

*The NetEqualizer 4000 Series is our heavy-duty bandwidth shaping solution for businesses where performance and power are paramount. Designed for large-scale deployments, it is a rack-mountable unit capable of handling up to 40,000 network users on internet links of up to five (5) gigabits.*


*Just like all of our NetEqualizer models, the NE4000 performs QoS through our proprietary “equalizing” technology, utilizing algorithms to achieve fairness across network users. Our NetEqualizer product family optimizes critical network bandwidth resources for any organization that purchases bandwidth in bulk and then redistributes or resells that bandwidth to disparate users with competing needs.*



## NetEqualizer 4000 Features:

- Low-cost, available factory-direct with in-house engineering support.
- Equalizes up to 5 gigabits traffic (full duplex).
- Bandwidth can be limited by individual IP, Class B or Class C subnets, VLANs, Pools, or MAC address.
- QoS implemented via behavior-based bandwidth shaping. “Fairness” algorithms give priority to latency-sensitive applications, such as VoIP, web browsing, chat and e-mail over large file downloads and video that can clog your network.
- Supports up to 20,000 simultaneous bandwidth rules.
- Turn-key behavior-based control and containment of all common encrypted and unencrypted Peer-to-Peer (P2P) Applications, such as Bearshare, Limewire, IMAP, GNUTELLA, KAZAA, etc.
- P2P Locator Tool provides visibility into suspected peer-to-peer (P2P) traffic so that you can manage and contain it, while maintaining Net Neutrality.
- Protects your network from malicious activities via Connection Limits. Connection Limits can be set for an IP, subnet, or your entire network. You can protect your networks from malicious activities, such as traffic storms and worms, and wide-scale brownouts caused by Denial of Service (DoS) attacks.
- CALEA Compliant. Acts as a CALEA Probe via packet capturing & forwarding.
- Plug-n-play, low maintenance solution. Quick and easy set-up, typically one (1) hour or less. Out-of-the-box equalizing via “default” mode. Easily accessible to configure via parameters defined in the NetEqualizer web interface. Command-line interface supported.
- Trend analysis and graphs included (via ntop).
- Real-time traffic monitoring for both IPv4 & IPv6 traffic, is available via logs, active connections, and instantaneous bandwidth usage reports.
- Ability to create and enforce individual bandwidth quotas by customer IP or subnet. User Quota API toolkit provides custom configuration, monitoring/alarming, and reporting capabilities.
- Acts as a Transparent Bridge on your network. Supports Spanning Tree Protocol to dual-configure in an active/passive full redundancy mode, or for failover via your Switch or NetEqualizer 3<sup>rd</sup> party appliance.
- NetEqualizer Caching Option (NCO) available as an add-on module. NCO caches all port 80 traffic file sizes from 2MB to 40MB, including YouTube videos. When NCO is activated, a squid proxy server and web cache daemon are loaded, along with proprietary NetEqualizer Caching configuration and integration software and a new internal solid-state drive (SSD).
- Ethernet connectivity standard. Fiber option available.
- Hardware warranties (NHW) available from 1 year to 3 years, to protect your hardware investment.
- Reasonably-priced, yearly software upgrade and support contracts (NSS) available in 1 year to 3 year increments.

# NetEqualizer Series Specifications

NetEqualizer Model	NetEqualizer Lite	NE2000	NE3000	NE4000
<b>Capacity</b>				
Number of Users	150 200 350	5,000	20,000	40,000
Number of Connections / Flows per Minute	5,000	1,000,000	2,000,000	3,000,000
Maximum Number of Rules	1,000	5,000	10,000	20,000
Throughput (full duplex)	10Mbps 20Mbps 50Mbps	10Mbps 20Mbps 50Mbps 100Mbps 150Mbps	100Mbps 150Mbps 350Mbps 1Gbps	5Gbps
Latency	< 1 millisecond (ms)	< 1 ms	< 1 ms	< 1 ms
Pools / VLANs / Subnets	40	500	500	500
<b>Interfaces</b>				
Network Interfaces (in/out) (internal/external)	2-copper 10/100/1000	2 - copper 10/100/1000 3rd optional Fiber optional	2 - copper 10/100/1000 3rd optional Fiber optional	2 - copper 10/100/1000/10000 3rd optional Fiber optional
Out of Band Management	no	yes	yes	yes
Console Port	RS-232 (AT-compatible) with male DB-9 connectors			
<b>Features</b>				
Equalizing	Yes. Out-of-the-box equalizing (behavior-based shaping) in "default" mode.			
Bandwidth Shaping	By IP, MAC, VLAN, Bandwidth Pools, Ports, Hosts, Subnets			
Bandwidth Limiting	1) Hard Limits by IP (with optional Bursting), subnet, or MAC address 2) Shared Bandwidth Pools or VLANs 3) User Bandwidth Quotas by customer IP or subnet 4) Connection Limits by customer IP or subnet			
P2P and Encrypted P2P Control & Containment	Yes. Connection Limits by IP or subnet contain both encrypted and unencrypted P2P.			
Caching	no	no	yes (optional NCO)	yes (optional NCO)
Redundancy / Failover	1) Full Redundancy: Install Secondary NetEq in active:passive mode; hot swappable via STP. 2) Failover: Install a third-party switch in STP mode (available from APconnections). 3) Failover: Use STP mode on your own switch.			
Device Management	Web browser interface, Telnet CLI, Console access			
Interoperability	SNMP MIB			
Logging	Yes.			
Reporting: Real-time Analysis	1) Active Connections 2) Instantaneous Bandwidth Usage by IP, VLAN, or Bandwidth Pool 3) Visibility into IPv4 and IPv6 traffic			
Reporting: Trend Analysis & Graphs	Yes. Ntop provides historical trend analysis and graphs.			
<b>Dimensions</b>				
	small form-factor	1U	1U	1U
Rack Mountable	no	yes	yes	yes
Height	1.89 in (4.8 cm)	1.7 in (4.3 cm)	1.7 in (4.3 cm)	1.7 in (4.3 cm)
Width	6.54 in (16.6 cm)	16.8 in (42.6 cm)	16.8 in (42.6 cm)	16.8 in (42.6 cm)
Depth (length)	6.18 in (15.7 cm)	14.0 in (35.6 cm)	14.0 in (35.6 cm)	14.0 in (35.6 cm)
Weight	2.38 lbs (1.08 kg)	11.1 lbs (5.05 kg)	11.1 lbs (5.05 kg)	11.1 lbs (5.05 kg)
<b>Power</b>				
Power Rating	unlisted	122W	152W	180W
Heat Dissipation	unlisted FANLESS Thermal Module. Noise : 20dB Operating Temp : 0 - 40C (32 - 104F)	418.58 BTU/hr	521.51 BTU/hr	617.58 BTU/hr
Power Supply	65W (19V, 3.42A) AC Adapter, AC 100 ~ 240V US Power Cord (standard) EU Power Cord (optional)	260W AC with PFC 100-240 VAC, 50-60Hz, 4 Amp max	260W AC with PFC 100-240 VAC, 50-60Hz, 4 Amp max	260W AC with PFC 100-240 VAC, 50-60Hz, 4 Amp max
<b>Safety and Certifications</b>				
Safety, Emission, & Power Supply	UL, FCC, CE, CB, BSMI FCC: Class B - Part 15 Canadian ICES-003 	USA - UL listed, FCC Canada - CUL listed Germany - TUV certified Europe/CE Mark EN 60950/IEC 60950-Compliant CCC certified	USA - UL listed, FCC Canada - CUL listed Germany - TUV certified Europe/CE Mark EN 60950/IEC 60950-Compliant CCC certified	USA - UL listed, FCC Canada - CUL listed Germany - TUV certified Europe/CE Mark EN 60950/IEC 60950-Compliant CCC certified

## About APconnections

APconnections is an innovation-driven technology company that delivers best-in-class network traffic management solutions to give our customers faster networks, with zero maintenance, at the best prices.

We design and develop NetEqualizer bandwidth shaping appliances that solve Internet congestion issues while remaining easy-to-install, cost-effective, and low maintenance. We built our behavior-based "equalizing" technology to optimize critical network bandwidth resources.

APconnections is based in Lafayette, Colorado, USA. We released our first commercial offering in July 2003, and since then thousands of customers all over the world have put our products into service. Today, our flexible and scalable solutions can be found in Fortune 500 companies, major universities, Internet providers, small businesses, non-profits, military, and government agencies on six (6) continents.

## About the NetEqualizer Product Family

NetEqualizer appliances are behavior-based traffic shaping appliances designed to optimize your Internet connection, while giving priority to your important business and data applications. Our flexible, scalable, and cost-effective bandwidth shaping products can be deployed in both corporate and Internet provider networks.

NetEqualizer is available in a range of configurations from 10Mbps up to 5Gbps.