

# SmartNode™ Enterprise Session Border Controller & IAD

## Model 5530



*The SmartNode 5530, is a cost effective eSBC with integrated Broadband access and up to 8 BRI ports supporting a high level of VoIP and network security. It is capable of doing up to 200 SIP to SIP calls\*\*\* whereof max. 8 can be transcoded\*\*. Built-in QoS functionalities and support of G.722 high definition codec, ensure excellent VoIP call quality.*

### Full VoIP protocol support

SIPv2, SIPv2 over TLS, T.38, G.722 HD voice, RTP Security with SRTP, fax and modem bypass, DTMF relay. Up to 200 SIP to SIP calls\*\*\*.

### WAN Access\*

Fiber SFP, G.SHDSL-EFM/ATM, Gigabit Ethernet or VDSL/ADSL WAN interface.

### 2/4/8 Ports Quality ISDN VoIP

2, 4 or 8 ISDN BRI S0 ports. Supports ISDN, DSS1, and QSIG\*\*. Up to 16 G.722 or T.38 or G.711 or SRTP calls simultaneously.

### Full Telephony Features

SessionRouter allows flexible call routing and numbering plan adaptations, CLIP/CLIR, hold, transfer and much more.

### Outstanding Interoperability

Interoperable for voice and T.38 fax with leading SIP service providers, soft-switch vendors, and IP-PBX's.

### Complete Access Routing

Two 10/100/1000 Ethernet ports with auto MDI-X. Ethernet Layer 2 switching and bridging. Access router with NAT, Policy Based Routing, Stateful Firewall, PPPoE, DHCP, DynDNS.

### Easy Management & Provisioning

Web-based management, WEB Wizard, SNMPv3, command line interface, secure, zero-touch provisioning separate config. domain support, TR-069.

### High Precision Clock

DECT PBX interoperability and improved fax performance with Stratum 3 CO quality clock (HP).

The SN5530 series is the perfect choice for All-IP applications where legacy, non-replaceable ISDN equipment has to be integrated in to an UCC environment. For pure All-IP Networks, the SmartNode acts as a service termination point towards the enterprise with an integrated Broadband access termination for G.SHDSL, VDSL, ADSL or Fiber SFP. The SN5530 acts as VoIP Gateway, eSBC, Access Router and QoS CPE all in one device.

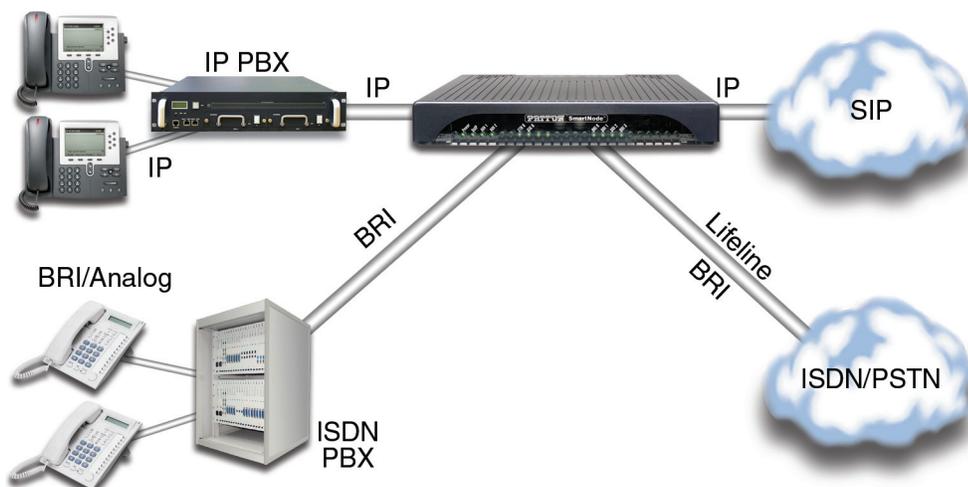
With the separate config domain feature, the SN5530 series will be the service demarcation point for SIP Trunk service providers, where the local administrator can be limited to only modifying configuration settings that face the LAN IP PBX.

It can also undertake Network assessment and monitoring at the customer premise utilizing the PacketSmart™ agent to prevent, reduce and resolve network and voice quality problems.

Visit [www.patton.com](http://www.patton.com) for more information.

## Network Integration

Whether used as an Enterprise Session Border Controller, as a VoIP gateway or WAN access Router, the SmartNode 5530 provides excellent VoIP, IP QoS and security features for seamless network integration. All BRI ports are configurable to be TE or NT, you can thus connect your telco line(s) as well as a PBX or ISDN terminals. The WAN interface eliminates the need of an external Modem or Access router, making the install and maintenance at the customer premise less complex, faster and cheaper.



# SmartNode™ Model 5530 2-8 BRI eSBC/IAD



Integrated Access Device (IAD)



Enterprise Session Border Controller (eSBC)

## Specifications

### Voice Signaling

SIPv2  
SIPv2 over TLS  
SIP call transfer, redirect  
Overlap or en-bloc dialing  
DTMF in-band, out-of-band  
Configurable tones

### Call Routing & Services

Regular expression number matching  
Regular expression number manipulation  
Least Cost Routing  
Number blocking  
Short-Dialing  
Digit collection  
Distribution-Groups and Hunt-Groups

### ISDN

2/4/8 BRI ports\*, RJ45  
NT/TE configurable per port  
Built-in line power on each port (total 4W)  
DSS1, Q.921, Q.931. NTT-64  
HP High Precision Clock  
Stratum 3 CO  
Point-point and point-multipoint  
Lifeline Bypass Relay\*  
Optional QSIG support\*\*

### 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)  
4/8/16 simultaneous low-bandwidth voice or T.38 fax calls  
Up to 16 HD calls with SRTP\*  
Up to 200 SIP to SIP calls\*\*  
Up to 8 SIP transcoded calls\*  
Transparent ISDN data  
Silence suppression and comfort noise  
Adaptive and configurable de-jitter buffer  
Configurable packet length

### SIP Session Capacity

4 SIP Sessions, license upgrade-able up to 200\*\*\*

### IP Quality of Service

Voice priority,  
DownStreamQoS™  
Traffic Management, shaping  
policing  
IEEE 802.1p, IEEE 802.1Q, 4096  
VLANs (Tag insertion/deletion),  
TOS, DiffServ Labeling,  
PacketSmart Network analyzer

### Connectivity

Two 10/100/1000Base-T  
Ethernet ports  
USB 2.0 host 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

### Broadband Access

**ADSL/VDSL:** VDSL 2, G.hs,  
G.Vectoring, up to profile 30a  
support • ADSL2, ADSL2+,  
Annex, A/L/M\*\* or B/J\*\* • IPoA,  
IPoEoA, PPPoA, PPPoEoA  
(RFC2364, RFC2516)

**G.SHDSL-ATM:** 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)

**G.SHDSL-EFM:** EFM mode  
compliant to IEEE 802.3  
G.998.2 • PPP over Ethernet  
(RFC2516) • Support of OAM  
PDU information and functional-  
ity (ITU-T Y.1731) • OAMPDU  
event notification, variable  
request, variable response, and  
loopback control

**Fiber:** SFP slot for fiber WAN  
uplink • 100Base-T and GigE  
support • Up to 8 VLANs •  
PPPoE

### Management

Customizable WebWizard,  
Web-based GUI, CLI Telnet and  
HTTP access  
TR-069, TFTP, HTTP, HTTPS  
configuration up- and download  
TR-069, TFTP, HTTP, HTTPS  
firmware upgrade, Dual Image,  
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

External Power: 100-240 VAC  
(50/60 Hz) | Consumption <10W

### Packaging

Desktop/Wall-mount plastic  
chassis

### Dimensions

**Plastic Enclosure**  
**Dimensions:** 8.2 x 1.3H x 6.5D  
inch (20.8W X 3.4H x 16.5D cm)

**Weight:** <15.9 oz. (<450 g)

### Metal Enclosure

**Dimensions:** 12.11W x 1.77H x  
6.09D inch (30.75W X 4.49H x  
15.46D cm)

**Weight:** 25.6 oz (725 g)

### Environment

Operating temperature: 32-  
104°F (0-40°C)

Operating humidity: up to 90%,  
non-condensing

### Compliance

FCC Part 15 Class A (US EMC)  
CE per RTTE 99/5/EC (EMC  
and LVD)

### Safety

EN60950  
TBR-3 (ISDN BRI/So)

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



**Patton Electronics Co.**  
7622 Rickenbacker Drive  
Gaithersburg, Maryland 20879, USA  
Phone +1 301 975 1000  
Fax +1 301 869 9293  
E-mail [sales@patton.com](mailto:sales@patton.com)  
Web [www.patton.com](http://www.patton.com)

**Patton-Inalp Networks AG**  
Meriedweg 7  
CH-3172 Niederwangen, Switzerland  
Phone +41 (31) 985 25 25  
Fax +41 (31) 985 25 26  
E-mail [we@patton.com](mailto:we@patton.com)  
Web [www.patton.com](http://www.patton.com)

**Patton Hungary Zrt**  
Gábor Dénes utca 4., Infopark Building C  
Budapest H-1117, Hungary  
Phone +36 1 439 4840  
Fax +36 1 439 4844  
E-mail [ce@patton.com](mailto:ce@patton.com)  
Web [www.patton.com](http://www.patton.com)

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