# Patton SmartNode SN4991/1E24VD/EUI 1 T1/E1 PRI VoIP IAD, X.21, 2x GigEthernet, 24 VoIP channels, upgradeable to 30



Product Name: Patton SmartNode SN4991/1E24VD/EUI 1 T1/E1 PRI VoIP IAD, X.21, 2x GigEthernet, 24 VoIP

channels, upgradeable to 30 Manufacturer: Patton Inalp

Model Number: SmartNode SN4991/1E24VD/EUI

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The Patton SmartNode SN4991/1E24VD/EUI 1 T1/E1 PRI VoIP IAD, X.21, 2x GigEthernet, 24 VoIP channels, upgradeable to 30 VoIP Integrated Access Device offers Broadband Providers a single box CPE solution with built-in G.SHDSL, EFM, ADSL, fiber, or X.21 broadband access allowing Enterprises to IP-enable their legacy PBX systems. The single box CPE solution allows Broadband Providers to reduce their hardware costs, simplify their network architecture and streamline their service and deployment. Evolving from Patton's award winning SmartNode 4960 Series, the next generation SmartNode 4990 Series comes now with IPv6 upgradeable hardware.

Patton SmartNode SN4991/1E24VD/EUI Key Features

- Trinity OS optional, select this when SIP TLS/SRTP is required. Software Comparison
- 15 to 120 VoIP calls— with up to four T1/E1/PRI ports and dual Gigabit Ethernet ports.
- WAN Access— Fiber SFP, G.SHDSL, EFM, Serial X.21, or ADSL WAN interface.
- VoIP Transcoding Option—Up to 60 channels for WANbandwidth optimization. Proven Interoperability—SIP interop with major IP PBX, Softswitch and VoIP Service Providers. Over 100,000 SmartNode deployments worldwide. ISDN/PSTN compliance in nearly every country..
- QoS and Security—Deliver secure, toll-quality voice communications with Patton's DownStreamQoS™ with adaptive traffic management and shaping—plus secure voice-over-VPNwith AES/DES strong encryption.
- Transparent Telephony Features—Complex number manipulation and mapping for seamless integration with existing infrastructures, CLIP, CLIR, hold, transfer and much more.
- High Precision Clock— Delivers DECT PBX interoperability with reliable fax performance.
- 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).
- Supported by SmartNode™ Redirection Service: A free service enabling zero-touch mass deployments for Service Providers and Distributors with auto-provisioning servers.

Like every SmartNode, the SN4990 supports every industry-standard CODEC to deliver tollquality voice on every call. The Unified Communications Agent (UCA) provides any to-any multi-path switching (simultaneous SIP, H.323, ISDN, and POTS 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 with AES/DES strong encryption and automated keying via Internet Key Exchange (IKE). In addition, advanced call-router functionality includes least-cost call routing with flexible dialed-number plan support.

Patton SmartNode SN4991/1E24VD/EUI - Technical 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 & Early; data (Fax Gr 4, UDI 64, RDI64)
- · ISDN supplementary services

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• CAS protocols: RBS (Loop start, ground start, E&M wink, intermediate, double-wink) and R2/MFC-R2 (Q.400–Q.490 and Configurable country profiles), fallbackrelay on 4 port versions

### VoIP

• SIPv2 (SIP Info, Update, PRACK, Privacy, Refer), B2BUA, Optional SIP Registrar and Transcoding, H.323v4 (H.235, Early H.245, H.245 tunneling, fast-connect)

### **Broadband Access**

- G.SHDSL: 4-wire G.SHDSL ITU-T G991.2, Annex A, B, F, G
- Up to 11.4 Mbps
- PPPoE
- PPPoA, IPoA, 8PVCs, each UBR, CBR or VBR-rt selectable
- I.610 OAM F4/F5 support G.994.1 (G.hs)
- X.21: Serial X.21
- ADSL:ADSL2+ ITU-T G.992.5, Annex A, M, B
- Up to 24 Mbps
- PPPoE
- PPPoA
- IPoA
- · 8 PVCs, each UBR, CBR or VBR-rt selectable
- I.610 OAM F4/F5 support
- G.994.1 (G.hs)
- Fiber:SFP slot for fiber WAN uplink
- 100Base-T and GigE support
- Up to 8 VLANs
- PPPoE
- EFM:EFM mode compliant to IEEE 802.3 G.998.2
- PPP over Ethernet (RFC2516)
- Support of OAM PDU information and functionality (ITU-T Y.1731) & ordf; OAMPDU event notification, variable request, variable response, and loopback control

### 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
- shortdialing
- · digit collection, distribution and hunt groups

#### **Data Interfaces**

- Dual 10/100/1000 TX Ethernet Ports
- Autosensing
- Auto-MDI
- Full-duplex

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### IP Routing

- IP access router
- DHCP Client & amp; Server
- RIPv2
- BGP
- VRRP
- · Packet fragmentation
- Firewall
- NAT/NAPT RFC 1631
- Access Control Lists
- DMZ port
- IPsec VPN (Option)

### 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 & Department of the second console amp; remote Telnet access
- HTTP/TFTP configuration & amp; firmware loading
- SNMP MIB II and product MIB.
- SYSLOG
- · Secure auto provisioning for both firmware & amp; unit/subscriber configuration
- Built-in diagnostic tools (trace, debug, call generator)

### Power & amp; 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)
- External or 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

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Price: £2,028.44

