RADIUS nPoint
Radio-over-IP Extension Point

The SyTech Radius nPoint functions as an individual radio-to-IP conversion device, allowing system owners to extend radio communications beyond traditional line-of-sight with all types of IP networks.

The Radius nPoint interfaces with all types of two-way radios, converting audio to IP, enabling transport across all types of IP networks. The Radius Distribution Service enables nets, users, and devices to communicate among radios, computers, smartphones, and other devices via selectable TCP or UDP transport. The Radius nPoint leverages the Linux operating system to deliver on-board features such as compression, encryption, and remote radio control. The Radius Client for Windows functions as a powerful, easy-to-use graphical user interface for push-to-talk, radio control, and other advanced features.

GATEWAY:
Interconnets 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.

COMPRESSION:
Efficient network transport using OPUS compression options to 9.6 kps.

RADIO CONTROL:
Options for remote radio control for select radio devices including on-screen virtual control heads with the Radius Client.

SECURITY:
Options for secure data transport with end-to-end TLS, AES-256 encryption.

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RADIUS nPoint

Radio-over-IP Network

Remote Radio:
Customer Provided

IP Network

Radius Distribution Service:
Radius Gateway, Node, or Cloud

The RADIUS nPoint

- Dimensions:
  W 22 CM (8.5") x D 7 CM (2.8") x H 3 CM (1.25")
- Weight (Composite): 181 g (0.4 lbs)
- Weight (Aluminum): 317 g, (0.7 lbs)
- Consumption: 0.5A @ 5V, 2.5W
- Input Voltage: 110 ~ 240V
- Communication Interfaces: Ethernet (1)

The RADIUS DS Node

- Operating System: Linux Kernel 4.19+
- Custom Distribution with Arago & Yocto
- Processor: TI Sitara ARM Cortex 1GHz Microprocessor
- Configuration for UDP, TCP, unicast or multicast
- AES 256, TLS Encryption
- Options for OPUS Compression

The RADIUS Client Application

- Create dynamic patches among all communication types
- Create Channels for simplified end user access
- Mixed audio for simultaneous audio reception
- Create User Profiles for advanced enterprise management
- On-screen radio control heads for remote radio control

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