

IpChannel Bank Multi-Port FXS Gateway Router

SmartNode 4900 Series IpChannelBank

The SmartNode 4900 delivers the benefits of VoIP, the convenience of standard FXS analog ports, and full WAN routing features. With up to 32 FXS ports for MTU/MDU, call center, or multi-port PBX installations, the IpChannel Bank bridges the gap for converged voice and network services.



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 DownStream QoS™.

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.

Quality of Service (QoS) features included advanced voice prioritization and traffic management. DownStreamQoS™ ensures voice without interruptions even over best-effort internet connections. Packet labeling according to 802.1p, TOS and DiffServ enable integration into managed QoS networks.

Integrated GUI and Command Line, front panel status and call load indicators and a full suite of management interfaces ensure efficient setup, continuous trouble-free operation and cost-effective deployment.

FEATURES & BENEFITS

12, 16, 24, 32 Simultaneous Analog FXS VoIP Calls

Redundant features standard with dual ethernet and dual power supplies

Complete VoIP Gateway—SIPv2, H.323v4, T.38 & Fax bypass, G.723, G.729, G.726, G.711, echo cancellation, silence compression, comfort noise.

Access & Network Routing IPv4, RIPv2, ICMP, NAT/PAT, Firewall, DHCP, DynDNS, DNS Relay, optional IPSec VPN.

Integrated WAN uplink option with V.35/X.21, T1/E1, and XDSL choices

Integrated Router — with PPP, Frame Relay RFC-1490, 8 PVCs & FRF.12 fragmentation.

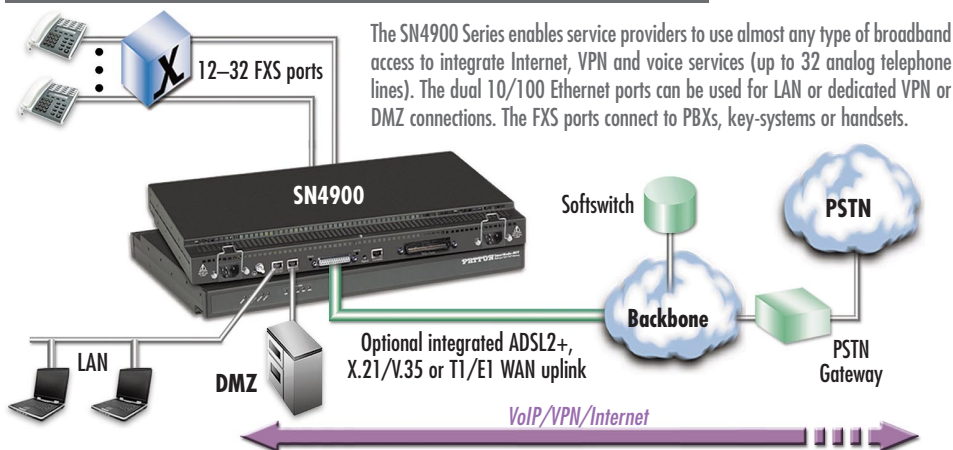
QoS and DownStreamQoS™ Guarantee Voice & Data — Quality of Service ensures voice traffic gets priority without loss of data integrity of lost calls.

Management & Provisioning — Web based management, SNMP, Command Line Interface.

Auto-Provisioning for automated configuration distribution and SW upgrades.

Also available in an FX0 version!

Network Integration—Multiservice carrier access over leased lines



The SN4900 Series enables service providers to use almost any type of broadband access to integrate Internet, VPN and voice services (up to 32 analog telephone lines). The dual 10/100 Ethernet ports can be used for LAN or dedicated VPN or DMZ connections. The FXS ports connect to PBXs, key-systems or handsets.

SPECIFICATIONS

Voice Connectivity: 2-wire Loopstart, RJ-11/12 • short haul loop 1.1 km @3REVI • EuroPOTS (ETSI EG201 188) • programmable AC impedance, feeding, and ring voltage; on-hook voltage 29VDC • Caller-ID FSK and ITU V.23/Bell 202 generation

Voice Processing (signaling dependent): Voice codes (G.711 A-Law/μ-Law (64kbps); G.726 (ADPCM 40, 32, 24, 16 kbps); G.723.1 (5.3 or 6.3 kbps); G.729ab (8kbps); Transparent pass through) • G.168 echo cancellation • 8 parallel voice connections • DTMF detection and generation • carrier tone detection and generation • silence suppression and comfort noise • configurable dejitter buffer • configurable tones (dial, ringing, busy) • configurable transmit packet length • RTP/RTCP (RFC 1889)

Connectivity: 2 10/100 full duplex/autosensing Ethernet RJ-45 • V.35/X.21 on a DB connector

Fax & Modem Support: G.711 transparent fax • Fax over IP (FoIP) • T.38 fax relay (9.6 k, 14.4 k)

Voice Signaling: H.323v4/SIP v3 (RAS, H.225, H.245; Fast-connect, early H.245; gatekeeper auto-discovery; alias registration; overlap sending; empty capability set (call transfer, hold); H.323v1 call transfer, hold) • SIPv2

Voice Routing—Session

Router: Local switching; Interface hunt-groups • Routing Criteria (interface; calling/called party number; time of day, day of week, date; number manipulation functions; replace numbers; add/remove digits; multiple remote gateways; PLAR)

IP Services: IPv4 router; RIPv1, v2 (RFC 1058 and 2453) • programmable static routes • ICMP redirect (RFC 792); Packet fragmentation • DiffServe/IoS set or queue per header bits • Packet Policing discards excess traffic • 802.1p/Q VLAN support with 4096 IDs • IPSEC AH & ESP Modes • Manual Key; IKE optional • AES/DIES/3DES Encryption

Management: Industry standard CLI with local console (CRJ-45, RS-232) and remote Telnet access • TFTP configuration & firmware loading • SNMP v1 agent (MIB II and private MIB) • Built-in diagnostic tools (trace, debug) • HTTP GUI

System: CPU Motorola MPC859 @ 50 MHz • Memory 16MB SDRAM/4MB Flash

Power: 100–240 VAC (50/60 Hz) • Power dissipation: 20W

Environment: Temp.: 0–40°C • Humidity: 5–80% (non condensing)

Compliance: EMC compliance: EN55022 and EN55024 • Safety compliance: EN 50950 • CE compliance • FCC Part 15 Class A

ORDERING INFORMATION

SN4912/JS/RUI: IpChannel Bank 12 Port FXS

SN4916/JS/RUI: IpChannel Bank 16 Port FXS

SN4924/JS/RUI: IpChannel Bank 24 Port FXS

SN4932/JS/RUI: IpChannel Bank 32 Port FXS

SN4912/JSX*/RUI: IpChannel Bank 12 Port FXS WAN Uplink

SN4916/JSX*/RUI: IpChannel Bank 16 Port FXS WAN Uplink

SN4924/JSX*/RUI: IpChannel Bank 24 Port FXS WAN Uplink

SN4932/JSX*/RUI: IpChannel Bank 32 Port FXS WAN Uplink

Options & Accessories

SNSW-VPN1: License Key for IPSec VPN support (DES, 3DES, AES)

*X = Interface options: C=V.35, D=X.21, K=E1, T=T1, Fi=Fiber, AYx=ADSL, G=G.SHDSL

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