

Voice Interoperability Gateway (VIG)

NYBSYS Voice Interoperability Gateway(VIG) product category provides voice interoperability among disparate systems. It offers an IP standards-based solution that interconnects voice channels, talk groups, and conference calls, Sip gateways, PSTN gateways, Unicast and Multicast gateways and many more. It also provides powerful and flexible management of personnel and media resources.

VIG is an interoperability platform for linking and bridging communications system to deliver advanced radio interfaces for other PTT system and telephony networks.

VIG can be deployed in a variety of configurations. Your configuration depends on the types of communications devices that users employ, the media types that are used, your interoperability requirements, and so on. A VIG deployment includes various hardware and software components to provide the functionality that you require:

- SIP-PTT Bridge (SPB)
- Unicast-Multicast Bridge (UMB)
- Radio Airbridge (RAB)
- PTT Access Point (PAP)
- SIP-WebRTC Bridge (SWB)



Key Features

- Modular Scalable Platform
- Supports up to 16 ports in a DIN Rail setup
- MIL Grade Shock and vibration protection
- Ready to deploy in a mission critical installation
- Intel Core -i7 processor
- 16 GB Memory and 200 GB SSD
- SIP Interface
- VOX (Voice-Activated Switch)
- VAD (Voice Activity Detection)
- Tone detection and generation
- Audio Bridge
- DTMF Bridging
- COR Bridging
- Notch Filtering
- Unicast – Multicast
- Voice-frequency switching
- Radio over IP (RoIP)
- LMR IP Backhaul
- Conferencing
- Cross Patching
- Voter/Comparator Option
- 2-wire PPT
- DMR and P25 Compatibility
- 16 assignable SIP accounts
- 12 to 24 volt models available



Radio Bridging

Voice Interoperability Gateway (VIG) bridges radio channels across different radio platforms, port-to-port, port-to-multi-port and Radio-over-IP (RoIP). The digital radio module allows analog-to-digital and digital-to-digital bridging and conferencing on one platform.

Radio Interfacing

Gateway devices offer advanced radio interfacing for analog and digital radios with a suite of programmable features to meet the most demanding radio and Land Mobile Radio (LMR) applications. When connected to NybSys Dispatch systems, 4-wire port signaling is provided to activate features and trigger radios. The Gateway is compatible with TETRA, Project 25 (P25) and Digital Mobile Radio (DMR) standards.

IP Interfacing

VIG supports standards based IP interfacing for Voice-over-IP (VoIP), RoIP, Unicast, Multicast and SIP applications for connectivity and interoperability. Each IP module comes with eight SIP accounts. When connected to Sentra PTT system, SIP applications become accessible.

Technical Specifications

<p>4-Wire Audio Ports 4-Wire Input / Output Levels: -16 to 7 dBm @ 600 Ohms, adjustable in 0.1dB steps Frequency Response: 5 to 3400 Hz; +/-1 dB ref. to 1 KHz Isolation: >60 dB Idle Noise: <20 dbrnC0 Input Impedance: 600 Ohms or 100 Ohms, software selectable each port Output Impedance: 600 Ohms, true differential Hybrid Return Loss: 25 dB minimum</p>	<p>Voice-over-IP Module IP Ports Format: Supports 10Base-T and 100Base-T Networking Stack: TCP/IPv4 Protocols: SIP, SDP, RTP, IPV67 and STUN (Simple Traversal of UDP through Network Address Translation) Codecs: G.711 (fully compatible), G.726 (16/24/33/40 kbps), G.722, DVI4 (narrow/HD/Ultra HD), Linear PCM SIP Accounts: 8 per module</p>
<p>Port Signalling M-Lead Relay Optical: Coupled MOS Maximum Contact Voltage: 60 VDC, 20 VAC Maximum Current: 50 mA E-Lead Input Active High Input: Open circuit or >+1.8 VDC Active Low Input: Ground, negative voltage or <+0.32 VDC Clear-Com Signaling: Eclipse and HelixNet DTMF Signaling E&M Lead (COR & PTT) Signaling</p>	<p>Digital Radio Module VoCoder: 3-channel Digital Voice Systems: AMBE-3003™ Vocoder encode or decode AMBE™ Input/Output: Analog and Serial Encode/Decode: P25, DMR</p>



<p>Interface and Connectors LAN: RJ45 (6 ports – PoE supported) PC Configuration: USB Port Type B 4-Wire: RJ45</p>	<p>Power Supply Switchable plug-in adapter with locking connector and IEC cord Input Voltage: 12 – 34VAC Output Voltage: 12V; 1.67A MTBF (min.): 200,000 hours demonstrated</p>
<p>Temperature Operating: 32°F - +122°F (0°C - +50°C) Storage: -40°F - +176°F (-40°C - +80°C) Humidity: 0 – 95%, non-condensing</p>	