR communications. For each LTE customer, we custom design the mission-critical network, assuring that communication is available at the right time, in the right place, and on the right device. Our designs leverage existing assets where feasible in order to reduce your total costs, and can incorporate a hybrid of technologies, including terrestrial LTE, mobile/deployable LTE, WiFi, along with legacy and future LMR.

GO BeOn® YOUR NETWORK

The BeOn mobile application is the most advanced P25-compatible PTT and situational awareness application on the market. This powerful platform gives public safety and businesses with a mobile workforce access to the functions of their LMR networks—all from standard Smartphones, tablets and PCs. By enabling group communications between your LMR system and any broadband network, BeOn represents the convergence of LMR and LTE. Unlike other commercial applications, BeOn is secure, providing full AES end-to-end encryption.

BeOn is the ideal choice when a traditional LMR radio would blow covert ops' cover, when command staff needs to communicate with resources from a desk or incident command station, or you need to stay connected to your team beyond the operational coverage of your LMR network.

The application can quickly be added to existing Harris VIDA networks as a core service, deployed on legacy LMR networks via a gateway, run as a stand-alone system, or it can be added to some competitor systems. The versatile application supports multiple platforms, including Android™, iOS® and Microsoft Windows® PC. For additional information, visit BeOnapp.com.

More than just a PTT application, BeOn is also a secure platform to host a variety of applications used to make your mobile workforce's jobs easier.

OpenSky®

The Harris OpenSky trunked radio network combines the power of Internet Protocol (IP) with the efficiency of Time Division Multiple Access (TDMA) technology. The result is a state-of-the-art communications system offering security, flexibility and unmatched data capabilities on an IP-based platform that can easily and economically expand to meet your future needs. OpenSky is built on Harris' VIDA platform, which offers a secure, robust, efficient and highly scalable architecture with virtually unlimited capacity. The VIDA architecture of the OpenSky system offers the capability of seamless interoperability with other analog or digital systems.

One of the biggest advantages of the system is its unmatched ability to support both voice and data on the same channel. In an OpenSky system, each time slot can either be a voice or a data slot. OpenSky employs voice-over-IP technology, and is operational in both 700/800 MHz and 900 MHz frequency bands.

momentum™

RELIABLE. AFFORDABLE. DIGITAL.

The Momentum digital radio solution is the perfect choice for budget-minded public agencies or private enterprises with digital portable and mobile radios available in VHF, UHF, 800/900 MHz frequency bands.

Momentum is based on Digital Mobile Radio (DMR) international standard for LMRs. DMR allows for two concurrent conversations on a single channel. The DMR standard is supported by a growing number of manufacturers of Tier III digital trunking systems and Tier II digital conventional products.

Momentum is certified by the DMR Association Interoperability Process (IOP) to ensure Momentum radios and systems will work in conjunction with other DMR Association IOP-certified products and systems.

System Solutions

MISSION-CRITICAL RADIOS FOR EVERY BUDGET

Different customers have different needs. That's why we offer radio solutions tailored specifically to meet the needs of police, firefighters, federal officers, utility workers and more. From the level of interoperability and software features to your preference in color, Harris has the radio solution to meet your specific need.

Made in the U.S.A., the Unity® XG-100P is a full-spectrum, multiband portable radio that delivers unprecedented interoperability

The XG-75 is available in Tactical Green (shown above), High-Visibility Yellow, Midnight Black and Standard Gray.

The XG-25 is armed with Bluetooth® functionality, and provides a clear and powerful audio experience.

MEET THE XG AND XL FAMILY

The Harris XG and XL family of radios delivers clear, reliable and secure communication with proven interoperability. Simple to operate, the XG and XL series allows users to focus on the situation, rather than radio operations. When being heard from any environment is critical, trust Harris.

HARRIS RADIOS OFFER:

- ☑ Clear, reliable and secure audio
- ☑ Single-band to full-spectrum models
- ☑ Rugged MIL standard construction
- ☑ Complete line of accessories

Learn more at
HarrisRadio.com

SYMPHONY™ DISPATCH CONSOLE

The Symphony Dispatch Console was designed for simple, efficient public safety radio dispatch operation. Features include an innovative, highly reliable, purpose-built hardware platform that is compact, silent and easy to install and maintain. This hardware is highly integrated with a dynamic user interface featuring patented Baton™ technology that simplifies workflow by putting the features dispatchers use the most where they need them. This completely customizable user interface allows individual dispatchers to work in a manner that makes sense to them. The Baton provides a heads-up display of radio system status and controls to the dispatcher directly on their main CAD interface, using the same mouse and keyboard. Up to 95% of the functionality of the full Symphony application is presented in 10% of the screen real estate to the user; reducing the number of monitors, mice and keyboards required, which in turn reduces the potential for error in a crisis situation.

Powerful.
Reliable.
Customizable.

Symphony provides many advanced features, such as receiving Emergency Alert with GPS location, and integrated Call Check Recorder. Tracking modules allow the dispatcher to review the calls received on a particular programmed talkgroups. More than 1,000 communication modules including Trunking talkgroups, conventional channels, paging, Patch, Simulselect, Aux I/O and individual radios, may be combined on the same screen. Learn more at SymphonyConsole.com.

PATENTED BATON™ TECHNOLOGY

The new Baton makes complex tasks simple by integrating directly with your existing 9-1-1 and CAD software allowing dispatchers to handle calls using a single monitor, mouse and keyboard.

Customer Service Solutions

WE'RE HERE FOR YOU

Our team of dedicated professionals will be there for you throughout the life of your system. Our mission is to be the preferred global provider of trusted communication solutions for those that defend, protect and serve. We take that mission seriously by offering the following capabilities and services:

CUSTOMER CARE

Friendly and efficient representatives provide product quotes and inquiries, as well as provide shipping and billing status updates. Our state-of-the-art call system automatically routes calls by area code, minimizing your wait time.

FLEXIBLE TRAINING OPTIONS

Whether at your site or our Technical Training Center in Lynchburg, Virginia, our knowledgeable training staff conducts a variety of courses to meet your needs. Choose from custom curricula or standard classes in equipment operator training, P25, NetworkFirst®, OpenSky®, BeOn® and Momentum™ system training, or radio maintenance and troubleshooting. Our training center offers modern, well-equipped classrooms; hands-on training in state-of-the art laboratories and instructors with extensive industry experience. Online training is also available for certain products.

INSTALLATION, POST-INSTALLATION AND MAINTENANCE SERVICES

Experienced field service personnel are located regionally to install, commission, implement and support bringing your system on line, upgrading or expanding your existing system. Our team has access to a network of more than 100 Harris Authorized Service Centers, ensuring high quality workmanship and timely execution.

PROJECT MANAGEMENT AND IMPLEMENTATION

Our program managers follow the principles set out by the Project Management Institute and have implemented hundreds of sites worldwide including performance as prime contractor and system supplier for complete system operations.

TECHNICAL ASSISTANCE CENTER (TAC)

Our knowledgeable technical assistance center provides customers with toll free assistance for operations, programming or maintenance questions and troubleshooting guidance. Calls are logged on a state-of-the-art call tracking and knowledge system. Issues and resolutions are logged and categorized to build a knowledge-based database, while 24/7/365 services are available.

Did You Know?

Harris is launching reconfigurable payloads with the ability to be changed while in orbit. Because of Harris' pioneering technology, we have been on every U.S. GPS satellite ever launched.

World-leading technologies for next-generation satellites.

Harris advanced airborne antennas enable stealth communications among advanced aircraft. We provide leading electronic warfare capabilities that protect assets in dangerous situations.

More effective defense against advanced threats.

Harris provides voice, video, data and internet services to more than 400 vessels navigating the seas worldwide. Our minesweeping technology has served in every U.S. Navy mine clearance operation for more than 40 years.

Maritime solutions from ocean to orbit.

Harris employs more than 9,000 scientists and engineers.

Tomorrow's technology, today.

Harris has been a part of every U.S. multi-manned space flight. We operate and maintain the networks that allow NASA to communicate with every one of its spacecraft, some more than a billion miles from Earth.

At the forefront of space exploration.

Harris has delivered more than 1 million tactical radios, as well as ample night vision technology, to military and night vision personnel around the world.

More information, better protected.

Harris enables space-based aircraft tracking capabilities. We created the ground-based tracking network for the FAA's NextGen Air Transportation System modernization initiative.

Advancing Air Traffic Management.

Harris processing systems support the latest generation of weather satellites. We develop and manufacture space-based sensors that play a critical role in monitoring and forecasting weather.

More accurate and timely weather analysis.

HARRIS®

Harris provides advanced, technology-based solutions that solve government and commercial customers' mission-critical challenges. Learn more at harris.com.