

# IpChannel Bank Multi-Port FXS & FXO Gateway Model 4900 Series



*The IpChannel Bank is the perfect VoIP gateway for applications requiring 12 to 32 concurrent analog voice/fax calls within a single redundant solution.*

**12, 16, 24 or 32 FXS or FXO ports**  
Simultaneous voice or fax calls on all ports.  
Advanced local call switching.

**Full SIP and T.38 support**  
Supports the complete range of industry standard VoIP: SIP, H.323, T.38 fax, fax and modem bypass, DTMF relay. Codecs G.729, G.723 etc.

**Secure Toll-Quality VoIP**  
DownStreamQoS and Voice-over-VPN with adaptive traffic management and shaping for maximum voice quality and secure voice communication.

**Complete Access Routing**  
Two 10/100 Ethernet ports with auto MDI-X. Access router with NAT, Firewall, PPPoE, DHCP, DynDNS, multiple VLANs & VPN with IPsec\*.

**Optional Integrated WAN uplink**  
Choose from V.35, X.21, T1/E1, ADSL and G.SHDSL data interfaces in addition to the two Ethernet ports.

**Outstanding Interoperability**  
Interoperable for voice and T.38 fax with leading SIP service providers, softswitch vendors and leading IP-PBX systems.

### Why SmartNode?

- Patton Quality
- Made in the USA
- Unrivalled Customer Support
- FREE Tech Support and Upgrades

The SmartNode 4900 is the ideal solution for service providers and enterprises requiring high-density analog connections for converged Internet telephony. Call centers, multi-tenant-units and PBX/switch extensions can now access the low-cost benefits of packet voice while WAN, data and VPN features permit direct access the IP network with full upstream and DownStreamQoS™.

The SN4900 supports 12 to 32 simultaneous VoIP calls over standard two-wire FXS connections. The analog ports are presented on a single Amphenol telco connector for convenient wiring closet connection. Local LAN connectivity is presented via dual 10/100 Ethernet ports. Traffic can be routed out either port for load-balancing and redundancy. Dual-redundant power supplies protect against equipment down-time.



Seamless and secure network integration with fixed IP, DHCP or PPPoE. Complete access routing features include NAT/NAPT, Firewall, DynDNS and the optional IPsec VPN feature license offer secure data.

Optional WAN uplink modules, available in V.35/X.21, T1/E1, and xDSL options, eliminate the need for extra network termination devices and extra cost.

Visit [www.patton.com/smartnode](http://www.patton.com/smartnode) for more information about the SmartNode 4900.

## Typical Applications



# SmartNode™ Model 4900 FXS & FXO Gateway



## Specifications\*

### Capacity

12, 16, 24, 32 simultaneous VoIP calls

### Voice Signaling

- SIPv2 H.323v4 (simultaneously with B2BUA capability)
- SIP call transfer, redirect
- DTMF in-band & out-of-band
- All tones programmable (dial, ringing, busy)

### Voice Processing

- CODEC G.711 a-law/mu-law, G.723, G.729ab,
- G.726, G.727. T.38 fax relay (9.6 k, 14.4 k)
- G.711 transparent fax and bypass

### Call Switching and Services

- Regular expression based call routing and number manipulation
- Number blocking
- Short-dialing
- Digit collection, distribution and hunt groups
- Transparent line extension

### FXS Connectivity

- 2-wire Loopstart on 50pin (12 to 24 channels) or 64-pin (32 channels) Telco connector
- Short haul loop 1.1km @3REN
- EuroPOTS (ETSI EG201188)
- Programmable AC impedance, feeding, ring and on-hook voltage
- Caller-ID FSK and ITU V.23/Bell 202 generation

### FXO Connectivity

- 2-wire Loopstart on 50pin (12 to 24 channels) or 64-pin (32 channels) Telco connector
- Programmable impedance, ring detection, tone detection, disconnect supervision
- Caller ID detection

### Data Services

- Two 10/100 Ethernet ports
- Complete IP access router
- DHCP Client & server
- Packet fragmentation
- Static firewall, NAT, NAPT
- RFC 1631 access control lists

- DMZ port

### Quality of Service

- Voice priority
- DownStreamQoS™
- Traffic management, shaping and policing
- IEEE 802.1p, TOS, DiffServ labeling
- IEEE 802.1Q, VLAN tag insertion/deletion 4,096

### Optional WAN interfaces

- X.21/V.35 Frame Relay (8 PVCs); RFC1490, FRF.12 fragmentation; LMI, Q.933D, ANSI 617D, Gang of Four; PPP, PAP, CHAP, LCP, IPCP)
- T1/E1 (ITU-T G.703, ANSI T1.403; & AMI, B8ZS, HDB3)
- ADSL2+ (Annex A, B, I, J, I, M, U-R2)
- G.SHDSL (G.991.2, Annex A, B, F, G, Up to 5.7Mbps, 8 PVCs, QoS)

### Management

- Web/HTTP, CLI with local console and remote Telnet access
- TFTP configuration & firmware loading

- SNMP MIB II and product MIB
- Secure auto-provisioning for both firmware and unit/subscriber configuration
- Built-in diagnostic tools (trace, debug, call generator)

### System

- CPU Motorola MPC875 @ 133 MHz
- Memory 32MB SDRAM/8MB Flash

### Power

- 100–240 VAC (50/60 Hz)
- Power dissipation: > 22W (60W max, model SN4932/JS/RUI)

### Environment

Temp: 0–50°C  
Humidity: Up to 90% (non-condensing)

### Compliance

- EMC compliance: EN55022 and EN55024
- Safety compliance: EN 50950
- CE compliance\*\*
- FCC Part 15 Class A
- RoHS

## Ordering Info

Obtain ordering info for this product by using the QR code at right or by contacting:

- web: [http://www.patton.com/products/product\\_detail.asp?id=467&tab=Ordering](http://www.patton.com/products/product_detail.asp?id=467&tab=Ordering)
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07MSN4900-DS9

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\* Specifications subject to change without notice.

\*\* Not applicable on SN4900 FXO models.