SmartNode™ 16 to 128-port Analog High Density Gateway

Model SN4740

Covering analog port densities of 16, 24, 32, 48, 72, 96, and 128, the SN4740 series can connect analog telephony equipment to SIP-based communication systems for just about any application, hotels, resorts, campus, and sprawling industrial facilities.

Up to 128 FXS

16, 24, 32, 48, 64, 72, 96, and 128 analog ports. Long Reach FXS-10km @ 3REN load. MWI, Caller-ID and AOC support. FXO is coming soon!

Message Waiting

Message Waiting Subscription & Notify, MWI—Line reversal, high voltage and FSK support.

Full VoIP protocol support

*SIPv2, SIPv2 over TLS**, SIPv2 over IPv6, RTP security with SRTP**, T.38, fax and modem bypass, DTMF relay.*

Easy Management & Provisioning

Patton Cloud orchestrated, HTTPS zero-touch provisioning (Mutual Authentication), SNMP, command line interface and TR-069 for automated mass provisioning for efficient deployments.

Call Quality Assessment & Monitoring

Powered by Patton Cloud; Call Quality monitoring ensures SLA is being met at the customer premise. CDR logging includes quality information, duration, Codec, etc. Accessible by Web and API (OSS/BSS integration).

eSBC Upgrade Option

Simply by purchasing a software license, the SmartNode becomes a full blown eSBC. This capability prepares your voice network for next-generation SIP services and security.

The SmartNode™ 4740 VoIP Gateway provides 16 to 128 analog FXS (FXO coming soon) interfaces to connect phones, fax or PSTN trunk lines to your All-IP based Unified Communication system such as SIP Trunks, IP PBX`s, Hosted Solution, etc.

Like every SmartNode, the SN4740 supports every industry-standard Codec to deliver toll-quality voice on every call. Utilizing Patton Cloud's Call Quality Assessment and Monitoring functions, together with E-Mail or SMS notification, it ensures meeting Service Level Agreements at the customer premise with no effort. Which helps in preventing Call Quality related problems, and reduces time resolving them by utilizing the remote access functions of Patton Cloud.

VoIP-over-VPN voice encryption provides secure voice and data via IPsec** or OpenVPN** in addition to SIP/TLS** & SRTP**.

The advanced call-router functionality includes least-cost call routing with flexible dialed-number plan support. The SmartNode survivability suite provides SIP Trunk and PSTN fallback to ensure business continuity in case the IP network fails. In addition, the SmartNode delivers a smooth transition to All-IP 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 SN4740 VoIP Gateway. Providing 16 to 128 FXS (FXO coming soon) interfaces and two 10/100/1000 Ethernet ports, the SN4740 delivers a reliable, cost-effective solution for the Enterprise.

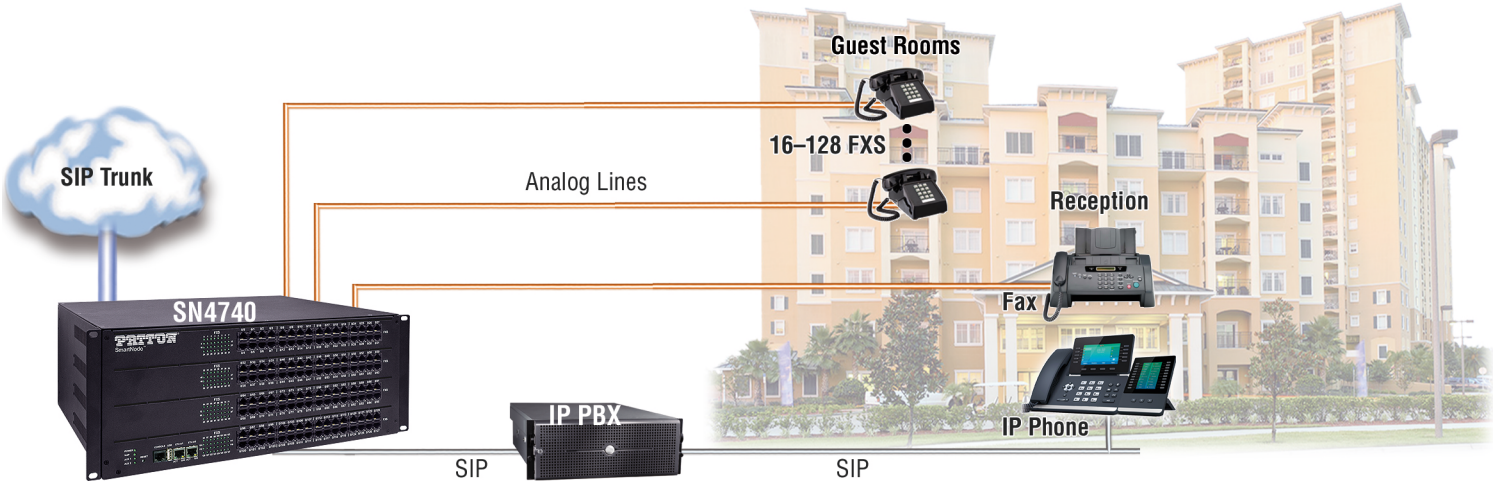
Visit www.patton.com/smartnode for more information.

PATTON® let's Connect!™

SmartNode™ Model 4740 High Density Gateway

Typical Applications

Nursing Home, Apartment Building Application



Hotel Application

Port and Power Configurations

SN4741/32

1U (16–32 ports)

RJ11 Only

RJ21 Only

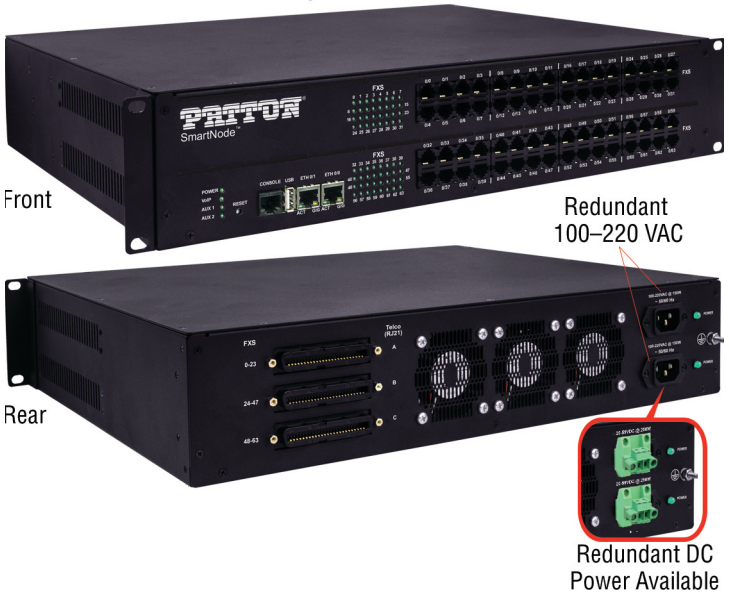
SmartNode™ Model 4740 High Density Gateway

Port and Power Configurations (Cont.)

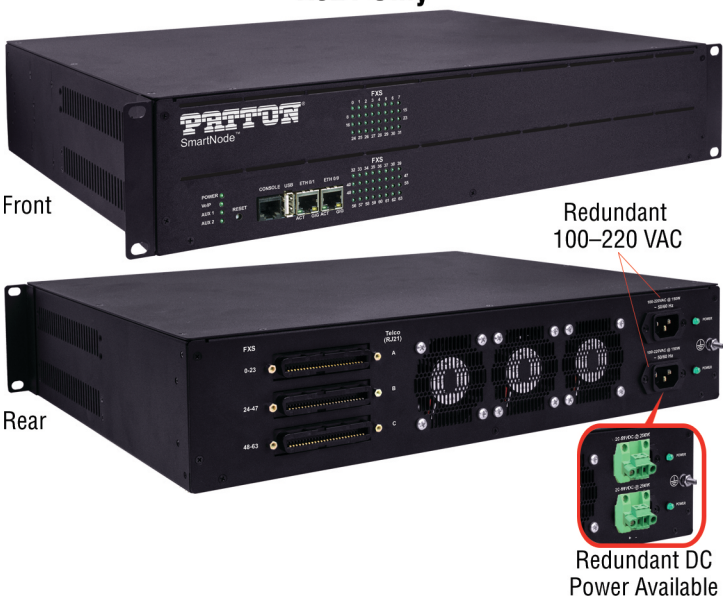
SN4741/64

2U (48–64 ports)

RJ11/RJ21 Combo



RJ21 Only



SN4741/128

4U (72–128 ports)

RJ11/RJ21 Combo

RJ21 Only

SmartNode™ Model 4740 High Density Gateway

Specifications*

Capacity
Up to 128 simultaneous low bandwidth voice or HD calls with SRTP** or T.38 fax calls

SIP Signaling
- SIPv2 over UDP/TCP or TLS**
- SIP call transfer, redirect
- Overlap dialing, PRACK, P-Header support
- Multi instance, simultaneous support of multiple registrars and direct IP dialing)
- DTMF in-band & out-of-band
- B2BUA—eSBC capable**

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)
- AMR-NB (4.75, 5.15, 5.9, 6.7, 7.4, 7.95, 10.2, 12.2 kbps)
- Fax relay T.38, bypass G.711
- iLBC at 13.33 kbps (SIP-SIP only)
- SILK (SIP-SIP only)
- G.168-2004 echo cancellation (128 ms)
- Up to 128 simultaneous low-bandwidth voice or T.38 fax calls
- Up to 128 HD calls with SRTP
- Silence suppression and comfort noise
- Adaptive and configurable dejitter buffer
- Configurable RTP packet length

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

FXS Connectivity
- 2-wire Loopstart on RJ-11 or RJ21 (Telco 50-pin)
- MWI—high voltage, line reversal and FSK method
- Localization—All tones programmable (dial, ringing, busy)
- EuroPOTS (ETSI EG201188)
- Programmable AC impedance, feeding, ring and onhook voltage
- Peak Ring voltage: 87.7 Vpk
- Ring voltage: 62 Vrms
- Current Feed ILA: 26mA
- Talk Battery Voltage: -20V
- On-Hook voltage VOC: 51V
- Caller-ID FSK and ITU V.23/Bell 202 generation
- Long Reach FXS—10 km @ 3REN load
- Secondary Surge Protection*

FXO Connectivity (coming soon)
- 2-wire Loopstart on RJ-11 or RJ21 (Telco 50-pin)
- Programmable impedance
- Ring detection, tone detection
- Caller ID detection (FXS, DTMF)
- Connect & Disconnect supervision

Connectivity
- Two 10/100/1000Base-T Ethernet ports
- USB port
- Auto-MDIX
- DHCP Client and Server
- PPPoE Client (multi-session)
- IP Multi-Netting, VLAN, Secondary IP
- IPv4 and IPv6—Dual Stack
- ICMP
- IP Routing (GRE, VRRP, BGP, RIP, LACP)**
- Dynamic and static NAT and NAPT**
- Intelligent ACL
- DNS, DynDNS
- SNTP Client

Quality of Service, SLA Assurance
- Patton Cloud based Call Quality Monitoring & Alerting**
- Voice priority, DownStreamQoS™
- High Availability & Redundancy**
- Traffic Management, shaping policing
- IEEE 802.1p, IEEE 802.1Q, 4096 VLANs (Tag insertion/deletion), TOS, DiffServ Labeling

Management
- Patton Cloud Orchestrated
- Customizable WebWizard, Web-based GUI HTTP/HTTPS access, CLI Telnet/SSH
- Secure Auto-Provisioning (Zero Touch) with built in root CA
- Separate config domain (LAN side config and WAN side config)
- TR-069 (CWMP-ACS), TFTP, HTTP, HTTPS configuration & firmware up- and download
- Radius, TACACS+
- SNMPv3 agent—MIB II and private MIB
- Built-in diagnostic tools

Power
16–32 port: Single power supply, Secondary optional
- 110–230 VAC External Power Supply
- 24–48 VDC

48–128 port: Redundant, internal power
- 110–230 VAC
- 24–48 VDC

16–32 Ports Power Consumption

Consumption in watts	16 Port	24 Port	32 Port
Typical (20% off hook, 5% ringing)	**29**	**31**	**33**
Idle (USB full load)	18	18	18
All off hook	44	54	64
All ringing—staggered, 1 REN	33	39	43

48–128 Ports Power Consumption

Consumption in watts	48 Port	64 Port	96 Port	128 Port
Typical (20% off hook, 5% ringing)	**51**	**58**	**85**	**107**
Idle (USB full load)	28	28	37	47
All off hook	97	118	177	228
All ringing—staggered, 1 REN	67	77	116	146

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)*

Dimensions & Packaging
19-in. rack-mount chassis
1U: 16, 24, 32 ports
2U: 48, 64 ports
4U: 72, 96, 128 ports

Weights

SN4740 Unit Weight (lb/kg)				
	R48 (DC)		RUI (AC)	
	RJ21	RJ21 + RJ11	RJ21	RJ21 + RJ11
48-port	7.1 (3.2)	7.9 (3.6)	8.8 (4.0)	9.6 (4.4)
64-port	7.1 (3.2)	8.2 (3.7)	8.8 (4.0)	9.9 (4.5)
72-port	10.5 (4.7)	11.7 (5.3)	12.5 (5.7)	13.7 (6.2)
96-port	10.6 (4.8)	12.2 (5.5)	12.6 (5.7)	14.2 (6.5)
128-port	11.7 (5.3)	13.8 (6.3)	13.7 (6.2)	15.9 (7.2)

SN4740 Packaged Weight (lb/kg)				
	R48 (DC)		RUI (AC)	
	RJ21	RJ21 + RJ11	RJ21	RJ21 + RJ11
48-port	11.9 (5.4)	12.7 (5.8)	14.5 (6.6)	15.3 (6.9)
64-port	12.0 (5.4)	13.1 (5.9)	14.5 (6.6)	15.6 (7.1)
72-port	14.4 (6.5)	15.6 (7.1)	17.3 (7.9)	18.5 (8.4)
96-port	14.5 (6.6)	16.1 (7.3)	17.4 (7.9)	19.0 (8.6)
128-port	15.6 (7.1)	17.8 (8.1)	18.5 (8.4)	20.7 (9.4)

Specifications subject to change without notice | Product images shown may not be an exact representation of the actual product | * Depending on model | ** Licensed Feature at additional charge | Patton Cloud based features & services depend on Cloud Service plans which are to be purchased separately

PATTON® let's Connect!™

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