

# SmartNode™ E1/T1 PRI VoIP Gateway

Model 4170



Transport your enterprise phone system to the world of IP Telephony with the SN4170 T1/E1/PRI Gateway. Supports up to 30 concurrent G.711/ G.722 voice/fax calls with secure HTTPS, stateful firewall, and TLS/SRTP\*.

## From 15 to 30 VoIP calls

One or two ISDN PRI E1/T1 port. Up to 30 G.722, T.38 or G.711 calls simultaneously. Optionally SRTP\* support for 30 calls.

## Full Telephony Features

SessionRouter allows flexible call routing and numbering plan adaptations, CLIP/CLIR, hold, transfer, 3-way conferencing (Roadmap) and much more.

## 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.

## Network Connectivity

One or two 10/100/1000 Ethernet ports with auto MDI-X Ethernet. Supports VLAN, TOS and Diffserv tagging. IPv4 & IPv6 support—dual stack.

## Full VoIP protocol support

SIPv2, SIP v2 over TLS\*, ISDN, DSS1, NI-2, QSIG\*, T.38, G.722 HD voice, RTP Security with SRTP\*, fax and modem bypass, DTMF relay.

## Outstanding Interoperability

Interoperable for voice and T.38 fax with leading SIP service providers, soft-switch vendors, and various IP-PBXs.

## Optional eSBC upgrade for PRI Gateways with 2 Ethernet Ports

Models containing "SN4171/2ETH" can be converted into high performance enterprise session border controllers (eSBC) simply by purchasing a software license. This capability prepares your voice network for next-generation SIP services and security.

For details about the upgraded SN4171 eSBC's capabilities, refer to the model SN5570 specifications.

The SN4170 is the next-generation ISDN E1/T1 model of the market-leading SmartNode VoIP product family. It fits perfectly the requirements of small and medium-sized enterprises looking for cost-effective ways to bridge PBX systems on multiple sites or connect them to a public Internet telephony service.

SmartNode's unique high-precision clock delivers first-line IP telephony service in demanding ISDN and DECT environments, along with reliable FAX and modem performance. Providing one or two E1/T1, one or two\*\* Gigabit Ethernet port, and up to 30 VoIP calls, the SN4170 delivers a reliable solution for the Enterprise.

SN4170 Series gateways include WEB Wizard for quick configuration. You can build your own WEB interface using WEB Wizard functionalities.

The SmartNode 4170 is also the solution for service providers and network integrators looking for VoIP products that meet ISDN standards for features and quality.

SmartNode products provide seamless network integration, trouble-free operation, and cost-effective deployment to protect your investments in legacy phone equipment while taking the next steps toward unified communications with the SN4170 VoIP Gateway.

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

## Network Integration

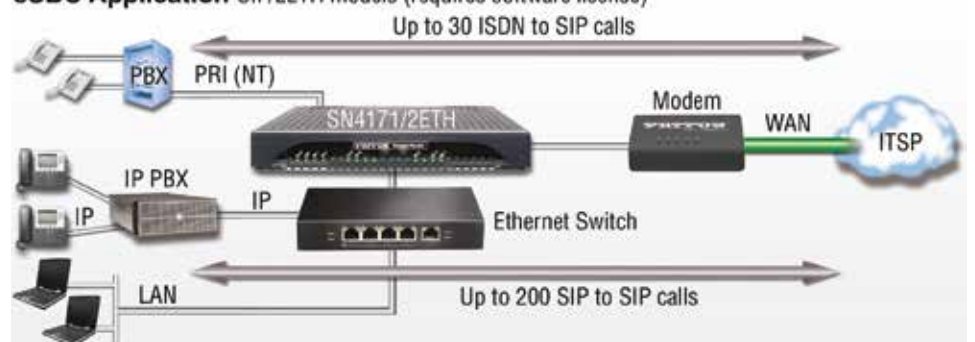
The SmartNode 4170 provides excellent VoIP and security features for seamless network integration. The E1/T1 PRI port is configurable to be TE or NT, you can connect your PSTN line or an ISDN PRI PBX.

### VoIP Gateway Application



### eSBC Software License Bundle

#### eSBC Application On /2ETH models (requires software license)



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2-Ethernet-port upgradeable option



## Specifications

### Voice Signaling

SIPV2  
SIPV2 over TLS\*  
SIP call transfer, redirect  
Overlap or en-bloc dialing  
DTMF in-band, out-of-band  
Configurable tones

### Call Routing & Services

Regular expression number matching  
Regular expression number manipulation  
Least Cost Routing  
Number blocking  
Short-Dialing  
Digit collection  
Distribution- and Hunt-Groups

### ISDN

One E1/T1 PRI port, RJ-45 (NE/TE)  
DSS1, Q.921, Q.931, NI-2  
HP High Precision Clock  
Stratum 3 CO  
Optional QSIG support\*

### Voice Processing

G.722

G.711m/A-law  
G.723.1 (6.4Kbps)  
G.729, 729a, 729ab (8 kbps)  
G.726 (16, 24, 32, 40 kbps)  
iLBC at 13.33 & 15.2 kbps  
G.168-2004 echo cancellation (128 ms)  
30 simultaneous HD voice  
G722, G.711 or T.38 fax calls  
30 calls with SRTP  
Transparent ISDN data  
Up to 200 SIP to SIP calls\*\*\*  
Silence suppression and comfort noise  
Adaptive and configurable dejitter buffer  
Configurable packet length

### Packet Tagging and VLAN

IEEE 802.1p, IEEE 802.1Q, 4096 VLANs (Tag insertion/deletion), TOS, DiffServ Labeling

### Connectivity

One or two\*\* 10/100/1000Base-T Ethernet port  
Auto-MDIX

1 USB 2.0 host port  
DHCP Client  
DHCP Server  
PPPoE Client (multi-session)  
VLAN support  
IPv4 & IPv6 Dual Stack  
ICMP  
ACL, Stateful Firewall  
DNS, DynDNS  
SNTP Client

### Management

Web-based GUI  
WEB Wizard  
Fully Documented CLI  
Telnet and HTTP access  
TFTP, HTTP, HTTPS, TR-069 configuration up- and download  
TFTP, HTTP, HTTPS, TR-069 firmware upgrade  
SNMPv3 agent  
Separate config domain (LAN side config and WAN side config) (MIB II and private MIB)  
Built-in diagnostic tools

Secure Auto-Provisioning with built in root CA

### Power & Packaging

Power Consumption < 10W  
Desktop/Wallmount plastic chassis

### Physical

Size: 20.8W x 3.4H x 16.5D cm (8.2W x 1.3H x 6.5D in.)  
Weight: <450g (15.9 oz)

### Environment

Operating temp.: 32–104°F (0–40°C)  
Operating humidity: up to 90%, non-condensing

### Compliance

FCC Part 15, Class A  
EN55022, Class A  
EN55024

### Safety

UL60950-1/CSA C22.2 No. 60950-1  
IEC/EN 60950-1, 2nd edition  
AS/NZS 60950-1