

SMARTNODE VoIP

The SmartNode 4830 Series connects up to 8 phone lines, VoIP, and Internet/VPN access across integrated synchronous PPP and Frame Relay links. Offering bundled voice, data, and VPN services, the SmartNode IAD delivers best-in-class VoIP quality for lowest cost networking.

Multiport Analog VoIP Gateway Router

SmartNode 4830 Series VoIP IAD with Integrated WAN

Patton's SmartNode™ 4830 Series IADs let you add packet voice while providing access routing with native V.35/X.21 synchronous serial connection. Add up to 8 phone lines and combine Internet and VPN access on a single PPP or Frame-Relay based access line for the new standard in toll-bypass, remote/branch office connectivity, and enhanced carrier services.

The SN4830 Series offers models with combinations of 2 to 8 analog FXS phone ports and 2 or 4 FXO ports. The Dual 10/100baseT LAN ports can be used for LAN, IPSec VPN and DMZ connections. The integrated X.21/V.35 WAN port provides direct access to IP over PPP and Frame-Relay. Like every SmartNode the 4830 series supports the industry standard VoIP signaling protocols SIP, H.323, T.38 Fax-Relay, plus Fax and Modem-Bypass and is interoperable with leading Softswitches and VoIP services.

Quality of Service (QoS) features include advanced voice prioritization and traffic management. DownStreamQoS™ ensures voice without interruptions even over best-effort internet connections. Packet labeling according to 802.1p, TOS and DiffServ enable integration into managed QoS networks.

The SN4830 is the solution for service providers and network integrators looking for the seamless integration of analog phones and PBXs into converged VoIP-Data networks. It ensures easy setup and continuous trouble-free operation and cost effective deployment. The support of the leading VoIP signaling protocols ensures interoperability with third-party equipment and protects your investments for the future. For more information, visit us at www.patton.com.

Integrated Sync Serial Uplink

Built-in X.21, V.35 router with PPP, Frame Relay
RFC-1490, 8 PVCs and FRF.12 fragmentation

Complete VoIP Gateway

SIPv3, H.323v4, T.38 & Fax bypass, G.723, G.729, G.726,
G.711, echo cancellation, silence compression, comfort noise.

FXS, FXO, or Combinations

Up to 8 FXS ports connect to your standard telephone or
PBX. 2 or 4 FXO ports allow local PSTN connections.
Programmable call routing and switching.

Access & Network Routing

Connected to any broadband or access provider. IPv4, RIPv2,
ICMP, NAT/PAT, Firewall, DHCP, DynDNS, IPSec VPN.

QoS Guaranteed Voice & Data

Quality of Service ensures voice traffic gets priority without
shutting down your Ethernet LAN.

Management & Provisioning

Web based management, SNMP, Command Line Interface.
Auto-Provisioning for automated configuration distribution
and SW upgrades caller/called ID, and time of day.

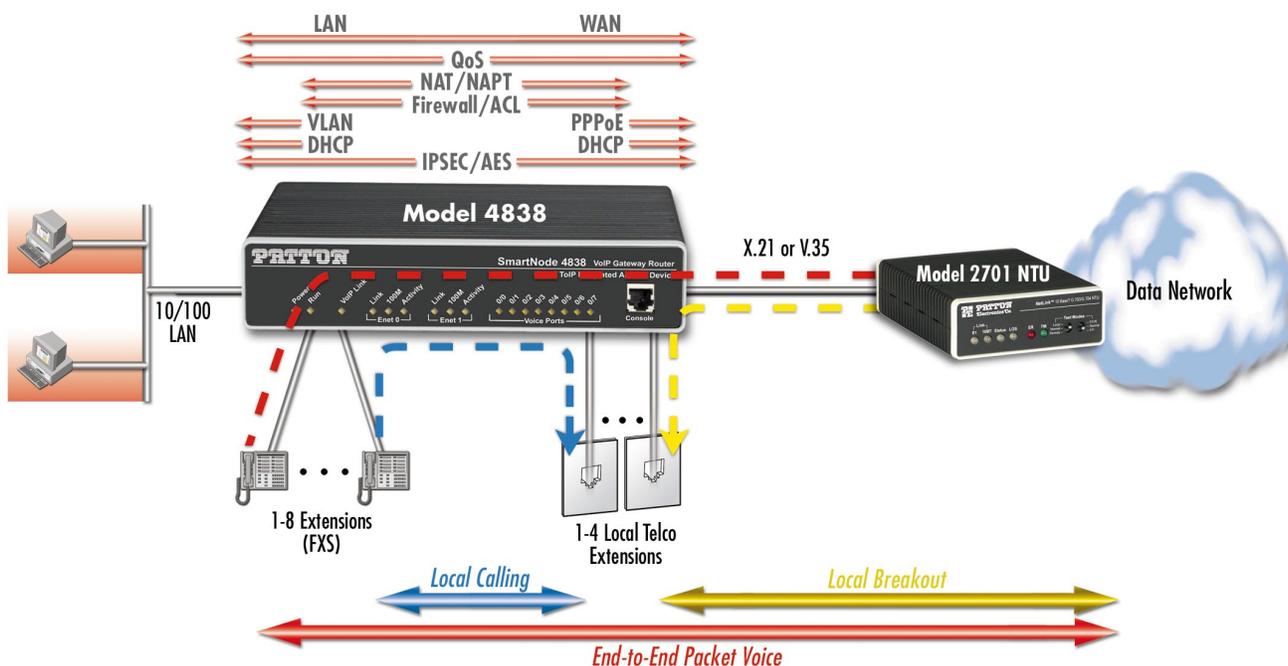
PATTON



SmartNode 4838 Multiport IAD

Application—Remote Office/Branch Office Voice Extension and Access

Supporting voice from any local or remote connections with Quality of Service brings true access to all users. Now integrating into local DSL, Cable, or IP access services is clean and complete



Specifications

Voice Connectivity

2-wire Loopstart, RJ-11/12
Short haul loop 1.1 km @3REN
EuroPOTS (ETSI EG201 188)
Programmable AC impedance, feeding, and ring voltage; On-Hook Voltage 29VDC
Caller-ID Type-1/2 FSK and ITU V.23/Bell 202 generation

Connectivity

2 10/100 Full Duplex/Autosensing
Ethernet RJ-45
V.35/X.21 on a DB-style female connector

Voice Processing (signalling dependent)

Voice codes

- G.711 A-Law/ μ -Law (64kbps)
- G.726 (ADPCM 40, 32, 24, 16 kbps)
- G.723.1 (5.3 or 6.3 kbps)
- G.729ab (8kbps)
- Transparent pass through
- G.168 echo cancellation
- 8 parallel voice connections
- DTMF detection and generation

Carrier tone detection and generation
Silence suppression and comfort noise
Configurable dejitter buffer
Configurable tones (dial, ringing, busy)
Configurable transmit packet length
RTP/RTCP (RFC 1889)

Fax and Modem Support

G.711 transparent FAX
Fax over IP (FoIP)
T.38 Fax relay (9.6 k, 14.4 k)

Voice Signalling

H.323v4/SIP v3

- RAS, H.225, H.245
- Fast-connect, early H.245
- Gatekeeper autodiscovery
- Alias registration
- Overlap sending
- Empty capability set (call transfer, hold)
- H.323v1 call transfer, hold
- ISDN over IP (ISoIP)
- H.323 GW and GK compatible
- H.323 Annex M3

- ISDN/Q-SIG feature tunneling
- ISDN speech, audio and data (Fax Gr 4, UDI 64, RDI 64)

Voice Routing—Session Router™

Local switching; Interface huntgroups
Routing Criteria

- Interface
- Calling/called party number
- Time of day, day of week, date
- ISDN bearer capability
- Number manipulation functions
- Replace numbers; Add/remove digits
- Multiple remote gateways; PLAR

IP Services

IPv4 router; RIPv1, v2 (RFC 1058 and 2453)
Programmable static routes
ICMP redirect (RFC 792); Packet fragmentation
DiffServe/ToS set or queue per header bits
Packet Policing discards excess traffic
802.1p/Q VLAN support with 4096 IDs
IPSEC AH & ESP Modes
Manual Key; IKE optional

AES/DES/3DES Encryption

Management

Industry standard CLI with local console (CRJ-45, RS-232) and remote Telnet access
TFTP configuration & firmware loading
SNMP v1 agent (MIB II and private MIB)
Built-in diagnostic tools (trace, debug)
Java™ Applet; HPOV Integration with NNM

Operating Environment

Operating temperature: 0–40°C
Operating humidity: 5–80% (non condensing)

System

CPU Motorola MPC859 @ 50 MHz
Memory 16MB SDRAM/4MB Flash
Power: 100–240 VAC (50/60 Hz)
Power dissipation: 4W

Compliance

EMC compliance: EN55022 and EN55024
Safety compliance: EN 50950
CE compliance
FCC Part 15 Class A

Model Information

SN4832/JSX*/EUI 2 Port FXS with integrated WAN
SN4834/JSX*/EUI 4 Port FXS with integrated WAN
SN4836/JSX*/EUI 6 Port FXS with integrated WAN
SN4838/JSX*/EUI 8 Port FXS with integrated WAN

SN4834/2JS2JOX*/EUI 2 FXS, 2 FXO with integrated WAN
SN4836/4JS2JOX*/EUI 4 FXS, 2 FXO with integrated WAN
SN4832/JOX*/EUI 2 FXO with integrated WAN
SN4834/JOX*/EUI 4 FXO with integrated WAN

SN4838/4JS4JOX*/EUI 4 FXS, 4 FXO with integrated WAN

Options & Accessories

NSW-VPN1 License key for IPsec VPN support (DES, 3DES, AES)

*X=Interface options:: C=V.35 DTE, D=X.21 DCE/DTE

Note: IPR routing license included.



Meriedweg 7
CH-3172 Niederwangen
Phone **+41 (31) 985 25 25**
Fax **+41 (31) 985 25 26**
E-mail **sales@inalp.com**
URL **http://www.inalp.com**



7622 Rickenbacker Drive
Gaithersburg, MD 20879 USA
Phone **+1-301/975-1000**
Fax **+1-301/869-9293**
E-mail **sales@patton.com**
URL **http://www.patton.com**