

# **SOUNDWIN** 2 -4 Analog Lines FXS/FXO VoIP Gateway



*The Soundwin S200/S400 Series VoIP Gateway is fully both SIP and H.323 standard compliant residential gateway that provides a total solution for integrating voice-data network and PSTN. By simple installation, this revolutionary compact voice over IP (VoIP) gateway could be configured as a 2/4 port FXS/FXO VoIP Gateway which provides voice connectivity over the IP network and to the Public Switched Telephone Network (PSTN). The Soundwin Gateway is equipped with a four port Ethernet switch and built-in NAT router function that provides Internet access using only one IP address. Besides, it provides high voice quality and optimized packet voice streaming over managed and public (Internet) IP networks.*

## **VoIP Key Features**

- Both support SIP and H.323 protocols: SIP Registration and Digest Authentication; H.323 Gatekeeper Registration.
- SIP Single Number / Account for multiple ports.
- Caller ID Delivery and Detection: FXS support DTMF&FSK Caller ID generation; FXO supports DTMF&FSK Caller ID detection. **(Optional)**
- Flexible and Smart VoIP call Dialing Book: VoIP call Book could provide any application VoIP call to any type destination (Domain name / IP address, PSTN or PBX) or hunting number setting.
- AC termination Impedance : 600/900 OHM and complex impedance
- Answer Supervision for Polarity Reversal Detection and Voice detection
- NAT traversal: This feature allow gateway to operate behind any NAT/Firewall device. Need not to change any configuration of NAT/Firewall like setting virtual server.
- Smart-QoS: This feature provides good voice quality when user place a VoIP call and also access internet at the same time. The gateway will automatically start to reserve bandwidth for voice traffic when VoIP call proceeds.
- Call Hunting Facility: This function helps gateway to use the lines effectively. This facility automatically transfers your incoming call to a free line. Subscribers need not indicate numerous numbers of each port of gateway.
- Voice channels status display: This function display each port status like as on-hook, off-hook, calling number called number, talk duration, codec.
- Pulse Dial support: Support pulse dialing generation and detection. **(Optional)**
- Flash Detection and Generation Program: FXO support Flash Generation and FXS support Flash Detection.
- FXO answer Mode : FXO provides Ringing Answer, Connection Answer and Non Answer for configuration.
- VoIP Encryption: Encrypt peer to peer VOIP calls can avoid VoIP blocking of internet.

## Application Scenario:

The following application was used in Multi-Office as an example:



## Telephony Specification:

- ☒ Voice Codec: G.711(A-law /  $\mu$ -law), G.729 AB, G.723 (6.3 Kbps / 5.3Kbps)
- ☒ FAX support : T.30 / T.38
- ☒ Echo Cancellation: G.165/G168
- ☒ FXS Tone Table Configuration: Support tone frequency and cadence configuration
- ☒ FXO Caller ID detection : DTMF and FSK (**Optional**)
- ☒ FXO hang up detection / anti-seized : Busy Tone Learning Automatically / Manual Busy Tone Learning
- ☒ Answer supervision: Support Battery Reverse Detection and Voice Detection.
- ☒ FXO answer delay time: Support delay 0 – 8000 ms to answer.
- ☒ Adjustable AC Termination Impedance : 600 / 900 OHM and complex Impedance
- ☒ Failsafe Mechanism (FXS relay to FXO) : Power failed bypass support / Internet Failed bypass / Registered Failed bypass / Unconditional bypass.
- ☒ 12K Hz and 16K Hz Pulse Metering (**Customized**)
- ☒ Support MWI (Message Waiting Indicator) by SIP Notify.

## IP Specifications:

- ☒ H.323 v2/v3/v4 and SIP (RFC 3261) , SDP (RFC 2327), Symmetric RTP, STUN (RFC3489), ENUM (RFC 2916), RTP Payload for DTMF Digits (RFC2833), Outbound Proxy Support.
- ☒ LAN :Support Virtual Server, DHCP Server
- ☒ WAN: Support PPPoE client, DHCP client, Fix IP Address, DDNS client
- ☒ Network Address Translation: Providing build-in NAT router function.
- ☒ Smart QoS: Guarantee the voice bandwidth
- ☒ IP TOS (IP Precedence) / DiffServ

## Call Features

- ☒ Voice channels status display

- ☒ Direct Dialing Mode : peer to peer call (support IP Address Call or Domain Name Call)
- ☒ Register Call Mode : register to SIP Proxy Server or H.323 Gatekeeper
- ☒ Adjustable volume : - 9 db ~ 9 db
- ☒ Silence Compression / VAD
- ☒ Auto Dial for speed
- ☒ Dynamic Jitter Buffer
- ☒ Hot-Line and Warm-Line Support

#### 🔴 **Configuration & Management**

- ☒ Web-based Graphical User Interface
- ☒ Remote management over the IP Network
- ☒ FTP firmware upgrade
- ☒ Backup and Restore Configuration file
- ☒ Syslog client support
- ☒ Auto-Provision

#### 🔴 **General Specification**

- ☒ AC power : AC100V-240V, DC12V/1.5A,50/60 Hz
- ☒ Temperature: 0°C ~ 40°C (Operation)
- ☒ Humidity: up to 90% non-condensing
- ☒ Emission: FCC Part 15 Class B, CE Mark
- ☒ RoHS Compliant
- ☒ Dimension : 260 x 130 x 35 mm
- ☒ Weight: 900g (Aluminum )

## S400/200 VoIP Gateway Catalogue

	S400	S401	S402	S404	S200	S201	S202
<i>Ethernet Port</i>	4 LAN + 1 WAN						
<i>Telephony Interface</i>	Quad RJ-11				Dual RJ-11		
<i>FXS/FXO</i>	4FXS	3FXS+1FXO	2FXS+2FXO	4FXO	2FXS	1FXS+1FXO	2FXO
<i>H.323 v2/v3/v4</i>	✓	✓	✓	✓	✓	✓	✓
<i>SIP(RFC3261)</i>	✓	✓	✓	✓	✓	✓	✓
<i>Smart-Qos</i>	✓	✓	✓	✓	✓	✓	✓
<i>NAT Traversal</i>	✓	✓	✓	✓	✓	✓	✓
<i>Echo Cancellation</i>	✓	✓	✓	✓	✓	✓	✓
<i>G.711 a / <math>\mu</math> -law</i> <i>G.723, G729AB</i>	✓	✓	✓	✓	✓	✓	✓
<i>T.38/T.30</i>	✓	✓	✓	✓	✓	✓	✓
<i>NAT Router</i>	✓	✓	✓	✓	✓	✓	✓
<i>DHCP server for Private Network</i>	✓	✓	✓	✓	✓	✓	✓

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