

## FortiBalancer® Series

### Application Delivery Controller



Fortinet FortiBalancer Series of Application Delivery Controllers optimize the availability, user experience, performance and scalability of mobile, cloud and enterprise application delivery from anywhere-to-anywhere. The range of FortiBalancer appliances are designed for fast, secure and intelligent acceleration of demanding applications and traffic aggregation in enterprises of all sizes. The feature rich appliance form factor results in ease of integration with traditional data centers, virtualized data centers and cloud infrastructures, while delivering outstanding business value.

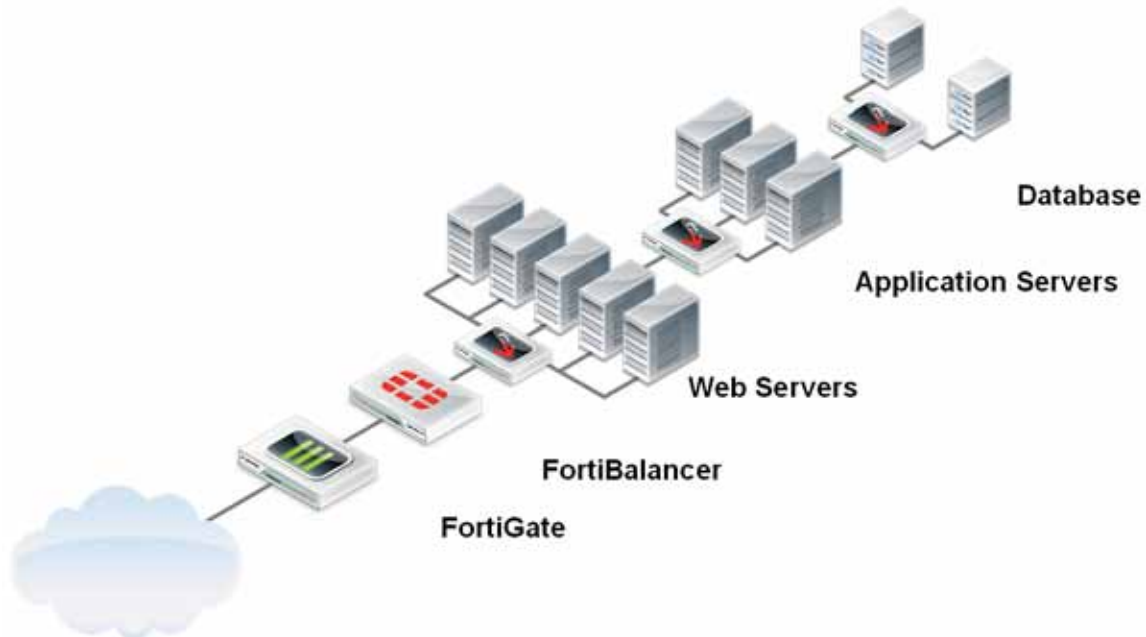
FortiBalancer offers:

- A full range of Layer 2 – 7 load balancing methods
- A wide variety of application persistence methods
- Flexible application health checks
- Support for proxy and transparent modes
- Deployment in one-arm and two-arm configurations
- Enterprise Scalability and Performance

The FortiBalancer appliance series of application delivery appliances are unique in their ability to provide unparalleled scalability and performance in compact 1U and 2U form factors. The FortiBalancer series appliances utilize multi-core processor technology and ASIC acceleration for linear scalability. This enables the FortiBalancer series appliances to handle heavy Layer 4 through 7 traffic loads while delivering unmatched performance and scalability for small, medium and large enterprises.

#### Features and Benefits

- 2 to 10 Gbps throughput and 1M to 8M concurrent connections allows for small enterprise through to cloud-scale performance levels
- Intelligent traffic management for optimized application delivery and availability
- Server offloading for improved application acceleration, scale and TCO
- Local/global load balancing and clustering for 99.999% application uptime
- Built-in caching, compression, SSL processing and TCP connection multiplexing for 50% or more improvement in user experience
- ASIC accelerated SSL offload for securing and protecting applications without impacting performance
- Browser based Web user interface for ease of management
- Appliance form factor for simplified deployment



## Application Availability

### Intelligent but simple Layer 2 through Layer 7 policy and group management

- Virtual service, multi-level, tree-like policy routing
- Static, default and backup policies and groups
- Layer 2-Layer 7 application routing policy
- Layer 2-Layer 7 server persistence
- Application load balancing based on round robin, weighted round robin, least connections, shortest response, and SNMP

### Layer 2/3 Application Load Balancing

- IP/MAC based load balancing, any IP application protocol
- Round robin, persistent IP (source + destination), return to sender
- Firewall, IPS/IDS/AntiSpam/AntiVirus, and composite applications

### Layer 4 Application Load Balancing

- TCP, TCPS, UDP protocols supported
- Round robin, weighted round robin, least connections, shortest response
- Persistent IP, hash IP, consistent hash IP, persistent IP + port, port range
- All single port TCP applications, RADIUS, DNS servers support
- Composite IP applications support

### Layer 7 Application Load Balancing

- HTTP/HTTPS/FTP/FTPS/SIP/RTSP/RDP
- L7 content switching
  - QoS network, client port
  - SSL session ID, SIP session ID
  - HTTP URL, host name, cookie, any header
  - Hash header, cookie, query
- URL redirect, HTTP request/response rewrite
- HTTP request filter

### Advanced Content Routing

- Configurable reverse or transparent proxy mode per VIP
- Configurable reverse or transparent proxy mode
- Build nested L7 and L4 policies
- Combine L7 and L4 policies

### Global Server Load Balancing (GSLB)

- Application availability from multiple locations worldwide

## Application Acceleration

### SSL Offloading and Acceleration

- Offloads HTTPS processing up to 90% while securing sensitive data
- Hardware acceleration
- Optimized for 1024-bit and 2048-bit SSL keys
- HTTPS, NNTPS, SMTPS, POPS, IMAPS, LDAPS support

- SSL encryption between FortiBalancer and servers
- Full certificate management features
- Processes millions of CRL entries
- Shares certificates across virtual services

### High Performance Caching

- Virtualized cache
- Memory-based DRAM cache reduces seek times by 1000x
- Fully-compliant with HTTP 1.1 specs

### TCP Acceleration

- 100x acceleration by off-loading TCP processing
- Connection pooling and multiplexing
- TCP buffering
- Client connection persistence

### Dynamic Compression

- Virtualized compression
- Inline HTTP

## Networking

- Static and port-based NAT translation for maximum flexibility and scalability
- VLAN, trunking support

### IPv6 Support

- IPv4 to IPv6 NAT, IPv6 to IPv4 NAT
- IPv6 support

### Network Address Translation

- Static and port-based translation for maximum flexibility and scalability

## Management

- Centralized management tools that simplify installation without compromising security or flexibility
- Single point of cluster management
- CLI Interface for configuration and monitoring
- Secure SSH remote network management
- Secure Web UI access
- XML-RPC API for integration with 3rd party products
- SNMP V2/V3 and private MIBs
- Syslog (UDP or TCP)
- Administrator and operator account management
- E-mail/paging notification/alerting capability
- Multiple configuration files
- Multiple unit configuration synchronization

FortiBalancer-400



FortiBalancer-1000



FortiBalancer-2000



## FortiBalancer Features and Benefits

<b>Application Availability</b>	The FortiBalancer series of appliances deliver 99.999% uptime for enterprise application services with intelligent local, global and link load balancing. These appliances provide health check mechanisms for automatic fail over of application services. This results in 24x7 application availability while reducing business continuity risks.
<b>Application Aware Intelligence and Control</b>	The application aware appliance eliminates application performance bottlenecks, reduces application deployment complexity and provides seamless application integration. These appliances are fully aware of Layers 4 through 7 application traffic, connections, transactions, and content. This enables IT departments to create event-driven policies for intelligent distribution of application traffic across web and application servers, while eliminating the need to replicate content across multiple servers. Using the platform APIs, IT administrators can integrate FortiBalancer appliances with virtualized IT infrastructures to dynamically provision IT resources based on real-time application traffic demands.
<b>SSL and Server Offloading</b>	Response times and server utilization are dramatically increased as the FortiBalancer series appliances offloads server intensive 1024-bit and 2048-bit SSL processing, TCP connection management, data compression and HTTP request processing from servers.
<b>Unified Voice, Video and Data Delivery</b>	The FortiBalancer series appliances are optimized for unified delivery of voice, video and data application services with its rich set of load balancing and content switching policies. These appliances can support multiple virtual IPs for enabling individual application services, with a given set of availability, acceleration and security policies that are specific to delivering voice, video or data.

Technical Specifications	FortiBalancer-400	FortiBalancer-1000	FortiBalancer-2000
<b>Hardware Specifications</b>			
Throughput	2 Gbps	4 Gbps	10 Gbps
Max Connections	1 Million	4 Million	8 Million
Layer 7 RPS	140,000	230,000	1.15 Million
SSL TPS	7,500	13,500	22,500
SSL Throughput	1 Gbps	1.6 Gbps	5 Gbps
Memory	4 GB	8 GB	16 GB
Port Configuration	4 x GbE	8 x GbE + 2 x SFP	12 GbE + 4 x SFP
USB Interfaces	2	2	2
Management	SSH CLI, Direct Console DB9 CLI, SNMP, Single Console per Cluster, XML-RPC	SSH CLI, Direct Console DB9 CLI, SNMP, Single Console per Cluster, XML-RPC	SSH CLI, Direct Console DB9 CLI, SNMP, Single Console per Cluster, XML-RPC, Out of Band Management - RJ45
Power Supply	Single	Single	Dual
<b>Environment</b>			
Power Required	90-264 VAC		
Power Consumption	126W	136W	160W
Operating Temperature	32° to 113°F (0° to 45°C)		
Storage Temperature	-13 to 158 °F (-25 to 70 °C)		
Humidity	0 to 90% non-condensing		
<b>Compliance</b>			
Standards	IEC 60950-1, CSA 60950-1, EN 60950-1, ICES-003, EN 55024, CISPR 22, AS/NZS 3548, FCC, 47FR part 15 Class A, VCCI-A		
Safety	CSA, C/US, CE, UL		
<b>Dimensions</b>			
Height x Length x Width (in)	17 (W) x 15 (D) x 1.75 (H)	17 (W) x 15 (D) x 1.75 (H)	17 (W) x 22.5 (D) x 3.5 (H)
Height x Length x Width (cm)	43 (H) x 38 (L) x 4.4 (W)	43 (H) x 38 (L) x 4.4 (W)	43 (H) x 57 (L) x 8.9 (W)
Weight	17.2 lb (7.8 kg)	17.2 lb (7.8 kg)	28 lb (12.7 kg)

Ordering Info	
Product	SKU
FortiBalancer-400, 4 x 10/100/1000, RJ45 Management Port, SSL Acceleration Card	FBL400
FortiBalancer-1000, 4 x 10/100/1000, 2 x SFP Fiber, RJ45 Management Port, SSL Acceleration Card	FBL1KX
FortiBalancer-2000, 12 x 10/100/1000, 4 x SFP Fiber, RJ45 Management Port, 2 x SSL Acceleration Card, Hardware Compression Acceleration card	FBL2KX

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