

Q-Balancer® Mesh



Multi-WAN Wireless Router

The link failure between headquarters and mobile office can possibly make a mobile office totally isolated. The Q-Balancer Mesh incorporates with multiple industrial 3G modules, which offer quality 3G access to business customers and professional users. Each embedded modem comes with advanced antennas, which helps extend the network coverage and turn dead zone to live zone. The built-in Wi-Fi module on Q-Balancer Mesh is able to work as LAN Gateway, offering the convenience and flexibility for remote LAN. It facilitates remote maintenance and assures steady connectivity by offering undisturbed data transmission over cellular Internet connections without any network cables attached.







Furthermore, the transmission over a single connection might suffer from disconnection and insufficient bandwidth, particularly the video transmission. Q-Balancer Mesh aggregates multiple 3G connections simultaneously to achieve highest link performance and smooth transmission. Q-Balancer Mesh offers business-grade connectivity in cost-effective way by bonding up to 4 cellular 3G modems, where the resiliency, quality and mobility will not be compromised. The cost of traveling expenses for staffs running between headquarter and Mobile offices to restore the system will be reduced as Q-Balancer delivers nearly 100% uptime for mobile connectivity. Broadcasters and online video professionals enjoy the benefits of bonded 3G network by using Q-Balancer Mesh to provide a reliable video uplink, instead of expensive satellite connections.



Video Surveillance

The Q-Balancer Mesh supports IP-based camera and DVR, giving you a reliable and cost-effective security guard that's on duty all day, every day. With the Q-Balancer Mesh, it's easy to control cameras and review DVR footage from anywhere in the world, in real time, whether you're monitoring a construction site, retail location, or fleet of vehicles. And thanks to 256-bit military-grade encryption and reliability powered by up to seven mobile Internet connections, transmitted video and audio is secure and dependable enough for even the most demanding security application.

Key Benefits

-  Makes Internet Access Anytime Anywhere
-  Maintains Reliable Internet and Site-to-Site VPN Connectivity
-  Offers Quality Access with Industrial 3G Modules Embedded
-  Enables Video Streaming via Link Bonding
-  Turns 3G Connections into Business-Grade Internet Connectivity
-  Maximizes ROI by Aggregating Inexpensive Links



Quality and Resilient Uplink

Field Broadcast

Q-Balancer Mesh offers quality bonded uplink while you're delivering breaking news, live concerts, sports, or any other event that demands dependable, high-bandwidth mobile video transmission. For video transmission, Q-Balancer Mesh offers a resilient quality uplink over a cost-effective cellular network, makes itself an alternative to satellite or microwave, and realizes freedom of mobility in the field for all live broadcast media.

Live News Gathering

Getting live news reports to viewers can be a logistical and technical challenge as news happens anywhere at anytime. Thus, flexibility, reliability, and ease-of-use are critical in live newsgathering applications. Q-Balancer Mesh allows remote field reporters to set up quickly and transmit higher quality video and audio over 3G connections as events unfold. It is a new and cost-effective uplink system for SD or HD-quality coverage of breaking and local news.



Franchise

Q-Balancer Mesh makes it easy to capitalize on any opportunity wherever and whenever you want to enter an emerging or rural market or just deploy a temporary retail branch office to take advantage of a special event. You can increase bandwidth anytime you want by adding more Internet connections. Q-Balancer Mesh supports real-time POS systems and video surveillance, allowing you to acquire business information at first hand. Q-Balancer Mesh delivers a cost-effective, secure, and reliable way to expand retail business.

Law Enforcement

The ability to view video as events unfold helps police headquarters to better support officers on regular patrols. This also helps facilitate faster assessment and potential back-up response for criminal activities already in progress. By integrating live video over IP, the Q-Balancer Mesh enables police officers in the field to transmit live video back to police headquarters over any available IP network in real time.



Public Transportation

The Q-Balancer Mesh is able to offer staffs and passengers on public transportation an uninterrupted and moving Internet access. The mobile networking system using Q-Balancer Mesh can work with applications on board such as ticket system, video surveillance, real-time GPS fleet tracking, and up-to-the-minute news, weather, and traffic conditions.



Professional Mobile Bonding

Marine

The Q-Balancer Mesh automatically switches Internet connections between satellite and 3G/4G connections based on performance and availability to provide the most economical and reliable Internet access. With Q-Balancer deployed on board, passengers enjoy resilient and accelerated Internet access.



Landline Alternative

Q-Balancer Mesh offers quick deployment without wired connections as it comes with onboard 3G modules, built-in wireless LAN, USB 3G dongles support. The all-in-one design makes it simple and quick to deploy your office network at trade shows, conferences, or anywhere else you do business.

Remote and Mobile Office

By using Q-Balancer Mesh, maintenance of remote and mobile office will be simplified as all the works can be done in advance or remotely. This is helpful for the remote station and mobile office, where ADSL is not available.

Features

Outbound Load Balancing

- Round-Robin
- Round-Robin by Weight
- Least Traffic
- Least Connection
- Least Response
- Connection-based
- Bandwidth
- Policy-based Redirect to Proxy
- Schedule
- Packet-based
- IP Host
- Grouped IP Hosts
- Service
- Grouped Services
- FQDN
- Grouped FQDN

Inbound Load Balancing

- Bottleneck
- Least Traffic
- Round-Robin by Weight
- Priority
- Failover
- Built-in DNS Server
- Support External DNS Server
- Multi-Domains
- Multi-Records

IP Address Assignment

- Static
- DHCP Client
- PPPoE
- PPTP
- L2TP

VPN

- NAT Traversal
- Client-to-Site VPN Failover
- Site-to-Site VPN
- Failover
- Load Balancing
- Policy-based Routing
- Dynamic IP
- DHCP Relay
- Tunnel Encryption (DES, 3DES, AES)
- PPTP Server

Bandwidth Management

- Individual
- Shared
- Max. and Min. Bandwidth
- Priority
- Policy-Based
- Schedule
- Link
- IP Host
- Grouped Hosts
- Service
- Grouped Services
- Application/IM/P2P
- Grouped Applications/IM/P2P
- FQDN
- Grouped FQDN

WAN Optimization

- Multilink Traffic Compression
- Web Proxy

Networking

- Web Proxy
- Wireless LAN Gateway
- IEEE 802.1Q VLAN
- NAT and Server Mapping
- Static Route
- RIP V1/2 and OSPF
- Multiple Subnets
- DHCP Server
- DHCP Relay
- DNS Server
- DNS Relay
- Dynamic DNS (DDNS)
- H.323 NAT Traversal

Firewall/Security

- Stateful Firewall
- Access Control
- IM/P2P Control
- Applications Control
- DoS Prevention
- Multiple DMZ

Logging and Reporting

- Local System Log
- Traffic Log
- Syslog Server Support
- FTP Server Support
- USB Storage Support
- Historical Analysis
- Built-in Report System
- Report by E-Mail

Monitoring

- Link Status
- Sessions Status
- Bandwidth Usage by Hosts

Management

- Link Failure Alert by Email
- Local Administrator Database
- Multiple administrator authority levels
- Audit Trail
- Web-based UI (HTTP/HTTPS)
- Command Line Interface (RS232, SSH)
- SNMP (v1, v2C, v3)
- Automated Configuration Backup
- Remote Firmware Upgrade
- NTP Server Support
- Built-in Diagnostic Tools
- System Auto Recovery



Specifications



| Model | M240 | M340 | M400 | M700 |
|--------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| WAN Links Support | 4 | 4 | 4 | 7 |
| Embedded 3G Modems | 2 | 3 | 4 | 7 |
| USB 3G Modems Support | 2 | 2 | 2 | 2 |
| Ethernet Ports | 4 | 4 | 4 | 4 |
| Throughput (Mbps) | 80 | 80 | 80 | 80 |
| 802.11 b/g/n Wireless LAN | | | | |
| Wi-Fi Operating Frequency | 2.4Ghz | 2.4Ghz | 2.4Ghz | 2.4Ghz |
| Embedded 3G Modem Connectivity | HSUPA/HSDPA/ UMTS/EDGE GPRS/GSM | HSUPA/HSDPA/ UMTS/EDGE GPRS/GSM | HSUPA/HSDPA/ UMTS/EDGE GPRS/GSM | HSUPA/HSDPA/ UMTS/EDGE GPRS/GSM |
| High Availability | | | | |
| Hardware LAN Bypass | | | | |
| Maximum Power Consumption | 60W | 60W | 60W | 96W |
| Dimension (mm) (W*D*H) | 210*151*44 | 210*151*44 | 210*151*44 | 210*151*55 |
| Weight | 2.35kgs | 2.35kgs | 2.35kgs | 2.5kgs |
| Operating Temperature | 0 to 45 C | 0 to 45 C | 0 to 45 C | 0 to 45 C |
| Certifications | FCC class B/ CE class B | FCC class B/ CE class B | FCC class B/ CE class B | FCC class B/ CE class B |
| Link Failover | | | | |
| MPLS Redundancy | | | | |
| WAN Load Balancing | | | | |
| Link Bonding | | | | |
| Multihoming | | | | |
| Automated VPN Failover | | | | |
| VPN Bonding | | | | |
| Policy-based QoS | | | | |
| Compression | | | | |
| Web Proxy | | | | |
| Firewall | | | | |
| DoS Prevention | | | | |
| Logging and Reporting | | | | |

