



# SmartNode™ 4970

## T1/E1/PRI VoIP Gateway

*IP-enable legacy PBX systems with an Enterprise-class SmartNode 4970 VoIP Gateway. Supporting up to 120 concurrent VoIP calls, the cost-effective SN4970 enables Enterprises to connect existing PBX systems with advanced IP telephony services and the PSTN.*

### 15 to 120 VoIP calls

*with up to four T1/E1/PRI ports and a single Gigabit Ethernet port.*

### Proven Interoperability

*SIP interop with major IP PBX, Softswitch and VoIP Service Providers. Over 100,000 SmartNode deployments worldwide. ISDN/PSTN compliance in nearly every country.*

### Transparent Telephony Features

*Complex number manipulation and mapping for seamless integration with existing infrastructures, CLIP, CLIR, hold, transfer and much more.*

### High Precision Clock

*Delivers DECT PBX interoperability with reliable fax performance.*

### Flexible Mounting Options

*The device can be placed on a desktop or installed in a 19-inch rack using the optional rack ear kit (INS-KIT-RACKEARS-11/19)*

### SmartNode™ Awards

- **2011 Internet Telephony Product of the Year:**  
SmartNode™ 5400/2GS
- **2010 Internet Telephony Product of the Year:**  
SmartNode™ 5400
- **2009 Internet Telephony Product of the Year:**  
SmartNode™ 4400 Series
- **2008 Internet Telephony Product of the Year:**  
SmartNode™ 4961
- **2007 Internet Telephony Product of the Year:**  
SmartNode™ S-DTA
- **2006 Internet Telephony Product of the Year:**  
SmartNode™ 4960
- **2005 Internet Telephony Product of the Year:**  
SmartNode™ 4630

**T**he SmartNode™ 4970 VoIP Gateway offers Enterprises a cost-effective solution to IP-enable their legacy PBX systems. Evolving from Patton's award winning SmartNode 4940 Series, the next generation SmartNode 4970 Series comes now with IPv6 upgradeable hardware.

**Like every SmartNode™**, the SN4970 supports every industry-standard CODEC to deliver toll-quality voice on every call. The Unified Communications Agent™ (UCA) provides any-to-any multi-path switching (simultaneous SIP, H.323, ISDN, and POTS calls with routing and conversion between TDM/PSTN and IP/Ethernet networks—plus T.38 and SuperG3 FAX). VoIP-over-VPN with voice encryption provides secure voice and data via IPsec with AES/DES strong encryption and automated keying via Internet Key Exchange (IKE). In addition, advanced call-router functionality includes least-cost call routing with flexible dialed-number plan support.

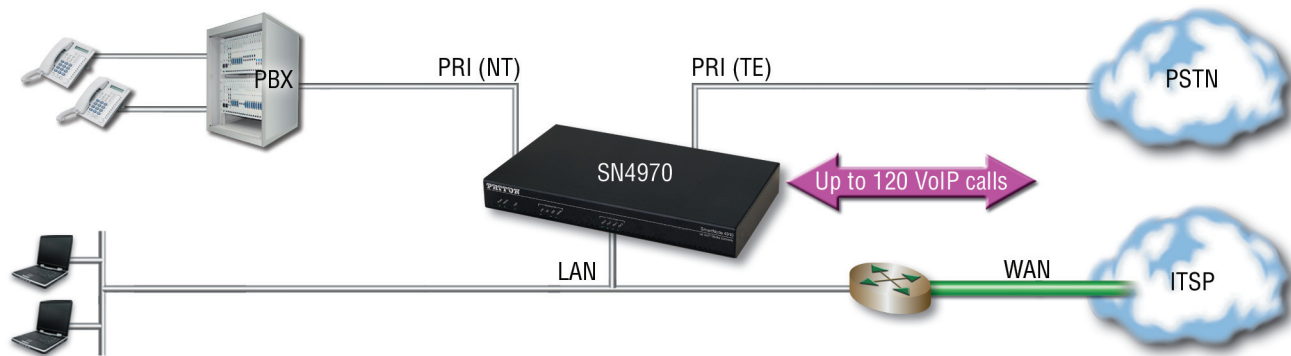
**The SmartNode survivability suite** offers PSTN fallback to ensure business continuity in case the IP network fails. Furthermore, SmartNode's unique high-precision clock delivers first-line IP telephony service in demanding ISDN and DECT environments with reliable FAX and modem performance. In addition, SmartNode delivers a smooth transition to VoIP with strong number portability support accepting incoming calls from the PSTN throughout the VoIP service provider's number porting process.

**Preserve investments** in legacy phone equipment while taking the next steps toward unified communications with the SN4970 VoIP Gateway. Providing 1 to 4 T1/E1/PRI and a 10/100/1000 Ethernet for up to 120 VoIP calls, the SN4970 delivers a reliable, cost-effective solution for the Enterprise.

Visit [www.patton.com/smartnode](http://www.patton.com/smartnode) for more information about the SmartNode 4970.



## Application Diagram—Convert Legacy PBX to VoIP



## Specifications\*

### PSTN

Up to four T1/E1/PRI ports (NE/TE) • Signaling support (ISDN DSS-1, NI-2, Q.SIG, CAS Robbed bit loop and ground start, E&M, immediate, wink, double wink) • ISDN AOC/ECT • ISDN speech, audio & data (Fax Gr 4, UDI 64, RDI64) • ISDN supplementary services • CAS protocols: RBS (Loop start, ground start, E&M wink, intermediate, double-wink) and R2/MFC-R2 (Q.400–Q.490 and Configurable country profiles), fallback-relays on 4 port versions

### VoIP

SIPv2 (SIP Info, Update, PRACK, Privacy, Refer), B2BUA, H.323v4 (H.235, Early H.245, H.245 tunneling, fast-connect)

### 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 call routing and manipulation • number blocking • short-dialing • digit collection, distribution and hunt groups

### Data Interfaces

One 10/100/1000 TX Ethernet Port • Autosensing • Auto-MDI • Full-duplex

### Management

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

### Power & Packaging

Desktop metal chassis

**Dimensions:** 30.1W x 4.5H x 18.1D cm (11.9W x 1.8H x 7.1D in.)

**Weight:** < 30 oz (850g)

**Internal Power:** 100–240VAC (50/60 Hz)

**Power Consumption:** < 15W

### Operating Environment

**Temp:** 32 to 104°F (0 to 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

\* Specifications subject to change without notice.

## Ordering Info

### SN4970 T1/E1/PRI VoIP Gateway: Hi-Capacity, 1 GigEthernet, External UI power

**SN4970/1E15V/EUI:** 1 T1/E1/PRI, 15 VoIP channels, upgradeable to 30 calls

**SN4970/1E24V/EUI:** 1 T1/E1/PRI, 24 VoIP channels, upgradeable to 30 calls

**SN4970/1E30V/EUI:** 1 T1/E1/PRI, 30 VoIP Channels, non-upgradeable

### SN4970...with Fallback Relay\*

**SN4970/4E15VR/EUI:** 4 T1/E1/PRI, 15 VoIP channels, upgradeable to 60 channels

**SN4970/4E24VR/EUI:** 4 T1/E1/PRI, 24 VoIP channels, upgradeable to 60 channels

**SN4970/4E30VR/EUI:** 4 T1/E1/PRI, 30 VoIP channels, upgradeable to 60 channels

**SN4970/4E48VR/EUI:** 4 T1/E1/PRI, 48 VoIP channels, upgradeable to 60 channels

**SN4970/4E60VR/EUI:** 4 T1/E1/PRI, 60 VoIP channels, non-upgradeable

**SN4970/4E96VR/EUI:** 4 T1/E1/PRI, 96 VoIP channels, upgradeable to 120 channels

**SN4970/4E120VR/EUI:** 4 T1/E1/PRI, 120 VoIP channels, non-upgradeable

**SN4970/4E30V120R/EUI:** 4 T1/E1/PRI, 30 VoIP channels, upgradeable to 120 channels

Note: For complete ordering list, contact [sales@patton.com](mailto:sales@patton.com)

### Options & Accessories\*\*

**SNSW-49V1:** 1 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.

**INS-KIT-RACKEARS-11/19:** 19-inch Rack Ear Kit

\* Fallback relay between ports E1/T1 0/0 and 0/1 of all 4-port models

\*\* For high-precision clock option, use **SN4971** in SKU (ex: **SN4971/4E30VR/EUI**)

**PATTON**<sup>®</sup>  
Let's Connect!<sup>™</sup>

**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](mailto:sales@patton.com)  
Web [www.patton.com](http://www.patton.com)

**Patton-Inalp Networks AG**  
Meriedweg 7  
CH-3172 Niederwangen  
Switzerland  
Phone +41 (31) 985 25 25  
Fax +41 (31) 985 25 26  
E-mail [sales@inalp.com](mailto:sales@inalp.com)  
Web [www.inalp.com](http://www.inalp.com)

**Patton Hungary Zrt**  
Gábor Dénes utca 4.  
Infopark Building C  
Budapest H-1117  
Hungary  
Phone +36 1 439 4840  
Fax +36 1 439 4844  
E-mail [ce@patton.com](mailto:ce@patton.com)  
Web [www.patton.com](http://www.patton.com)

07MSN4970-DS1

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.