

*The NetEqualizer 2000 Series is our standard bandwidth shaping solution, suitable for most businesses. Designed for deployments from 2Mbps to 150Mbps, it is a rack-mountable unit capable of handling up to 10,000 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 2Mbps - 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.
- Reporting included(via ntop). Provides real-time visibility into logs for traffic monitoring.
- Ability to create and enforce individual bandwidth quotas by MAC, customer IP, or entire subnets. 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 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
- Consulting available for Network Access Control (NAC) via Radius integration.

## NetEqualizer Series Specifications

| NetEqualizer Model                              | NETEQ-POE "Lite"   | NE2000   | NE3000   | NE4000   |
|---|--|--|--|--|
| <b>Capacity</b>                                 |  |  |  |  |
| Number of Users                                 | 150  | 10,000   | 30,000   | 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   | 2Mbps<br>4Mbps<br>10Mbps<br>20Mbps<br>45Mbps<br>100Mbps<br>150Mbps     | 350Mbps<br>1Gbps   | 5Gbps  |
| Pools / VLANs / Subnets)                        | 40   | 500  | 500  | 500  |
| <b>Interfaces</b>                               |  |  |  |  |
| Network Interfaces (in/out) (internal/external) | 3-copper<br>10/100<br>3rd NIC is disabled but is onboard   | 2 - copper<br>10/100/1000<br>3rd optional<br>Fiber optional            | 2 - copper<br>10/100/1000<br>3rd optional<br>Fiber optional            | 2 - copper<br>10/100/1000/10000<br>3rd optional<br>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                               | IP, MAC, VLAN, Pools, Ports, Hosts, Subnets  |  |  |  |
| Bandwidth Limits                                | Hard Limits, Pools   |  |  |  |
| P2P (Behavior-based Shaping)                    | yes  | yes  | yes  | yes  |
| Redundancy / Failover                           | 1) Secondary NetEqualizer. Active:Passive hot swappable via STP protocol.<br>2) STP via failover device available from NetEq<br>3) STP via your switch . |  |  |  |
| Device Management                               | Web browser interface, Telnet CLI, Console access  |  |  |  |
| Interoperability                                | SNMP MIB   |  |  |  |
| Logging   | yes  | yes  | yes  | yes  |
| Reporting                                       | 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<br>External Switching Power Adapter (110/220V)   | 260W AC with PFC<br>100-240 VAC, 50-60Hz, 4 Amp max                    | 260W AC with PFC<br>100-240 VAC, 50-60Hz, 4 Amp max                    | 260W AC with PFC<br>100-240 VAC, 50-60Hz, 4 Amp max                    |
| <b>Safety and Certifications</b>                |  |  |  |  |
| Power Supply                                    | USA - UL listed, FCC<br>Canada - CUL listed<br>Germany - TUV certified   | USA - UL listed, FCC<br>Canada - CUL listed<br>Germany - TUV certified | USA - UL listed, FCC<br>Canada - CUL listed<br>Germany - TUV certified | USA - UL listed, FCC<br>Canada - CUL listed<br>Germany - TUV certified |
| Safety & Emission                               | Europe/CE Mark<br>EN 60950/IEC 60950-Compliant<br>CCC certified  | Europe/CE Mark<br>EN 60950/IEC 60950-Compliant<br>CCC certified        | Europe/CE Mark<br>EN 60950/IEC 60950-Compliant<br>CCC certified        | Europe/CE Mark<br>EN 60950/IEC 60950-Compliant<br>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 2Mbps up to 5 gigabits.