



# Multi-Port FXS/FXO VoIP Gateway Router

## SmartNode™ 4520 Series

The SmartNode 4520 VoIP Gateway Router combines IP routing, VPN/Security, and Quality of Service for up to 8 transparent voice, fax, and data over any IP or PSTN network. Leverage low-cost packet-voice and IP services for complete branch office voice and data connectivity.

### Up to 8 analog ports

Compact, reliable stand-alone VoIP gateway with different port options. Supports simultaneous voice or fax calls on all ports.

### Toll-Quality VoIP

Advanced traffic management and shaping, combined with Patton's patent-pending DownStream QoS™ enforce uninterrupted toll-quality voice over best-effort networks.

### Advanced Local Call Switching

Virtual interfaces and routing tables provide industry leading flexibility in call handling programming. Local call switching, soft fallback to alternative routes. Simultaneously connects to multiple SIP services/IP PBXs.

### Complete SIP and T.38 support

Supports the complete range of industry standard VoIP: SIP, H.323, T.38 fax, fax and modem handling, DTMF relay. Codecs G.729, G.723, and so on.

### Easy Management & Provisioning

Web-based management, SNMP, command line interface. Automated mass provisioning for efficient large-scale deployments.

### Outstanding Interoperability

Proven integration for voice and T.38 fax with leading IP PBX systems and soft switch vendors.

Connect with confidence using the SmartNode 4520 Series Router. Integrating a complete enterprise router with local PSTN and remote packet-voice, the SN4520 supports eight simultaneous calls for a new standard in toll-bypass, remote/branch office connectivity, and enhanced carrier services.

Perfect for the remote office, branch office, or PBX/switch extension, the SmartNode 4520 integrates all your voice, fax, and LAN traffic for seamless and secure networking. With its FXS analog ports the SN4520 connects to any legacy telephone or PBX and provides dial-tone, ringing, and caller-ID. When equipped with FXO ports, the local

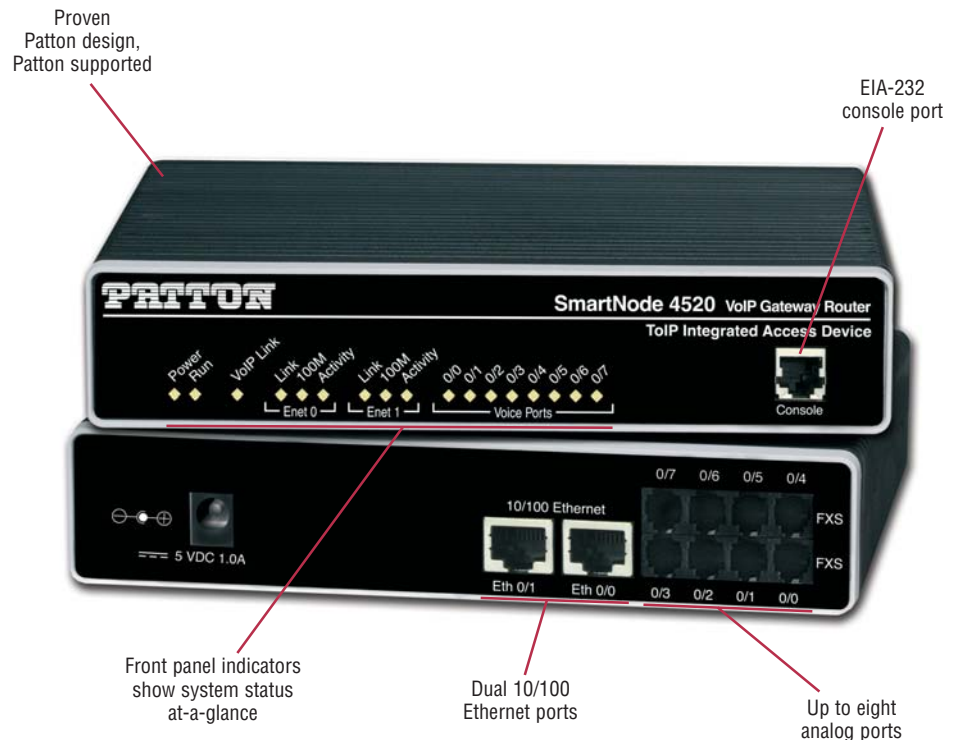
PSTN can be accessed enabling local calling and enhanced toll-bypass service.

With dual 10/100 Ethernet ports, the SN4520 provides guaranteed Quality of Service while passing LAN traffic at wire-speed. Voice traffic is prioritized while LAN/IP traffic shaping permits efficient access to the Internet and corporate networks. As a complete enterprise router, the SN4520 supports DHCP, NAT, Firewall/ACL, and PPPoE clients. While optional IPsec VPN and VLAN features tunnel data and AES/3DES ensures secure voice over the public network.

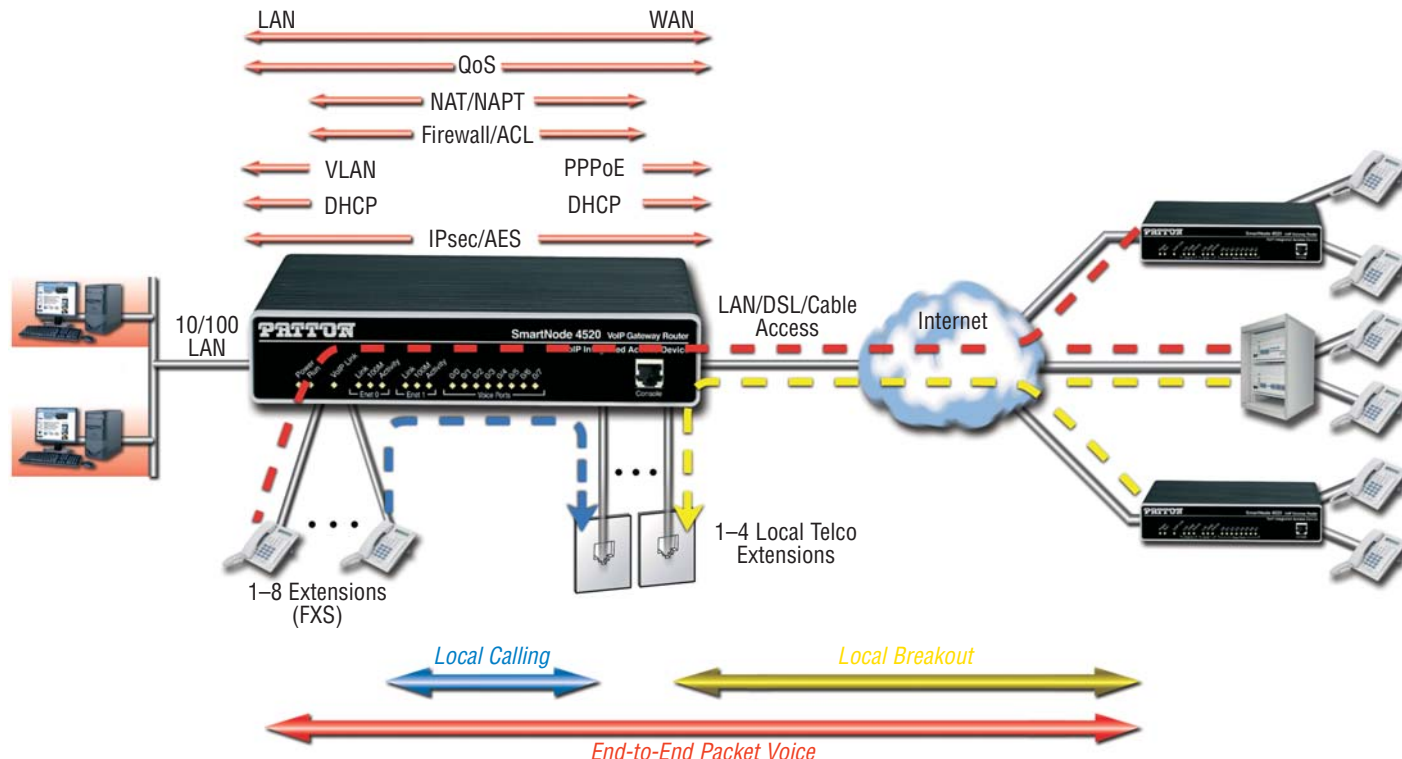


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## Remote Office/Branch Office Voice Extension and Access



## Specifications\*

### Capacity

Up to 8 simultaneous VoIP or T.38 fax calls (depending on the model)

### Voice Signaling

H.323v4, SIPv2 (B2BUA capable, multi-instance, simultaneous support of multiple registrars and direct IP dialing) • 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

Virtual interfaces • Regular expression based call routing and number manipula-

tion • Number blocking • Short-dialing • Digit collection, distribution and hunt groups • Transparent line extension • Fallback Routing: Soft fallback to alternative route(s)

### FXS Connectivity

2-wire Loopstart on RJ-11/12 • 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 RJ-11/12 • 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 • IPsec, IKE, AES/DES/3DES Encryption (optional, hardware accelerated)

### Quality of Service

Voice priority • DownStreamQoS™ • Traffic management, shaping and policing • IEEE 802.1p, TOS, DiffServ labeling • IEEE 802.1Q, VLAN tag insertion/deletion (simultaneous support of multiple VLANs)

### Management

Web/HTTP, CLI with local console and remote Telnet access • TFTP configuration & firmware loading • SNMP MIB II and product MIB • Secure Mass provi-

sioning for both firmware and unit/subscriber configuration • Built-in diagnostic tools (trace, debug, call generator)

### System

CPU Motorola MPC875 @ 66MHz • Memory 32MB SDRAM/8MB Flash • Power 100-240 VAC (50/60 Hz) • Power dissipation 4-12W, model dependent

### Temperature

32-104°F (0-40°C)

### Humidity

5-80%, non-condensing

### Compliance

EMC compliance: EN55022 and EN55024 • Safety compliance: EN 60950 • CE compliance • FCC Part 15 Class A • TBR21 (FXS) • RoHS

## Ordering Information

**SN4522/JS/EUI:** 2 port FXS VoIP Gateway Router, 100-240 VAC external power supply (PS)

**SN4522/JO/EUI:** 2 port FXO Gateway Router

**SN4524/JS/EUI:** 4 port FXS VoIP Gateway Router

**SN4522/JO/EUI:** 4 port FXO Gateway Router

**SN4526/4JS2JO/EUI:** 4 port FXS 2 port FXO Gateway Router

**SN4526/JS/EUI:** 6 port FXS VoIP Gateway Router

**SN4528/JS/EUI:** 8 port FXS VoIP Gateway Router

**SN4524/2JS2JO/EUI:** 2 port FXS, 2 Port FXO Gateway Router

**SN4528/4JS4JO/EUI:** 4 port FXS, 4 Port FXO Gateway Router

### Options & Accessories

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

\* Specifications subject to change without notice.

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