

***Q-Balancer***<sup>®</sup> **Assuring Your Business Continuity**



# Q-Balancer Range

## Offering Business Continuity, Productivity, and Security

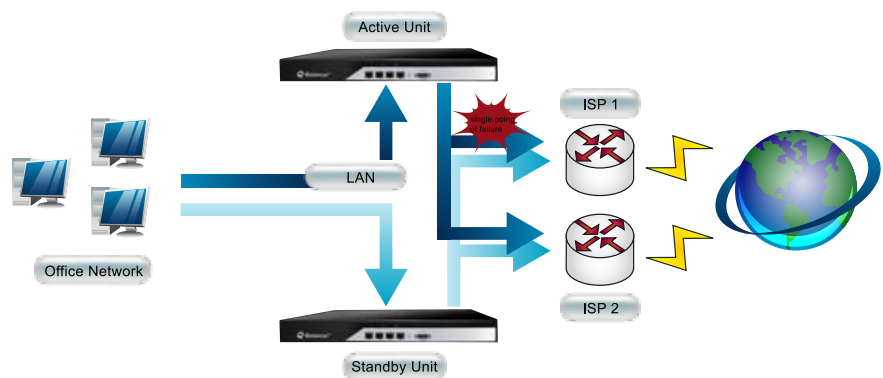
Q-Balancer is designed to offer assured network connectivity to small and medium business (SME) customers and protect customers from network level and content level threats. IT administrators can easily take full control of the entire network and parry the complicated security threats by using Q-Balancer via user-friendly GUI. Q-Balancer is a multi-function appliance that contains Firewall, Web Filtering, VPN, Network Load Balancing, Link Bonding, VPN Bonding, Bandwidth Optimization, etc.

## Transparent Installation

Q-Balancer can be deployed transparently into an existing network to failover and load balance traffic without changing the legacy IP setting of the devices on the network. Even if the process of installation is not going well, all we need to do is simply remove Q-Balancer from the office network so as to reinstate the operation of network. Therefore, the risk is obviously decreased while the impact is minimized.

## Automated ISP Failover

Q-Balancer assures the Internet connectivity in every situation. Q-Balancer constantly monitors the status of each link in order to provide continuous availability. In the event of a link failure, Q-Balancer will automatically route traffic down the remaining active links; if an Internet Service Provider (ISP) struggles with severe slow-down traffic or congestion, Q-Balancer will take other WAN links least loaded.



└ WR 400



└ LB 220 / 320 / 420 / 420W / 520  
└ SG 25 / 25W

### Policy-based WAN Load Balancing

Q-Balancer precisely dispatches the connections across the links on demands so as to fully utilize the bandwidth resource. A variety of algorithms provided by Q-Balancer will find the most active and the least-loaded link to optimize the utilization of bandwidth. Enterprises benefit from faster connectivity performance as the best performing and least-loaded links are selected when requests come up.

Q-Balancer enables business to deploy extra WAN Links incrementally as business grows by aggregating the legacy and newly deployed links. This helps business reduce the upfront investment and be able to flexibly increase the bandwidth as it grows.

### Wireless Link Load Balancing

Q-Balancer can be connected with multiple 3G connections via USB Ports or 3G Modems onboard, and therefore allows users to enjoy the accelerated Internet access anywhere by utilizing multiple 3G connections at the same time. The built-in VPN encryption mechanism assures the data security while users enjoy the accelerated wireless Internet access.



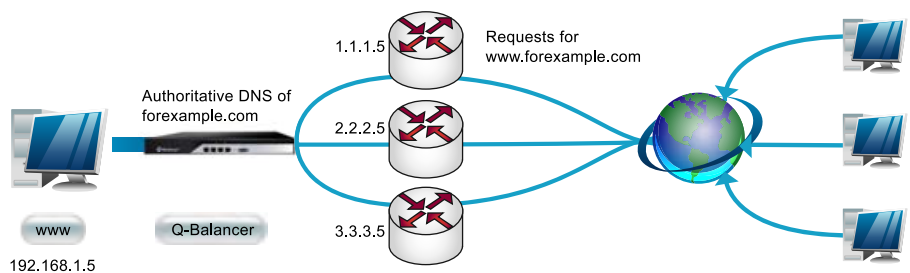
### MPLS Redundancy

Organizations with existing MPLS or other private line connections, which are looking for a fast and reliable failover solution, should consider Q-Balancer. The ability to continuously detect a point-to-point failure allows Q-Balancer to automatically re-route VPN traffic in few seconds upon failure detection, so as to prevent any data loss between sites.

### Inbound Load Balancing

Servers like Mail, Web, or any networking applications, which serve numerous incoming requests via Internet connections, are often important to enterprises operations and can cause major issue should the Internet connections fail.

Q-Balancer is able to control these hosted services by handling the DNS service for them. By applying Q-Balancer as an authoritative DNS for the domain, the requests from external clients to internal servers are distributed across the active and least-loaded links. This guarantees the serviceability and improves the performance of the servers hosted.



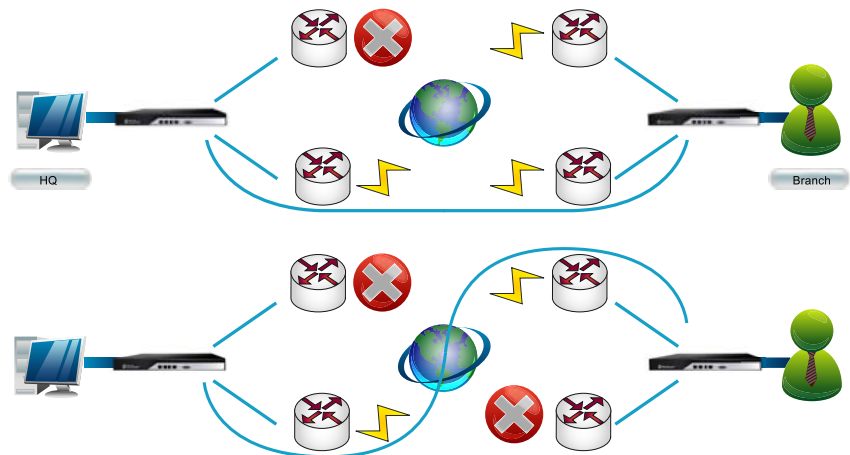
- SG 50
- LB 1420

### Link Bonding

The Link Bonding is the ability to combine 2 or more Internet connections and utilize them as a virtual single connection to gain the benefit of increased bandwidth for downloads and uploads. For example, 3 X 4Mbps ISP connections would provide 12Mbps of bandwidth by using Q-Balancer to aggregate the links. The increased bandwidth equals to the sum of the separate connections.

### Automated VPN Tunnel failover

Q-Balancer automatically re-routes the VPN traffic down the remaining active Internet connections in the event of link failure. It provides the continuous VPN connectivity with the ability of VPN Tunnel Failover.

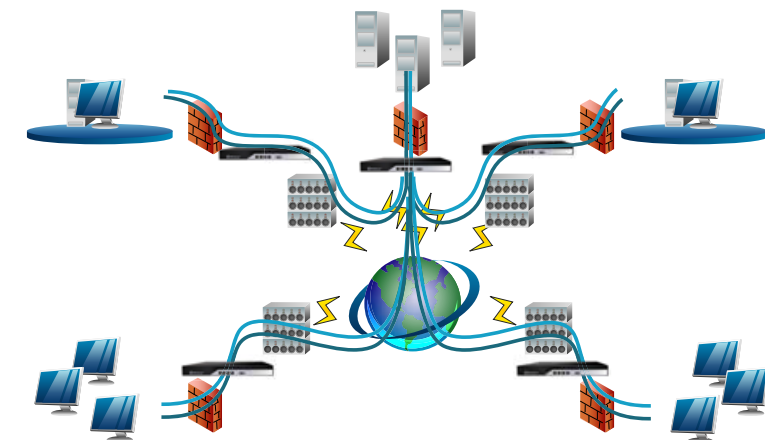


### VPN Load Balancing

Q-Balancer supports Site-to-Site VPN Load Balancing and is fully compatible with existing VPN solution. To meet the requirement, two Q-Balancer units are symmetrically deployed at both ends to handle the VPN traffic. The speed and security of VPN will be enhanced as VPN traffic being split and sent across multiple links.

### Policy-based VPN Tunnel Routing

VPN Tunnel Routing delivers bandwidth aggregation for a single connection over multiple links within Intranet. This function is very useful for the Intranet customers that require high levels of bandwidth capacity and instant high speed Intranet, and is particularly useful for distributed network where large files and applications such as VoIP and Video Conferencing are used between headquarter and branch offices. The function of VPN Tunnel Routing can be applied with links on dynamic IP.



► SG 100

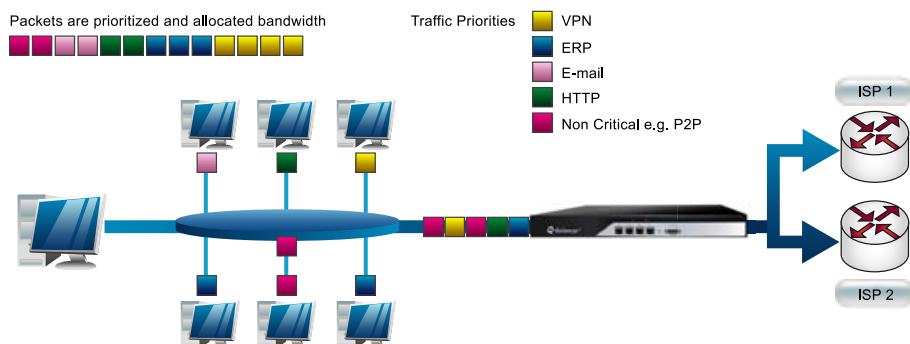


► SG 150

## Application Prioritization

Q-Balancer contains a number of pre-defined applications which can be prioritized based on policies. The administrator has the ability to set priority for QoS Object and apply it to a policy. Q-Balancer solves network congestion by identifying and restricting bandwidth to recreational applications such as P2P, Messenger, and online gaming. Based on policies performance of mission-critical applications is assured by designating and assigning minimum guaranteed bandwidth.

For example, administrators can define a QoS Object to guarantee minimum amount of bandwidth and/or limit the use of a maximum amount of bandwidth wholly or individually, and apply the QoS Object to a policy to make it work.



## URL Prioritization

With URL Prioritization, administrators are able to allocate bandwidth based on a single or a group of destination URL. This is useful as end-users go to specific websites or certain FTP sites.

## Policy-Based Shaping

Administrators have the ability to set priority for QoS Object and apply it to a policy, which can be defined using IP Address, Network, Port, Protocol, Source, Destination, URL, Application, QoS Object, and Schedule.

## Granular Bandwidth Control

Network administrator can set specific and exact bandwidth usage rules for each node on the network individually. This means that administrators have complete control to allocate bandwidth and precisely assures that certain servers, end-users, applications get the bandwidth demanded.

## Multi-Link Data Compression

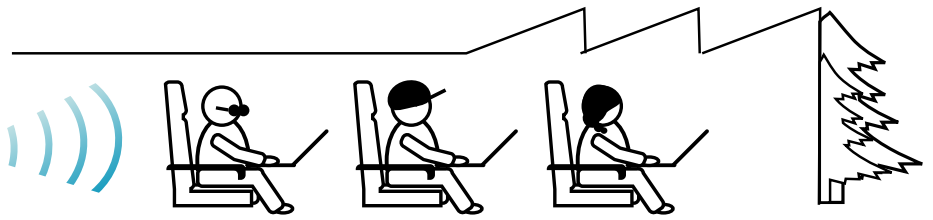
Q-Balancer Traffic Compression is a function of packet-based data compression that increases network capacity up to three times by compressing packet payload over a single WAN link, e.g. a DSL link @ 512/512kbps = 1.5/1.5 Mbps. Q-Balancer Traffic Compression brings substantial cost savings immediately to customers by significantly increasing bandwidth capacity without upgrading the level of Internet connections. It accelerates the speed of Internet access for applications over multiple WAN links, and is particularly useful for the distributed business where accelerated access and redundancy are needed.



► SG 250



► SG 500



### Web Proxy

The built-in Web Proxy allows business to save on their bandwidth through content caching. It makes data to be served locally, and users will enjoy this through faster download speed with frequently-used content. In addition, it helps business avoid spending large amounts of money on upgrading core equipment and transit links in order to cope with ever-demanding content growth.

### Logging and Reporting

Administrators are able to see who and what is using bandwidth resource in real time, and then use the information to create new shaping policies or determine when to add bandwidth via additional WAN links.

The built-in Traffic Analyzer, which is designed for WAN Traffic analysis and monitoring for many common Internet services, offers visibility into activity within organizations. It records the connection log of Internet traffic, such as Web mail, SMTP, POP3, IM (MSN, Yahoo Messenger, AIM (QQ), HTTP, FTP, and TELNET in the internal PCs and servers. It also provides a number of analytical reports for different needs. In addition, the Traffic Analyzer is also capable of performing fixed-schedule query on yearly, monthly, weekly, daily and hourly basis.

### Application Firewall

Q-Balancer incorporates a deep inspection firewall to precisely identify Layer 7 application traffic. It enhances application delivery by accurately filtering out unwanted bandwidth-abusing applications.

### Stateful Packet Inspection

Q-Balancer includes a stateful packet inspection (SPI) firewall and network address translation (NAT), and controls traffic in accordance to IP addresses and Port numbers. It can be set according to the requirement of each business. It is a rule-based firewall, so it is very flexible in terms of developing security policy.

### Web Filtering

Q-Balancer includes a web filter, which filters web traffic as it passes through the device and either passes, logs, or blocks the traffic. The web filter has a list of 100 categories of web sites, which easily stop users from browsing the web sites that contain pornography, gambling, violence, etc. The web filter also has Pass and Block lists that statically pass or block specific sites.



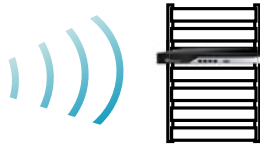
► SG 1000



► SG 2000



► LB 1620



### **Dos Prevention**

Q-Balancer provides Denial of Service (DoS) Prevention to assist users to prevent DoS attacks, like PING flooding, SYN flooding, Port Scan, Connection Overflow, and so on. The DoS Prevention helps guard a network against the attacks which inhibit or stop network availability. With DoS protection, businesses are able to provide legitimate traffic with uninterrupted network access while filtering out potential threats.

### **VPN**

Q-Balancer provides a complete set of VPN functions, IPSec, L2TP IPSec, PPTP VPN, and SSL VPN. With VPN functions, business customers can establish a variety of VPN connections from multiple WAN links on Q-Balancer from anywhere in the world. Business therefore can set up a secure point-to-point connection whenever and wherever necessary.

### **Virtual Appliance**

Q-Balancer virtual appliances are for easy deployment in large and complex environments. Optimized hardware allocation and reduced hardware expenditure is available since physical computers are able to run multiple instances of the software in parallel by using the underlying VMware virtualization infrastructure. Thus, it is perfectly applicable for managed services providers and those responsible for the consolidation of several departmental networks.

### **Centralized Management**

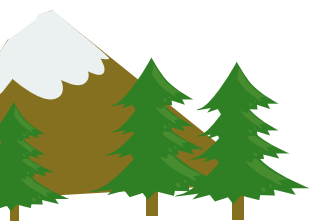
Organizations can upgrade and monitor the units in a single enterprise-wide network. The function of Centralized Management lowers the operating cost of upgrading and maintaining multiple devices from central office of large enterprise or the Network Operation Center.

### **High Availability and Reliability**

Two Q-Balancer units can be installed in parallel, and one can backup the other so as to prevent single point of failure in the event of hardware failure. This provides timely backup for the office network and assures nearly 100% uptime. Q-Balancer is built over robust hardware platform, which offers consistent, highly stable, and 24/7 continuous operation. The function of Auto Recovery will automatically recover Q-Balancer back to work when necessary. Moreover, all models support Hardware Bypass. This keeps internal servers always accessible.

### **All-in-One Appliance**

All functions on Q-Balancer are delivered without extra license fee.



► LB 2620



► LB 3620

## Top Features

### Network Load Balancing

- ε Transparent Installation
- ε Automated ISP Failover
- ε Policy-based WAN Load Balancing
- ε Wireless Link Load Balancing
- ε MPLS Redundancy
- ε Inbound Load Balancing

### Link Bonding

- ε DSL Bonding
- ε Wireless Link Bonding

### VPN Load Balancing

- ε Automated VPN Tunnel Failover
- ε VPN Load Balancing
- ε Policy-based VPN Tunnel Routing

### Bandwidth Optimization

- ε Application Prioritization
- ε URL Prioritization
- ε Policy-Based Shaping
- ε Granular Bandwidth Control
- ε Multilink Data Compression
- ε Web Proxy
- ε Logging and Reporting

### Network Security

- ε Application Level Firewall
- ε Stateful Packet Inspection
- ε Web Filtering
- ε Dos Prevention
- ε VPN

### Virtual Appliance

### Centralized Management

### High Availability and Reliability

### All-in-One Appliance

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Received from your Q-Balancer Partner:



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