# SmartNode™ T1/E1/PRI VoIP Gateway-Router-eSBC

## Model 4980

*Enable legacy PBX systems to All-IP with an Enterprise-class SmartNode 4980 VoIP Gateway-Router-eSBC. Supporting up to 120 concurrent VoIP calls, the SN4980 with built-in IP router and eSBC functions, enables Enterprises to connect existing PBX systems to All-IP networks with survivability to the PSTN.*

### 15 to 120 VoIP calls
*Up to four T1/E1/PRI ports and dual Gigabit Ethernet ports.*

### Survivability
*PSTN failover using ISDN lines or alternate WAN link. SIP server health detection with instant failover call routing. SIP registrar for local calling during failover.*

### Management & Provisioning
*Web-based management, WEB Wizard, TR-069, SNMPv3, command line interface, auto-provisioning, separate config. domain support, secure zero-touch provisioning for configuration and software upgrades.*

### QoS and Security
*Deliver secure, toll-quality voice communications with Patton's DownStreamQoS™, fraud prevention, secure voice-over-VPN with IPsec*, OpenVPN*.*

### SIP Interop and Normalization
*SIP interop with major IP PBX, softswitch and VoIP service providers. Over 100,000 SmartNode deployments worldwide. ISDN/PSTN compliance in nearly every country.*

### High Precision Clock
*Delivers DECT PBX interoperability with reliable fax performance.*

### VoIP Transcoding Option
*Up to 60 channels transcoding for WAN bandwidth optimization.*

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

### 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).*

The SmartNode™ 4980 VoIP Gateway-Router-eSBC enables enterprises to integrate their legacy PBX systems in to All-IP environment with state of the art features such as SIP-TLS, SRTP, IPv6, TR069, Patton Cloud Connect, survivability features and much more.

**Like every SmartNode™**, the SN4980A 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 and ISDN 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, OpenVPN or L2TP tunneling protocol in addition to SIP-TLS & SRTP. The 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.
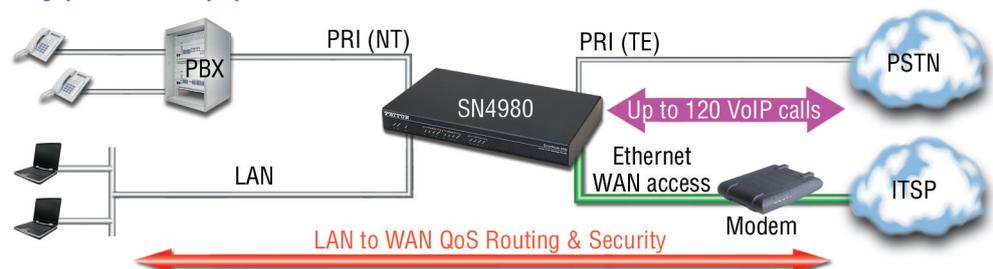
Patton`s **DownStreamQoS™** delivers the advantage of clear, uninterrupted voice-and-data communication.

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 All-IP with strong number portability support accepting incoming calls from the PSTN throughout the VoIP service provider's number porting process. Enterprise Session border controller capabilities include transcoding for up to 60 channels, SIP service demarcation and SIP security. Reduce WAN-access bandwidth requirements by converting high-bandwidth G.711 calls on your LAN into lower-bandwidth G.729 calls for WAN transport.
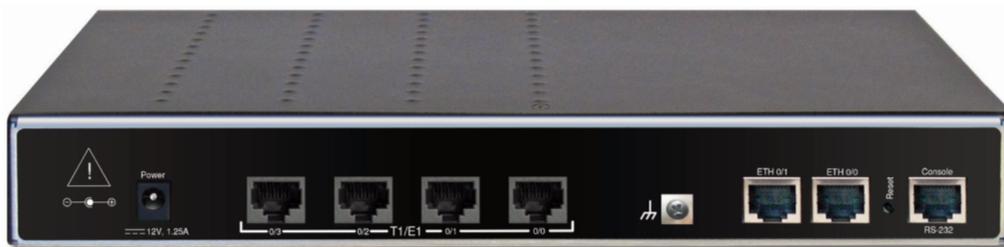
**Preserve investments** in legacy phone equipment while taking the next steps toward All-IP unified communications with the SN4980 VoIP Gateway-Router-eSBC. Providing one to four T1/E1/PRI and two 10/100/1000 Ethernet ports for up to 120 VoIP calls, the SN4980 with built-in IP Router delivers secure, prioritized unified communications.

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

## Typical Application



Patton
*let's Connect!*™

# SmartNode 4980 T1/E1/PRI VoIP Gateway-Router-eSBC



## 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 • R2/MFC-R2 (Q.400–Q.490 and configurable country profiles), Fallback relays on four-port versions

### VoIP
SIPv2 over IPv4 & IPv6 (SIP Info, Update, PRACK, Privacy, Refer), B2BUA (max. 80 calls***), SIP-TLS & SRTP, SIP Registrar, Optional SIP Transcoding*

### 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 (IPv4 & IPv6 dual Stack)• DHCP Client & Server • RIPv2 • BGP • VRRP (Roadmap) • Packet fragmentation • Firewall • GRE • NAT/NAPT RFC 1631 • Access Control Lists • DMZ port • VPN IPsec*, L2TP*, OpenVPN*

### 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, HTTP, HTTPs, TR-069 configuration & firmware loading • SNMP MIB 1, 2, 3 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

## Ordering Info

Obtain ordering info for this product by using the QR code at right or by contacting:
- web: **https://www.patton.com/voip-router/sn4980/**
- email: **sales@patton.com**
- tel: **+1 301.975.1000**



Specifications subject to change without notice.
* Additional charges apply for licensed features.
** Depending on model.

*** Supports up to 80 SIP-to-SIP sessions under ideal conditions. Transcoding, debugging, and/or IP routing reduce processing capacity.