



FortiWAN™

WAN Link Load Balancing



FortiWAN

FortiWAN 200B, 1000B, 3000B, VM and FortiWAN Manager

WAN Link Load Balancing

Fortinet's FortiWAN intelligently balances Internet and intranet traffic across multiple WAN connections, providing additional low-cost incoming and outgoing bandwidth for the enterprise and substantially increased connection reliability. FortiWAN is supported by a user-friendly UI and a flexible policy-based performance management system. It provides a unique solution that offers comprehensive multi-WAN management that keeps costs down as well as keeping customers and users connected.

Increase Network Performance

FortiWAN intelligently aggregates multiple broadband and/or leased access lines to significantly increase Internet access performance. FortiWAN load balances Internet service requests, optimally distributing traffic across all available access links. Seven different load balancing algorithms provide the flexibility to maximize productivity from any network scenario.

Inbound Access Load Balancing

FortiWAN also load balances service requests from Internet users accessing Enterprise-hosted web, email or VPN servers. Multiple links, media and ISPs can be utilized without complex interfaces or programming with your service providers. Bandwidth can be added and removed quickly and easily.

Site-to-Site WAN Connectivity

FortiWAN gives you high-performance inter-site connectivity without the need to lease expensive links such as T1 and T3. FortiWAN aggregates multiple low-cost Internet access links to create site-to-site Virtual Private Line (VPL) tunnels of up to 1 Gbps for LAN-like performance between company locations. By using multiple carriers and media, reliability of these VPL tunnels can exceed that of traditional engineered carrier links.

Highlights

- Increase Internet bandwidth
- Increase site-to-site bandwidth
- Improve reliability/availability
- Reduce bandwidth costs
- Outbound Link Load Balancing to fine-tune traffic across up to 50 links
- Optimum routing to prioritize traffic for mission-critical applications
- Automatic fallback or failover of WAN links to ensure continuity of traffic flows
- Multi-homing (inbound Link Load Balancing) to improve response times and availability for incoming requests
- Virtual servers for simple server load balancing and high availability
- GE fiber connectivity to Carrier and LAN services
- Comprehensive usage and quality reporting



Tunnel Routing — Virtual Private Line Services

Inter-site tunnels can be created from fractional, full, multiple and fractions of multiple WAN links. Applications requiring large single-session bandwidth such as video conferencing or WAN optimization can use multiple links to build the bandwidth needed.

Multi-session traffic can share an appropriately-sized tunnel. Tunnels have the same functionality as single links, supporting load balancing, fallback, failover and health detection within and between tunnels.

FEATURES

Load Balancing Algorithms

- Fixed
- Weighted Round-Robin
- Application
- Connections
- Traffic
- FQDN
- Optimum Route
- Full IPv6 Support of all WAN types

Multi-Homing

- WAN Load Balancing and Fault Tolerance
- Multiple Domains
- DNS Relay
- Full IPv6 Support of all WAN types
- IPv4/IPv6 Authoritative DNS / DNSSEC

Bandwidth Management

- Maximum and minimum bandwidth
- Priority
- Source/Destination IP and Application
- Schedule

Flexible Licensing

- Stackable bandwidth options
- Increase throughput as needed
- Please see product specifications for maximum bandwidth supported on each appliance

Central Management

FortiWAN offers the tool you need to manage multiple appliances and gain valuable insights on inbound and outbound link traffic. From within a single management console you can configure and manage multiple FortiWAN devices using our VMware-based central management utility.

Tunnel Routing

- VPN Load Balancing/Failover
- AES Encryption
- Dynamic IP Support
- NAT Pass-Through
- Peer Routing Exchange
- Tunnel DSCP QoS for MPLS Links
- Aggregate Multiple Internet Links into Virtual Private Lines

Other Features

- Server High Availability
- L4 Server Load Balancing
- Built-in Authoritative Public and Private DNS
- NAT Mode / Routing Mode
- RIP V1/2 and OSPF
- PPPoE / DHCP WAN-Type Support
- Multiple Public IP Pass-Through
- IEEE 802.1q VLAN
- Redundant Power Supply on most models
- Automated Failover, N:N-1 Redundancy, On-Demand Line Backup
- HA (High Availability)
- IPv4/IPv6 DHCP for each subnet

Management

- Web Admin (SSL)
- Console (RJ45, RS232 or SSH via network)
- SNMP
- Central management for multiple devices

SPECIFICATIONS

| | FORTIWAN 200B | FORTIWAN 1000B | FORTIWAN 3000B |
|----------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Hardware Specifications | | | |
| WAN Bandwidth | 200–600 Mbps* | 1–2 Gbps* | 3–9 Gbps* |
| WAN Links | up to 25** | up to 50** | up to 50** |
| Network Interfaces | 5x GE Cu | 4x SFP, 3x GE Cu | 8x 10 GE SFP+, 8x GE SFP, 8x GE Cu |
| Storage | 500 GB HDD | 1 TB HDD | 1 TB HDD |
| HA Ports | 1 | 1 | 1 |
| Power Supply | Single | Dual | Dual |
| System Specifications | | | |
| Concurrent Connections | 800,000 | 2,000,000 | 6,000,000 |
| Connections per Second | 42,000 | 180,000 | 550,000 |
| Multi-Homing A/AAAA Records | 200 | 400 | 800 |
| Management | any network port | any network port | any network port |
| Dimensions | | | |
| Form Factor | 1U | 1U | 2U |
| Height x Width x Length (inches) | 1.75 x 17.32 x 10.55 | 1.75 x 17.32 x 16.22 | 3.46 x 17.32 x 23.66 |
| Height x Width x Length (mm) | 44 x 440 x 268 | 44 x 440 x 412 | 88 x 440 x 601 |
| Weight | 9.9 lbs (4.5 kg) | 17.9 lbs (8.1 kg) | 36.2 lbs (16.4 kg) |
| Environment | | | |
| Input Voltage | 100–240V AC, 50–60 Hz | 100–240V AC, 50–60 Hz | 100–240V AC, 50–60 Hz |
| Typical Power Consumption | 40 W | 135 W | 450 W |
| Maximum Current | 110V/0.37A, 220V/0.22A | 110V/5A, 220V/3A | 110V/9A, 220V/4A |
| Heat Dissipation | 110V/138 BTU/h, 220V/163 BTU/h | 110V/508 BTU/h, 220V/699 BTU/h | 110V/1843 BTU/h, 220V/2177 BTU/h |
| Operating Temperature | 32–104°F (0–40°C) | 32–104°F (0–40°C) | 32–104°F (0–40°C) |
| Storage Temperature | -4–167°F (-20–75°C) | -4–167°F (-20–75°C) | -4–167°F (-20–75°C) |
| Humidity | 10–85% non-operating, non-condensing | 10–85% non-operating, non-condensing | 10–85% non-operating, non-condensing |
| Compliance | | | |
| | FCC, CE, RCM, VCCI, BSMI, UL, CB. | FCC, CE, RCM, VCCI, BSMI, UL, CB. | FCC, CE, RCM, VCCI, BSMI, UL, CB. |

* Throughputs based on license(s) selected. **Additional links beyond the physical hardware ports on the appliances are supported through external VLAN switches.

| VIRTUAL APPLIANCES | FORTIWAN-VM02 | FORTIWAN-VM04 |
|-----------------------------------------------|------------------------------------------------|---------------|
| Hardware Specifications | | |
| Hypervisor Support | VMware ESXi / ESX 5.5, 6.0 | |
| vCPU Support (Minimum / Maximum) | 1 / 2 | 1 / 4 |
| Boot Memory (Minimum / Maximum) | 1 GB / 2 GB | |
| Memory Support (Minimum / Maximum) | 1 GB / 16 GB | |
| Network Interface Support (Minimum / Maximum) | Up to 10x GE / 10 GE vNICs (1 reserved for HA) | |
| Storage Support (Minimum / Maximum) | 120 GB / 1 TB | |
| Throughput*** | 1 Gbps | 2 Gbps |

*** Actual performance values may vary depending on system configuration and network traffic. Performance metrics were observed using a Dell PowerEdge R730 server (2x Intel Xeon E5-2630v3 2.4 GHz 20 MB Cache) running VMware ESXi 5.5 with 2 GB of vRAM assigned to the 2 vCPU and 4 vCPU FortiWAN Virtual Appliances.

ORDER INFORMATION

| Product | SKU | Description |
|----------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FortiWAN 200B | FWN-200B | FortiWAN 200B Link Load Balancing System, supports Tunnel Routing. Base system 200 Mbps throughput, upgradeable to 600 Mbps. 5x GE RJ45 ports, 1x RJ45 HA port, 1x RJ45 serial console port, 1x 500 GB HDD storage, single PSU. |
| | FWN-UPG-200B | Stackable upgrade license for FWN-200B to increase throughput to 400 Mbps (buy 1) or 600 Mbps (buy 2). |
| FortiWAN 1000B | FWN-1000B | FortiWAN 1000B Link Load Balancing System, supports Tunnel Routing. Base system 1 Gbps throughput, upgradeable to 2 Gbps. 3x GE RJ45 ports, 4x GE SFP ports, 1x RJ45 HA port, 1x RJ45 serial console port, 1x 1 TB HDD storage, redundant PSU. |
| | FWN-UPG-1000B | Upgrade license for FWN-1000B to increase throughput to 2 Gbps. |
| FortiWAN 3000B | FWN-3000B | FortiWAN 3000B Link Load Balancing System, supports Tunnel Routing. Base system 3 Gbps throughput, upgradeable to 9 Gbps. 8x GE RJ45 ports, 8x GE SFP ports, 8x 10 GE SFP+ ports, 1x RJ45 HA port, 1x RJ45 serial console port, 1 TB HDD storage, redundant PSU. |
| | FWN-UPG-3000B | Stackable upgrade license for FWN-3000B to increase throughput to 6 Gbps (buy 1) or 9 Gbps (buy 2). |
| FortiWAN VM02 | FWN-VM02 | FortiWAN VM02 Link Load Balancing System for VMware ESXi platform, 1-2x vCPUs cores. Supports Tunnel Routing, Max 9 vNICs + 1 vNIC reserved for HA. |
| FortiWAN VM04 | FWN-VM04 | FortiWAN VM04 Link Load Balancing System for VMware ESXi platform, 1-4x vCPUs cores. Supports Tunnel Routing, Max 9 vNICs + 1 vNIC reserved for HA. |
| FortiWAN Manager VM | WMG-VM-BASE | FortiWAN Manager base license. Manages up to 10 FortiWAN devices. Designed for VMware vSphere platform. |
| FortiWAN Manager 10 | WMG-VM-10-UG | FortiWAN Manager stackable upgrade license for adding 10 FortiWAN devices. |
| FortiWAN Manager Unlimited | WMG-VM-U-UL | FortiWAN Manager upgrade license for adding unlimited FortiWAN devices. |
| Optional Accessory | | |
| AC power supply | SP-FAD700-PS | AC power supply for FAD-700D, FML-400E, FDB-500D and FWN-1000B. |



GLOBAL HEADQUARTERS
Fortinet Inc.
899 Kifer Road
Sunnyvale, CA 94086
United States
Tel: +1.408.235.7700
www.fortinet.com/sales

EMEA SALES OFFICE
905 rue Albert Einstein
Valbonne 06560
Alpes-Maritimes, France
Tel: +33.4.8987.0500

APAC SALES OFFICE
300 Beach Road 20-01
The Concourse
Singapore 199555
Tel: +65.6395.2788

LATIN AMERICA SALES OFFICE
Sawgrass Lakes Center
13450 W. Sunrise Blvd., Suite 430
Sunrise, FL 33323
United States
Tel: +1.954.368.9990