



# High-Precision Multi-Port T1/E1 VoIP IAD

## SmartNode™ 4961

A new member of the award-winning SmartNode 4960 gateway family, the SN4961 combines the power and flexibility of the SN4960 with a High-Precision Oscillator. The SmartNode 4961 comes with four T1/E1/PRI ports, two GigE ports, and supports up to 120 simultaneous VoIP calls.

### High Precision Clock Option

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

### 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.

### Universal SIP and T.38 support

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

### Secure Toll-Quality VoIP

DownStreamQoS and Voice-over-VPN with adaptive traffic management and shaping for maximum voice quality and secure voice communication.

### Transparent Telephony Features

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

### Management & Provisioning

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

For the Internet Service Providers or Enterprises that need a high precision clock source for DECT or legacy ISDN PBXs, the SmartNode 4961 High Precision models provide a cost effective solution with superior interoperability and VoIP functionality. High Precision SmartNode 4961 models are capable of providing Stratum III 5 ppm clock for those ISDN PBXs that normally rely on PSTN clock accuracy. High precision models also greatly improve the fax performance when both transmit and receiving ends are synchronized to high precision clock sources.

Like standard SN4960s, the SN4961 is ideal for PBX business trunking or corporate VoIP access. Offering up to four software configurable T1/E1/PRI interfaces the SN4961 con-

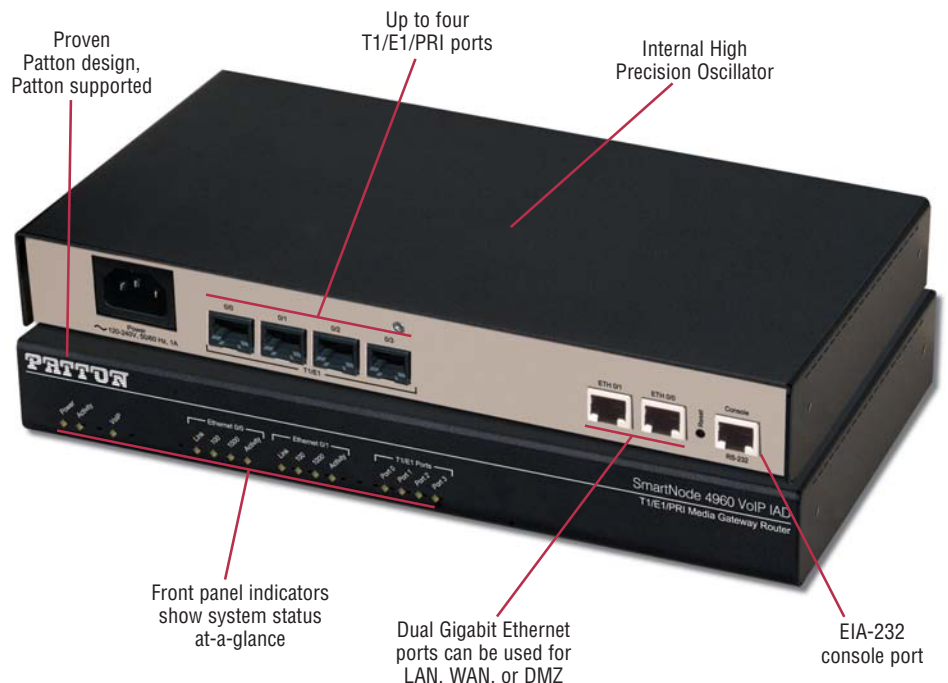
nects to any switch, PBX and data network with up to 120 simultaneous calls using SIP, T1, E1 or PRI signaling. The dual gigabit Ethernet ports connect to the network for the highest throughput with its integrated QoS router. With its built-in CSU/DSU, any T1/E1 port can be selected as a WAN port for truly integrated voice and data access.



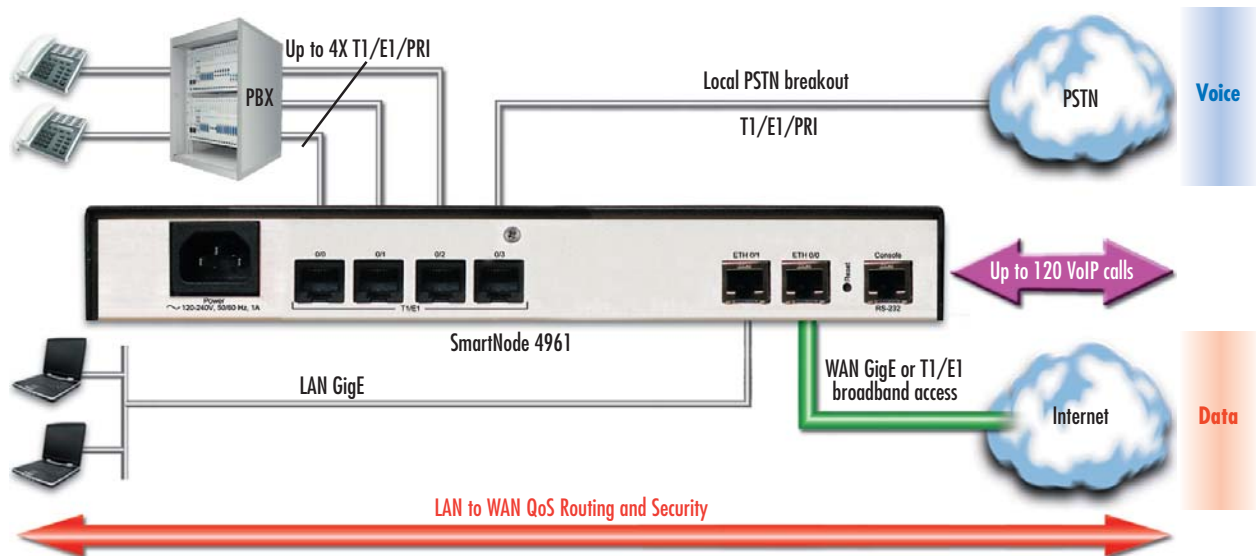
Special Rates Available  
Call for Details

Like every SmartNode, the SN4961 delivers toll-quality voice with all industry standard CODECs including low-bandwidth G.723/G.729. Business class services are supported with T.38 fax, fax bypass and modem bypass features.

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



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



### Specifications\*

#### Clock Source

5ppm High Precision Oscillator

#### Voice Connectivity

Up to four software selectable T1/E1/PRI ports • Signaling support (ISDN DSS-1, NI-2, Q.SIG, 5ESS, CAS Robbed bit loop and ground start, E&M, immediate, wink, double wink) • SIPv2, H.323v4 • ISDN AOC/ECT • ISDN speech, audio & data (Fax Gr 4, UDI 64, • RDI64) • ISDN supplementary services

#### 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 matching and 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

#### IP Quality of Service

Voice priority, DownStreamQoS • traffic management, shaping policing • IEEE 802.1p, TOS, DiffServ labeling • IEEE 802.1Q, VLAN tag insertion/deletion 4,096

#### Management

Web/HTTP, CLI with local console & remote Telnet access • TFTP configuration & firmware loading • SNMP MIB II and product MIB • Secure auto provisioning for firmware & unit/subscriber con-

figuration • Built-in diagnostic tools (trace, debug, call generator)

#### Environment

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

#### Power

100–240 VAC (50/60 Hz)  
Power consumption: 15W

#### Compliance

EMC: EN55022 and EN55024 • Safety: EN 60950 • CE • FCC Part 15 Class A; Part 68; CS-03 • RoHS

### Ordering Information\*\*

#### SN4961 SmartNode T1/E1/PRI VoIP IAD: Hi-Capacity, 2x GigEthernet, Internal UI Power, High Precision 5 ppm Clock Source

SN4961/1E15V/UI: 1 E1/T1, 15 VoIP channels; field upgradeable to 30 channels

SN4961/1E24V/UI: 1 E1/T1, 24 VoIP channels; field upgradeable to 30 channels

SN4961/1E30V/UI: 1 E1/T1, 30 VoIP channels; non-upgradeable

SN4961/4E15V/UI: 4 E1/T1, 15 VoIP channels; field upgradeable to 60 channels

SN4961/4E24V/UI: 4 E1/T1, 24 VoIP channels; field upgradeable to 60 channels

SN4961/4E30V/UI: 4 E1/T1, 30 VoIP channels; field upgradeable to 60 channels

SN4961/4E48V/UI: 4 E1/T1, 48 VoIP channels; field upgradeable to 60 channels

SN4961/4E60V/UI: 4 E1/T1, 60 VoIP channels; non-upgradeable

SN4961/4E96V/UI: 4 E1/T1, 96 VoIP channels; field upgradeable to 120 channels

SN4961/4E120V/UI: 4 E1/T1, 120 VoIP channels; non-upgradeable

#### Options & Accessories

SNSW-49V6: 6 channel Voice Upgrade 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.

\*\* For a complete ordering list, contact sales@patton.com.

WAN Options include G.SHDSL, X.21, Frame Relay, PPP, and ML-PPP over E1/T1.

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