

FORTINET FG-61F

FORTINET FortiGate-61F Next Generation Firewall Instruction Manual

Model: FG-61F

INTRODUCTION

The FORTINET FortiGate-61F is a Next Generation Firewall designed to provide robust security and high performance for small to medium-sized businesses (SMBs). This device integrates a suite of security services to protect your network from various threats while maintaining optimal network performance. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your FortiGate-61F.

SETUP

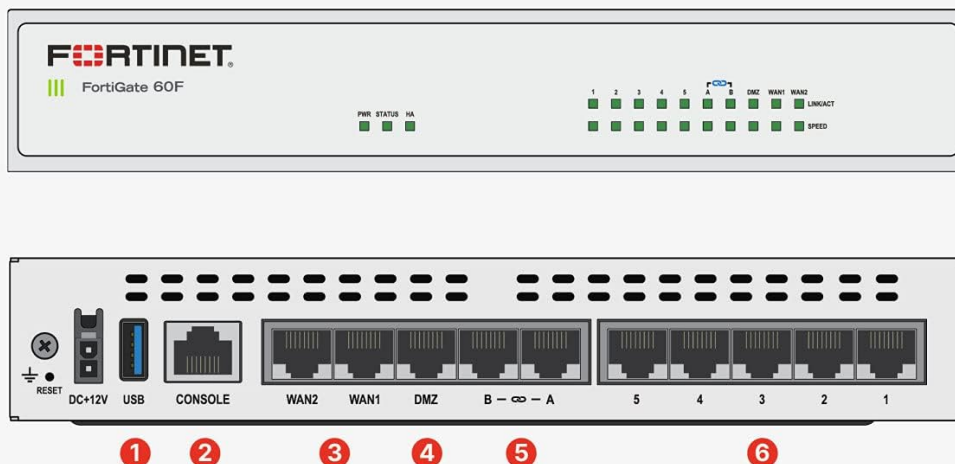
Unboxing and Initial Inspection

Carefully unpack the FortiGate-61F device and all accessories. Verify that all components listed in the packing slip are present and inspect the device for any physical damage. If any items are missing or damaged, contact your vendor immediately.

Physical Connections

Connect the FortiGate-61F to your network and power source using the following steps:

1. **Power Connection:** Connect the provided power adapter to the DC+12V port on the rear panel of the device and then to a power outlet.
2. **WAN Connection:** Connect your internet service provider's modem or router to one of the WAN ports (WAN1 or WAN2) using an Ethernet cable.
3. **LAN Connection:** Connect your internal network devices (switches, computers) to the LAN ports (1-5) using Ethernet cables.
4. **Console Connection:** For initial command-line interface (CLI) configuration, connect a console cable from your management workstation to the CONSOLE port.
5. **USB Connection:** The USB port can be used for external storage or other supported peripherals.



Interfaces

1. 1x USB Port
2. 1x Console Port
3. 2x GE RJ45 WAN Ports
4. 1x GE RJ45 DMZ Port
5. 2x GE RJ45 FortiLink Ports
6. 5x GE RJ45 Internal Ports

Hardware Features



Rear view of the FortiGate-61F, illustrating the various connection ports including DC+12V, USB, CONSOLE, WAN, DMZ, and LAN ports.

Initial Configuration

After physical connections are established, power on the device. Access the web-based management interface or CLI to perform initial network settings, define security policies, and configure user access. Detailed step-by-step guides and video tutorials are available on the official Fortinet support website to assist with the configuration process, even for users with limited technical expertise.

OPERATING

The FortiGate-61F operates as a central point for network security, offering a range of features to protect and manage your network traffic.

Key Features

- **Security-Driven Networking:** The FortiGate-61F integrates networking and security functions to provide enterprise-level protection without compromising performance.

- **Threat Protection:** Leveraging AI/ML-based FortiGuard security services, the device offers comprehensive protection including firewall, VPN (Virtual Private Network), antivirus, intrusion prevention, web filtering, and application control. These services safeguard the network against various threats and provide granular control over network traffic.
- **Unparalleled Performance:** Designed for high-performance capabilities, the FortiGate-61F ensures efficient throughput and low latency, handling high traffic volumes while maintaining network stability.
- **Seamless User Experience:** The device automatically controls, verifies, and facilitates user access to applications, ensuring consistency and an optimized user experience.
- **Simplified Operations:** Centralized management simplifies networking and security tasks, enabling automation, deep analytics, and self-healing capabilities.



FortiGuard 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 one of these FortiGuard Bundles.

Bundles	360 Protection	Enterprise Protection	Unified Threat Protection	Advanced Threat Protection
FortiCare	ASE ¹	24x7	24x7	24x7
FortiGuard App Control Service	✓	✓	✓	✓
FortiGuard IPS Service	✓	✓	✓	✓
FortiGuard Advanced Malware Protection (AMP) — Antivirus, Mobile Malware, Botnet, CDR, Virus Outbreak Protection and FortiSandbox Cloud Service	✓	✓	✓	✓
FortiGuard Web and Video ² Filtering Service	✓	✓	✓	
FortiGuard Antispam Service	✓	✓	✓	
FortiGuard Security Rating Service	✓	✓		
FortiGuard IoT Detection Service	✓	✓		
FortiGuard Industrial Service	✓	✓		
FortiConverter Service	✓	✓		
SD-WAN Cloud Assisted Monitoring	✓			
SD-WAN Overlay Controller VPN Service	✓			
Fortinet SOCaaS	✓			
FortiAnalyzer Cloud ^{3,4}	✓			
FortiManager Cloud ³	✓			

¹ 24x7 plus Advanced Services Ticket Handling

² Available when running FortiOS 7.0

³ Requires FortiCloud Premium Account License for FortiAnalyzer-cloud/FortiManager-cloud Services

⁴ Recommend - Premium subscription for Cloud-based Central Logging & Analytics. Supports all FortiGate log types with IOC service, SOC subscription and 24x7 FortiCare support included. (FortiGate device specific)



Front view of a FortiGate 60F, which shares a similar design to the 61F, showing the status indicator LEDs for power, system, and network activity.

Customization and Monitoring

The FortiGate-61F allows for extensive customization of security policies. You can configure specific rules to block explicit websites or categories of content. Additionally, the device provides detailed logging capabilities, allowing administrators to monitor network activity, including websites accessed by users, which can be useful for compliance or parental control purposes.



An overview of FortiGuard Bundle services, highlighting various security intelligence features that enhance the FortiGate firewall platform.



Conceptual diagram of the Fortinet Security Fabric, emphasizing broad visibility, integrated solutions, and automated security across various network environments.

Official Product Video

Official video introducing the FortiGate 90G, showcasing its advanced features and performance, relevant to understanding Fortinet's firewall technology.

MAINTENANCE

Regular maintenance ensures the optimal performance and security of your FortiGate-61F.

- **Firmware Updates:** Periodically check for and apply the latest firmware updates from Fortinet. Firmware updates

often include security patches, bug fixes, and new features.

- **Configuration Backups:** Regularly back up your device configuration. This allows for quick restoration of settings in case of an issue or device replacement.
- **System Monitoring:** Monitor system logs and performance metrics regularly. This helps identify potential issues, security threats, or performance bottlenecks proactively.
- **Physical Inspection:** Ensure the device is in a well-ventilated area and free from dust accumulation. Check cable connections periodically for secure fit.

TROUBLESHOOTING

If you encounter issues with your FortiGate-61F, consider the following troubleshooting steps:

- **No Power:** Verify the power adapter is securely connected to both the device and a working power outlet. Check the power LED on the device.
- **No Network Connectivity:** Ensure all Ethernet cables are properly connected to the correct ports. Check the link/activity LEDs on the ports. Verify network settings (IP addresses, subnet masks, gateways) are correctly configured.
- **Internet Access Issues:** Confirm your internet service provider's connection is active. Check WAN port status and firewall policies that might be blocking outbound traffic.
- **Slow Performance:** Review system resource utilization (CPU, memory) and traffic logs for any unusual activity or bottlenecks. Adjust security policies if they are overly restrictive.
- **Access to Management Interface:** Ensure your management workstation is on the correct network segment and that no firewall rules are blocking access to the device's management IP address. Try accessing via the console port if web access fails.

For more advanced troubleshooting, consult the comprehensive documentation available on the Fortinet support portal or contact Fortinet technical support.

SPECIFICATIONS

The following table outlines the key specifications for the FortiGate-61F:

Feature	Detail
Brand	FORTINET
Model Number	FG-61F
Series	FG-61F 14929547
Operating System	FortiOS
Item Weight	3.83 pounds
Product Dimensions (LxWxH)	6 x 9 x 2 inches
Voltage	100 Volts
Wireless Type	802.11ac

Feature	Detail
Connectivity Technology	Gigabit Ethernet
Included Components	Base
Recommended Uses	Security

FortiGate 61F / FortiWifi 61F Sizing Chart

	FG/FWF-61F	FG-80E	FG-80F	FG-100E	FG-100F	FG-200E	FG-200F
Firewall Throughput (1518/512/64 byte UDP)	10/10/6 Gbps	4 / 4 / 4 Gbps	10 / 10 / 7 Gbps	7.4 / 7.4 / 4.4 Gbps	20 / 18 / 10 Gbps	20 / 20 / 9 Gbps	27 / 27 / 11 Gbps
IPsec VPN Throughput (512 byte) ¹	6.5 Gbps	2.5 Gbps	6.5 Gbps	4 Gbps	11.5 Gbps	7.2 Gbps	13 Gbps
IPS Throughput (Enterprise Mix) ²	1.4 Gbps	450 Mbps	1.4 Gbps	500 Mbps	2.6 Gbps	2.2 Gbps	5 Gbps
NGFW Throughput (Enterprise Mix) ^{2,4}	1 Gbps	360 Mbps	1 Gbps	360 Mbps	1.6 Gbps	1.8 Gbps	3.5 Gbps
Threat Protection Throughput (Ent. Mix) ^{2,5}	700 Mbps	250 Mbps	900 Mbps ⁶	250 Mbps	1 Gbps	1.2 Gbps	3 Gbps
Firewall Latency	3.3 µs	3 µs	3.23 µs	3 µs	4.97µs	3 µs	4.78 µs
Concurrent Sessions	700,000	1.3 Million	1.5 Million	2 Million	1.5 Million	2 Million	3 Million
New Sessions/Sec	35,000	30,000	45,000	30,000	56,000	135,000	280,000
Firewall Policies	5,000	5,000	5,000	10,000	10,000	10,000	10,000
Max G/W to G/W IPSEC Tunnels	200	200	200	2,000	2,500	2,000	2,500
Max Client to G/W IPSEC Tunnels	500	2,500	2,500	10,000	16,000	10,000	16,000
SSL VPN Throughput	900 Mbps	200 Mbps	950 Mbps	250 Mbps	1 Gbps	900 Mbps	2 Gbps
Concurrent SSL VPN Users (Recommended Maximum, Tunnel Mode)	200	200	200	500	500	500	500
SSL Inspection Throughput (IPS, avg. HTTPS) ³	630 Mbps	135 Mbps	715 Mbps	130 Mbps	1 Gbps	820 Mbps	4 Gbps
Application Control Throughput (HTTP 64K) ²	1.8 Gbps	900 Mbps	1.8 Gbps	1 Gbps	2.2 Gbps	3.5 Gbps	13 Gbps
Max FortiAPs (Total / Tunnel)	64 / 32	32 / 16	96 / 48	64 / 32	128 / 64	256 / 128	256 / 128
Max FortiSwitches	16	16	16	32	32	64	64
Max FortiTokens	500	500	500	5,000	5,000	5,000	5,000
Virtual Domains (Default/Max)	10 / 10	10 / 10	10 / 10	10 / 10	10 / 10	10 / 10	10 / 10
Interfaces	10x GE RJ45	14x GE RJ45, 2x Shared Port Pairs	8x GE RJ45, 2x Shared Port Pairs	20x GE RJ45, 2x Shared Port Pairs	2x 10 GE SFP+, 18x GE RJ45, 4x Shared Port Pairs, 8x GE SFP	18x GE RJ45, 4x GE SFP	4x 10 GE SFP+, 18x GE RJ45, 8x GE SFP
Local Storage	128 GB (61F)	128 GB (81E/-POE)	128 GB (81F)	480 GB (101E)	480 GB (101F)	480 GB (201E)	480 GB (201F)
Power Supplies	Single AC PS	Single AC PS	Single AC PS, dual inputs	Single AC PS, opt. Ext RPS	Dual AC PS	Single AC PS, opt. Ext RPS	Dual AC PS
Form Factor	Desktop	Desktop	Desktop	1 RU	1 RU	1 RU	1 RU
Variants	WiFi, Storage	POE, Storage	Bypass, Storage	POE, High Port Density	—	—	—

1. IPsec VPN performance test uses AES256-SHA256.

2. IPS, Application Control, NGFW and Threat Protection are measured with Logging enabled.

3. SSL Inspection performance values use an average of HTTPS sessions of different cipher suites.

4. NGFW performance is measured with Firewall, IPS and Application Control enabled, Enterprise Mix traffic.

5. Threat Protection performance is measured with Firewall, IPS, Application Control, (6 URL Filtering) and Malware Protection enabled, Enterprise Mix traffic.



Performance sizing chart for FortiGate 61F/FortiWifi 61F, providing detailed metrics for firewall throughput, IPsec VPN, and other capabilities.

WARRANTY AND SUPPORT

The FORTINET FortiGate-61F is covered by a manufacturer's warranty. For specific details regarding warranty terms, duration, and coverage, please refer to the documentation included with your product or visit the official Fortinet website. For technical assistance, product registration, and access to the latest software and documentation, please visit the Fortinet support portal. Fortinet offers various support plans and resources to ensure optimal operation and security of your device.