

As a mission critical wireless network user you may need a system that provides more than just voice communication. You may need to interoperate seamlessly with neighboring federal, state and local agencies. You may need a solution that provides sophisticated features with lower maintenance and operating costs that is easily scalable to meet changing requirements over time. Or you may want the freedom to choose between multiple vendors for subscriber radios, dispatch consoles or other network devices.

The Harris P25<sup>IP</sup> system meets these needs by combining decades of Land Mobile Radio (LMR) experience with industry standard IP network technology to deliver P25 standards with many enhanced capabilities.

# a single, cost-effective IP-based network that is reliable, scalable and secure

#### The "Power of IP"

Harris combines the Project 25 standard with the advanced functionality of the IP-based VIDA Network, creating the enhanced P25<sup>IP</sup> solution. The end result is a single, cost-effective IP-based network that is reliable, scalable and secure while providing communications interoperability with neighboring agencies.

## APCO Project 25 (P25)

Association of Public-Safety Communications
Officials International
(APCO) Project 25 is
a suite of digital LMR
standards created and
developed by public
safety professionals, for

public safety professionals. P25 specifies a number of "interfaces" between different system elements including the Inter Subsystem Interface (ISSI) and the Common Air Interface (CAI). These standard interfaces are necessary to achieve 25's most important goal – Interoperability.

One of the first interfaces defined by P25 was the CAI, the air interface or wireless link between a user radio (portable or mobile) and a transmit/receive site. Radios equipped with the P25 CAI can operate on P25-compliant systems from multiple manufacturers providing users with the freedom to choose between different manufacturers' equipment. By supporting the P25 CAI and ISSI, Harris' P25<sup>IP</sup> system supports competitive procurements.

#### **High Reliability**

Harris has developed the P25<sup>IP</sup> system to meet and exceed the P25 standard. The Harris P25<sup>IP</sup> system delivers the high reliability that mission critical users demand by including multiple levels of fault tolerance to ensure no single point of failure. Examples of Harris' fault tolerant design philosophy include:

- High-availability redundant network switches (with optional geographic separation) to ensure reliability and survivability
- Modular station design to deliver easy troubleshooting and repair
- Automatic critical database backups at each site to provide uninterrupted local communications even if IP links are disrupted

#### **Interoperability**

The Harris P25<sup>IP</sup> solution provides interoperability at the network level, with Project 25 ISSI and NetworkFirst<sup>TM</sup>, or at the subscriber level by incorporating multimode radios like the Unity® family of full-spectrum radios.

#### **Interoperability:** Project 25 ISSI

The Harris P25<sup>IP</sup> system supports the Project 25 ISSI, allowing the connection of multiple Project 25 networks, even those from other suppliers. Through this use of industry standard interfaces, continuous interoperability can be established among agencies operating with disparate radio systems, technologies or radios.

#### **Interoperability:** NetworkFirst

The Harris NetworkFirst solution provides on-demand interoperability with non-Project 25 legacy equipment, such as other manufacturers' systems, regardless of frequency band. NetworkFirst utilizes Interoperability Gateways, dispatch consoles, and network management systems to interface with legacy equipment thereby maximizing the use of existing equipment. Plus, NetworkFirst eliminates the need for dispatchers to manually create multi-agency incident response talk groups. It provides a permanent, cross-band, multi-agency interoperability solution.

#### **Interoperability:** Multimode Radios

Harris P25<sup>IP</sup> terminals, using the P25 CAI, provide maximum flexibility because they can operate on Harris P25<sup>IP</sup> systems or on Project 25-compliant systems from other manufacturers. In addition to P25<sup>IP</sup>, Harris' multimode radios support several different wireless protocols including OpenSky\*, OpenSky2\*, EDACS\* and analog conventional.\* This multimode capability allows customers to migrate from legacy systems to P25<sup>IP</sup> systems gradually, as permitted by agency budgets.



### P25<sup>IP</sup> from Harris:

Standards-based network for Public Safety and Professional Communications.



<sup>\*</sup>Visit pspc.harris.com for more details.