

SMARTNODE 1200 SERIES

The SmartNode 1200 BRI VoIP Media Gateway provides two simultaneous connections for transparent voice, fax, and data over any IP network. With its dual BRI ports, a single phone can access packet-voice while still connecting to the local PSTN telephone system.

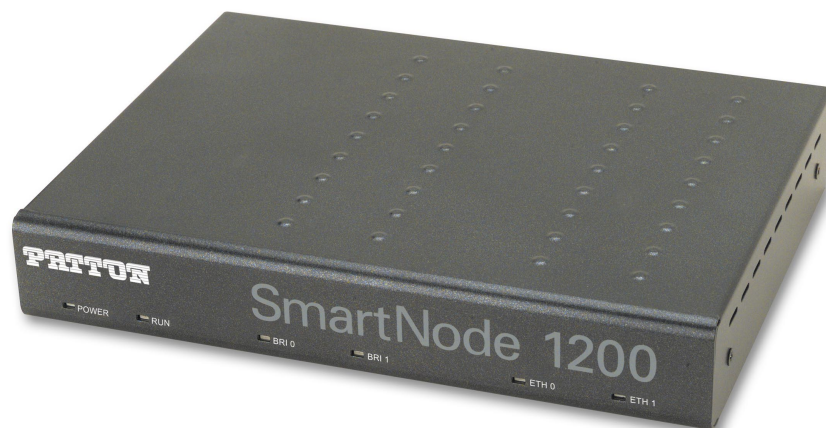
ISDN/BRI VoIP Media Gateway

Patton SmartNode 1200

The 1200 BRI Media Gateway enables two simultaneous ISDN voice/data calls over any IP connection. Providing transparent access to Voice-over-IP (VoIP), data, and Fax-over-IP (FoIP); the SmartNode is perfect for SOHO, SME, and ITSP customers requiring a cost-effective and flexible solution for Digital VoIP access.

Functioning as a H.323/SIP/MGCP gateway, the SmartNode 1200 supports multiple user-defined G.711 and G.726 voice codecs as well as G.723 and G.729ab for low bandwidth voice. With Patton's ToIP™ call routing technology, and NT and TE interfaces, the SmartNode 1200 links any standard ISDN telephone or PBX to VoIP while still connecting to legacy PSTN services and equipment. Using its patented ISDN-over-IP technology, the SmartNode 1200 will pass ISDN/QSIG call control messages, as well as 64-kbps data (UDI/RDI), end-to-end. T.38 FoIP, fax bypass, and modem bypass capabilities ensure that the SN1200 will seamlessly connect to all voice and data services.

The SmartNode's flexible programming interface combines a real-time Quality-of-Service IP router with advanced network features. With NAT, DHCP, PPPoE, and Access Control Lists/Firewall, the SmartNode 1200 connects your LAN to the WAN without the cost of extra equipment. Using its built-in QoS feature delivers the highest quality of voice every time—all the time. For more information, visit us at www.patton.com.



SmartNode 1200

Dual Call Support

Supports two simultaneous calls from the PSTN or the connected ISDN phone or PBX

Compatible CODECs

Connect to any gateway with any one of our standard codecs (including G.711 and G.726). For low bandwidth requirements, use G.723.1 and G.729ab vocoders.

Complete Service Transparency

Using ISoIP™ and ToIP™ technology, calls are connected with voice, data, and supplementary services delivered transparently end-to-end.

Dual BRI SO (S/T) Ports

Offers NT and TE interfaces for connection to any telephone or service provider. Use call routing to access local and remote services with a single phone or terminal.

H.323v3 and H.323+ VoIP

Connect to any SmartNode or VoIP capable device with universal call control signalling. Use advanced features including H.245 Fast Connect, Early Start, Annex M3, ECS support, and RAS.

QoS Router with Dual Ethernet

Connect your LAN to any broadband access network using PPPoE, DHCP, and NAT. Combine VoIP and Internet access to guarantee voice priority and service quality.

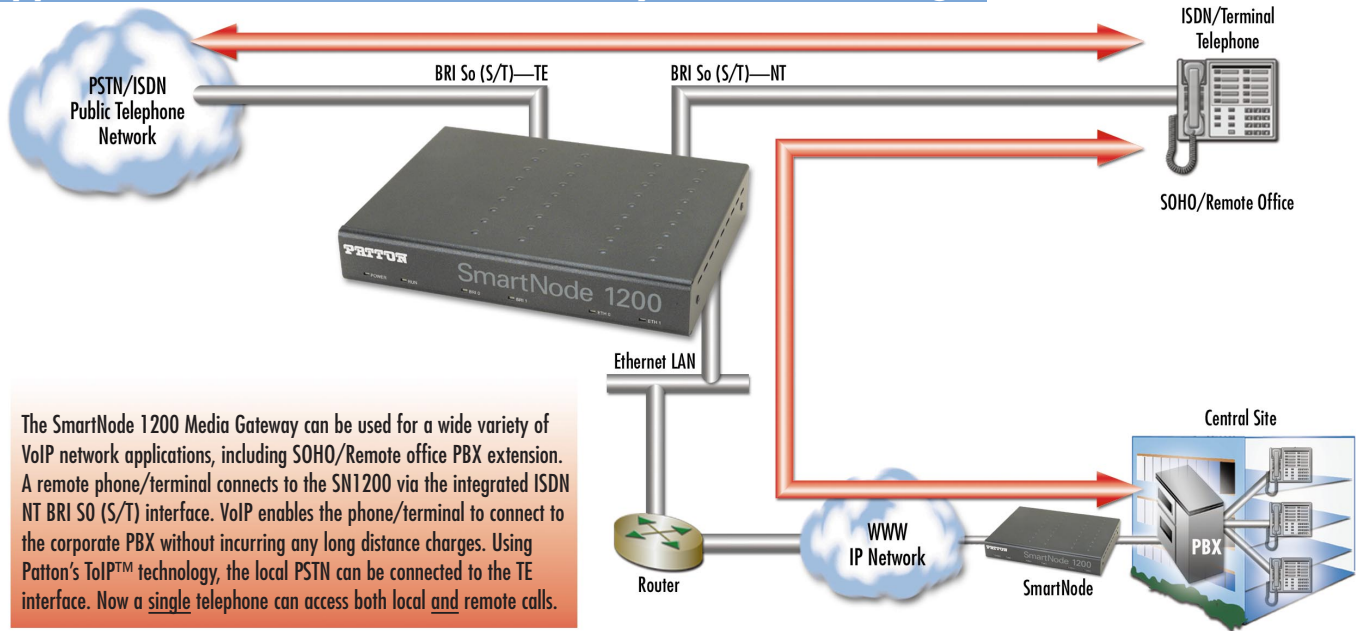
Full ToIP™ Support

Enhanced circuit-switched call routing allows user programmable call handling based on hunt groups, caller/called ID, and time of day. Pass local PSTN call-through without packet conversion.

PATTON

- ✓ Dual Ethernet ports support DSL/Cable/WLL connections with NAT & PPPoE
- ✓ EIA-232 console port for configuration
- ✓ 10 LEDs give status indication at a glance
- ✓ Internal Universal 100–240 VAC power supply
- ✓ Easy to use CLI, SNMP, and Java application for configuration and management.

Application—Remote Office Connectivity and Pass-Through



Specifications

Voice Connectivity

- 2 ISDN BRI/So (S/T), RJ-45
- 1 User (TE) port, 1 Network (NT) port
- 2 VoIP sessions
- Configurable point-to-point, point-to-multi-point and connector pinout
- Cut-through relay for emergency operation (life line support)

Data Connectivity

- 2 10Base-T Ethernet, RJ-45
- PPPoE

Voice Processing

- 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
- 2 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

- Fax over IP
- T.38 Fax relay (9.6 k, 14.4 k)
- G.711 Fax and Modem Bypass

Voice Signalling

- Euro ISDN EDSS-1 / ETSI BRI/NET3
 - ETS 300 012-1 (ITU-T Q.930)
 - ETS 300 402-1 (ITU-T Q.921)
 - ETS 300 403-1/2 (ITU-T Q.931)
 - ETS 300 102-1 (ITU-T Q.931)
- Q-SIG (PSS-1)
 - ECMA-143
 - SIP and MGCP
 - ETSI and ISO/ECMA channel numbering
- H.323v3
 - 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
 - ECS support
- ISDN over IP (ISoIP)
 - H.323 GW and GK compatible
 - H.323 Annex M3
 - ISDN/Q-SIG feature tunnelling
 - ISDN speech, audio and data (Fax Gr 4, UDI 64, RDI 64)

- ISDN supplementary services*

Voice Routing—Session Router™

- Local switching
- Interface huntgroups
- ISDN broadcast message routing
- 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 Routing

- IPv4 router
- RIPv1, v2 (RFC 1058 and 2453)
- Programmable static routes
- ICMP redirect (RFC 792)
- Packet fragmentation
- DHCP client/server
- Static Firewall
 - NAT (RFC 1631)
 - NAT/DAT
 - Access control lists

IP Quality of Services

- WFQ/Fixed Rate/Priority Queuing/flow-split scheduler

- Combination of QoS schemes with configurable burst
- DiffServe/ToS set or queue per header bits
- Packet Policing discards excess traffic
- 802.1p VLAN tagging
- Traffic classification and shaping

Management

- Industry standard CLI with local console (CRJ-45, RS-232) and remote Telnet access
- TFTP configuration down-and upload
- TFTP firmware download
- 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 MPC850 at 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

SN1200/2V/UI BRI VoIP Media Gateway with dual-VoIP channels, router, and internal 100–240 VAC power supply

SN5W-IAF-1 IP Advanced Feature Set (QSIG, QoS, IP Classification)
SN5W-LBV2 2 channel license for G.723/G.729



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