

Multi-WAN Load Balance VPN Router

LevelOne FBR-4000 has four WAN ports that allow you to provide network connectivity and proven ultimate redundancy for higher performance improvement. You can join your network to different Internet Service Providers in order to prevent at any single point of failure thus providing better reliable network interfacings.

Multiple WAN Ports

Contemporary trends towards strongly increased access of graphically rich Internet web sites and multimedia applications are resulting in higher consumption of Internet link resources. Thus bandwidth-starving users are constantly seeking ways to expand their bandwidths. The FBR-4000 enables up to 4 WAN ports to connect to the Internet for broadband services, based on users' network environment, to increase total bandwidth. Also through bandwidth aggregation, your IT manager can seamlessly combine four WAN links into a virtual single high bandwidth line to the LAN.

Multi-Homing Structure

The FBR-4000 is able to determine the available bandwidth to a remote subnet through an access link, assign incoming and outgoing Internet traffic to the available access link, and detect failed access links and divert Internet traffic around them.

The benefit of FBR-4000's multihoming feature is to achieve outbound load balancing and failover with NAT techniques instead of defining BGP routing tables or configuring any complicated routing protocols. This process will give your network administrator an easy way to manage their heavy-duty networks.

Smart WAN Load Balancing and Failover Solution

WAN load balancing is focused on WAN fault tolerance. The FBR-4000 Multi-WAN port router can provide reliable outgoing Internet access for employees and incoming access redundancy for public customers. Many load balancing types allow administrators to manage the load balancing methods best suited to the LAN environment and to maximize bandwidth across different connections. These load-balancing methods include: Least load, auto-learning, priority, round robin and weight round robin. The FBR-4000 also supports failover functions for connection redundancy. When a physical/logical link failure occurs or a routing failure happens or whenever the ISP goes down, FBR-4000 will automatically locate the problem and redirect the outgoing traffic to the other running WAN Link to ensure continuation of services.

VPN and QoS

The FBR-4000 provides corporate customers with secure, and end-to-end private network connection by public access, like Internet, to connect remote locations. This device supports IPSec server with brilliant throughput. There are different encryption methods to choose from DES, 3DES, GRE with the Autokey IKE, MD5 or SHA-1 authentication while deploying the VPN connections. The Load Balancer of FBR-4000 also supports QoS and traffic shaping by defining rules, which designate the minimum and maximum bandwidth to be allowed for traffic. With QoS features, businesses can allocate the bandwidth for critical traffic or applications.

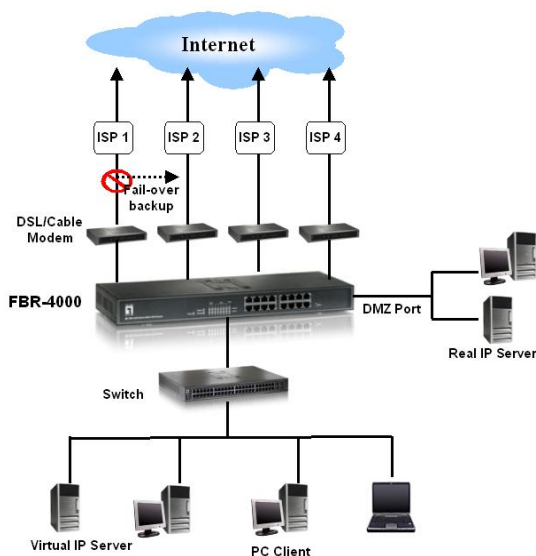


FBR-4000

Key Features

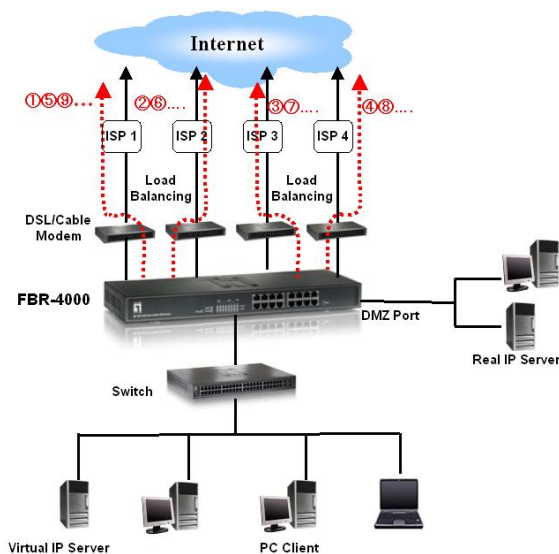
- Flexible, High-Performance Multi-WAN support.
- Integrates Load Balancing and Auto Failover connection
- Shares Internet access up to 253 users
- High-performance VPN NAT router
- Multiple IP address support.
- Advanced NAT features to setup DMZ, DDNS, remote management routing, virtual servers, SNMP, and ARP proxy
- 5 Groups of Access Filter to LAN users
- Support VPN Security up to 40 tunnels
- VPN Trunking, VPN Aggregation
- Supports for 80,000 concurrent sessions
- Provides two dedicated DMZ ports
- Supports QoS for critical traffic and applications
- Packet filter & block URL
- Supports transparent bridge mode

Product Diagram



Fail-over Backup

When a physical/logical link failure occur or a routing failure happens or whenever the ISP goes down, FBR-4000 will automatically discover the failure and redirect the outgoing traffic to the other running WAN Link to ensure continuous services. The process is totally transparent meaning that your network user does not notice anything unusual happening.



Load Balancing

The benefit of FBR-4000's multihoming is to achieve outbound load balancing and failover with NAT techniques instead of defining BGP routing tables or configuring any complicated routing protocols. This process will give your network administrator an easy way to manage their heavy-duty networks.

The options for controlling the route taken by outgoing traffic vary, and you can control and distribute your daily traffic by setting the load balance algorithm based on "Bytes Tx+Rx", "Racket Tx+Rx", "Sessions Established", "IP Addresses", "Auto Learning", "Fast", "Priority", "Round Robin" and "Weighted Round Robin"

Technical Specification

Networking

- **Standards Compliance**
IEEE 802.3 10BaseT Ethernet
IEEE 802.3u 100Base-TX Fast Ethernet
- **Ports**
WAN: 4 x Auto-MDI/MDIX 10/100 Mbps RJ-45 ports
LAN: 10 x Auto-MDI/MDIX 10/100 Mbps RJ-45 ports
DMZ: 2 x Auto-MDI/MDIX 10/100 Mbps RJ-45 ports

Protocols

Network: TCP/IP, HTTP, DHCP, DDNS, PPP, UPAP, Multi-session PPPoE, ARP Proxy
Security: NAT, UPAP, CHAP
Routing: Static Route; RIP I and II
Connection: Static/Dynamic IP; PPPoE, PPTP;

VPN

PPTP & IPSec Pass Through
IPSec Tunnels: 40
Encryption: DES, 3DES, AES (128/193/256-bit)
Authentication: MD5, SHA1, SHA2 (256/384/512-bit)
Manual Key & IKE (Internet Key Exchange)
Load Balance (Mesh Group)

Firewall

NAPT (Network Address Port Translation)
DoS (Denial of Service)
Access Control by Group
Ping to Death
Port Scan
SPI(Stateful Packet Inspection)
ICMP Filter for WAN
Packet Filter
URL Block
Session Limit
System Filter Exception

QoS

Policy Priority set by source and destination IP, source and destination MAC address, and service types

Security

Admin passwords
Authentication with UPAP and CHAP for PPPoE

Firmware Upgrade

HTTP web based download
TFTP download

Management

Management via WAN & LAN port
HTTP web based management
SNMP
E-mail Alert
Syslog

Application

Support MSN & Networking
Support with H.323 VoIP products
Multi-session PPPoE
SMTP bind
UPnP
Virtual server
Multi-DMZ
Dynamic DNS
NAT status & connection list & alias
MTU changeable for WAN
Dial-on-demand & Auto-disconnect
MAC address clone
Transparent Bridge Mode
DNS Loopback
Any IP on LAN
SNTP

Hardware

- **RAM/ROM**
16MB/2MB
- **LEDs**
System power and status indicator
System activity and Network link indicator
Microphone status indicator
- **Power**
AC100-240V
- **Temperature**
Operating: 0°C -40°C (32°F -102°F)
Storage: -10°C -70°C (-4°F -158°F)
- **Humidity**
Operating: 85% (RH)
- **Dimension**
427mm(L) * 155mm(W) * 44mm(H)
- **EMI and Safety**
FCC, CE

Ordering Information

- FBR-4000: Multi-WAN VPN Load Balance Router