HARRIS®

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EDACS to P25^IP Migration

EDACS®, the Enhanced Digital Access Communications System,

has provided hundreds of thousands of mission critical radio users with reliable communications since the late 1980's. During that time EDACS has grown from single site public safety systems to networks covering multiple states - supporting a diverse user community including public safety, public service, military and private enterprise customers.

During recent years, advances in technology, regulatory changes and customer-driven initiatives have joined to create market demand for standards-based wireless communications networks. In order to serve this demand, Harris has created a team of communications professionals dedicated to migrating existing EDACS systems to standards-based technologies like P25 (Project 25) and Internet Protocol (IP) based networks.

Team Approach to a Planned Migration

The essence of a successful migration to P25^{IP} is careful analysis and planning that will lead to a system design and schedule of implementation that meets your needs, budgetary requirements and funding cycles. Each Harris-coordinated migration project will include five distinct stages:
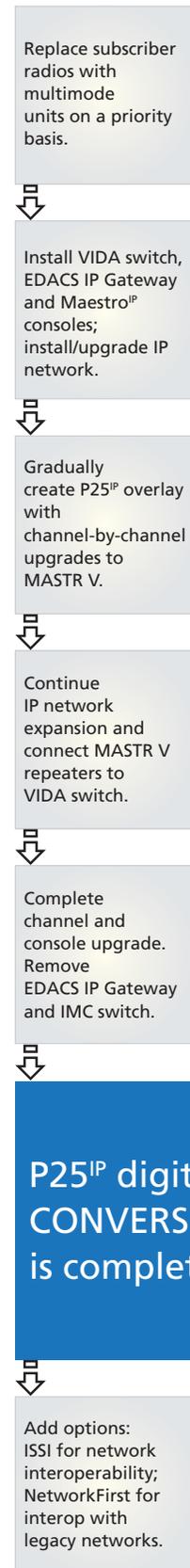
Stage 1: Needs Analysis

Stage 2: Migration Planning

Stage 3: Technical Design & Development

Stage 4: Migration Implementation

Stage 5: Post-migration Support

The EDACS to P25^{IP} Transition Map (displayed to the right) outlines the Migration Implementation Stage (Stage 4) of a typical migration project. The actual steps involved may vary depending on the equipment currently in use, budgetary requirements and the desired final P25^{IP} system configuration. The Harris migration team will engineer a plan tailored to meet the specific requirements of each customer.

EDACS to P25^{IP} Transition Map

Replace subscriber radios with multimode units on a priority basis.

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Install VIDA switch, EDACS IP Gateway and Maestro^{IP} consoles; install/upgrade IP network.

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Gradually create P25^{IP} overlay with channel-by-channel upgrades to MASTR V.

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Continue IP network expansion and connect MASTR V repeaters to VIDA switch.

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Complete channel and console upgrade. Remove EDACS IP Gateway and IMC switch.

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P25^{IP} digital CONVERSION is complete!

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Add options: ISSI for network interoperability; NetworkFirst for interop with legacy networks.

Software-defined Multimode Terminals

Advances in software-defined radio (SDR) technology have enabled a powerful alternative to the typical infrastructure-first migration path. Software defined radios can be upgraded from EDACS to P25^{IP} through a software-only upgrade - similar to adding a new application to your office computer. Adding P25^{IP} software to an existing Harris SDR allows a radio user to keep the same radio that has been used for EDACS operation; significantly extending the life of your investment in equipment. In addition, because the user is familiar with the basic radio user interface, only new P25^{IP} features need to be learned. This minimizes user training during the migration process.

MASTR V – The SDR Base Station

The MASTR V is truly a software defined radio. The modular design and programming flexibility of this radio, combined with an Internet Protocol-based VIDA (Voice, Interoperability, Data and Access) network allow a site-by-site migration to P25^{IP}. This gradual migration reduces the need for a system-wide "cut-over" thereby minimizing risks associated with installing a new system. This approach also minimizes significant changes in day-to-day operations; again easing the transition to a new digital P25^{IP} network.

Leverage Existing Investment Over Time

This approach can be accomplished at your own logical pace allowing you to maximize your investment in existing infrastructure. Even when operating in the legacy EDACS mode many users immediately notice advantages such as greater range, longer battery life and ease of operation with new software defined radios. Then, as software is upgraded and sites are transitioned to the new base stations and the VIDA switch and IP consoles are installed – again in keeping with your Implementation Map – users begin harvesting the advantages of the IP network and increased interoperability through the P25 Common Air Interface. The entire process can have a planned completion time ranging from months to several years, depending on your needs. During that period, the users' experience remains positive because they receive, on a scheduled basis, new radios with new features and capabilities which continue to grow over time.

Future Ready, By Design

As you transition to the full packet-switched IP infrastructure and building out the core VIDA network, you will also be building a platform that will serve you well into the future. VIDA employs a standards-based unified network architecture that will ensure access to multiple technologies including wideband data, P25 Phase 2 TDMA and more.

Experience with several large state-wide systems has proven the effectiveness of a gradual transition to multimode radios. And, since the multimode radios are software upgradeable, radios may be purchased with software updates only as needed, allowing costs to be spread over several funding cycles.

Public Safety and Professional Communications

Harris Public Safety and Professional Communications (PSPC) is a leading supplier of *assuredcommunications®* systems and equipment for public safety, federal, utility, commercial and transportation markets, with products ranging from the most advanced IP voice and data networks, to industry leading multiband, multimode radios, to public safety-grade broadband video and data solutions. Harris PSPC has over 80 years of experience supplying assured communications systems, products and services and supports over 500 systems around the world. Harris is the leading global supplier of secure radio communications and embedded high-grade encryption solutions for military, government and commercial organizations.

About Harris Corporation

Harris is an international communications and information technology company serving government and commercial markets in more than 150 countries. Headquartered in Melbourne, Florida, the company has annual revenue of $5 billion and 15,000 employees—including nearly 7,000 engineers and scientists. Harris is dedicated to developing best-in-class assured communications products, systems, and services. Additional information about Harris Corporation is available at **www.harris.com.**

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