Radio & Digital Intercom Unified System

The SyTech Radio and Digital Intercom Unified System (RADIUS) interconnects radios, computers, smartphones and intercoms within unified system of interoperable communications.

The RADIUS Gateway functions via the Linux operating system kernel, streamlining hardware and software requirements while providing dynamic IP-based communication capabilities. The RADIUS client for Windows enables the administrator to quickly create and modify nets and patches while providing a simple, easy-to-use graphical user interface for the operator. The RADIUS Crewstation interfaces a variety of speaker microphones and microphone headsets for selectable radio and intercom push-to-talk capability. The RADIUS Crewstation App enables wireless crewstation communications over WiFi and other IP-based networks.

**GATEWAY:**
Interconnects all types of two-way radios including HF, VHF, UHF, and 700/800 MHz. Connects radios, personal computer, smartphones and crewstations.

**CLIENT:**
Monitor and transmit to dynamic talkgroups created within a simple-to-use graphical user interface.

**OPERATING SYSTEM:**
The RADIUS gateway and crewstation utilize the Linux operating system kernel, eliminating the need for a server computer.

**CREWSTATION:**
Intercom among locally connected crewstations using military-type two-way toggle ICS and selectable radio channel push-to-talk microphone headsets.

**SMARTPHONE:**
Connect with smartphones for remote system access, enabling two-way radio communications from anywhere with cellular, WiFi, or MANET access.
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**The RADIUS 2U Rackmount Gateway (DS)**

- Dimensions: 17”W x 10”D x 4.2”H
- Input power 9 - 15 Volts DC
- Power requirements: 50 watts nominal
- Customizable Radio Interface Capacity: 1 - 16 Radio Interfaces
- Crew Station Capacity: 0 - 4 Crewstation
- Interfaces: Ethernet (1)
- Operating System: Linux Kernel
- Processor: Texas Instruments Sitara ARM
- Temperature range: -40 C to +50 C operational, -40 C to +85 C stored (designed to)

**The RADIUS Client Application**

- Create dynamic patches among all communication types
- Create channels for end user access to the system
- Push-to-talk to Patches, Channels or Users
- Create Usernames and Passwords for secure access
- Configure incoming and outgoing radio audio
- Provide permissioned-based capability to User Groups
- Communicate among multiple RADIUS gateways with federated RADIUS MultiSite Capability
- Operational on Windows 10 and other Windows platforms

**The RADIUS Crewstation (CS)**

- Dimensions: 7.75”W x 2.75”D x 5.25”H
- Power requirements: 10 watts nominal, powered by DS
- Audio output power varies from 0-17 Volts into a 600 ohm headset
- Display Dimensions: 4.3” Diagonal, Full Color
- Headset and DS Connectors: Mil-Spec 26-482 Series
- Selectable between Intercom/Radio PTT
- Left/Right 3.5 mm audio output
- Wireless Crewstation App available for Android