VCS21™

NET-CENTRIC VOICE COMMUNICATIONS FOR GLOBAL AIR TRAFFIC MANAGEMENT

Harris Voice Communications System for the 21st Century (VCS21) is a global, next-generation Voice over Internet Protocol (VoIP) communications system for air traffic management (ATM) that meets ED-137 specifications. VCS21 facilitates ATM modernization programs by delivering net-centric voice communications that reduce dependency on traditional point-to-point communications.

The system replaces proprietary, time-division multiplexing (TDM) communications hardware with a standards-based, net-centric IP-at-the-Core, decentralized architecture. This allows communication resources to scale merely through the addition of endpoints, eliminating the problems associated with fixed capacities in TDM-based systems.

With the intelligence distributed over various elements, a failure in one part of the system does not affect operation of the rest of the system. These distributed architecture elements are then connected via a redundant dual IP network using Parallel Redundancy Protocol (PRP) to protect against network failures.

This solution ensures continued operation of the voice network, ultimately resulting in higher system reliability and availability. VCS21 facilitates ATM modernization programs of virtually any size and complexity by supporting seamless interoperability between net-centric and legacy voice systems. The system also operates as a fully networked enterprise voice system, with enhanced capabilities for business continuity planning, asset sharing and future system growth. From small, single-tower installations to national and multinational voice systems, the VCS21 suite of solutions is the right choice for your air traffic management needs.

BENEFITS

Supports from one to more than 800 controller working positions
Seamless integration with existing ATM operations enables IP transition
One hardware and software platform for all ATM applications, regardless of facility size
System availability exceeding 99.999%
Supports dynamic resectorization, resource allocation, workload balancing, and airspace design
Lowers operating costs by reducing requirements for systems, spares, and integration
FLEXIBLE ARCHITECTURE DESIGNED FOR GLOBAL ATM OPERATIONS OF ANY SIZE OR COMPLEXITY

VCS21 TWR, PART OF THE VCS21 SUITE OF SOLUTIONS, PROVIDES AN OPTIONAL BACKUP SWITCH TO PREVENT COMMON MODE FAILURE POSSIBILITIES.

NET-CENTRIC ATM PLATFORM/ BUILDING BLOCKS FOR THE FUTURE

- Controller Working Position (CWP) for all controller communications (radio and telephone)
- Media Gateway for telephone trunk and radio interface functions, enabling any mix of legacy and networked communications
- Dual, active facility LAN with PRP running on each component, with zero switchover time
- Radio Interface Unit (RIU) for support of all legacy, remote-end functions and latest ED-137 networked A/G standards
- Virtualized Call Control Servers for managing endpoint connectivity and conferencing
- TMCS and Enterprise Manager for fault reporting, monitoring, control and configuration of system(s)
- VCS21 is the only IP-at-the-Core voice communications platform in the world that is scalable to more than 800 positions
- Flexible, advanced human machine interface (HMI) with badge-embedded buttons, drag-and-drop style editor, single or dual display, and for use with mobile applications such as laptops and tablets.
  - Badges embedded within buttons
  - Drag-and-drop style editor
  - Single or dual display
  - Portable applications (tablets and laptops)
- Reduced system and life cycle costs
  - Open architecture and standards with
    - ED-137, ATS-R2, SNMP, IPv4, IPv6,
    - DHCP, NTPv4, IPSec, service oriented architecture (SOA) interfaces
  - Ability to seamlessly scale the system over the facility life cycle

For more information, email ATC-Solutions@harris.com

About Harris Corporation
Harris Corporation is a leading technology innovator, solving customers’ toughest mission-critical challenges by providing solutions that connect, inform and protect. Harris supports government and commercial customers in more than 100 countries and has approximately $6 billion in annual revenue. The company is organized into three business segments: Communication Systems, Space and Intelligence Systems and Electronic Systems.

Non-Export Controlled Information
Harris is a registered trademark of Harris Corporation. Trademarks and trade names are the property of their respective companies.
© 2017 Harris Corporation 02/17 MTN