



## Multiport PRI VoIP IAD

### SmartNode 4960 with G.SHDSL.bis Interface

*Streamlined for business trunking and corporate VoIP access, the Patton® SmartNode™ 4960 PRI VoIP gateway integrates G.SHDSL.bis broadband access to deliver converged voice and data services that exceed ISDN standards.*

#### Up to 120 VoIP Calls

Up to 120 simultaneous voice or T.38 fax calls with one to four T1/E1/PRI ports and dual Gigabit Ethernet ports. Use any CODEC or fax on any port, any time.

#### G.SHDSL.bis Broadband Access

Complete Access Router with integrated G.SHDSL.bis WAN interface. Up to 5.7 Mbps symmetrical throughput, supporting ATM QoS. Supports multiple PVC and DSLAM interoperability.

#### Integrated SIP and T.38

Softswitch certified signaling support between all T1 RBS CAS, ISDN PRI, Q.SIG, SIP, H.323 and MGCP/IUA protocols.

#### Transparent Telephony Features

Handles complex number manipulation and mapping scenarios for most seamless integration with existing infrastructure, CLIP, CLIR, hold, AOC transfer and much more.

#### 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.

#### Management & Provisioning

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

#### High Precision Clock Option

DECT PBX interoperability and improved fax performance with Stratum 3 CO quality clock.

The SmartNode 4960 is the ideal CPE for ISDN PRI business trunking or corporate VoIP access. Part of the proven market-leading SmartNode VoIP product family, the 4960 Series features models from 15 to 120 calls to fit the requirements range of medium sized enterprises.

In a single box, it combines broadband access and voice-over-IP, and—thanks to IGMP v2/v3 proxy functionality—also video delivery. Annex F & G support enables throughput of up to 5.7 Mbps on the integrated 2-wire G.SHDSL modem, and interoperability covers all major G.SHDSL COs. This is triple-play at your fingertips!

The four ISDN PRI interfaces are software selectable user or network side, and they

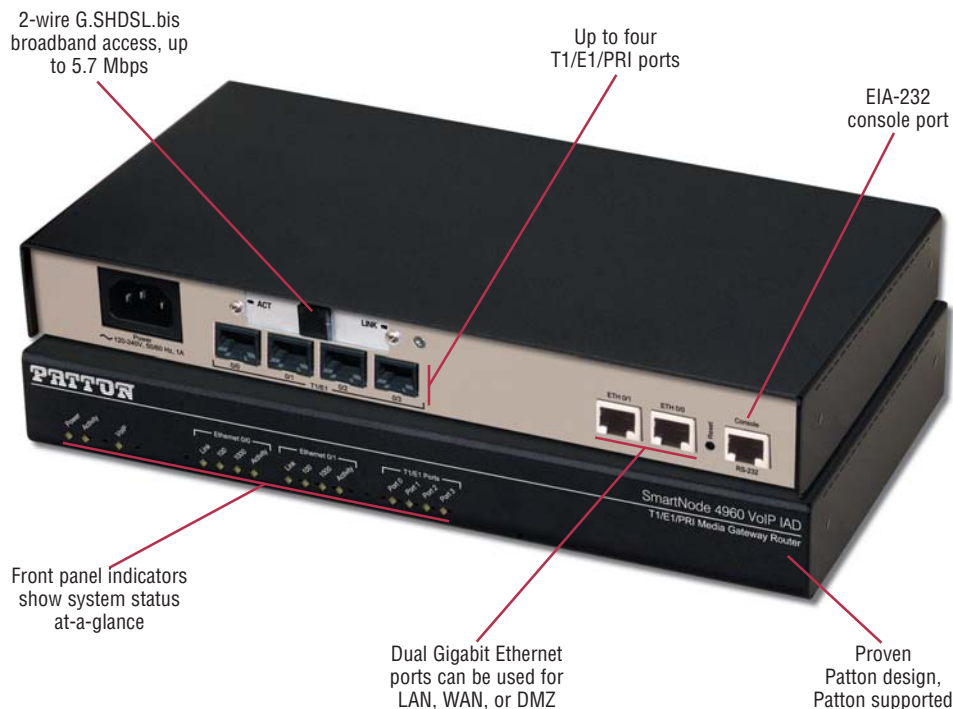
connect to any PBX or PSTN switch. Call routing options include conversion from ISDN to SIP or H.323, but also call switching between the four PRI interfaces—and even supports calls from SIP to SIP.

Like every SmartNode, the 4960 Series models are state-of-the-art VoIP gateways with outstanding interoperability for fax (T.38 and G.711 fallback) and voice. SmartNode products provide seamless network integration, continuous trouble-free operation and cost effective deployment to protect your investments for the future.

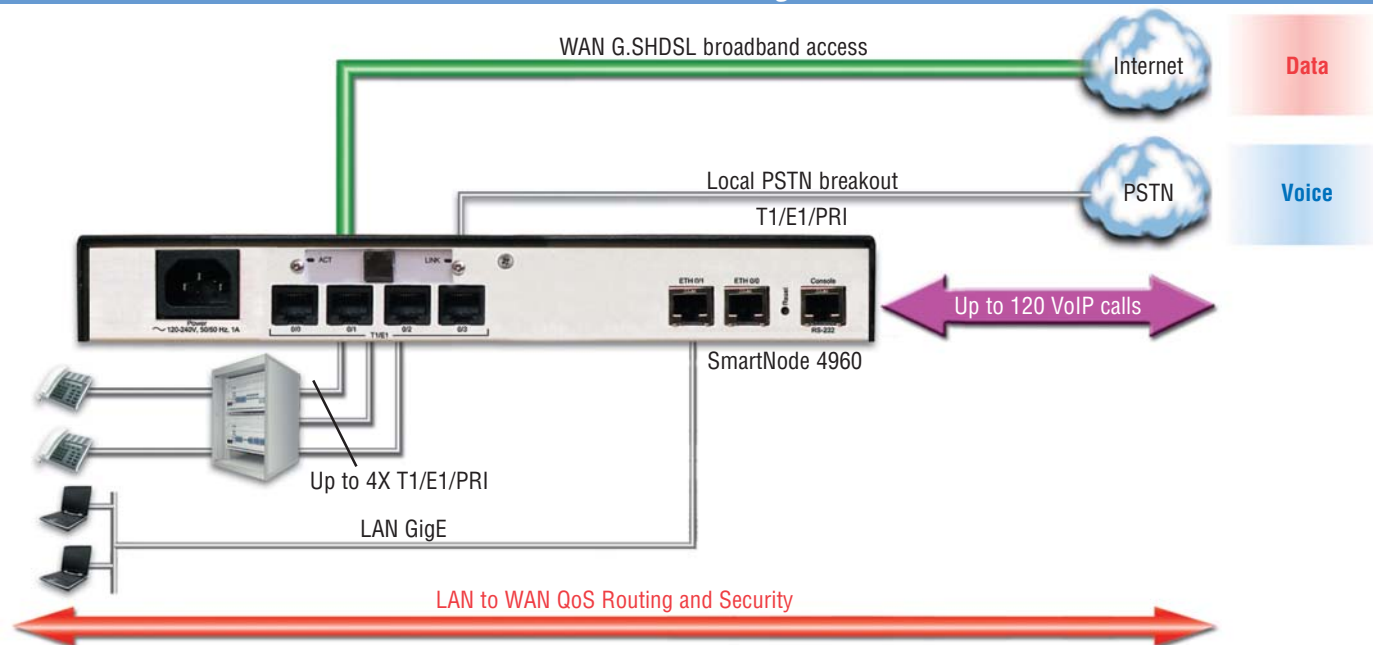
Visit [www.patton.com](http://www.patton.com) for more information.



Special Rates Available  
Call for Details



## Remote Office/Branch Office Voice Extension and Access Diagram



## Specifications\*

### Voice Connectivity

Up to four software selectable T1/E1/PRI ports • Signalling support (ISDN DSS-1, NI-2, Q.SIG; CAS Robbed bit loop and ground start, E&M, immediate, wink, double wink) • SIPv2 & MGCP/IUA, H.323v4 • ISDN AOC/ECT • ISDN speech, audio & data (Fax Gr 4, UDI 64, • RDI 64); ISDN supplementary services

### Broadband Access

2-wire G.SHDSL ITU-T G.991.2, Annex A, B, F, G • Up to 5.7Mbps • PPPoE • 8 PVCs, each UBR, CBR or VBR-rt selectable • I.610 OAM F4/F5 support • G.994.1 (G.hs)

### 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 • 128 ms echo cancellation

### Call routing and services

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

### Data interfaces

Dual 10/100/1000 TX Ethernet Ports • Autosensing • Auto-MDI • Full-duplex

### IP Routing

Complete IP access router • DHCP Client & server • Packet fragmentation •

Static firewall, NAT, NAPT RFC 1631 access control lists • DMZ port

### IP 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

### Management

Web/HTTP, CLI with local console and remote Telnet access • TFTP configuration & firmware loading • SNMP MIB II and product MIB • Secure autoprovisioning for both firmware and unit/subscriber configuration • Built-in diagnostic tools (trace, debug, call generator)

### Power & Packaging

Desktop metal chassis  
Dimensions: 11.0W x 1.5H x 7.0D in. (28.0W x 3.9H x 18.0D cm)  
Weight: < 30 oz (850 g)  
Internal Power: 100–240VAC (50/60Hz)  
Power Consumption < 15W

### Operating Environment

Temperature: 32–104°F (0–40°C)  
Humidity: Up to 90%, non condensing

### Compliance

EMC: EN55022 and EN5502 • Safety: EN 60950 • CE • FCC Part 15 Class A; Part 68; CS-03

## Ordering Information

**SN4960/1E15VG/UI:** SmartNode Hi-Cap 1 T1/E1/PRI VoIP IAD, 2x GigEthernet, UI power, 15 VoIP Channels non-upgradeable

**SN4960/1E24VG/UI:** SmartNode Hi-Cap 1 T1/E1/PRI VoIP IAD, 2x GigEthernet, UI power, 24 VoIP Channels non-upgradeable

**SN4960/1E30VG/UI:** SmartNode Hi-Cap 1 T1/E1/PRI VoIP IAD, 2x GigEthernet, UI power, 30 VoIP Channels non-upgradeable

**SN4960/4E15VG/UI:** SmartNode Hi-Cap 4 T1/E1/PRI VoIP IAD, 2x GigEthernet, UI power, 15 VoIP channels field upgradeable to a max of 60 channels.

**SN4960/4E24VG/UI:** SmartNode Hi-Cap 4 T1/E1/PRI VoIP IAD, 2x GigEthernet, UI power, 24 VoIP channels field upgradeable to a max of 60 channels.

**SN4960/4E30VG/UI:** SmartNode Hi-Cap 4 T1/E1/PRI VoIP IAD, 2x GigEthernet, UI power, 30 VoIP channels field upgradeable to a max of 60 channels.

**SN4960/4E48VG/UI:** SmartNode Hi-Cap 4 T1/E1/PRI VoIP IAD, 2x GigEthernet, UI power, 48 VoIP channels field upgradeable to a max of 60 channels.

**SN4960/4E60VG/UI:** SmartNode Hi-Cap 4 T1/E1/PRI VoIP IAD, 2x GigEthernet, UI power, 60 VoIP channels.

**SN4960/4E96VG/UI:** SmartNode Hi-Cap 4 T1/E1/PRI VoIP IAD, 2x GigEthernet, UI power, 96 VoIP channels field upgradeable to a max of 120 channels.

**SN4960/4E120VG/UI:** SmartNode Hi-Cap 4 T1/E1/PRI VoIP IAD, 2x GigEthernet, UI power, 120 VoIP channels

**SN4961:** High Precision Clock Model.

### Options & Accessories

**SNSW-49V6:** 6 channel Voice Expansion Key for SN4960 VoIP IADs. Software expansion for additional voice channels.

**SNSW-VPN2:** Software option for IPsec VPN, including DES/3DES and AES encryption, IKE and Voice-Over-VPN.

**SNSW-QSIG2:** Support for ISDN Q.SIG

\* Specifications subject to change without notice.

PE-Inalp Networks Private Ltd

An Associate of

**PATTON**  
Electronics Co., USA

Old No. 14 and New No.6,  
Brahadambal Road,  
Nungambakkam High Road  
Chennai: 600 034, India  
Phone **+91 44 45490395/6/7**  
Fax **+91 44 4549.0394**  
Email **sales@patton.co.in**  
Web **www.patton.co.in**

Patton-Inalp Networks AG

**PATTON**  
inalp networks

Meriedweg 7  
CH-3172 Niederwangen  
Switzerland  
Phone **+41 (31) 985 25 25**  
Fax **+41 (31) 985 25 26**  
E-mail **sales@inalp.com**  
Web **www.inalp.com**

Patton Electronics Co.

**PATTON**  
Electronics Co.

7622 Rickenbacker Drive  
Gaithersburg, Maryland 20879  
USA  
Phone **+1 301 975 1000**  
Fax **+1 301 869 9293**  
E-mail **sales@patton.com**  
Web **www.patton.com**

07MSN4960G-DS4

Patton is a registered trademark and the terms SmartNode, DownStreamQoS, and SessionRouter are trademarks of Patton Electronics Company in the United States and other countries.