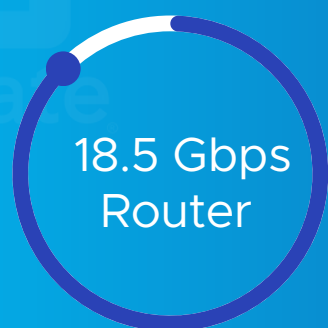# Netgate 6100
Security Gateway Appliance

The Netgate 6100 Security Gateway with pfSense® Plus software is one of the most versatile security gateways in its class. Experience high-performance firewall, VPN, and router capabilities, easy GUI management, and a robust feature set with no artificial limits or add-ons required to make your system fully functional and no additional usage or feature-based pricing.

It combines the power of an Intel C3558 Quad Core CPU with integrated QuickAssist & AES-NI, and 8 GB of memory for a snappy user experience, delivering over 18 Gbps of L3 routing across 8 Independent 1 Gbps, 2.5 Gbps, and 10 Gbps Flexible WAN/LAN ports.

Highest Performance in its Class

18.5 Gbps
Router

9.93 Gbps
Firewall

1.77 Gbps
IPsec VPN

The Netgate 6100 is ideal for pro-home, small/medium businesses, or edge deployments that require flexible port configurations to support 1 to 10 Gbps WAN capabilities across RJ45, SFP, and SFP+ ports, as well as 4 discrete, unswitched 2.5 Gbps LAN ports, all in a silent desktop form factor.
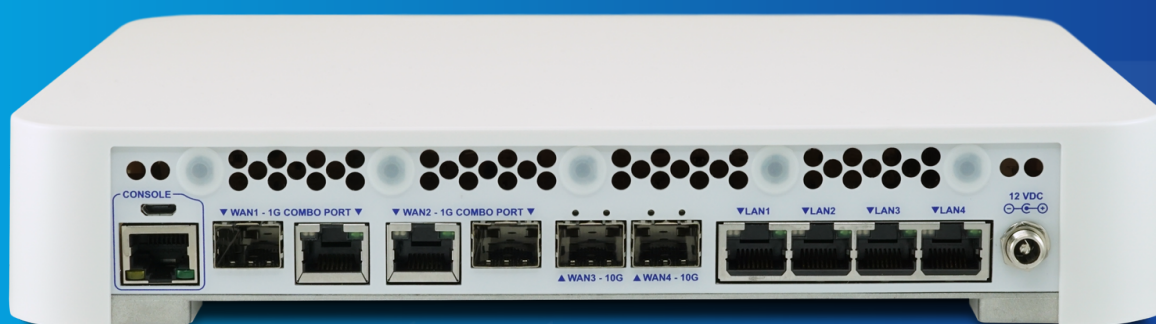
- **Quad Core 2.2 GHz Intel Atom CPU**
  Delivers 18.5 Gbps routing for common iPerf3 traffic and over 9.93 Gbps of firewall throughput

- **8 Independent 1G, 2.5G, and 10G Flexible WAN/LAN Configurations**
  Use a combination of 4 ports for maximum flexibility with 1, 2.5, and 10 Gbps WAN/LAN capabilities across RJ45, SFP, and SFP+ ports

- **Quiet operation and Low Power Draw**
  A compact form factor, low power draw, and silent operation allow it to run unnoticed when placed on a desktop, wall, or rack shelf

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+ WAN ports (2) 1 Gbps (RJ45 copper / SFP fiber) Combo WAN ports (4) 2.5 Gbps RJ-45 "direct" (unswitched) Ethernet LAN ports
Storage	16 GB eMMC - (Netgate 6100 "Base" configuration) 128 GB NVMe M.2 SSD - (Netgate 6100 "Max" configuration)
Memory	8 GB DDR4 w/o ECC, single channel
Physical Expansion Card Slots	1x m.2 (Key-B slot) with dual-SIM (LTE, Wi-Fi, or NVMe) (PCIe, USB 2.0, USB 3.0) 1x Mini-PCie Slot (Wi-Fi Only)
Console Port	1x 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)
LED	3x RGB LED(s) 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 (rack mount can also be factory installed)
Cooling	Passive
Environmental	0°C (32°F) to 40°C (104°F) - ambient

Performance[1]

IPERF Traffic[2] - L3 Forwarding: 18.50 Gbps
- Firewall: 9.93 Gbps
- IPsec VPN: 1.77 Gbps
(AES-GCM-128 w/QAT)

IMIX Traffic[3] - L3 Forwarding: 6.08 Gbps
- Firewall: 2.73 Gbps
- IPsec VPN: 552 Mbps
(AES-GCM-128 w/QAT)

1 Refer to https://www.netgate.com/products/appliances/ for the latest performance benchmarks. All performance tests are based upon maximum memory configuration and base model port configuration (no port expansion). Throughput measurements are based upon maximum bidirectional traffic across all available ports.

2 Basic Traffic (Primarily Data Download): iPerf3 traffic is TCP - 1460 byte payload and TCP framing.

3 Complex Traffic (Voice, Data, Video): Simple IMIX traffic is sets of 7 (40) byte packets, 4 (576) byte packets, 1 (1500) byte packets, plus Ethernet.