

RVS

# IPVgate-20A

## SMB Analog VoIP Gateway Router



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



- Two or four FXS ports 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
- Multi-layered Quality-of-Service (QoS) for business quality telephone calls
- Built-in VPN (IPSec) server for enterprise virtual networks
- Fully interoperable with leading vendors' SIP-based equipment

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

**Note:** *IPVgate-20A is part of the RAD VoIP System (RVS) product line.*

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.



**data communications**  
The Access Company

# IPVgate-20A

## SMB Analog VoIP Gateway Router

IPVgate-20A is an intelligent communications center designed to handle all office or home connectivity needs. With its superior QoS mechanism, IPVgate-20A presents a business class solution for today's emerging broadband access services.

IPVgate-20A handles telephony, Internet, security networking (internal network LAN and WAN), communications and access to both telephony services and data using an integrated ADSL2+ modem, Ethernet WAN port or fiber optic interface (SFP interface).

IPVgate-20A 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-20A enables connecting to any other SIP device by just dialing its number.

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

IPVgate-20A generates call quality information to the RADview management station to track and analyze the QoS.

### VPN

Branch offices can be easily and securely connected to the HQ using the built-in VPN IPSec server/client. Utilizing a 3DES encryption algorithm and up to 10 tunnels per device, IPVgate-20A creates transparent connectivity of enterprise LANs into a single virtual LAN.

**Note:** *IPVgate-20A devices with 2 FXS ports support 2 tunnels.*

### FAILSAFE SUPPORT

IPVgate-20A performs SIP fail backup by DNS number resolving.

When a central SIP server fails to respond, IPVgate-20A accesses the operator or enterprise DNS server to resolve the IP address of the VoIP trunking gateway or of another end-point device.

IPVgate-20A is also available with an ADSL2+ modem, to provide ADSL line monitoring and re-routing all traffic information to a backup router (e.g., ISDN router) upon connectivity failure.

### WIFI INTERFACE

The optional WiFi interface uses an internal WiFi adapter with dual antennas. The WiFi adapter is compatible with IEEE 802.11g, which provides wireless Ethernet access at rates up to 54 Mbps, and with IEEE 802.11b, which provides rates 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-20A also supports various wireless data encryption options.

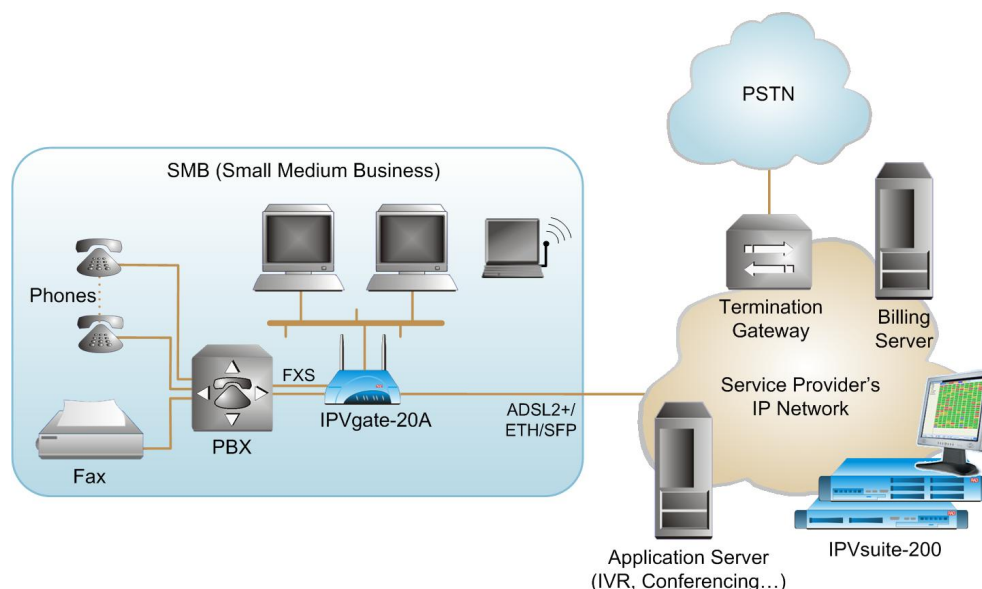


Figure 1. VoIP-based PSTN Access for SME and/or SOHO Customers

## Specifications

### NETWORK INTERFACE

#### WAN

Ethernet 10/100BaseT  
ADSL2+ Annex A  
ADSL2+ Annex B (ADSL over ISDN)  
SFP slot for fiber interfaces (up to 100 Mbps)

*Note: For detailed information on SFP interface modules, refer to the SFP Transceivers datasheet.*

#### LAN

Four Ethernet ports 10/100BaseT auto-sensing auto-crossover switch

#### Connectors

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

### ADSL2+ MODEM

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

### DATA TRANSFER PROTOCOLS

IPv4  
Router with NAT/NAPT  
RIP II  
DHCP client/server  
SNTP  
DMZ  
PPPoE/PPTP  
PPPoA, IPoATM (ADSL version)

### SECURITY

SSLv3/TLSv1  
Encrypted Phone/Fax P2P VoIP calls

#### VPN

IPSec server/client with tunnel IP-filtering  
Number of tunnels:  
4 FXS – supports up to 10 tunnels  
2 FXS – supports up to 2 tunnels

#### Firewall

Stateful Packet Inspection (SPI)

### TELEPHONY

#### Number of Lines

2 or 4 analog FXS

#### Connectors

RJ-11

#### Features

Call waiting  
Call progress tones per country  
DTMF detection  
Extension-to-extension call  
Extension-to-VoIP call  
Call hold  
Call transfer  
Music on hold  
Line grouping

#### Ring Voltage

90 VDC

#### Caller ID

Type II  
CLIR  
CLIP

### VOICE OVER IP

SIPv2 based  
UDP/RTP packets  
Silence suppression  
Echo cancellation  
VAD  
CNG  
Dynamic jitter buffer  
Modem pass-through

#### Fax

T.38 compliant Group-3 fax relay  
Fax bypass

#### Compression

G.711  
G.723.1  
G.729A

#### QoS

Diffserv  
Upstream priority

### WIFI INTERFACE

#### Compliance

As per IEEE 802.11g  
As per 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 Support

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

### MANAGEMENT

Quick-install web page  
Remote ADSL line quality monitoring  
RS-232 port for basic configuration  
Telnet  
FTP server  
Remote update/upgrade

### GENERAL

#### 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

# IPVgate-20A

## SMB Analog VoIP Gateway Router

### Ordering

IPVgate-20A\*/\$/#

#### Legend

- \* Number of voice ports:
  - 2FXS** 2 voice ports
  - 4FXS** 4 voice ports
- \$ Uplink type:
  - ADSL** ADSL2+ Annex A
  - ADSLB** ADSL2+ Annex B
  - ETH** Ethernet
  - SFP** SFP (empty cage, up to 100 Mbps)
- # Optional Wireless LAN 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
Uplink Ports	ADSL2+ or ETH	ADSL2+ or ETH or SFP	ADSL or ETH	ADSL and ETH
User Ports	2FXS	2/4 FXS	2/4 BRI	1 PRI E1/T1
LAN Ports	4 (ETH Switch)	4 (ETH Switch)	1	1
Number of Simultaneous Calls	2	2/4	4/8	30/23
PSTN Backup Line	-	-	+	+
PBX Sync Ports	N/A	N/A	+	+
WiFi Option	+	+	-	-
Advice of Charge (AoC)	-	-	+	+
PSTN Termination Gateway	-	-	-	+
VPN (IPsec/3DES)	-	+	+	+

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