

# **NETLINK 1002** ROUTER & MEDIA GATEWAY



## DESCRIPTION

Parks' Media Gateways line allows the migration of legacy services to IP networks without the loss of investment made in TDM network-compatible equipment, such as PABX centrals.

When transforming the TDM data derived from the TDM PABX in Voice over IP (VoIP) packets, Media Gateway allows full integration without the need for additional equipment.

Built to operate even over non-ideal IP networks, Parks' Media Gateways line stands out for its versatility, sturdiness and high performance.

#### HIGHLIGHTS

- ✓ Voice Media Gateway
- High performance Ethernet Router with support for advanced L3 services such as BGP, VRRP, and VRF, and advanced QoS, ensuring the quality of triple-play services
- ✓ IPv4 and IPv6 routing
- Interconnects legacy PABX (TDM) to the voice over IP (VoIP) networks without affecting data services
- ✓ 2 E1 ports, supporting up to 60 simultaneous connections
- ✓ G.711 (A-law, U-law), G.723.1 (5.3, 6.3), G.726 (16, 24, 32, 40 Kbps), and G.729 codecs
- ✓ Collect call blocker
- ✓ DTMF transport with RFC2833
- ✓ PABX compatible with CAS/R2 or ISDN-PRI signaling
- ✓ Adaptable or fixed 200ms jitter buffer
- ✓ Supports FAX and caller ID
- ✓ OSPF (RFC2328) and OSPFv3 (RFC5340)
- ✓ VRF light
- ✓ VRRPv3
- ✓ BGPv4 (IPv4 e IPv6)
- ✓ Portbased VLAN
- ✓ DHCP Server (RFC2131, RFC2132), Relay (RFC1542), and Client (IPv4 and IPv6) NAT/NAPTIPv4 over IPv6 and IPv6 over IPv4DNS Proxy (RFC3596)
- Dynamic bandwidth reallocation between service classes
- Differentiated Services (DiffServ) for classified packets prioritization;
- ✓ Manageable via Telnet or SSHv2
- ✓ SNMPv1, SNMPV2, and SNMPv3 agents, with support for MIB II, IFTable and proprietary MIBs
- ✓ Green Ethernet Energy-Efficient Ethernet
- $\checkmark$  Easy installation and configuration

# TECHNICAL INTERFACES

## INTERFACES

SFP OPTICAL INTERFACE

SFP compatible:

- 1000BASE-T
- 1000BASE-SX
- 1000BASE-LX
- 1000BASE-ZX
- 1000BASE-BX

ELECTRICAL ETHERNET GIGABIT	
10/100/1000 Mbits	
RJ45 plug	
Auto MDI-X	

#### E1

120 ohms impedance

ITU-T Standards: G.703 and G.704

Echo cancellation with up to 128ms of coverage

Caller ID (DNIS and ANI)

CRC4 statistics, SLIPS, clock mode, framing mode, link, frame synchronization, out of frame, line code violation, link synchronization

Primary or line clock

Operating status LED indicator

## FUNCIONALITIES

#### VoIP

Coding: G.711 (A-law, U-law), G.723.1 (5.3, 6.3), G.726 (16, 24, 32, 40 Kbps), and G.729

Voice Active Detect (VAD) with configurable threshold

Comfort Noise Generation (CNG)

G.168 echo cancellation

VoIP Jitter Buffer with up to 200ms in adaptive or fixed mode

Multiple dial plans

Supports up to 30 (1E model) or 60 (2E1 model) simultaneous connections with any codec

Real Time Protocol (RTP)

Digit manipulation

Regular expressions for dial plans

Payload-type definition for RFC 2833

Collect call blocker

#### PABX

CAS/R2 signaling

#### ISDN-PRI signaling

R2 or ISDN-PRI collect call signaling

#### FAX

Supports FAX via T.38 or transparent G.711

Fax transmission fallback with G711 in case of T.38 protocol failure

#### CALL SIGNALING

#### SIP signaling

Speech Detection Threshold (RFC2327)

CAS (ITU-T2, ITU-T: Q.400, Q.411, Q.421, Q.422, Q.440-Q.422, Q.450-Q.452, Q.454, Q.455, Q.447, Q.458, Q.460-Q.468, Q.470-Q.476, Q.850)

Supports Brazilian signaling standards, including collect calls

#### DTMF

Supports in-band and out-of-band signaling (RFC 2833)

#### SIP

Registration in SIP servers
NAT traversal
DSCP marking in SIP and RTP packets
PRACK
Release Causes with SIP error code

#### VLAN

VLAN PUSH and POP	
Portbased VLAN	

ROUTING
IPv4 and IPv6 routing
Static routing
Fluctuating traffic by weight or by object track
Routing between VLANs
Dynamic traffic authorization through MD5 (RFC1321)
OSPF (RFC2328) and OSPFv3 (RFC5340)
RIPv1 (RFC1058), RIPv2 (RFC2453), RIPng (RFC2080)
VRF light
VRRPv3
BGPv4 (IPv4 and IPv6)
PIM-SM

#### ADRESS MAMAGEMENT

DHCP Server (RFC2131, RFC2132), Relay (RFC1542), and Client (IPv4 and IPv6)

NAT/NAPT

IPv4 over IPv6 and IPv6 over IPv4

DNS Proxy (RFC3596) DNS Relay

Dynamic DNS

PPPoE client (RFC2516)

## GERENCIAMENTO E CONFIGURAÇÃO

Configuration via command line (CLI)
Telnet or SSHv2 servers for local or remote management
Management via NMS (Voice and AE functionalities via configuration templates)
SNMPv1, SNMPV2, and SNMPv3 agents, with support and MIB II
Import and export of local or remote configuration
Firmware upgrade via FTP, TFTP, HTTP and OMCI (present GPON interface)
NTP (RFC1305) with pairs authentication
Syslog
Dying Gasp
Firmware redundancy
Debug and diagnostics tools

### SECURITY

Configuration mode protection via password with up to three levels of access

AAA authentication: TACACS (RFC1492), TACACS+, RADIUS (RFC2138, RFC2139)

SPI (Stateful Packet Inspection) type firewall

Packet filtering by port, source, or destination IP address, protocol, packet type, and TCP flags

## QoS

Inbound traffic classification, marking, and conforming

Traffic classification via: IP address and L3 and L4 protocols

Dynamic bandwidth reallocation between service classes

5 QoS classes

Queueing strategy: FQ (Fair Queue), WFQ (Weighted Fair Queue),

CBWFQ (Class Bases Weighted Fair Queue) and LLQ (Low Latency Queue)

Differentiated Services (DiffServ) for classified packets prioritization;

Hierarchical Token Bucket (HTB)

Discard prioritization policy

## MECHANICAL, ELECTRICAL AND ENVIRONMENTAL FEATURES

 POWER SUPPLY

 Internal source INPUT: 110/220VCA OUTPUT: 12VDC@4A

 93 to 253 VAC

 MAXIMUM CONSUMPTION

 Up to 15W

 ENVIRONMENT

 Operating temperature: 0°C to 50°C

 Relative humidity: 0 to 95% (non-condensing)

 WEIGHT AND DIMENSIONS

 Weight: Up to 1.6kg

 W x H x D (mm): 320 x 158 x 43



For more information, visit <u>www.parks.com.br</u>.

The information presented in this document is subject to change without previous notice.