

# NETLINK 1001

## 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
- ✓ 1 E1 port, supporting up to 30 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 IPv4/DNS 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
- ✓ Easy installation and configuration

## TECHNICAL INTERFACES

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#### *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

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ISDN-PRI signaling

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R2 or ISDN-PRI collect call signaling

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### *FAX*

Supports FAX via T.38 or transparent G.711

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

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### *CALL SIGNALING*

SIP signaling

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Speech Detection Threshold (RFC2327)

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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)

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Supports Brazilian signaling standards, including collect calls

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### *DTMF*

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

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### *SIP*

Registration in SIP servers

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NAT traversal

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DSCP marking in SIP and RTP packets

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PRACK

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Release Causes with SIP error code

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### *VLAN*

VLAN PUSH and POP

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Portbased VLAN

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### *ROUTING*

IPv4 and IPv6 routing

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Static routing

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Fluctuating traffic by weight or by object track

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Routing between VLANs

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Dynamic traffic authorization through MD5 (RFC1321)

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OSPF (RFC2328) and OSPFv3 (RFC5340)

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RIPv1 (RFC1058), RIPv2 (RFC2453), RIPv3 (RFC2080)

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VRF light

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VRRPv3

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BGPv4 (IPv4 and IPv6)

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PIM-SM

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### *ADDRESS MANAGEMENT*

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

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NAT/NAPT

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IPv4 over IPv6 and IPv6 over IPv4

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DNS Proxy (RFC3596)

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DNS Relay

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Dynamic DNS

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PPPoE client (RFC2516)

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## GERENCIAMENTO E CONFIGURAÇÃO

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Configuration via command line (CLI)

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Telnet or SSHv2 servers for local or remote management

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Management via NMS (Voice and AE functionalities via configuration templates)

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SNMPv1, SNMPv2, and SNMPv3 agents, with support and MIB II

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Import and export of local or remote configuration

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Firmware upgrade via FTP, TFTP, HTTP and OMCI (present GPON interface)

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NTP (RFC1305) with pairs authentication

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Syslog

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Dying Gasp

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Firmware redundancy

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Debug and diagnostics tools

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## SECURITY

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

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

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SPI (Stateful Packet Inspection) type firewall

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

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## QoS

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Inbound traffic classification, marking, and conforming

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Traffic classification via: IP address and L3 and L4 protocols

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Dynamic bandwidth reallocation between service classes

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5 QoS classes

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

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

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Differentiated Services (DiffServ) for classified packets prioritization;

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Hierarchical Token Bucket (HTB)

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Discard prioritization policy

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## MECHANICAL, ELECTRICAL AND ENVIRONMENTAL FEATURES

### *POWER SUPPLY*

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

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93 to 253 VAC

### *MAXIMUM CONSUMPTION*

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Up to 15W

### *ENVIRONMENT*

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Operating temperature: 0°C to 50°C

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

### *WEIGHT AND DIMENSIONS*

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Weight: Up to 1.6kg

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

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For more information, visit [www.parks.com.br](http://www.parks.com.br).

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