

*The NetEqualizer 2000 Series is our standard bandwidth shaping solution, suitable for most businesses. Designed for deployments from 4Mbps to 150Mbps, it is a rack-mountable unit capable of handling up to 5,000 network users on internet links of up to 150 megabits.*

*Just like all of our NetEqualizer models, the NE2000 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 2000 Features:

- Low-cost, available factory-direct with in-house engineering support.
- Equalizes up to 150 megabits traffic (full duplex). Optimizes your hardware investment. Grows with you! License upgrades available as you increase your network capacity, from 4Mbps - 150Mbps.
- 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 5,000 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.
- Protects your network from malicious activities via Connection Limits. With a single-command, Connection Limits can be set for an IP, subnet, or the entire network. You can protect your networks from malicious activities, including worms that can hijack computers and quickly overwhelm networks with traffic storms. If any internal or external host starts sending large numbers of messages, it will automatically be contained before causing a wide-scale brownout.
- 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 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.
- Hardware warranties available from 1 year to 3 years, to protect your hardware investment.
- Reasonably-priced, yearly software upgrade and support contracts available in 1 year to 3 year increments.

# NetEqualizer Series Specifications

NetEqualizer Model	NetEqualizer Lite			
	(POE)	NE2000	NE3000	NE4000
<b>Capacity</b>				
Number of Users	100	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	4Mbps 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)	3-copper 10/100 3rd NIC is disabled but is onboard	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	yes	yes	yes	yes
Console Port	RS-232 (AT-compatible) with male DB-9 connectors	RS-232 (AT-compatible) with male DB-9 connectors	RS-232 (AT-compatible) with male DB-9 connectors	RS-232 (AT-compatible) with male DB-9 connectors
<b>Features</b>				
Equalizing	yes	yes	yes	yes
Bandwidth Shaping	by IP, MAC, VLAN, Bandwidth Pools, Ports, Hosts, Subnets			
Bandwidth Limits	1) Hard Limits (with optional Bursting) 2) Shared Bandwidth Pools 3) User Bandwidth Quotas by customer IP or subnet 4) Connection Limits by customer IP or subnet			
P2P & Encrypted P2P Control and Containment	yes	yes	yes	yes
Caching	no	no	yes (optional NCO)	yes (optional NCO)
Redundancy / Failover	1) Secondary NetEqualizer. Active:Passive hot swappable via STP protocol. 2) STP via failover device available from NetEq. 3) STP via your switch.			
Device Management	Web browser interface, Telnet CLI, Console access			
Interoperability	SNMP MIB			
Logging	yes	yes	yes	yes
Reporting: Real-time Analysis	1) Active Connections 2) Instantaneous Bandwidth Usage by IP, VLAN, or Bandwidth Pool			
Reporting: Trend Analysis & Graphs	no	yes	yes	yes
<b>Dimensions</b>				
Rack Mountable	yes, if used with optional shelf	yes	yes	yes
Height	1.1 in (2.8 cm)	1.7 in (4.3 cm)	1.7 in (4.3 cm)	1.7 in (4.3 cm)
Width	6.2 in (15.8 cm)	16.8 in (42.6 cm)	16.8 in (42.6 cm)	16.8 in (42.6 cm)
Depth (length)	6.1 in (15.5 cm)	14.0 in (35.6 cm)	14.0 in (35.6 cm)	14.0 in (35.6 cm)
Weight	1 lb (.45 kg)	11.1 lbs (5.05 kg)	11.1 lbs (5.05 kg)	11.1 lbs (5.05 kg)
<b>Power</b>				
Power Rating	5W	122W	152W	180W
Heat Dissipation	unlisted	418.58 BTU/hr	521.51 BTU/hr	617.58 BTU/hr
Power Supply	AC-DC 15V, 1.2A External Switching Power Adapter (110/220V)	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>				
Power Supply	USA - UL listed, FCC Canada - CUL listed Germany - TUV certified	USA - UL listed, FCC Canada - CUL listed Germany - TUV certified	USA - UL listed, FCC Canada - CUL listed Germany - TUV certified	USA - UL listed, FCC Canada - CUL listed Germany - TUV certified
Safety & Emission	Europe/CE Mark EN 60950/IEC 60950- Compliant CCC certified	Europe/CE Mark EN 60950/IEC 60950- Compliant CCC certified	Europe/CE Mark EN 60950/IEC 60950- Compliant CCC certified	Europe/CE Mark EN 60950/IEC 60950- Compliant CCC certified

## About APconnections, Inc.

APconnections is based in Lafayette, Colorado, USA. We develop cost-effective, easy-to-install and manage, traffic shaping appliances. 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.

We released our first commercial offering in July 2003, and since then customers around the world have put our products into service. Our flexible and scalable solutions can be found at ISPs, WISPs, major universities, Fortune 500 companies, SOHOs and small businesses on six continents.

## About the NetEqualizer Product Family

NetEqualizer appliances are bandwidth shaping systems designed to optimize your Internet Connection, while giving priority to your important business and data applications. The flexible, scalable, and cost-effective bandwidth control products can be deployed in both corporate and service provider networks.

NetEqualizer is available in a range of configurations from 4Mbps up to 5Gbps.