

## SmartNode™

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 multiport PBX installations, the IpChannel Bank bridges the gap for converged voice and network services.

# Multiport FXS Gateway Router

## SmartNode 4900 IpChannel Bank

Patton's SmartNode™ 4900 Series IpChannel Bank is the perfect business solution for applications requiring 12 to 32 concurrent analog voice/fax calls. The IpChannel Bank transforms any PBX system, analog call-center application, or ISP MDU service into a state-of-the-art packet-voice system without requiring costly equipment replacement or upgrades.

The SN4900 Series supports key industry-standard VoIP signaling protocols such as SIP, H.323, and T.38 Fax Relay--plus fax-bypass and modem-bypass. This ensures interoperability with the leading soft switches and VoIP services.

Built-in Quality of Service (QoS) features include voice prioritization and traffic management via configurable service-policy profiles. Patton's advanced DownStreamQoS™ ensures clear, uninterrupted voice--even over best-effort networks such as the Internet. Packet classification using 802.1p, TOS, and DiffServ makes integration with existing managed QoS networks easy.

Create custom security profiles for a comprehensive security environment. IPSec in the SN4900 Series delivers data integrity, authentication, anti-replay and data confidentiality. Firewall capabilities include Access Control Lists (ACLs), IP-address and port filtering, protection against Denial of Service (DoS) attacks, and use of second Ethernet port as DMZ.

Offering easy setup, reliable operation, and third-party interoperability on a proven platform, the SN4900 Series IpChannel Bank sits at the core of cost-effective business solutions. The investment protection you need for the future is here today. For more information, visit us at [www.patton.com](http://www.patton.com).

### 12/16/24 or 32 FXS VoIP Ports

Multiport VoIP media gateway and routing, SessionRouter™, DTMF relay, Caller-ID, Hold, Transfer etc.

### Complete VoIP Signaling

SIPv3, H.323v4, T.38, Fax- and Modem Bypass, G.723, G.729, G.726, G.711, echo cancellation, silence compression, comfort noise.

### DownStream™ Quality of Service

Advanced adaptive traffic management for maximum voice quality. Voice prioritization and DownStreamQoS™ for bi-directional traffic control.

### Full Access Routing

IPv4, RIPv2, ICMP, IGMP, NAT/PAT, Firewall, DHCP, DynDNS, IPSec VPN (optional)

### Integrated WAN Uplink

Optional WAN for one-box connection to the network.

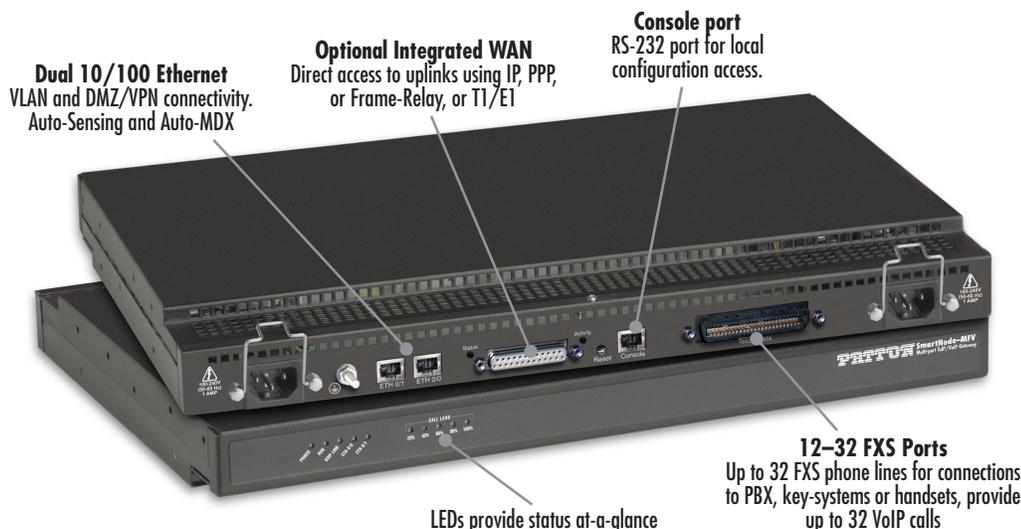
### Management & Provisioning

Built-in Web based management, SNMP, Command Line Interface and Auto-Provisioning for automated configuration distribution and software upgrades

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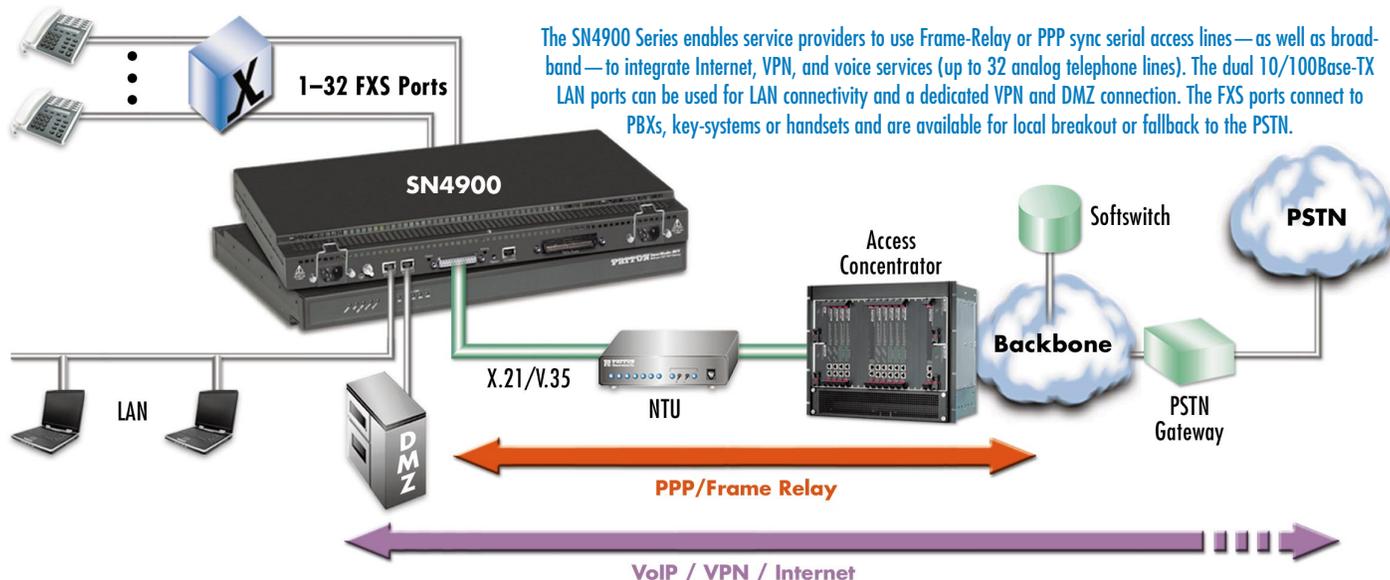


Special Rates Available  
Call for Details



SmartNode 4900 IpChannel Bank

## Network Integration – Multiservice carrier access over leased lines



## Specifications

### LAN and IP Services

Dual-port 10/100bTX LAN  
Auto-MDIX, Auto-sensing  
IPv4, RIPv2, ICMP, IGMP v2/3  
Dynamic and static NAT and NAPT  
ACL Firewall  
DNS client and relay, DynDNS  
DHCP Server  
SNTP Client  
Optional IPSec VPN (DES, 3DES, AES)

### WAN Connectivity

X.21 or V.35 WAN  
Frame-Relay (8 PVCs)  
RFC1490, FRF.12 fragmentation  
LMI, Q.933D, ANSI 617D, Gang of Four  
PPP, PAP, CHAP, LCP, IPCP

### IP Quality of Service

Voice priority  
DownStreamQoS™ (Pat.pend)  
Traffic Management, shaping, policing

IEEE 802.1p, TOS, DiffServ Labeling

### Management

Web-based GUI  
Fully Documented CLI  
Telnet and HTTP access  
TFTP configuration up- and download  
Remote firmware upgrade  
SNMPv1 agent (MIB II and private MIB)  
Built in diagnostic tools  
Auto-Provisioning

### Telephony FXS/FXO

12,16,24, 32 FXS 2-wire, loop-start, RJ-11  
short haul 500m, 3 REN, 30VRMS  
Caller-ID, ITU V.23 and Bell 202  
DTMF and pulse dialing  
Battery-reversal  
DTMF and progress tone detection

### Voice over IP Signaling

SIPv3 (RFC3261, 3263)  
SIP call transfer, redirect, DTMF relay

H.323v4, H.235 security  
Overlap or en-bloc dialing  
DTMF in-band, out-of-band  
Configurable progress tones

### Fax and Modem Support

T.38 Fax over IP (Gr.3 up to 14.4kb/s)  
Fax relay and bypass (G.711)  
Modem detection and bypass (G.711)

### Call Routing & Services

Regular expression number matching  
Regular expression number manipulation  
Least Cost Routing  
Number blocking  
Short-Dialing  
Digit collection  
Distribution- and Hunt- Groups  
2nd call offering

### Voice Processing

G.711m/A-law  
G.723.1 (6.4Kbps)  
G.729, 729a, 729ab (8Kbps)  
G.726 (16, 24, 32, 40 Kbps)

G.168 echo cancellation (25ms)  
Silence suppression and comfort noise  
Adaptive and configurable dejitter buffer  
Configurable packet length

### Power & Packaging

19-in. rack-mount chassis  
Dimension: 48.3W x 4.44H x 30.5D cm  
Weight: 4.1 kg  
Power consumption: 25–50W (model dependent)  
Redundant internal power supply: 100–240VAC  
(48V DC power supply available on request)

### Operating Environment

Operating temperature: 0–50° C  
Operating humidity: up to 90%, non condensing

### Compliance

FCC Part 15 Class A (US EMC)  
CE per RTE 99/5/EC (EMC and LVD)  
EN55022, EN55024 (EMC)  
EN60950 (Safety)  
TBR-21 (FXS)

## Ordering Information

SN4912/JSX\*/RUI 12 Port FXS  
SN4916/JSX\*/RUI 16 Port FXS  
SN4924/JSX\*/RUI 24 Port FXS  
SN4932/JSX\*/RUI 32 Port FXS

\*X = C (X.21 WAN) or D (V.35 WAN)

\*\*Software update or key required.

### Options & Accessories

SNSW-VPN1 License Key for IPSec\*\*

**Note:** FXS connection cables are not included. Please specify type of desired cable.

The terms SmartNode, DownStreamQoS and SessionRouter are trademarks of Patton Electronics Co. Specifications set to change without notice.

Some specifications described may not be available for all models at time of printing.



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