SmartNode™ 4660
BRI/FXS/FXO VoIP Gateway-Router

IP-enable all legacy voice/fax systems with one Enterprise-class VoIP Gateway-Router. Supporting 8 to 24 concurrent VoIP calls, the SN4660 connects ISDN-PBX, analog fax and phone—even audio-intercom systems—with advanced IP telephony services and the PSTN.

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Features

- **Flexible ISDN BRI and FXS/FXO Port Combinations**—Connect analog phone/fax, answering machines, intercom stations, and ISDN-PBX systems with combinations of 4 to 8 FXS, up to 4 FXO, and 2 to 8 BRI interfaces.
- **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-VPN with 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.
- **Fax that Works**—T.38, SuperG3 Fax, enhanced G.711 fax and modem bypass provide reliable fax over VoIP networks using traditional analog or IP-based fax end stations.
- **High-Precision Clock**—Delivers DECT PBX interoperability and reliable fax performance.
- **Supported by SmartNode™ Redirection Service:** A free service enabling zero-touch mass deployments for Service Providers and Distributors with auto-provisioning servers (Learn More).

SmartNode™ Awards

- *2012 Internet Telephony Product of the Year : SmartNode™ 4670*
- *2012 Internet Telephony Excellence Award: VoIP Gateways & Routers*
- *2011 Internet Telephony Product of the Year: SmartNode™ 5400*
- *2010 Internet Telephony Product of the Year: SmartNode™ 5400*
- *2009 Internet Telephony Product of the Year: SmartNode™ 4400 Series*
- *2009 Internet Telephony Excellence Award: SmartNode™ 4630 Series*
- *2008 Internet Telephony Product of the Year: SmartNode™ 4960*

Overview

The SmartNode™ 4660 VoIP Gateway-Router offers flexible combinations of ISDN BRI, analog FXS/FXO, and Ethernet/IP interfaces to deliver a unique solution allowing the Enterprise to IP-enable legacy ISDN-PBX and analog phone/fax/answering machine and audio-intercom systems.

Providing 4 Ethernet, 2 to 8 BRI, 4 to 8 FXS, and up to 4 FXO ports, the SN4660 inter-connects any Ethernet switch, ISDN PBX, analog equipment or IP-data network to support 8 to 24 simultaneous VoIP calls using SIP, FXS/FXO or BRI signaling. The 10/100 Ethernet uplink provides seamless WAN access via any existing cable, ADSL, VDSL, EFM, or fiber-optic modem.

Like every SmartNode™, the SN4660 supports every industry-standard CODEC to deliver toll-quality voice on every call. Adding session border controller capabilities, the SN4660 includes IP transcoding for up to 12 SIP channels. 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.
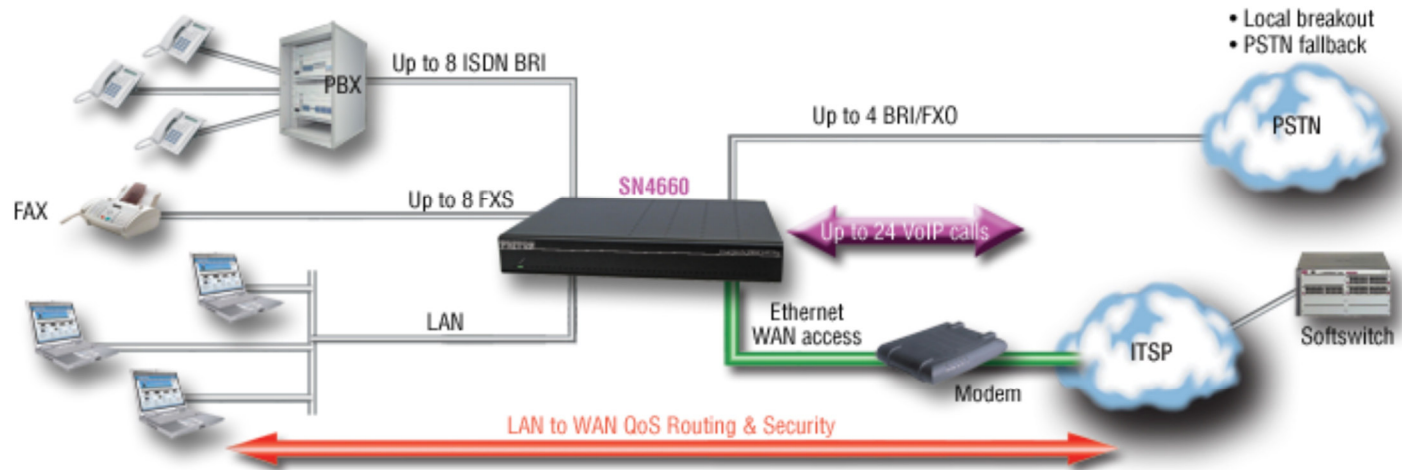
The SmartNode survivability suite combines PSTN fallback, SIP Registrar and IP-link redundancy to ensure business continuity if the IP network fails. Patton's DownStreamQoS™ delivers the advantage of clear, uninterrupted voice-and-data communication. Furthermore, SmartNode's unique high-precision clock delivers first-line IP telephony service in demanding ISDN and DECT environments with reliable FAX and modem performance. In addition, SmartNode delivers a smooth transition to VoIP with strong number portability support accepting incoming calls from the PSTN throughout the VoIP service provider's number porting process.

Preserve investments in legacy phone equipment while taking the next steps toward unified communications with the SN4660 Gateway-Router.

Applications
Convert Legacy PBX and FAX to VoIP

Specifications

Capacity: Up to 24 simultaneous VoIP or T.38 fax calls (depending on the model)

BRI Voice Connectivity: 2/4/8 BRI So ports, RJ-45 • NT/TE configurable per port • Built-in line power on each port (total 4W) • DSS1, Q.921, Q.931. NTT-64 • Point-point and pointmultipoint • Optional QSIG support*

FXS/FXO Voice Connectivity: 4 FXS and FXO ports • 2-wire Loopstart on RJ-11/12 • short haul loop 1.1km @3REN • EuroPOTS (ETSI EG201188) • programmable AC impedance, feeding, ring and on-hook voltage • Caller-ID FSK and

ITUV.23/Bell 202 generation • FSK & shuttered dial tone MWI

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 • Transcoding for up to 12 channels

Call Routing and Services: Regular expression call routing and manipulation • number blocking • short-dialing • digit collection, distribution and hunt groups

LAN/WAN Connectivity: 4 x 10/100BaseT Ethernet WAN • Auto-MDI-X • DHCP Client • PPPoE Client (multi-session) • IP Multi-Netting access control lists • DMZ port

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 & remote Telnet access • TFTP configuration & firmware loading • SNMP MIB II and product MIB • Secure auto provisioning for firmware & unit/subscriber configuration • Built-in diagnostic tools (trace, debug, call generator)

Power & Packaging: Desktop metal chassis

Dimensions: 11.0W x1.5H x 7.0 D in. (28.0W x3.9H x 18.0D cm)

Weight: < 30 oz (850g)

Internal Power: 100–240VAC (50/60 Hz)

Power Consumption: < 15W

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

Ordering Information

Model #	Description
SN4660/8BIS16V/EUI	SmartNode Gateway-Router, 8 BRI, 16 VoIP calls; 4 LAN/WAN Ethernet Ports ; External 100-240 power
Accessories	
INS-KIT-RACKEARS-11/19	Rack mount ears for a 11.5 inch case into a 19 inch rack space (For SN5400, SN4960, SN4950, SN4940, SN4990, SN4980, SN4970, SN4670, SN4660, SN4650, SN4630)
SN4661/2BIS2JS2JO8V/EUI	SmartNode Gateway-Router, 2 BRI, 2 FXS, 2 FXO, 8 VoIP calls; 4 LAN/WAN Ethernet Ports ; External 100-240 power, , high-precision clock
Accessories	
INS-KIT-RACKEARS-11/19	Rack mount ears for a 11.5 inch case into a 19 inch rack space (For SN5400, SN4960, SN4950, SN4940, SN4990, SN4980, SN4970, SN4670, SN4660, SN4650, SN4630)
SN4661/2BIS4JS8V/EUI	SmartNode Gateway-Router, 2 BRI, 4 FXS, 8 VoIP calls; 4 LAN/WAN Ethernet Ports ; External 100-240 power, high-precision clock
Accessories	
INS-KIT-RACKEARS-11/19	Rack mount ears for a 11.5 inch case into a 19 inch rack space (For SN5400, SN4960, SN4950, SN4940, SN4990, SN4980, SN4970, SN4670, SN4660, SN4650, SN4630)
SN4661/4BIS4JS12V/EUI	SmartNode Gateway-Router, 4 BRI, 4 FXS, 12 VoIP calls; 4 LAN/WAN Ethernet Ports ; External 100-240 power, high-precision clock
Accessories	
INS-KIT-RACKEARS-11/19	Rack mount ears for a 11.5 inch case into a 19 inch rack space (For SN5400, SN4960, SN4950, SN4940, SN4990, SN4980, SN4970, SN4670, SN4660, SN4650, SN4630)
SN4661/4BIS4JS4JO12V/EUI	SmartNode Gateway-Router, 4 BRI, 4 FXS, 4 FXO, 12 VoIP calls; 4 LAN/WAN Ethernet Ports ; External 100-240 power, high-precision clock
Accessories	
INS-KIT-RACKEARS-11/19	Rack mount ears for a 11.5 inch case into a 19 inch rack space (For SN5400, SN4960, SN4950, SN4940, SN4990, SN4980, SN4970, SN4670, SN4660, SN4650, SN4630)
SN4661/8BIS16V/EUI	SmartNode Gateway-Router, 8 BRI, 16 VoIP calls; 4 LAN/WAN Ethernet Ports ; External 100-240 power, high-precision clock
Accessories	
INS-KIT-RACKEARS-11/19	Rack mount ears for a 11.5 inch case into a 19 inch rack space (For SN5400, SN4960, SN4950, SN4940, SN4990, SN4980, SN4970, SN4670, SN4660, SN4650, SN4630)

SN4661/8BIS4JS24V/EUI	SmartNode Gateway-Router, 8 BRI, 4 FXS, 24 VoIP calls; 4 LAN/WAN Ethernet Ports ; External 100-240 power, high-precision clock

Accessories

INS-KIT-RACKEARS-11/19	Rack mount ears for a 11.5 inch case into a 19 inch rack space (For SN5400, SN4960, SN4950, SN4940, SN4990, SN4980, SN4970, SN4670, SN4660, SN4650, SN4630)

SN4661/8BIS8V/EUI	SmartNode Gateway-Router, 8 BRI, 8 VoIP calls; 4 LAN/WAN Ethernet Ports ; External 100-240 power, high-precision clock

Accessories

INS-KIT-RACKEARS-11/19	Rack mount ears for a 11.5 inch case into a 19 inch rack space (For SN5400, SN4960, SN4950, SN4940, SN4990, SN4980, SN4970, SN4670, SN4660, SN4650, SN4630)