

RVS

IPVgate-20L

SOHO Analog VoIP Gateway Router



Integrating analog telephony, fax and data over broadband Internet, with standard SIP support



- Two FXS ports for traffic over any broadband Internet connection, using SIP
- G.729A or G.723.1 voice compression algorithms
- Dynamic bandwidth allocation using voice activity detection and silence suppression
- Multilayered Quality-of-Service (QoS) for business quality telephone calls
- Secured and encrypted WLAN
- Fully interoperable with leading vendors' SIP-based equipment

IPVgate-20L is a cost-effective, cutting-edge, standalone analog VoIP gateway, fully interoperable with leading softswitches and SIP servers.

IPVgate-20L is part of RAD VoIP System (RVS) that includes class-5 softswitch, CPEs and media gateways (IPVgate family), a sophisticated management system (IPVsuite-200) and prepaid/postpaid billing solutions (IPVsuite-Billing).



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The device employs superior voice technology for connecting legacy telephones, fax machines and PBX systems to IP-based telephony networks, as well as for integrating into new IP-based PBX architecture.

IPVgate-20L is an intelligent communications center designed to handle SOHO and home connectivity needs. With its advanced QoS mechanism, IPVgate-20L presents a superior class solution for today's emerging broadband access services.

IPVgate-20L handles telephony, Internet, security networking (internal network LAN, WLAN, switching, routing and WAN), communications, and provides access to both telephony and data services using an integrated ADSL2+ modem and Ethernet WAN port.

IPVgate-20L provides full telephone line replacement to allow fast and reliable transition of the customer's Telecom lines into the next generation VoIP-based solutions.

VOIP SIP SUPPORT

IPVgate-20L connects to any other SIP device by just dialing its number.

Fax machines connected to IPVgate-20L benefit from high quality T.38 support which assures effective and reliable fax transmissions.

IPVgate-20L generates call quality information to the IPVsuite management unit for tracking and analyzing QoS.

LAN INTERFACE

The LAN ports have Ethernet 10/100Base-Tx interfaces. Port operating rate and mode are determined by autonegotiation. An internal Ethernet switch provides local bridging between the LAN ports to support the local users, and also provides IP routing services.

TELEPHONY

IPVgate-20L has two analog voice/fax channels with FXS interfaces for POTS service, which connects the user's legacy telephones, fax machines and PBX systems directly to the IPVgate-20L device. Each FXS interface provides feed current, on-hook/off-hook detection and ringing to the user equipment. The FXS ports also provide near-end echo canceling per ITU-T Rec. G.168.

IPVgate-20L employs advanced technology to provide support a full range of telephony services over IP-based telephony networks, as well as for integrating into new IP-based PBX architecture. Advanced service features such as CLIR (caller ID restriction) and CLIP (caller ID presentation) are also provided.

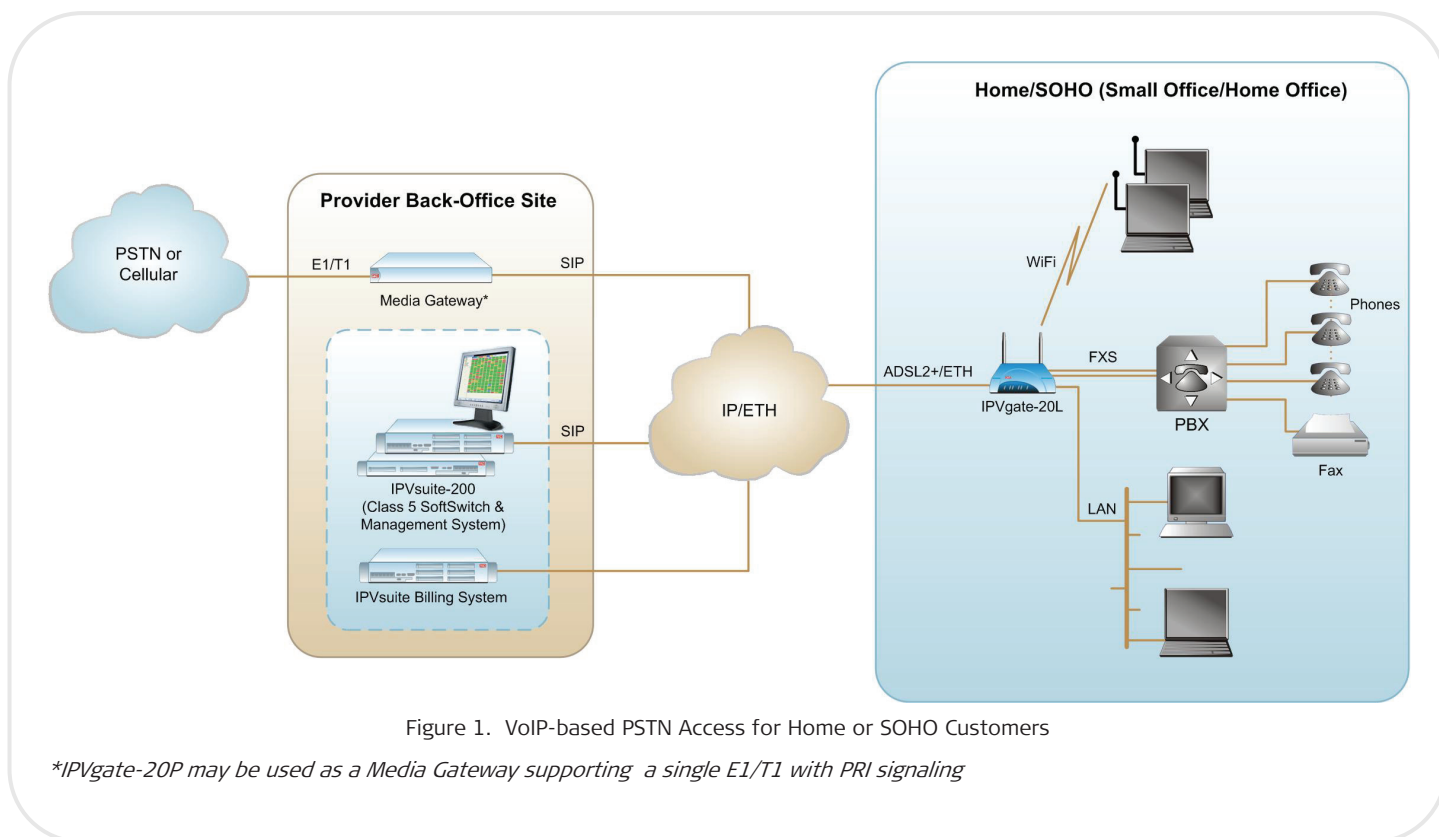


Figure 1. VoIP-based PSTN Access for Home or SOHO Customers

*IPVgate-20P may be used as a Media Gateway supporting a single E1/T1 with PRI signaling

WIFI INTERFACE

The optional WiFi interface uses an internal WiFi adapter with dual antennas. The WiFi adapter is compatible with IEEE 802.11g, which defines wireless Ethernet access at rates of up to 54 Mbps, and with IEEE 802.11b, which defines rates of up to 11 Mbps.

To achieve maximum reliability, throughput and connectivity, the IEEE 802.11g data rate is automatically and dynamically scalable to 48, 36, 24, 18, 12, 9 and 6 Mbps.

The encryption mode is user-selectable: in addition to no encryption, which can be used to build a public access point, IPVgate-20L also provides various wireless data encryption options.

Specifications

NETWORK INTERFACE

WAN

Ethernet 10/100BaseTX
ADSL2+ Annex A (ADSL over analog)
ADSL2+ Annex B (ADSL over ISDN)

LAN

4-port 10/100BaseTX Ethernet
auto-sensing auto-crossover switch

WiFi (optional)

IEEE 802.11g
IEEE 802.11b

Connectors

Ethernet: RJ-45
ADSL: RJ-45/RJ-11

ADSL2+ Modem

Multimode standard
ADSL2 ITU G.992.3 Annex A/B (G.dmt.bis),
ITU G.992.4 Annex A/B (G.lite.bis)
ADSL2+ ITU G.992.5 Annex A/B
Up to 8 PVCs
F4/F5 OAM
VC-based and LLC-based multiplexing

DATA TRANSFER PROTOCOLS

IPv4
Router with NAT/NAPT
Static route
RIP II
DHCP client/server
RDATE (or SNTP via IPVsuite-200)
PPPoE
PPPoA, IPoATM, RFC 2684 (ADSL version)

FIREWALL

Stateless, port level IP-filtering

TELEPHONY

Number of Lines

2 analog FXS

Connectors

RJ-11

Features

Call progress tones per country
DTMF detection

Ring Voltage

65-90 VAC

Caller ID

Type II
CLIR
CLIP

VOICE OVER IP

SIPv2 based (RFC 3261)
SDP (RFC 3264)
UDP protocol/RTP packets (RFC 1889)
Silence suppression
Echo cancellation G.168
Voice Activity Detection (VAD)
Comfort Noise Generation (CNG)
Dynamic Jitter Buffer
DTMF detection and generation
Modem and fax tone detection
Multiple SIP number support
Multiple channel support

Fax/Modem

T.38 compliant Group-3 fax relay
Fax bypass
Modem pass-through

Compression

G.711
G.723.1
G.729A

QoS

ToS
Diffserv
Upstream priority
ATM QoS UBR/CBR/VBR
Multiple PVCs

WIFI INTERFACE

Compliance

IEEE 802.11g
IEEE 802.11b

Operating Band

2.4 GHz, channels 1 to 11

Antennas

Two 5 dBi antennas, polarity adjustable in
±90 degree range around vertical

Transmission Rate

Up to 54 Mbps, with automatic dynamic
scaling to 48, 36, 24, 18, 12, 9 or
6 Mbps (IEEE 802.11g)
Up to 11 Mbps (IEEE 802.11b)

Security

Wired Equivalent Privacy (WEP)
WiFi Protected Access (WPA)
WiFi Protected Access 2 (WPA2)
WPA + WPA2 modes

MANAGEMENT

Quick-install Web page
Fully managed by IPVsuite-200 integrated
management and provisioning system
SSH CLI management
SFTP server
SYSLOG
Remote update/upgrade

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GENERAL

External Power

100-240 VAC, 50/60 Hz

Physical

Height: 4.85 cm (1.9 in)
 Width: 21.8 cm (8.6 in)
 Depth: 19.1 cm (7.5 in)
 Weight: 0.875 kg (1.9 lb)

Environment

Operating Temperature: 5° to 40°C
 (41° to 104°F)
 Storage Temperature: -25° to 70°C
 (-77° to 158°F)
 Humidity: Up to 90%, non-condensing

Ordering

IPVgate-20L/2FXS/\$/#






Legend

- \$ Uplink:
 - ADSL ADSL2+ Annex A
 - ADSLB ADSL2+ Annex B
 - ETH Ethernet
- # WLAN interface (Default=No WLAN interface):
 - WiFi WiFi interface

SUPPLIED ACCESSORIES

- External wall mounted +5 VDC power supply
- Analog RJ-11 telephony cables

Table 1. IPVgate Family Comparison Table

	 IPVgate-20L	 IPVgate-20A	 IPVgate-20B	 IPVgate-20P	 IPVgate-30
Uplink Ports	ADSL2+ or ETH	ADSL2+, ETH or SFP	ADSL2+ or ETH	ADSL and ETH	ADSL2+, ETH or SFP
User Ports	2 FXS	2/4 FXS	2/4 BRI, 1 FXS (Fax)	1 PRI E1/T1	8/20 SIP Clients, 2 FXS
LAN Ports	4 (ETH Switch)	4 (ETH Switch)	4 (ETH Switch)	1	4 (ETH Switch)
Simultaneous Calls	2	2/4	4/8	30/23	2/4 External calls
PSTN Backup Line	-	-	+	+	-
PBX Sync Ports	N/A	N/A	+	+	N/A
WiFi Option	+	+	+	-	+
PSTN Termination GW	-	-	-	+	-
VPN (IPsec/3DES)	-	+	+	+	+
VLAN Tagging	+	+	+	-	+
PBX Features	-	Basic (4-FXS model only)	-	-	Advanced (IP-PBX)

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