NetEqualizer 3000 Series Data Sheet

The NetEqualizer 3000 Series is our standard and workhorse bandwidth shaping solution suitable for most businesses. Designed for deployments from 10Mbps to 1Gbps, it is a rack-mountable unit capable of handling up to 20,000 network users on internet links of up to 1 gigabit.

Just like all of our NetEqualizer models, the NE3000 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 3000 Features:

- Low-cost, available factory-direct with in-house engineering support.
- Equalizes up to 1 gigabit traffic (full duplex). Optimizes your hardware investment. License upgrades available as you increase network capacity, from 10Mbps -1Gbps.
- 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 10,000 simultaneous bandwidth rules.
- Turn-key behavior-based control and containment of all common encrypted and unencrypted Peer-to-Peer (P2P) Applications, such as 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.
- Dynamic Real-Time Reporting (RTR) provides traffic monitoring in real-time for both IPv4 & IPv6. Sortable & searchable reports include active connections, top 10 flows, penalized flows, and Pools. P2P traffic locator also available.
- **NEW** Trend analysis and graphs included via RTR Traffic Reports. *Traffic Reports* graph bandwidth usage by IP or network for up to 1 day of data. (summer 2014) Export data for longer analysis. *Protocol Tracking Reports* chart selected protocols.
- 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 active/passive full redundancy mode, or for failover via your Switch or NetEqualizer 3rd party switch.
- 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 in Year 2, 3, & 4 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	NE3000	NE4000	NetEqualizer Lite	NE2000
Capacity			**Discontinued for new purchases in 2013.**	**Discontinued for new purchases in 2013.**
Number of Users	20,000	40,000	200	5,000
Number of Connections / Flows per Minute	2,000,000	3,000,000	5,000	1,000,000
Maximum Number of Rules	10,000	20,000	1,000	5,000
Throughput (full duplex)	10Mbps 20Mbps 50Mbps 100Mbps 150Mbps 350Mbps 1Gbps	1Gbps 5Gbps	20Mbps Discontinued.	Discontinued. License levels moved to the NE3000.
Latency	< 1 millisecond (ms)			
Pools / VLANs / Subnets	500	500	40	500
Interfaces				
Network Interfaces (in/out) (internal/external)	2 - copper 10/100/1000 10 Gbps copper optional Fiber optional: 1Gbps & 10Gbps SM or MM	2 - copper 10/100/1000 10 Gbps copper optional Fiber optional: 1Gbps & 10Gbps SM or MM	2 - copper 10/100/1000 Fiber optional	2 - copper 10/100/1000 Fiber optional
Out of Band Management	yes	yes	no	yes
Console Port	RS-232 (AT-compatible) with male DB-9 connectors			
Features				
Equalizing	Yes. Behavior-based shaping via "fairness" algorithms gives priority to latency-sensitive applications, such as VoIP, web browsing, & e-mail over bandwidth hogs that can clog your network.			
Bandwidth Shaping	By IP, subnet, MAC, VLAN, and Bandwidth Pools			
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. Equally effective on both encrypted and unencrypted P2P. Implemented via Connection Limits.			
Caching	yes (optional NCO)	yes (optional NCO)	no	no
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: Dynamic Real-Time Reporting (RTR) & Current Activity	**Dynamic Real-Time Reporting (RTR)**: RTR offers up-to-the second sortable and searchable IPv4 and IPv6 traffic analysis. Includes: 1) Pools, 2) Active Connections, 3) Top 10 Flows, 4) Penalized Flows. **Current Activity Reports**: Includes: 1) Instantaneous Bandwidth Usage by IP, VLAN, or Pool, 2) P2P Locator, and 3) NetEqualizer Log.		Current Activity Reports. Includes: 1) Instantaneous Bandwidth Usage by IP, VLAN, or Bandwidth Pool, 2) P2P Locator, and 3) NetEqualizer log.	
Reporting: Trend Analysis & Graphs	Yes. **Dynamic Real-Time Reporting (RTR)**: ***NEW*** Traffic Reports provide up to 1 day of data in Bandwidth Graphs by IP or network. Protocol Tracking charts selected protocols by IP or network. **ntop** (available through 2014) also provides historical trend analysis and graphs.		No. ntop not recommended.	Yes, via ntop.
Dimensions	**1U**	**1U**	**small form-factor**	**1U**
Rack Mountable	yes		no	yes
Height	1.7 in (4.3 cm)		1.89 in (4.8 cm)	1.7 in (4.3 cm)
Width	16.8 in (42.6 cm)		6.54 in (16.6 cm)	16.8 in (42.6 cm)
Depth (length)	14.0 in (35.6 cm)		6.18 in (15.7 cm)	14.0 in (35.6 cm)
Weight	11.1 lbs (5.05 kg)		2.38 lbs (1.08 kg)	11.1 lbs (5.05 kg)
Power				
Power Rating	132W	180W	unlisted	118W
Operating Temperature & Relative Humidity	Operating Temp: 10°- 35°C (50°- 95°F) Operating RH: 8% - 90% (non-condensing)		Operating Temp: 0°- 40°C (32°- 104°F) Operating RH: up to 90% (non-condensing)	Operating Temp: 10°- 35°C (50°- 95°F) Operating RH: 8% - 90% (non-condensing)
Heat Dissipation	450.40 BTU/hr	617.58 BTU/hr	unlisted FANLESS Thermal Module. Noise : 20dB Operating Temp : 0 ~ 40C (32 ~ 104F)	402.63 BTU/hr
Power Supply	260W AC with PFC 100-240 VAC, 50-60Hz, 4 Amp max		65W (19V, 3.42A) AC Adapter, AC 100 ~ 240V US Power Cord (standard)	260W AC with PFC 100-240 VAC, 50-60Hz, 4 Amp max
Safety and Certifications				
Safety, Emission, & Power Supply	USA - UL listed, FCC Canada - CUL listed Germany - TUV certified Europe/CE Mark EN 60950/IEC 60950-Compliant CCC certified		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

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 affordable 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.