SmartNode™ 4980

T1/E1/PRI VoIP Gateway-Router

IP-enable legacy PBX systems with an Enterprise-class SmartNode 4980 VoIP Gateway-Router. Supporting up to 120 concurrent VoIP calls, the SN4980 with built-in IP Router 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 dual Gigabit Ethernet ports.

VoIP Transcoding Option

Up to 60 channels for WAN bandwidth optimization.

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.

QoS and Security

Deliver secure, toll-quality voice communications with Patton's DownStreamQoS™ with adaptive traffic management and shaping—plus secure voice-over-VPN with AES/DES strong encryption

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*

The SmartNode™ 4980 VoIP Gateway-Router allows Enterprises to IP-enable their legacy PBX systems. Evolving from Patton's award winning SmartNode 4960 Series, the next generation SmartNode 4980 Series comes now with IPv6 upgradeable hardware.

Like every SmartNode™, the SN4980 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.

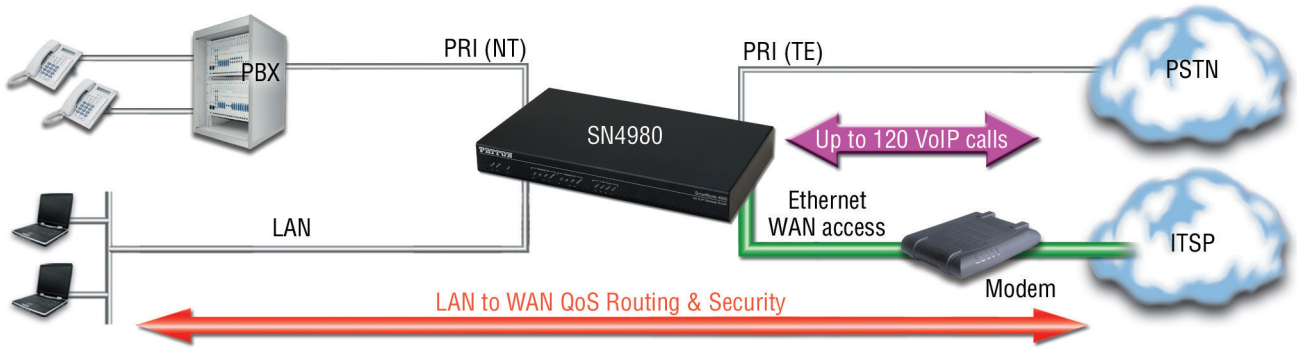
The SmartNode survivability suite combines PSTN fallback, SIP Registrar and IP-link redundancy to ensure business continuity in case the IP network fails. Patton's DownStreamQoS™ delivers the advantage of clear, uninterrupted voice-and-data communication. Furthermore, SmartNode's unique high-precision 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. Session border router capabilities include optional transcoding for up to 60 channels. Reduce WAN-access bandwidth requirements by converting high-bandwidth G.711 calls on your LAN into lower-bandwidth G.723 calls for WAN transport.

Preserve investments in legacy phone equipment while taking the next steps toward unified communications with the SN4980 VoIP Gateway-Router. Providing one to four T1/E1/PRI and two 10/100/1000 Ethernet for up to 120 VoIP calls, the SN4980 with built-in IP Router delivers secure, prioritized unified communications.

Visit www.patton.com/smartnode for more information about the SmartNode 4980.

PATTON®
let's Connect!™

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 four-port versions

VoIP
SIPv2 (SIP Info, Update, PRACK, Privacy, Refer), B2BUA, Optional SIP Registrar and Transcoding, 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, G727, 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
Dual 10/100/1000 TX Ethernet Ports • Autosensing • Auto-MDI • Full-duplex

IP Routing
IP access router • DHCP Client & Server • RIPv2 • BGP • VRRP • Packet fragmentation • Firewall • NAT/NAPT RFC 1631 • Access Control Lists • DMZ port • IPec VPN (Option)

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 autoprovisioning for 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: 100–240 VAC (50/60 Hz)

Power Consumption < 15W

Operating Environment
Operating temperature: 32 to 104° F (0 to 40°C)

Operating 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

SN4980 SmartNode T1/E1/PRI VoIP Gateway-Router: Hi-Capacity, 2x GigEthernet, External UI power
SN4980/1E15V/EUI: 1 E1/T1, 15 VoIP channels, upgradeable to 30 calls
SN4980/1E24V/EUI: 1 E1/T1, 24 VoIP channels, upgradeable to 30 calls
SN4980/1E30V/EUI: 1 E1/T1, 30 VoIP channels, non-upgradeable
SN4980/4E30V120R/UI: 4 T1/E1/PRI, 30 VoIP channels, upgradeable to 120 channels; *Internal UI power*

SN4980...with Fallback Relay*
SN4980/4E15VR/EUI: 4 E1/T1, 15 VoIP channels, upgradeable to 60 channels
SN4980/4E24VR/EUI: 4 E1/T1, 24 VoIP channels, upgradeable to 60 channels
SN4980/4E30VR/EUI: 4 E1/T1, 30 VoIP channels, upgradeable to 60 channels
SN4980/4E48VR/EUI: 4 E1/T1, 48 VoIP channels, upgradeable to 60 channels
SN4980/4E60VR/EUI: 4 E1/T1, 60 VoIP channels, non-upgradeable
SN4980/4E96VR/EUI: 4 E1/T1, 96 VoIP channels, upgradeable to 120 channels
SN4980/4E120VR/EUI: 4 E1/T1, 120 VoIP channels, non-upgradeable
SN4980/4E30V120R/EUI: 4 T1/E1/PRI, 30 VoIP channels, upgradeable to 120 channels

Note: For complete ordering list, contact sales@patton.com

Options & Accessories**
SNSW-49V1: 1 channel Voice Upgrade Key for SN4980 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 **SN4981** in SKU (ex: **SN4981**/4E30VR/EUI)

PATTON® *let's Connect!*™

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