SmartNode™ BRI/FXS/FXO VoIP Gateway

Model 4150

2 BRI/2 FXS-FXO or 4 BRI/4 FXS-FXO and 4–16 simultaneous G.722/G.711 or T.38 calls. The SN4150 is the best way to connect ISDN networks or ISDN terminal equipment, and legacy analog equipment into a UCC environment. With built-in security features such as HTTPS provisioning, Stateful firewall and optional SIP-TLS / SRTP** it provides business-class VoIP for demanding ISDN users.

BRI, FXS & FXO interfaces
- 2 or 4 ISDN BRI S0/T0 and 2 or 4 FXS-FXO ports.
- 4–16 G.722/G.711 or 4–16 T.38 calls simultaneously.
- Optional SIP TLS/SRTP.

Advanced Local Call Switching
Virtual interfaces and routing tables provide industry leading flexibility in call handling programming. Local call switching, soft fall-back to alternative routes. Simultaneously connects to multiple SIP services/IP PBXs.

Network Monitoring
Embedded PacketSmart Agent for network monitoring and assessment 24x7.**

Auto-Provisioning
Secure zero-touch provisioning (HTTPS) for ease of use.

Proprietary OS
Utilizes proprietary Trinity™ software for enhanced security.

Full VoIP protocol support
SIPv2, SIPv2 over TLS**, ISDN, QSIG**, T.38, DSS1, 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, softswitch vendors, and major IP PBX manufacturers.

Optional eSBC upgrade for BRI/FXS/FXO Gateways with 2 Ethernet Ports
Models containing "/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 eSBC's capabilities, refer to the model SN5550 eSBC specifications.

The SN4150 series is the perfect choice for All-IP applications where legacy, non-replaceable telephones have to be integrated into a UCC environment (or for good old fax devices to be migrated to the next-generation network infrastructure).
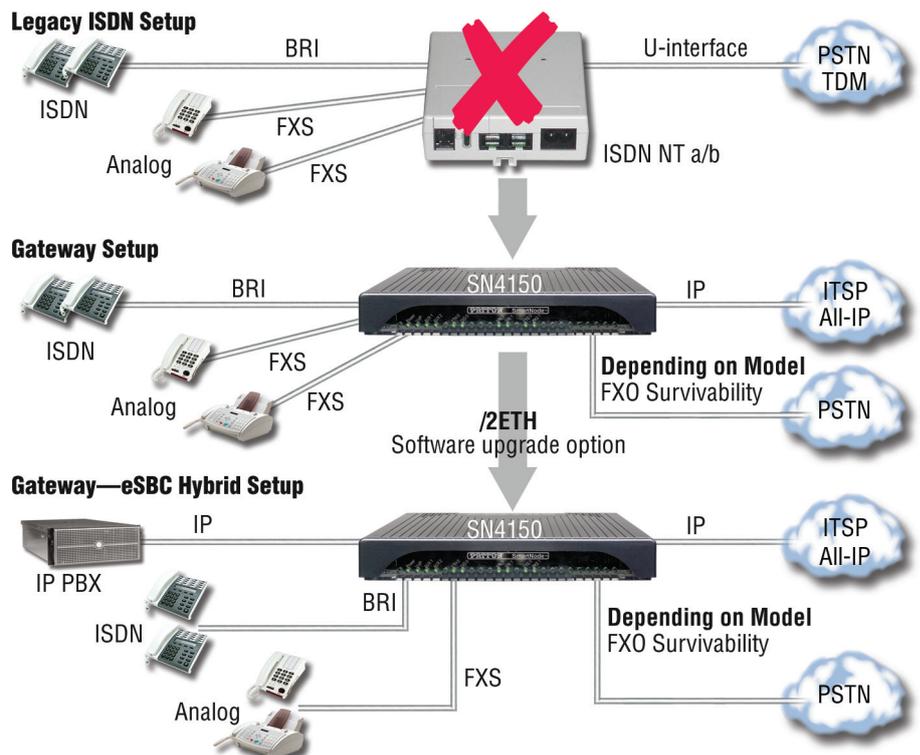
The combo configuration of 2 BRI and 2 FXS-FXO or 4 BRI and 4 FXS-FXO fits the requirements of small and medium-sized enterprises requiring a solution to enable legacy equipment for VoIP networks.

Patton's SmartNode 4150 series deliver the legacy phone interfaces, service transparency, and flexible integration required for All-IP networks.

Contact us at sales@patton.com for more information.

The Application

In All-IP networks as well as during the migration to the next generation communication network, legacy telephone equipment will remain for quite some years. The SmartNode SN4150 series will be responsible for maintaining the ISDN and analog interfaces when the telephony service is switching to an All-IP (VoIP) service. With its ability to convert modem and fax signals to VoIP, it solves problems integrating PoS, metering systems, elevator phones, etc. to an All-IP environment.

SmartNode™ 4151 Multi-port BRI/FXS VoIP Gateway

SN4151/4BIS4JS8VHP/EUI

SN4151/2BIS2JS4VHP/EUI

Specifications

Call Capacity
4 up to 16 simultaneous G.722/G.711 or T.38 fax calls

Voice Signaling
- SIPv2 and SIPv2 over TLS** & SIP over IPv6
- SIP call transfer, redirect
- Overlap or en-bloc dialing
- DTMF in-band, out-of-band

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

FXS Connectivity
- 2-wire Loopstart on RJ-11/12
- 2 or 4 FXS ports
- Long Reach FXS—10 km @ 3REN load
- EuroPOTS (ETSI EG201188)
- Programmable AC impedance, feeding, ring and on-hook voltage
- Caller-ID FSK and ITU V.23/Bell 202 generation

FXO Connectivity
- 2-wire Loopstart—RJ11/12
- 2 or 4 FXO ports
- Programmable impedance
- Ring detection, tone detection

- Caller ID detection (FXS, DTMF)
- Disconnect supervision

ISDN
- 2 or 4 BRI S0/T0 ports, RJ-45
- NT/TE configurable per port
- Built-in line power on each port (total 4W)
- DSS1, Q.921, Q.931. NTT-64
- HP High Precision Clock Stratum 3 CO
- Point-point and point-multi-point
- Lifeline Bypass Relay
- Optional QSIG support**

Voice Processing
- G.722
- G.711m/A-law
- G.723.1 (6.4 kbps)
- G.729, 729a, 729ab (8 kbps)
- G.726 (16 ,24, 32, 40 Kbps)
- G.168-2004 echo cancellation (128 ms)
- 4–16 simultaneous low-bandwidth voice or T.38 fax calls
- 4–16 HD calls with SRTP
- Up to 200 SIP to SIP calls***
- 2–8 transcoded calls**
- Transparent ISDN data (RFC 4040)
- Silence suppression and comfort noise
- Adaptive and configurable dejitter buffer
- Configurable RTP packet length

Quality of Service
- PacketSmart™ Network Assessment & Monitoring**
- Voice priority, DownStreamQoS™
- Traffic Management, shaping policing
- IEEE 802.1p, IEEE 802.1Q, 4096 VLANs (Tag insertion/deletion), TOS, DiffServ Labeling

Connectivity
- One or two 10/100/1000Base-T Ethernet ports
- Auto-MDIX
- DHCP Client
- PPPoE Client (multi-session)
- IP Multi-Netting, VLAN, Secondary IP
- Dual Stack IPv4 & IPv6
- ICMP
- Dynamic and static NAT and NAPT
- ACL, Stateful Firewall
- DNS, DynDNS
- DHCP Server
- SNTP Client

Management
- Web/HTTPs, CLI & SSH Telnet access
- WebWizard support
- Patton Cloud Management
- TR-069, TFTP, HTTP, HTTPS configuration & firmware up-and download
- TR-069 configuration and firmware provisioning
- SNMPv3 agent
- Separate config domain
- MIB II and private MIB

- Built-in diagnostic tools
- Secure Auto-Provisioning with built in root CA

Power Consumption
< 10W

Packaging
Desktop/Wall-mount plastic chassis.
Metal: Rack mount option

Dimensions
Plastic chassis 2BIS/2FXS:
8.2W x 1.3H x 6.5D in.
(20.8W x 3.4H x 16.5D cm)
Metal enclosure 4BIS/4FXS 2BRI/2FXS/2FXO 4BRI/4FXS/4FXO
11W x 1.5H x 6.1D in
(28 W x 3.9 H x 15.7 D cm)
Rack mount options available: See *Accessories* on product page online

Weight
<450g (15.9 oz) / <600g (metal))

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

Compliance
- FCC Part 15 Class A (US EMC)
- CE per RTTE 99/5/EC (EMC and LVD)

Safety
- EN60950
- TBR-3 (ISDN BRI/So)

Specifications subject to change without notice.