SmartNode™ FXS/FXO VoIP Gateway

Model 4140

The SmartNode 4140 Series of VoIP Media Gateways support up to eight telephone connections integrating legacy equipment into a UCC environment. High quality voice and reliable fax over any IP network. All-IP does not end when analog terminals have to be integrated. Security and quality guaranteed.

Up to 8 Analog interfaces (FXS/FXO)
2, 4 or 8 Analog ports. Either FXS or FXO or a combo configuration. Up to 8 G.722/G.711 or T.38 calls simultaneously

Advanced Local Call Switching
Virtual interfaces and routing tables provide industry leading flexibility in call handling programming. Local call switching, soft fallback to alternative routes.

Simultaneously connects to multiple SIP services/IP PBXs.

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

Management & Provisioning
Web Wizard for ease of use, SNMPv3, TR-069, command line interface, secure zero-touch provisioning,separate config. domain, secure provisioning of configuration and software.

Proprietary OS
Utilizes proprietary Trinity™ software for enhanced security.

Full VoIP protocol support
SIPv2, SIPv2 over TLS**, T.38, G.722 HD voice, RTP security with SRTP**, fax and modem bypass, DTMF relay.

Survivability & Local Breakout
Resiliency or local breakout for the enterprise thanks to onboard FXO ports

Optional eSBC upgrade for FXS VoIP Gateways with 2 Ethernet Ports
Models containing "SN4141/2ETH" 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 SN4141 eSBC's capabilities, refer to the model SN5541 eSBC specifications.

The SmartNode 4140 Series of VoIP Media Gateways support up to eight phone or fax calls. The SN4140 is the perfect choice for All-IP applications where either old, 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.
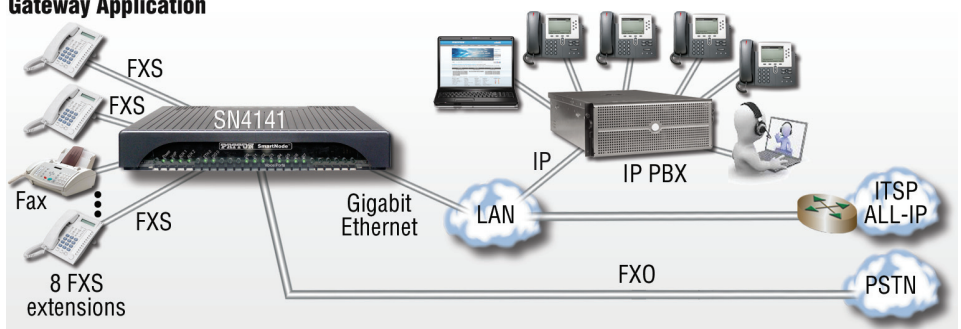
Patton's SmartNode 4140 Series delivers the legacy phone interfaces, service transparency, and flexible integration required for All-IP networks.

Visit www.patton.com/smartnode for more information.
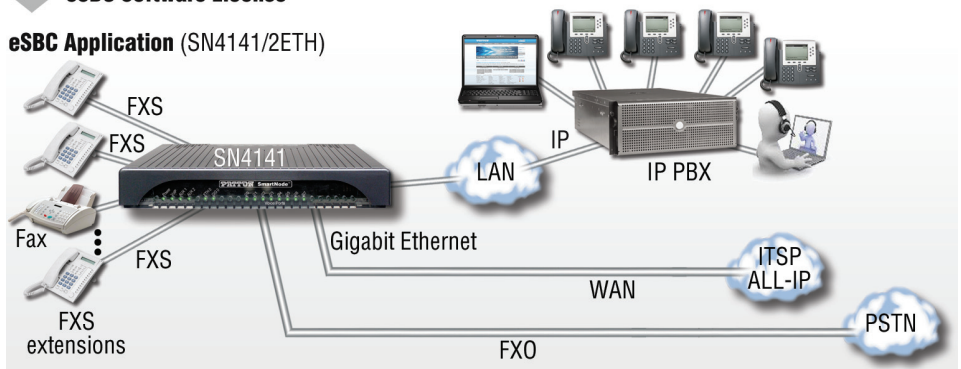
Typical Application

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 4140 Series will be responsible integrating this equipment at a very low cost for the enterprise. With its modem and fax signal to VoIP conversion capabilities it also helps to solve problems integrating PoS, metering systems, elevator phones, etc., into an All-IP environment.
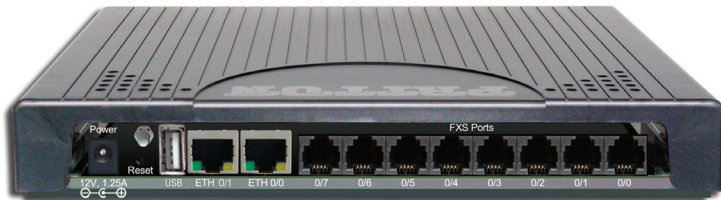
Gateway Application
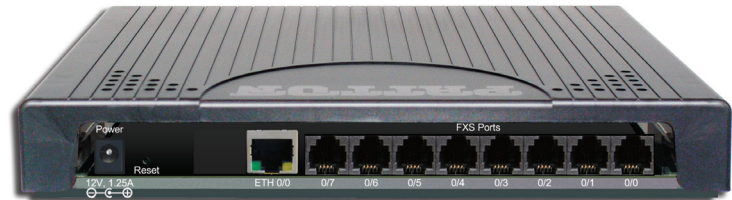

eSBC Software License

eSBC Application (SN4141/2ETH)

SmartNode™ Model 4140 Multi-port FXS VoIP Gateway

2-Ethernet-port version (eSBC software upgrade option)

VoIP Gateway

Specifications

Capacity
Up to 8 simultaneous low-bandwidth voice or HD calls with SRTP or T.38 fax calls

Voice Signaling
- SIPv2 / SIPv2 over TLS** (B2BUA capable, multi instance, simultaneous support of multiple registrars and direct IP dialing)
- SIP call transfer, redirect
- DTMF in-band & out-of-band
- All tones programmable (dial, ringing, busy)

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)
- Up to 8 simultaneous low-bandwidth voice or T.38 fax calls
- Up to 8 HD calls with SRTP
- Up to 200 SIP-to-SIP calls***
- Up to 4 SIP transcoded calls*
- Silence suppression and comfort noise
- Adaptive and configurable dejitter buffer
- Configurable RTP packet length

Call Switching and Services
- Regular expression based call routing and number manipulation
- Number blocking
- Short-dialing
- Digit collection, distribution and hunt groups
- Transparent line extension
- Fallback Routing: Soft fall back to alternative route(s)

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

FXO Connectivity
- 2-wire Loopstart—RJ11/12
- Programmable impedance
- Ring detection, tone detection
- Caller ID detection (FXS, DTMF)
- Disconnect supervision

Connectivity
- One or two 10/100/1000Base-T Ethernet ports

- USB port
- Auto-MDIX
- DHCP Client
- PPPoE Client (multi-session)
- IP Multi-Netting, VLAN, Secondary IP
- IPv4 and IPv6 - Dual Stack
- ICMP
- Dynamic and static NAT and NAPT
- ACL, Stateful Firewall
- DNS, DynDNS
- DHCP Server
- SNTP Client

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

Management
- Web/HTTPS, CLI & SSH Telnet access
- Patton Cloud Management
- Fully Documented CLI
- Telnet and HTTPs access
- TR-069, TFTP, HTTP, HTTPS configuration & firmware up- and download
- 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 Consumption
< 10W

Packaging
Desktop/Wall-mount plastic chassis

Dimensions
8.2W x 1.3H x 6.5D in.
(20.8W x 3.4H x 16.5D cm)

Weight
< 450g (15.9 oz)

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

Safety & Compliance
- EMC compliance: EN55022 and EN55024
- Safety compliance: EN 60950
- CE compliance
- FCC Part 15 Class A
- TBR21 (FXS)
- RoHS
- ITU-T K.21 protection (FXS ports)**

Ordering Info

Obtain ordering info for this product by using the QR code at right or by contacting:
- web: **http://www.patton.com/products/product_detail.asp?id=540&tab=Ordering**
- email: **sales@patton.com**
- tel: **+1 301.975.1000**

Specifications subject to change without notice | * Depending on model | ** Licensed Feature at additional charge | *** Supports up to 200 SIP-to-SIP sessions under ideal conditions. Transcoding, debugging, and/or IP routing reduce processing capacity.

Let's Connect!

07MSN4141-DS3