

# FortiGate® 80E Series

FortiGate 80E, 80E-POE, 81E and 81E-POE

**Enterprise Branch  
Secure SD-WAN  
Unified Threat Management**



The FortiGate 80E series offers an excellent network security solution in a compact fanless\* desktop form factor for enterprise branch offices and mid-sized businesses. Protect against cyber threats with industry-leading secure SD-WAN in a simple, affordable and easy to deploy solution.

**Security**

- Protects against known exploits, malware and malicious websites using continuous threat intelligence provided by FortiGuard Labs security services
- Detects unknown attacks using dynamic analysis and provides automated mitigation to stop targeted attacks

**Performance**

- Delivers industry's best threat protection performance and ultra-low latency using purpose-built security processor (SPU) technology
- Provides industry-leading performance and protection for SSL encrypted traffic

**Certification**

- Independently tested and validated best security effectiveness and performance
- Received unparalleled third-party certifications from NSS Labs, ICASA, Virus Bulletin and AV Comparatives

**Networking**

- Delivers an extensive routing, switching, wireless controller and high performance IPsec VPN capabilities to consolidate networking and security functionality
- Enables flexible deployment such as UTM and Secure SD-WAN

**Management**

- Single Pane of Glass with Network Operations Center (NOC) view provides 360° visibility to identify issues quickly and intuitively
- Predefined compliance checklist analyzes the deployment and highlights best practices to improve overall security posture

**Security Fabric**

- Enables Fortinet and Fabric-ready partners' products to collaboratively integrate and provide end-to-end security across the entire attack surface



Firewall	IPS	NGFW	Threat Protection	Interfaces
<b>4 Gbps</b>	<b>450 Mbps</b>	<b>360 Mbps</b>	<b>250 Mbps</b>	Multiple GE RJ45   Variants with internal storage   Variants with PoE/+ interfaces

Refer to specification table for details \* Not applicable for certain models.

## DEPLOYMENT



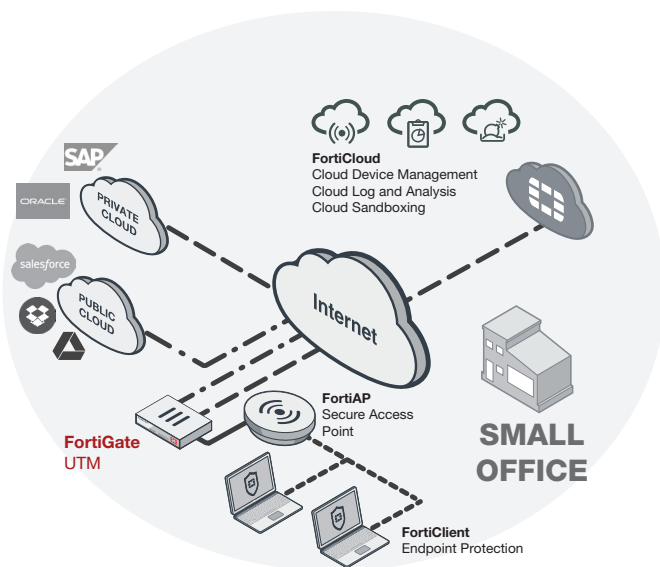
### Unified Threat Management (UTM)

- Consolidated security and networking for small businesses
- Consistently top-rated protection to stop threats
- Integrated wired and wireless networking to simplify IT
- Purpose-built hardware for industry best performance
- Cloud management for easy administration

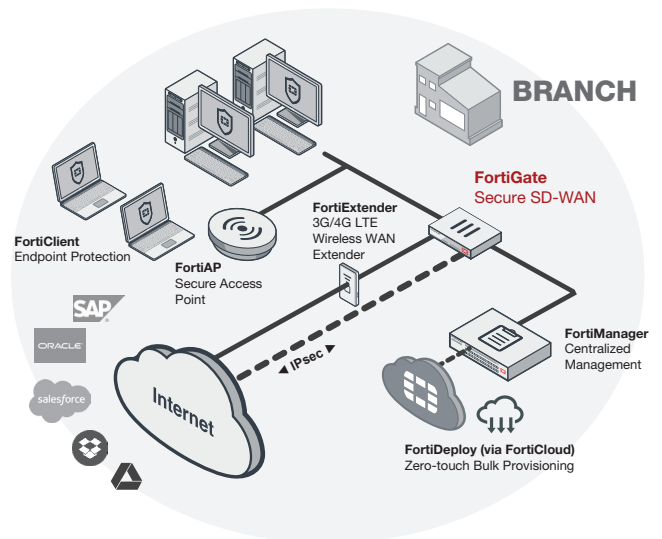


### Secure SD-WAN

- Secure direct Internet access for Cloud Applications for improved latency and reduce WAN cost spending
- Effective, cost-efficient and high performance threat prevention capabilities
- WAN Path Controller and Link Health Monitoring for better application performance
- Security Processor powered industry's best IPSEC VPN and SSL Inspection performance
- Centralized Management and Zero Touch deployment



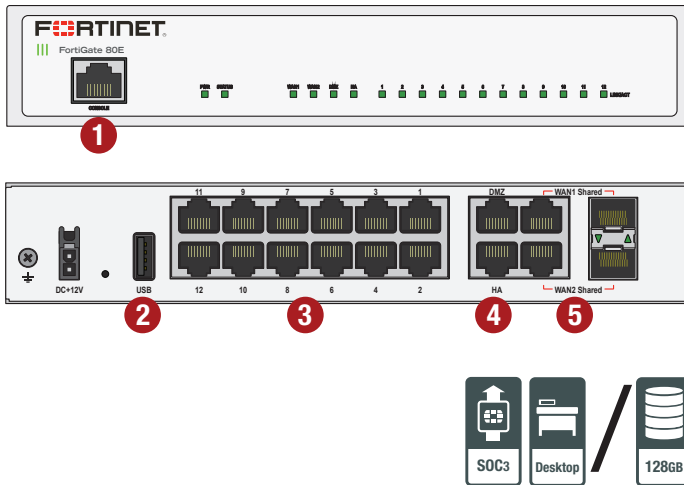
FortiGate 80E deployment in small office (UTM)



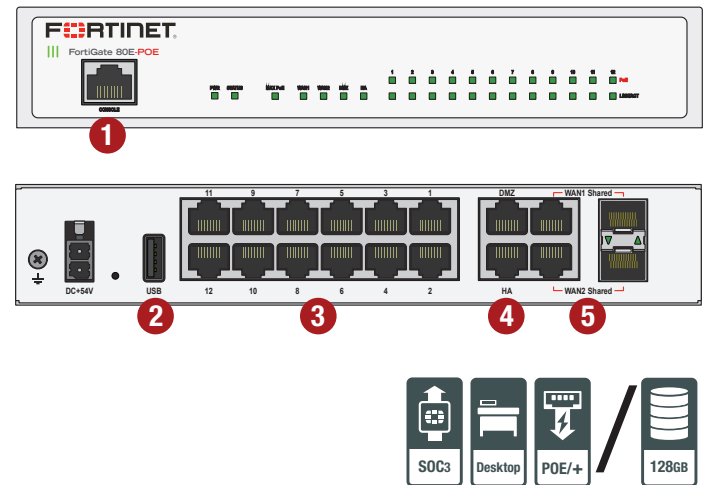
FortiGate 80E deployment in branch office (Secure SD-WAN)

## HARDWARE

### FortiGate 80E/81E



### FortiGate 80E/81E-POE



### Interfaces

1. Console Port
2. USB Port
3. 12x GE RJ45 Ports
4. 2x GE RJ45 DMZ/HA Ports
5. 2x GE RJ45/SFP Shared Media Pairs

### Interfaces

1. Console Port
2. USB Port
3. 12x GE RJ45 PoE/+ Ports
4. 2x GE RJ45 DMZ/HA Ports
5. 2x GE RJ45/SFP Shared Media Pairs

### Powered by SPU SoC3

- Combines a RISC-based CPU with Fortinet's proprietary Security Processing Unit (SPU) content and network processors for unmatched performance
- Simplifies appliance design and enables breakthrough performance for smaller networks
- Supports firewall acceleration across all packet sizes for maximum throughput
- Delivers accelerated UTM content processing for superior performance and protection
- Accelerates VPN performance for high speed, secure remote access



### 3G/4G WAN Connectivity

The FortiGate 80E Series includes a USB port that allows you to plug in a compatible third-party 3G/4G USB modem, providing additional WAN connectivity or a redundant link for maximum reliability.

### Compact and Reliable Form Factor

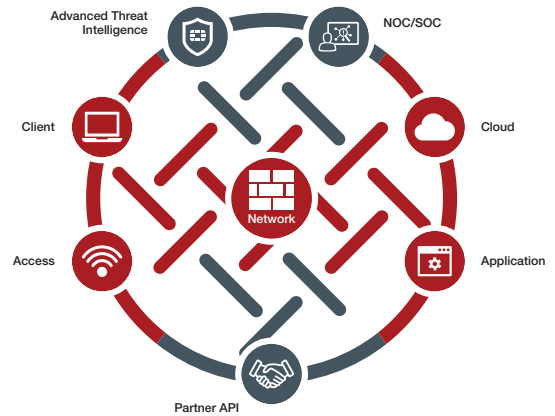
Designed for small environments, you can place it on a desktop or wall-mount it. It is small, lightweight yet highly reliable with superior MTBF (Mean Time Between Failure), minimizing the chance of a network disruption.

# FORTINET SECURITY FABRIC

## Security Fabric

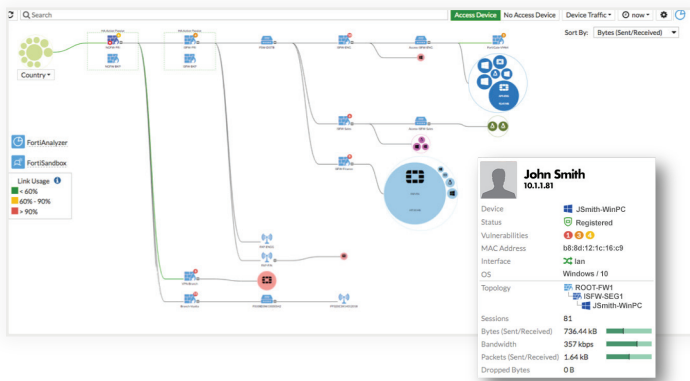
The Security Fabric allows security to dynamically expand and adapt as more and more workloads and data are added. Security seamlessly follows and protects data, users, and applications as they move between IoT, devices, and cloud environments throughout the network.

FortiGates are the foundation of Security Fabric, expanding security via visibility and control by tightly integrating with other Fortinet security products and Fabric-Ready Partner solutions.



## FortiOS

Control all the security and networking capabilities across the entire FortiGate platform with one intuitive operating system. Reduce operating expenses and save time with a truly consolidated next-generation security platform.



- A truly consolidated platform with one OS for all security and networking services for all FortiGate platforms.
- Industry-leading protection: NSS Labs Recommended, VB100, AV Comparatives, and ICSA validated security and performance.
- Control thousands of applications, block the latest exploits, and filter web traffic based on millions of real-time URL ratings.
- Prevent, detect, and mitigate advanced attacks automatically in minutes with integrated advanced threat protection.
- Fulfill your networking needs with extensive routing, switching, and SD-WAN capabilities.
- Utilize SPU hardware acceleration to boost security capability performance.

For more information, please refer to the FortiOS data sheet available at [www.fortinet.com](http://www.fortinet.com)

## SERVICES

### FortiGuard™ Security Services

FortiGuard Labs offers real-time intelligence on the threat landscape, delivering comprehensive security updates across the full range of Fortinet’s solutions. Comprised of security threat researchers, engineers, and forensic specialists, the team collaborates with the world’s leading threat monitoring organizations and other network and security vendors, as well as law enforcement agencies.

### FortiCare™ Support Services

Our FortiCare customer support team provides global technical support for all Fortinet products. With support staff in the Americas, Europe, Middle East, and Asia, FortiCare offers services to meet the needs of enterprises of all sizes.

For more information, please refer to [forti.net/fortiguard](http://forti.net/fortiguard) and [forti.net/forticare](http://forti.net/forticare)

## SPECIFICATIONS

	FORTIGATE 80E	FORTIGATE 80E-POE	FORTIGATE 81E	FORTIGATE 81E-POE
<b>Hardware Specifications</b>				
GE RJ45/SFP Shared Media Pairs	2	2	2	2
GE RJ45 Ports	12	—	12	—
GE RJ45 PoE/+ Ports	—	12	—	12
GE RJ45 DMZ/HA Ports	2	2	2	2
USB Ports	1	1	1	1
Console (RJ45)	1	1	1	1
Internal Storage	—	—	128 GB	128 GB
<b>System Performance</b>				
Firewall Throughput (1518 / 512 / 64 byte UDP packets)	4 / 4 / 4 Gbps			
Firewall Latency (64 byte UDP packets)	3 $\mu$ s			
Firewall Throughput (Packets Per Second)	6 Mpps			
Concurrent Sessions (TCP)	1.3 Million			
New Sessions/Second (TCP)	30,000			
Firewall Policies	5,000			
IPsec VPN Throughput (512 byte) <sup>1</sup>	2.5 Gbps			
Gateway-to-Gateway IPsec VPN Tunnels	200			
Client-to-Gateway IPsec VPN Tunnels	2,500			
SSL-VPN Throughput	200 Mbps			
Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode)	200			
SSL Inspection Throughput (IPS, HTTP) <sup>3</sup>	180 Mbps			
Application Control Throughput (HTTP 64K) <sup>2</sup>	900 Mbps			
CAPWAP Throughput (1444 byte, UDP)	2.2 Gbps			
Virtual Domains (Default / Maximum)	10 / 10			
Maximum Number of Switches Supported	8			
Maximum Number of FortiAPs (Total / Tunnel Mode)	32 / 16			
Maximum Number of FortiTokens	100			
Maximum Number of Registered FortiClients	200			
High Availability Configurations	Active / Active, Active / Passive, Clustering			
<b>System Performance — Optimal Traffic Mix</b>				
IPS Throughput <sup>2</sup>	1.5 Gbps			
<b>System Performance — Enterprise Traffic Mix</b>				
IPS Throughput <sup>2</sup>	450 Mbps			
NGFW Throughput <sup>2,4</sup>	360 Mbps			
Threat Protection Throughput <sup>2,5</sup>	250 Mbps			
<b>Dimensions</b>				
Height x Width x Length (inches)	1.65 x 8.5 x 7			
Height x Width x Length (mm)	42 x 216 x 178			
Weight	2.65 lbs (1.2 kg)			
Form Factor	Desktop			

Note: All performance values are "up to" and vary depending on system configuration.

- IPsec VPN performance test uses AES256-SHA256.
- IPS (Enterprise Mix), Application Control, NGFW and Threat Protection are measured with Logging enabled.
- SSL Inspection performance test uses TLS v1.2 with AES128-SHA256.
- NGFW performance is measured with Firewall, IPS and Application Control enabled.
- Threat Protection performance is measured with Firewall, IPS, Application Control and Malware Protection enabled.

## SPECIFICATIONS

	FORTIGATE 80E	FORTIGATE 80E-POE	FORTIGATE 81E	FORTIGATE 81E-POE
<b>Environment</b>				
Power Required	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz
Maximum Current	100V AC / 0.65A, 240V AC / 0.29A	115V AC / 1.2A, 230V AC / 0.6A	100V AC / 0.7A, 240V AC / 0.3A	115V AC / 1.2A, 230V AC / 0.6A
Total Available PoE Power Budget*	N/A	110 W	N/A/Would	110 W
Power Consumption (Average / Maximum)	20 W / 70 W	20 / 137 W	20 W / 72 W	20 / 137 W
Heat Dissipation	238.85 BTU/h	467.5 BTU/h	245.67 BTU/h	467.5 BTU/h
Operating Temperature		32–104°F (0–40°C)		
Storage Temperature		-31–158°F (-35–70°C)		
Humidity		10–90% non-condensing		
Noise Level	Fanless 0 dBA	35 dBA	Fanless 0 dBA	35 dBA
Operating Altitude		Up to 16,404 ft (5,000 m)		
Compliance		FCC Part 15B, Class B, CE, RoHS, VCCI, UL/cUL, CB, BSMI		
Certifications		ICSA Labs: Firewall, IPsec, IPS, Antivirus, SSL-VPN		

\* Maximum loading on each PoE/+ port is 30 W (802.3at).

## ORDER INFORMATION

Product	SKU	Description
FortiGate 80E	FG-80E	14x GE RJ45 ports (including 1x DMZ port, 1x Mgmt port, 1x HA port, 12x switch ports), 2x Shared Media pairs (including 2x GE RJ45 ports, 2x SFP slots). Maximum managed FortiAPs (Total/Tunnel) 32/16.
FortiGate 80E-PoE	FG-80E-POE	16x GE RJ45 ports (including 2x WAN ports, 1x DMZ port, 1x HA port, 12x PoE ports). Maximum managed FortiAPs (Total/Tunnel) 32/16.
FortiGate 81E	FG-81E	14x GE RJ45 ports (including 1x DMZ port, 1x Mgmt port, 1x HA port, 12x switch ports), 2x Shared Media pairs (including 2x GE RJ45 ports, 2x SFP slots). 128 GB onboard storage. Maximum managed FortiAPs (Total/Tunnel) 32/16.
FortiGate 81E-PoE	FG-81E-POE	16x GE RJ45 ports (including 2x WAN ports, 1x DMZ port, 1x HA port, 12x PoE ports). 128 GB onboard storage. Maximum managed FortiAPs (Total/Tunnel) 32/16.



### Enterprise Bundle

FortiGuard Labs delivers a number of security intelligence services to augment the FortiGate firewall platform. You can easily optimize the protection capabilities of your FortiGate with the FortiGuard Enterprise Bundle. This bundle contains the full set of FortiGuard security services plus FortiCare service and support offering the most flexibility and broadest range of protection all in one package.



GLOBAL HEADQUARTERS  
Fortinet Inc.  
899 KIFER ROAD  
Sunnyvale, CA 94086  
United States  
Tel: +1.408.235.7700  
[www.fortinet.com/sales](http://www.fortinet.com/sales)

EMEA SALES OFFICE  
905 rue Albert Einstein  
06560 Valbonne  
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