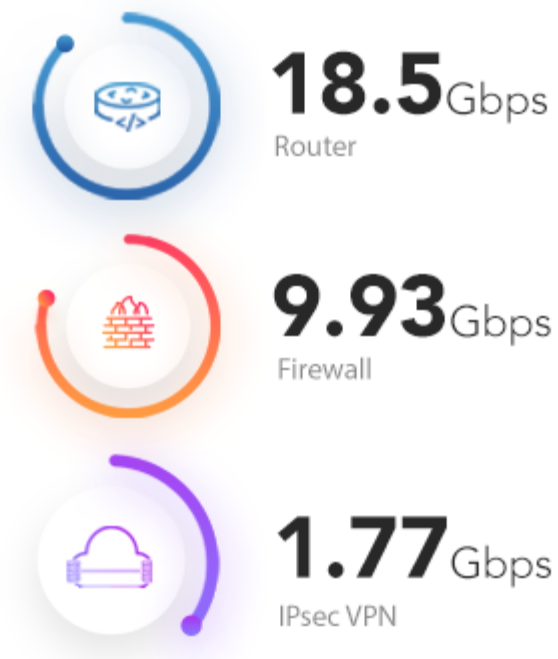

NETGATE 6100

A small, white, rectangular hardware device with a perforated front panel and the Netgate logo on top.

FIREWALL. VPN. ROUTER.

The Netgate® 6100 with pfSense® Plus software is one of the most versatile security gateways in its class. It combines the power of an Intel C3558 Quad Core CPU with integrated (QAT) QuickAssist Technology & AES-NI and 8 GB of memory for a snappy user experience, delivering over 18 Gbps of L3 routing across 8 independent 1 GbE, 2.5 GbE, and 10 GbE Flexible WAN/LAN ports. The 6100 is capable of performing high-throughput firewall, routing, and VPN applications. Despite its powerful performance the 6100 operates in complete silence with a passive cooling system and is ideal for pro-home, small/medium businesses, or edge deployments.

PERFORMANCE



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

The Netgate 6100 is an ideal edge gateway solution for any organization in need of versatile network connectivity with 1 to 10 Gbps flexible WAN/LAN connections and 8 GB of DDR4 memory to deliver exceptional throughput performance.

L3 Forwarding

- IPERF3 Traffic: 18.50 Gbps
- IMIX Traffic: 6.08 Gbps

Firewall

(10k ACLs)

- IPERF3 Traffic: 9.93 Gbps
- IMIX Traffic: 2.73 Gbps

IPsec VPN

(AES-GCM-128 w/QAT)

- IPERF3 Traffic: 1.77 Gbps
- IMIX Traffic: 552 Mbps

Netgate 6100 performance tests conducted with pfSense Plus software version 22.01

The Netgate 6100 will also be compatible with TNSR software. TNSR is a high-performance software router capable of producing considerable performance increases far beyond the limits of pfSense Plus software.

SPECIFICATIONS



Quad Core 2.2 GHz
Intel® Atom CPU



8 independent and
flexible WAN/LAN ports



8GB DDR4 RAM

CPU: Quad-Core 2.2 GHz Intel Atom CPU, with integrated AES-NI and QAT (QuickAssist Technology) significantly improves encrypted throughput and increases RAM performance by up to 50%.

Network Ports: (2) 10 GbE SFP+ Ports, (2) 1 GbE Combo Ports (RJ45/SFP), and (4) discrete, unswitched 2.5 Gbps Ports allow for versatile WAN connectivity.

Storage: 16 GB eMMC (or optional 128 GB NVMe M.2 SSD)

Memory: 8 GB DDR4 RAM, 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 6100 provides efficient thermal management and silent operation expected from smaller devices despite its significantly higher performance.



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	Intel® Atom® C3558 with QAT, 4-core @ 2.2 GHz (Denverton family)
CPU Cores	Quad Core
Physical Network I/O ports	(2) 10 Gbps SFP+ cage (WAN) (2) Auto media detect 1 Gbps (RJ45 copper / SFP fiber) "Combo Port" (WAN) (4) 2.5 Gbps RJ-45 "direct" (unswitched) ethernet (LAN)
Storage	16 GB eMMC (onboard - soldered) upgradable to 128 GB NVMe M.2 SSD with 6100 Max
Memory	8 GB DDR4 w/o ECC, single channel
Physical Expansion Card Slots	1x Mini-PCie Slot (Wi-Fi Only) 2x m.2 (Key-B slot) with dual-SIM (LTE, Wi-Fi, or NVMe) (PCIe, USB 2.0, USB 3.0)
Console Port	1 x auto-detect console port: "Cisco pinout" RJ45 + micro-USB (micro-USB cable included with each system)
USB Ports	2x USB 3.0 jacks (USB-A female) Located on left side rear when viewed from system front
LED	3x 4-color LEDs (RGB + amber) Software / bootloader controllable via Microchip MCU
Enclosure	Desktop - Aluminum, plastic, and steel enclosure. 10 x 7.88 x 1.88 inches 254 x 200 x 47.63 mm
Mounting	Optional wall or rack mount kit
Cooling	Passive
Power	External ITE P/S AC/DC 100-240V, 50-60 Hz, 12V 5.0A (60W), threaded (locking) barrel connector. Specifications (not final): - AC Inlet: IEC320-C7 (2 PIN) - Power Cord: One US, UK, EU or ANZ power cord included - US Power Cord: NEMA 1-15-P 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	0°C (32°F) to 40°C (104°F) - ambient
Certifications	FCC (Class B), IEC / CE, CB, UL, RoHS, RCM, UKCA

Key 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.
- 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.
- Add optional packages such as [Snort](#) or [Suricata](#) for IDS/IPS and network security monitoring.
- 1
- Maximum Active Connections: 4,000,000

EASY GUI MANAGEMENT

- Manage pfSense Plus software 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
- Enterprise
- Everyone looking for great performance with no fan noise
- Situations where a rack mount system is not an option
- Anyone with High-Speed Gigabit Connections
- Many VPN Connections

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]