

MORE THAN JUST TALK...

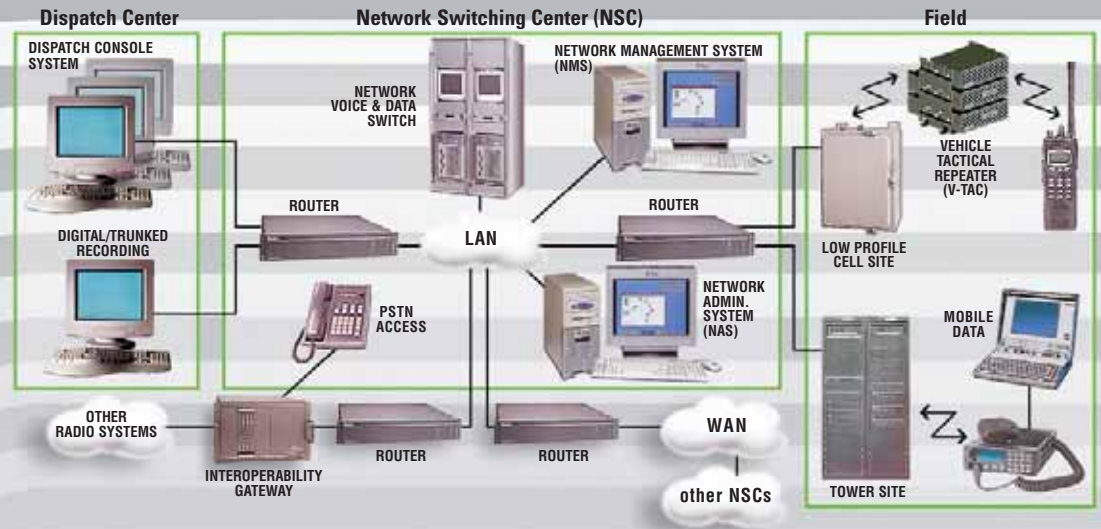
OpenSky is a fully interoperable digital communications solution for public safety, utility, federal, industrial and transit markets. Spectrally efficient 4-slot TDMA, end-to-end Voice over IP and industry-leading packet-switching technology provide unprecedented capacity and flexibility.


OpenSky
A VIDA Network System

tyco | Electronics

M/A-COM

OpenSky:
The Newest Generation
 OpenSky offers a full range of standards-based, software-defined radio, dispatch, network and network management equipment.



The Spectral Efficiency of TDMA, the Highest Level of Flexibility

In the transition from analog systems to the digital age of high-capacity, feature rich integrated voice and data communications, OpenSky meets and exceeds market demands for features and performance. As shown in the comparison chart (right, below), OpenSky offers next-generation performance today.

Maximum Interoperability

OpenSky's end-to-end IP network architecture allows public safety first responders, regardless of legacy equipment, to communicate in real time through M/A-COM's NetworkFirst interoperability application. With OpenSky and NetworkFirst, each user needs only one radio to seamlessly communicate with many independent agencies within the network. In addition, OpenSky meets the requirements for an open IP-based radio system architecture that supports compatible hardware and software products from different manufacturers.

Unsurpassed Flexibility

OpenSky provides unsurpassed flexibility in three equally important areas:

- Network design and configuration
- Day-to-day operation

- On-demand scalability and future growth/migration to new technologies

Because OpenSky is designed with M/A-COM's IP-based Unified Network Architecture, it's easy to tailor such features as capacity and coverage to specific areas, eliminating the need for compromise. And, since OpenSky equipment is software based, changes are easily accommodated at any time:

- Over-the-air reprogramming of radio features and user profiles.
- Activation of any user's distinct IP address on any radio in the network.
- Selection of multiple operating modes: OpenSky digital operation in both 700 and 800 MHz; conventional analog FM; conventional digital using Project 25 Common Air Interface (CAI).

Easy Transition and Migration

OpenSky allows legacy analog systems and newer digital technologies to work together seamlessly during the transition, so your legacy analog radios can communicate easily with OpenSky digital radios throughout the entire coverage area. In addition, M/A-COM's Unified Network Architecture ensures that you can add or migrate to future IP-based technologies at your own pace.

Meets Advanced Security Standards

OpenSky uses end-to-end AES (Advanced Encryption Standard) encryption for maximum security. In addition, all radios are password protected to prevent unauthorized use.

Provides Lower Cost of Ownership

OpenSky inherently provides low Total Ownership Cost (TOC) over the life of the system through the use of:

- Integrated voice and data (two radios in one)
- M/A-COM's Unified Network Architecture, which ensures a long service life and provides connectivity to existing legacy and new third-party applications
- Industry proven, high volume COTS (Commercial-Off-The-Shelf) equipment
- Over-the-air reprogrammability to eliminate the costly and time-consuming return of radios for reprogramming
- Rugged and reliable components
- Spectrum-efficient TDMA technology
- Lower cost "cell sites" and coverage enhancement/extension with Vehicular Tactical Repeaters (V-TAC)
- Lower backhaul cost

Coverage and Reliability When and Where You Need It

OpenSky provides high-quality communications in areas where other systems fail.

Even in rural areas and in difficult terrain, OpenSky's digital voice technology provides clear, reliable communications. Our V-TAC and "cell sites" automatically extend voice and data coverage into otherwise hard-to-reach areas, especially where in-building coverage is problematic.

The Spectral Efficiency of TDMA

By utilizing 4-slot (6.25 kHz equivalence on 25 kHz bandwidth) Time Division Multiple Access (TDMA), OpenSky expands network capacity by permitting multiple transmissions on a single RF channel. Voice messages are transmitted in compressed and encrypted IP-based packet-switched format from end-to-end, ensuring the highest level of security while maintaining high voice quality. And because OpenSky systems do not require dedicated control channels, capacity and reliability are further enhanced since all channels are available for voice and data trunking.

Integrated Voice and Data

The OpenSky Network is based on IP and Cellular Digital Packet Data (CDPD) IS-732 protocols. This allows customers to leverage many off-the-shelf applications from multiple manufacturers. Additionally, OpenSky mobile radios provide a standard RS-232 serial interface for connecting to portable PCs or other third-party products.

It's the VIDA Network that Makes the Difference

As a stand-alone or a fully integrated element of a VIDA Network, OpenSky delivers:

- Full voice interoperability for cross-agency communication through NetworkFirst
- 4-Slot TDMA (Time Division Multiple Access) Channel Efficiency
- Integrated Voice and Data (one radio, one infrastructure)
- End-to-End IP Addressing
- CDPD (Cellular Digital Packet Data) Standard-Based Packet Technology
- Voice trunking for maximum spectral efficiency
- Lower-cost coverage extenders, including "cell sites" and V-TAC
- Built-in GPS technology for Automatic Vehicle Location (AVL)
- 19.2 kbps data speed
- Over-the-Air Provisioning
- P25 Common Air Interface (CAI)

FEATURE COMPARISON

MARKET DEMAND	Competition	OPENSky
All Digital	Mixed	End-to-end Digital IP
Data Applications	Voice or Data (separate infra.)	Integrated Voice and Data
High Capacity	1 Call per Channel (FDMA)	Up to 4 Calls per Channel (TDMA)
Growth & migration	Limited; dead-end technology	Scalable; future-ready IP standard
Higher Data Rates	9.6 kbps	19.2 kbps
Heightened Security	DES	AES

OPENSky A VIDA Network System

As a stand-alone or fully integrated element of a VIDA Network, OpenSky is an IP-based, integrated voice and data critical communications system for public safety, industrial, utility, transit, military and government applications. Contact your M/A-COM representative to learn more about OpenSky and other VIDA Network systems and applications.

M/A-COM, INC.

1011 PAWTUCKET BOULEVARD
LOWELL, MASSACHUSETTS 01853 U.S.A.
PHONE: 1 800 528 7711
FAX: 1 800 833 7592
www.macom-wireless.com



M/A-COM, Tyco, OpenSky, EDACS, NetworkFirst and VIDA are trademarks. Other products, logos and Company names mentioned herein may be trademarks of their respective owners.



ECR-7016C

©2004 M/A-COM, Inc.