



PacketMAX 20 Voice Services Gateway

Integrated VoIP Gateway and Router

PacketMAX® 20 Voice Services Gateway (VSG) is simple to install, intuitive to use, and powers a range of voice services over fixed and mobile WiMAX networks

Product Brief



PacketMAX 20

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Aperto Networks introduces the PacketMAX 20 Voice Services Gateway, a broadband VoIP Gateway and Router that seamlessly extends PacketMAX voice service capabilities to external POTS phones and IP-based telephony devices. PacketMAX 20 enables service providers to deploy premium voice services to residential and commercial customers served by PacketMAX subscriber units.

The PacketMAX 20 optimizes the trade-off between throughput and voice quality by supporting 4 popular voice codecs. Voice networking is achieved using the popular SIPv2 protocol. In addition, comprehensive VoIP parameters allow service providers to localize the PacketMAX 20 to fit country and regional telephony requirements and user preferences. Service providers can use the PacketMAX 20 to deploy a wide variety of telephone applications for their users including CLASS calling features, call forwarding, caller ID, call blocking, and other advanced calling features.

As an Integrated Access Device (IAD), the PacketMAX 20 combines advanced IP network features with embedded VoIP functionalities to create a robust, reliable and flexible voice and data network. Support for PPPoE allows service providers to leverage their existing authentication and IP address assignment infrastructure. Simple HTTP based web-interface ensures plug-and-play VoIP for residential customers within minutes.

Leveraging Aperto's heritage as a WiMAX technology leader, the PacketMAX system delivers superior link performance, unsurpassed quality of service, and the broadest range of networking features for an optimized VoIP deployment for residential and SOHO environments.

Tight integration with existing PacketMAX subscriber stations will allow operators to include higher revenue voice services. After PacketMAX 20 is physically connected by the user, the operator remotely provisions, monitors and troubleshoots the system without costly truck rolls. The end result to the operator: increased revenue from valuable voice services and lower operating expense.

KEY FEATURES

- SIP Version 2 (RFC 3261) VoIP protocol
- VoIP codec G.711, G.723, G.726, and G.729 supported
- Advanced call-control and call services feature-set
- Advanced routing and firewall capabilities
- Tight integration with WiMAX Forum Certified PacketMAX series subscriber stations
- Remote management

Typical Applications:

- Roll out managed voice offering, assigning higher priority and guarantee of services to subscribers versus users of peer-to-peer or "free" VoIP
- Budget-conscious Voice over IP solutions from a single integrated platform
- Premium services for residential, SOHO, and business
- Integrated Voice and Data Solution for residential and commercial environment
- Extend legacy analog telephone devices for IP-based voice services



Wireless to the MAX

PacketMAX 20 System Specifications

VoIP Specifications

VoIP Protocol : SIP v2 (RFC 3261)
Voice Algorithms : G.711 (A/m-Law), G.723.1 (5.8 and 6.3 Kbps), G.729A/B

FXS Features

HX/1X Gain Control : Configurable TX/RX levels (-13.0 to +7.0dBm in 0.1dB steps)
Sampling Rates : 10ms to 60ms, configurable
Line Impedance : Configurable impedance
Polarity Reversal : T/R Reversal
DTMF detection and generation : In-band and out-of-band DTMF (RFC 2833, SIP INFO, In-audio)
Ring Voltage : 60 -90 Vrms, configurable
On Hook Voltage : -48V
QoS : Adaptive jitter buffer (max = 300ms); DSCP Marking and 802.1p VLAN

Class User Services

Dial Plan : Configurable based on MGCP NCS format
Speed Dial : 8 speed dial numbers
Call Features : Call waiting, call forwarding w/o consultation, call transfer, call hold
CLIP : Caller ID generation

IP Networking Features/Options

IP Protocols : IPv4 (RFC 791), PPPoE, DHCP client on WAN, static routing, dynamic routing
Firewall : Access control list, NAT, port-forwarding
VPN : IPSec, PPTP, L2TP, pass through

Physical Interfaces

WAN : 1 x 10/100 BT (RJ45)
LAN : 1 x 10/100 BT (RJ45)
FXS : 1 X RJ11/ FXS for analog telephone (Tip/Ring); up to 5 phones

Management

Management and Provisioning : HTTP; SNMP v2; firmware upgradeable

Mechanical

Dimensions (l*h*w)/weight : 138*24*91 (mm) / 150g

Electrical

Input DC Voltage : 12VDC, 1.0A Input AC voltage : 100 VAC – 240 VAC, 50/60 Hz, 0.3A

Environmental

Operation Temperature : 0 – 40° C RoHS compliance : Yes
Humidity : 10 – 85%, non-condensing altitude : 10000 feet

About Aperto Networks:

Aperto Networks helps leading service providers deliver affordable wireless voice and broadband profitably by building the world's most advanced WiMAX base stations and subscriber units. Aperto fundamentally changes the economics of delivering voice and broadband services through IP-rich, point-to-point and point-to-multipoint networks, allowing carriers to offer a wider variety of services to more customers using less equipment. Its carrier-class WiMAX technology offers industry-leading subscriber density, quality of service, ease of use and reliability. Aperto is a founding board member of the WiMAX Forum as well as a founder and lead contributor to IEEE 802.16 and the ETSI-BRAN standards. Serving more than 400 customers in over 90 countries, Aperto Networks is based in Milpitas, California. For more information on Aperto Networks, go to www.apertonet.com.