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# AG3100-160

## FXO VoIP Gateway



### Product Overview

Techroutes AG3100-16O is a seamless transition from traditional telephony to modern IP-based communication. Designed for professional and enterprise environments, it connects existing PSTN/FXO lines with IP-PBX systems, allowing organizations to preserve their existing telephone lines and numbers while benefiting from flexible, reliable, and cost-effective VoIP connectivity. Include two gateway devices for deployment at the control site and remote site to facilitate conversion of twelve analog telephone lines to IP at one end and re-conversion to twelve analog telephone lines at the remote end. ISO 9001:2015, ISO 14001:2015, ISO 27001:2018,ISO 45001:2018, ISO-IEC 13252_1999 and ISO-IEC-15408-4 2022 , RoHS,CE,IEC 60950, FCC part 15 Class A & FCC part 15 Class B, EN50155 ,EN50121, EN55022, EN55024, EN60950 certified.

### Key Features

- 16 x FXO
- 4 x GbE ports
- Auto-provisioning
- Standard SIP v2.0 over UDP/TCP (RFC 3261)
- Full call concurrency
- Router mode
- OpenVPN
- Multiple codecs
- External power adopter AC100-240V(7-15W)
- Configuration, maintenance, monitoring, and diagnostics through a web browser or centralized management software.
- Analog audio and voltages from local ex-changes or any external FXS device

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## VoIP Features

- FXO Mode: Dedicated/Shared
- SIP Trunking
- Trunk Groups
- Inbound Routing (DID)
- Outbound Routing (DOD)
- Dial-out Code
- Prefix Addition
- Dialing Rules
- IMS SIP Support
- Audio codecs including G.711 A/μ-law, G.723.1, G.726, and G.729A/B.
- DTMF modes :Signal
- Silence Suppression, adaptive( dynamic) jitter buffer, programmable gain control & echo cancellation ( G.168) ,with up to 128ms. Full-duplex voice communication
- VLAN 802.1P/802.1Q, and Layer3 QoS and DiffServ.

## Protocols

- SIP(RFC3261)
- SDP, RTP/RTCP
- UDP/TCP/TLS
- SRTP , TEL URI – RFC 2806
- T.38&Fax Pass-Through
- Primary/Backup SIP Server
- Outbound Proxy Server
- Early Media , Session Timer – RFC 4028
- DTMF: RFC2833/In-band/INFO
- RFC 3262,RFC 3263,RFC 3264,3265,RFC 3515,RFC 2976,RFC 3311, Session Timer, NAT RFC 3581, SIP over TLS/SRTP,RFC 2198

## Voice codec

- G.711U, G.711A
- G.723, G.729, G.726, G.722, iLBC,
- OPUS

## Remote Management

- Firmware Upgrade
- SNMP
- TR-069
- Syslog

## Physical Interface

- WAN 10/100/1000M, RJ45×1
- LAN 10/100/1000M, RJ45x3
- RJ11 with LED×16
- RST×1
- USB2.0×1
- Console×1
- SFP Slot×1 (Optional)
- Desktop and wall-mount installation.

## FXO Spec

- Interface: RJ11
- Line Status LED
- Polarity Reversal Detection
- Automatic Caller ID Detection (full formats)
- Auto Busy Tone Detection (multi-cadence)
- Currentless Disconnect Detection Secondary Dialing Detection &Transmission
- Automatic Digit Acceleration on outbound calls
- Per-port Transmit/Receive Gain Adjustment
- Built-in Surge Protection & Anti-interference

## Voice QoS

- Echo Cancellation
- VAD/CNG
- Jitter Buffer
- PLC
- Gain Control

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## Management

- Web UI: HTTP/HTTPS
- SSH/Console Access
- Config Import/Export
- Reset/Reboot
- PnP
- Firmware Upgrade
- System Debug/Packet Capture
- Diagnostics
- Ping/Tracert
- Real-Time Port Status
- Local Logging
- Log Upload

## Physical Spec

- Power: AC 100–240V/ 0.8A, 50-60 Hz
- External power adapter – DC 12V
- Consumption: 7~15W
- Operating Temperature: 0°C to 45°C
- Storage Temperature: -20°C to 80°C
- Humidity: 10-90% (non-condensing)
- Dimensions: 438*236*45mm
- Net weight: 2.6kg
- Mounting: Desktop, 1U Rak Mount

## Network Features

- IPv4/IPv6
- IP Assignment: Static/DHCP/PPPoE/ PPP/VPNC
- VLAN Subinterface
- DHCP Server
- NAT/DNS/IGMP
- Routing: Static/Dynamic/Policy-based
- OpenVPN Support
- Switch VLAN/Trunk Port
- NTP Client
- Bandwidth Control/QoS Policy
- Security: Firewall
- ARP Defense
- DDoS Protection
- DNS SRV/ A Query,Early Answer, NAT: STUN, and Static/Dynamic NAT.
- LED indicators for power status, network status, and line activity.
- A voice frequency response of 300 Hz to 3.5 kHz within a tolerance of +1 dB / –3 dB.
- Impedance of 600 Ω /900 Ω.

***For More details:***
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