TNSR Hardware Comparison

The Netgate® hardware comparison chart is designed to give visitors a quick side-by-side comparison of Netgate appliances running TNSR® Plus software against one another.
While most of this data (and more) exists on individual product pages, we believe the chart makes it fast and easy for viewers to quickly determine which appliance is best for their needs.

The comparison matrix has two critical dimensions:

1. Packet Sizes: iPerf3
2. Secure Networking Function: Routing (Forwarding), Firewall, VPN

This provides a very clear manner by which products can be compared - and under different levels of user-experienced traffic conditions. We see this as crucial given our user base varies, literaly, from home consumers (with relatively light bandwidth and firewall needs) all the way to sophisticated enterprises (who demand predictable performance under the most strenuous encryption and packet mix conditions)

Netgate Hardware Comparison Chart

	Who	Needs	TNSR Performance[5]	Hardware			
			iPerf3[2] Basic Traffic (Primarily Data Download)	CPU	Storage	Memory	Network Ports
Netgate 6100 MAX Desktop  $1,898	Medium Business Large Business Data Center Service Provider	-Silent operation (fanless) -Desktop, wall, or 1U Rack mounting -Upgradeable storage (M.2 slots) -Handles Demanding IDS/IPS needs -QuickAssist Technology & AES-NI -High Availability -1, 2.5, and 10 GbE Network Interfaces -Runs pfSense® Plus or TNSR® Software	L3 Forwarding: **18.68 Gbps** Access Control List Filtering: **18.71 Gbps** (10k ACLs) IPsec VPN: **7.25 Gbps** (AES-GCM-128 w/QAT)	Quad Core Intel Atom C3558 @ 2.2 GHz	128 GB M.2 NVMe (Max)	8 GB DDR4	**(8) independent ports:** (2) X 10 Gbps (SFP+) (4) X 2.5 Gbps unswitched (RJ45) (2) X 1 Gbps combo (RJ45/SFP)
Netgate 8200 MAX Rack  $2,394	Medium Business Large Business Service Provider	-Rack Mount -Quiet integrated cooling fan -Upgradeable storage (M.2 slots) -Quick Assist Technology & AES-NI -High Availability -1,2.5, and 10 GbE Network Interfaces -Runs pfSense Plus or TNSR Software	L3 Forwarding: **18.8 Gbps** Access Control List Filtering: **18.63 Gbps** (10k ACLs) IPsec VPN: **15.36 Gbps** (AES-GCM-128 w/QAT)	Eight Core Intel Atom C3758R @ 2.4GHz	128GB NVMe M.2 SSD	16 GB DDR4	**(8) independent and switched ports:** (2) X 10 Gbps (SFP+) (4) X 2.5 Gbps unswitched (RJ45) (2) X 1 Gbps combo (RJ45/ SFP)

Netgate Hardware Comparison Chart

	Who	Needs	TNSR Performance[5]	Hardware			
			iPerf3[2] Basic Traffic (Primarily Data Download)	CPU	Storage	Memory	Network Ports
Netgate 8300 Rack  $4,298.00 **BASE** $4,598.00 **MAX** $4,998.00 **TAA**	Medium Business Large Business Data Center Service Provider	-Rack Mount -2x Internal PSU slots. One 500W PSU (hot-swappable) included with BASE (2) PSUs included with MAX and TAA -Expandable memory -Network expandable -High Availability -Runs pfSense Plus or TNSR -TAA model adds TAA Compliance	L3 Forwarding: **110 Gbps** Access Control List Filtering: **108 Gbps** (10k ACLs) IPsec VPN: **47 Gbps** (AES-GCM-128)	Intel Xeon D-1733NT 8-core @ 2.0 GHz	512GB M.2 SSD	32 GB ECC DDR4	**(11) network ports total:** (4) 10G SFP+ cage ports (4) 1G SFP cage ports (3) 2.5G RJ-45 “direct” (unswitched) ethernet ports via intel i226 (Additional network port expansion available via multi-port 25G and 100G PCIe cards)

Footnotes:

1. All performance tests are based on maximum memory configuration and base model port configuration (no port expansion). Throughput measurements are based on maximum bidirectional traffic across all available ports.
2. iPerf3 traffic is TCP - 1460 byte payload and TCP framing.
5. Performance tests for all appliances were performed using the latest TNSR version.

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