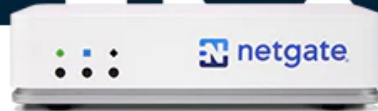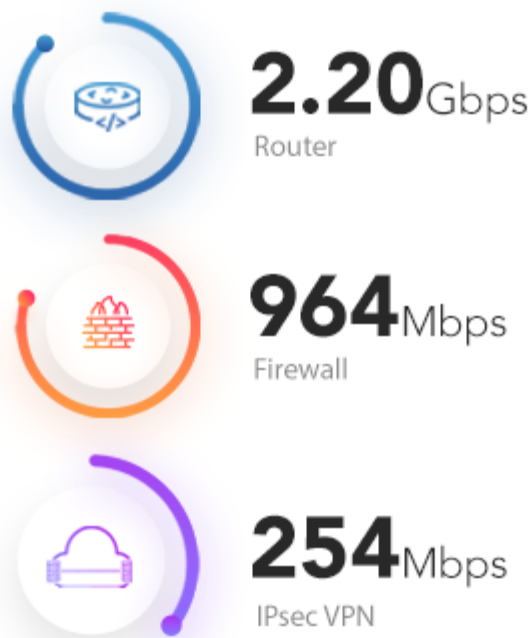# NETGATE 2100

netgate

pfsense +

FIREWALL. VPN. ROUTER.

Pound-for-pound, the Netgate® 2100 security gateway appliance with pfSense® Plus software delivers unbeatable performance and flexibility in its class. It is ideal for home, remote worker, and small business deployments that require more compute resources to support the use of multiple pfSense add-on packages and VPN performance to support multiple user- and site-to-site connections. Featuring a Dual core ARM Cortex A53 1.2 GHz CPU, a dedicated 1 GbE WAN port (RJ45/SFP combo), (4) 1 GbE Marvell switch ports, 4GB of DDR4 RAM, and upgradeable storage. The 2100 has additional expansion slots available for DIY LTE, Wi-Fi or M.2 SSD expansion.

PERFORMANCE

2.20 Gbps
Router

964 Mbps
Firewall

254 Mbps
IPsec VPN

Both IMIX and iPerf3 tests were used to measure throughput.
See our hardware comparison chart below for greater detail.

The Netgate 2100 is a compact and powerful desktop device. Leveraging a Dual core ARM Cortex A53 processor @ 1.2GHz and 4GB of DDR4 RAM, the Netgate 2100 shines as a 2.20 Gbps router, 964 Mbps firewall, or 254 Mbps IPsec VPN solution.

L3 Forwarding
- IPERF3 Traffic: 2.20 Gbps
- IMIX Traffic: 594 Mbps

Firewall
(10k ACLs)
- IPERF3 Traffic: 964 Mbps
- IMIX Traffic: 249 Mbps

IPsec VPN
(AES-GCM-128 / AES-NI w/ SafeXcel)
- IPERF3 Traffic: 254 Mbps
- IMIX Traffic: 90 Mbps

Netgate 2100 performance tests conducted with pfSense Plus software version 22.01

SPECIFICATIONS

Dual core ARM v8
Cortex-A53 1.2 GHz

Flexible WAN/LAN
Configuration

4GB DDR4 RAM

CPU: The Dual core ARM v8 Cortex-A53 1.2 GHz delivers **2.20 Gbps** routing for common iPerf3 traffic and over **964 Mbps** of firewall throughput.

Network Ports: Flexible 5-port combination including (1) 4-Port 1 GbE Marvell switch and a dedicated (1) GbE WAN RJ45/SFP combo port.

Storage: 8 GB eMMC Flash onboard (or optional 128 GB M.2 SATA 2242 SSD)

Memory: 4 GB DDR4, DDR4 memory allows more stable, higher transfer rates for memory-intensive applications (e.g. IDS/IPS).

Cooling: The passive cooling system and low power draw of the Netgate 2100 provides efficient thermal management and silent operation expected from smaller devices despite its significantly higher performance.

pfsense +

Netgate's world-class firewall, VPN, and router solution

1 MILLION+

business, government and educational institutions across the world rely on pfSense Plus software for business-assured edge and cloud secure networking

pfSense Plus software provides the performance, flexibility, reliability and business assurance expected from leading secure networking applications:

- Up to 10 Gbps performance
- Flexible 3rd-party application options
- Traditional management mechanisms
- Proven reliability
- Complete business assurance support

All at a fraction of the cost of proprietary alternatives, pfSense Plus software is the perfect answer. Popular pfSense Plus use cases include load balancing, traffic shaping, captive portal, UTM device, DNS/DHCP Server, IDS/IPS, failover WAN, and much more.

Hardware Specifications:

CPU	Marvell Armada 3720 (88F3720) ARMv8-A 64-bit Cortex A53 @ 1.2GHz with NEON SIMD and FPU
CPU Cores	Dual Core
Networking	One 1 Gigabit Ethernet WAN port (RJ45 / SFP Combo) Four 1 Gigabit Ethernet LAN ports (Marvell 88E6141 switch) LAN ports can be repurposed for additional WAN ports
Storage	8 GB eMMC (upgradable)
Memory	4 GB DDR4 (not expandable)
Expansion	1x M.2 'B' key sockets (SSD, LTE) 1x miniPCIe (WiFi) microSIM slot
Console Port	MiniUSB (console cable included)
USB Ports	1x 2.0 port
LED	3 full color RGB LEDs
Enclosure	Desktop 1.7" (42.2 mm) tall x 4.25" (108 mm) deep x 6.8" (172.7 mm) wide with integrated keyholes for wall mount
Cooling	Passive
Power	External ITE P/S AC/DC 100-240V, 50-60 Hz, 12V 2.0A, threaded barrel connector AC Inlet: IEC320-C7 (2 PIN) One US, UK, EU or ANZ power cord included US Power Cord: NEMA 1-15P to IEC320-C7 UK Power Cord: BS 1363 to IEC320-C7 EU Power Cord: CEE7/16 to IEC320-C7 ANZ Power Cord: AS 3112 (ungrounded) to IEC320-C7
Environmental	32°F (0°C) to 122°F (50°C)
Certifications	CE, FCC (Class B), RoHS, UL, RCM, VCCI, UKCA

PRODUCT FEATURES

LOW TOTAL COST OF OWNERSHIP
- No artificial limits or add-ons required to make your system fully functional
- No additional usage or feature-based pricing. Enjoy unlimited users, unlimited firewall rules, unlimited IPsec tunnels, dual WAN, etc.
- Low power requirements to help save you money
- No moving parts to wear out. This system is designed for a long deployment lifetime

GROWS WITH YOU
- From firewall to multi-function security gateway, get the security you need to protect your home or business
- Flexible configuration and support for multi-WAN, high availability, VPN, load balancing, reporting and monitoring, etc.
- Maximum Active Connections: 1 million

EASY GUI MANAGEMENT
- Manage pfSense Plus settings through our web-based GUI
- No fumbling with a command line interface or typing arcane commands

SECURE REMOTE ACCESS
- Connect via encrypted Virtual Private Networks (VPN) between your offices, let mobile workers connect securely, or connect to the Cloud
- Use the built-in Amazon VPC Wizard to easily establish VPN connections with your Amazon EC2 cloud

Best For:
- Consumers
- Remote Workers
- Small to Medium-Sized Business Networks
- Small to Medium-Sized Branch Office
- Managed Service Provider / Managed Security Service Provider (MSP/MSSP) On-Premises Appliance

Software Features

Router:
- Policy-based routing
- Multiple IP addresses per interface
- Multiple WAN connections (with load balancing and failover)
- Complex NAT mapping (outbound and inbound)
- Concurrent IPv4 and IPv6 support
- Optional multi-node High Availability (HA) clustering
- Dynamic routing protocol support [w/pkg]

Firewall, Attack Prevention, & Content Filtering:

- Extensive firewall rules
- Stateful filtering & packet inspection
- Per-interface configuration
- Ethernet (layer 2) rule-based packet filtering
- IP/DNS-based filtering and blacklisting [w/pkg]
- IDS/IPS with Snort-based packet analyzer [w/pkg]
- Layer 7 application detection and blocking [w/pkg]
- Reverse proxy [w/pkg]
- Geo/country blocking, IP block lists [w/pkg]

VPN:

- Site-to-site and remote access VPNs
- IPsec, OpenVPN, WireGuard®
- Split tunneling
- IPsec policy-based and route-based protocol support
- OpenVPN Data Channel Offload (DCO)
- Intel IPsec Multi-Buffer (IIMB) where available

User Authentication & System Security:

- User and group-based privileges
- LDAP authentication
- Automatic lockout after repeated attempts
- Optional key-based SSH access
- Traffic and bandwidth shaping
- Captive portal with user data transfer quotas
- External RADIUS authentication [w/pkg]

Configuration:

- Setup wizard for initial configuration
- Encrypted automatic backup to Netgate server
- Easy configuration backup/restore
- Multi-language support

Monitoring & Reporting:

- Customizable dashboard with widgets
- Local monitoring graphs
- Remote logging
- Network usage monitoring [w/pkg]
- Network diagnostics [w/pkg]