Everything over IP DATA COMMUNICATION INTEROPERABILITY



NRG5 NETWORK RADIO GATEWAY

Network Radio Gateway (NRG™) powered by NRG5 is the newest generation of proven Radio-over-IP (RoIP) gateway solutions from Parraid. NRG5 utilizes a decentralized, mesh network of gateways and clients built on modern technologies supporting voice and data over legacy U.S. Military Combat Net Radios (CNR), Joint Tactical Radio System (JTRS) and commercial Land Mobile Radio (LMR) Systems for maximum interoperability.

Complete Radio-over-IP Solution: Industry leader in remote radio programming, control, and radio data management. NRG5 gateways and clients support voice packet routing, protocol conversion, and radio bridging. Using industry standard voice communication CODECs and protocols, NRG5 integrates seamlessly with other unified communication systems. Emerging technologies are easily implemented as required.

Graphical User Interface: A modern, user-friendly, and intuitive, touch-based interface allows for easy configuration and deployment, minimizing the learning curve for both users and administrators. NRG5 streamlines gateway and client administration in the same user interface with a permission-based featured, fast, and easy to configure system.

Improved Performance, Built on a Decentralized Mesh Architecture: Easily add or remove NRG5 gateways and clients to scale for tactical to enterprise configurations. NRG5's self-healing, decentralized mesh provides dynamic and adaptive communication paths enhancing Joint All Domain Command and Control (JADC2).

Rock-Solid Security and Advanced Management and Monitoring Tools: End-to-end encryption, authentication, and access controls to protect Radio-over-IP communications. Advanced management and monitoring capabilities enable centralized configuration management, real-time monitoring, and proactive alerting to ensure a high level of security and reliability.

Programs of Record: Long-standing capability inside the Radio Integration System (RIS) deployed throughout U.S. Special Operations Command.

The Parraid Network Radio Gateway powered by NRG5 provides a reliable, scalable, flexible, and secure gateway solution with seamless interoperability across different radio and voice communication systems. The advanced capabilities, decentralized mesh architecture, advanced management, monitoring, enhanced security, support for legacy radios, and remote radio control make it a valuable solution for tactical and enterprise Radio-over-IP.

NRG DEPLOYABLE SYSTEMS

The DS-02 and DS-04 models' compact size, rugged fanless enclosure, and low DC power requirements make them ideal for use in the field supporting two to four connected radios and up to 50 endpoints (any combination of users and radios). They can be quickly set up at communication posts, mounted in vehicles, or carried in packs and both feature an easily removable memory card for the operating system.

NRG RACK MOUNT SYSTEMS

The Rack Mount models have significant processing power that can support up to 400 conference endpoints. All these models are made to fit into standard 19" equipment racks using only 1U of space. Versions include high reliability latching connections for 4, 8, and 12 radios. The system software and conference configurations are stored on an easily removable Solid-State Drive (SSD).

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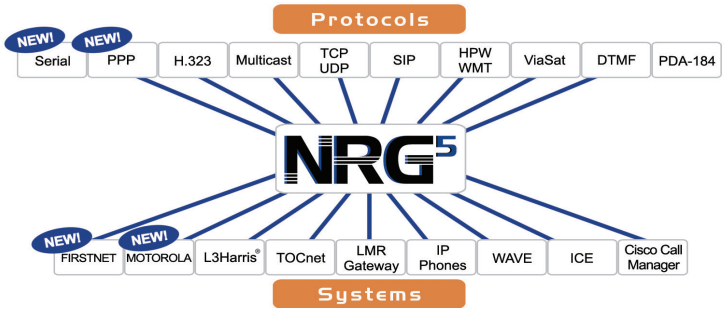
BENEFITS

- Easy to use and deploy - New easy-to-use and intuitive touch-based user interface. Turns dissimilar radios into more uniform networked resources.
- Decentralized - Mesh server-client architecture for fault tolerant, modular, and scalable deployments. Scale from command post to full enterprise integration; systems can come up on the netowrk and go back off with no disruption to others already fixed in the network.
- Enhanced radio support - Remote data and radio control for new software defined and legacy radios; reduce RF signature by providing full remote capability between the command post and the antenna farm.
- Interoperability - Supports SIP, H.323, multicast, DTMF, and other unified communications protocols; interoperable with WAVE, TOCNET, ICE, Cisco Call Manager, AT&T FirstNet, Access Net, LTE, and other systems.
- Cost effective - Allows expensive radios to be shared among many users.

NRG INTEROPERABILITY

NRG is the connecting hub for all supported protocols and it enables seamless mission communications across multiple VoIP/RoIP systems.



RADIOS SUPPORTED: EoIP, DS-XX, RM-XX

DATA

- AN-PRC-160 NEW!
- AN/PRC-163 NEW!
- AN/PRC-167 NEW!
- AN/PRC-152/152A
- AN/PRC-117G
- AN/PRC-137
- AN/PRC-150
- AN/PRC-148
- RF-5800
- AN/PRC-117F

VOICE

- Iridium PTT NEW!
- Kenwood NEW!
- Any radio with NATO U-229 and U-329 audio connector NEW!
- SINCGARS
- HMS
- Motorola XTL-5000
- Motorola XTS-5000
- Motorola XTVA
- Motorola Micom 3R
- Raytheon ACU-1000

CAPABILITIES

- Versatile Graphical User Interface:
  - New easy-to-use and intuitive touch-based user interface
  - Enhanced radio interoperability with remote data and radio control for new software defined and legacy radio
  - Reduce RF signature by providing full remote capability between the command post and the antenna farm
  - Decentralized meshed server-client architecture for fault tolerant, modular, and scalable deployments
  - No single central point of failure among NRGs in the network
  - Small command post to full enterprise integration
  - Systems can come up on the network and go back off with no disruption to others already fixed in the network
- Command and Control (C2) Monitoring:
  - Operates in tactical-standalone configurations or multiple radio circuits across IP subnetworks
  - Supports PPP, Sync, Async, L3Harris® CPA, HPW WMT, and MIL-STD 188-184 (PDA-184) data technology
  - Full recording and playback of all radio voice and conference audio for forensics and operational analysis
- Combined radio, voice, and data cables to minimize cabling, size, weight, and cost
- AC or DC power operation and low power consumption
- Robust, self-monitoring, self-restoring network uses failover priority (automatic recovery)

Rack Mount Systems

- Networking support for up to 12 radios and up to 400 endpoints (any combination of users and radios)
- Easily removable Solid-State Drive (SSD)
- Fits in standard 1U 19” rack space

Deployable Systems

- Networking support for up to four radios and up to 50 endpoints (any combination of users and radios)
- Easily removable compact flash card for operating system
- Rugged fanless enclosure for field survivability
- Small enough for mobile, manpack, or aircraft use

parraid

DESIGN | BUILD | SUPPORT

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