

# FortiGate 600F Series

FG-600F and FG-601F



#### **Highlights**

#### **Gartner Magic Quadrant**

**Leader** for both Network Firewalls and WAN Edge Infrastructure.

### Security-Driven

**Networking** FortiOS delivers converged networking and security.

#### State-of-the-Art Unparalleled Performance

with Fortinet's patented / SPU / vSPU processors.

#### **Enterprise Security**

with consolidated AI / ML-powered FortiGuard Services.

#### **Deep Visibility**

into applications, users, and devices beyond traditional firewall techniques.

## AI/ML Security and Deep Visibility

The FortiGate 600F Series NGFW combines Al-powered security and machine learning to deliver Threat Protection at any scale. Get deeper visibility into your network and see applications, users, and devices before they become threats.

Powered by a rich set of AI/ML security capabilities that extend into an integrated security fabric platform, the FortiGate 600F Series delivers secure networking that is broad, deep, and automated. Secure your network end to end with advanced edge protection that includes web, content, and device security, while network segmentation and secure SD-WAN reduce complexity and risk in hybrid IT networks.

Universal ZTNA automatically controls, verifies, and facilitates user access to applications, reducing lateral threats by providing access only to validated users. Ultra-fast Threat Protection and SSL Inspection provides security at the edge you can see without impacting performance.

IPS	NGFW	Threat Protection	Interfaces
14 Gbps	11.5 Gbps	10.5 Gbps	Multiple 25GE SFP28, 10GE SFP+, GE SFP Slots and GE RJ45



Available in



**Appliance** 



Virtual





Cloud



### **FortiOS Everywhere**

#### FortiOS, Fortinet's Advanced Operating System

FortiOS enables the convergence of high performing networking and security across the Fortinet Security Fabric. Because it can be deployed anywhere, it delivers consistent and context-aware security posture across network, endpoint, and multi-cloud environments.

FortiOS powers all FortiGate deployments whether a physical or virtual device, as a container, or as a cloud service. This universal deployment model enables the consolidation of many technologies and use cases into a simplified, single policy and management framework. Its organically built best-of-breed capabilities, unified operating system, and ultra-scalability allows organizations to protect all edges, simplify operations, and run their business without compromising performance or protection.

FortiOS dramatically expands the Fortinet Security Fabric's ability to deliver advanced AI/ ML-powered services, inline advanced sandbox detection, integrated ZTNA enforcement, and more, provides protection across hybrid deployment models for hardware, software, and Software-as-a-Service with SASE.

FortiOS expands visibility and control, ensures the consistent deployment and enforcement of security policies, and enables centralized management across large-scale networks with the following key attributes:

- Interactive drill-down and topology viewers that display real-time status
- On-click remediation that provides accurate and quick protection against threats and abuses
- · Unique threat score system correlates weighted threats with users to prioritize investigations



Intuitive easy to use view into the network and endpoint vulnerabilities



Visibility with FOS Application Signatures

#### **FortiConverter Service**

FortiConverter Service provides hassle-free migration to help organizations transition from a wide range of legacy firewalls to FortiGate Next-Generation Firewalls quickly and easily. The service eliminates errors and redundancy by employing best practices with advanced methodologies and automated processes. Organizations can accelerate their network protection with the latest FortiOS technology.





#### **FortiGuard Services**

#### **Network and File Security**

Services provide protection against network-based and file-based threats. This consists of Intrusion Prevention (IPS) which uses AI/M models to perform deep packet/SSL inspection to detect and stop malicious content, and apply virtual patching when a new vulnerability is discovered. It also includes Anti-Malware for defense against known and unknown file-based threats. Anti-malware services span both antivirus and file sandboxing to provide multi-layered protection and are enhanced in real-time with threat intelligence from FortiGuard Labs. Application Control enhances security compliance and offers real-time application visibility.

#### **Web / DNS Security**

Services provide protection against web-based threats including DNS-based threats, malicious URLs (including even in emails), and botnet/command and control communications. DNS filtering provides full visibility into DNS traffic while blocking high-risk domains, and protects against DNS tunneling, DNS infiltration, C2 server ID and Domain Generation Algorithms (DGA). URL filtering leverages a database of 300M+ URLs to identify and block links to malicious sites and payloads. IP Reputation and anti-botnet services prevent botnet communications, and block DDoS attacks from known sources.

#### SaaS and Data Security

Services address numerous security use cases across application usage as well as overall data security. This consists of Data Leak Prevention (DLP) which ensures data visibility, management and protection (including blocking exfiltration) across networks, clouds, and users, while simplifying compliance and privacy implementations. Separately, our Inline Cloud Access Security Broker (CASB) service protects data in motion, at rest, and in the cloud. The service enforces major compliance standards and manages account, user and cloud application usage. Services also include capabilities designed to continually assess your infrastructure, validate that configurations are working effectively and secure, and generate awareness of risks and vulnerabilities that could impact business operations. This includes coverage across IoT devices for both IoT detection and IoT vulnerability correlation.

#### **Zero-Day Threat Prevention**

Zero-day threat prevention entails Fortinet's Al-based inline malware prevention, our most advanced sandbox service, to analyze and block unknown files in real-time, offering subsecond protection against zero-day and sophisticated threats across all NGFWs. The service also has a built-in MITRE ATT&CK® matrix to accelerate investigations. The service focuses on comprehensive defense by blocking unknown threats while streamlining incident response efforts and reducing security overhead.

#### **OT Security**

The service provides OT detection, OT vulnerability correlation, virtual patching, OT signatures, and industry-specific protocol decoders for overall robust defense of OT environments and devices.



## Secure Any Edge at Any Scale



#### Powered by Security Processing Unit (SPU)

Traditional firewalls cannot protect against today's content- and connection-based threats because they rely on off-the-shelf hardware and general-purpose CPUs, causing a dangerous performance gap. Fortinet's custom SPU processors deliver the power you need—up to 520Gbps—to detect emerging threats and block malicious content while ensuring your network security solution does not become a performance bottleneck.

#### **ASIC Advantage**



#### Network Processor 7 NP7

Network Processors operate inline to deliver unmatched performance and scalability for critical network functions. Fortinet's breakthrough SPU NP7 network processor works in line with FortiOS functions to deliver:

- Hyperscale firewall, accelerated session setup, and ultra-low latency
- Industry-leading performance for VPN, VXLAN termination, hardware logging, and elephant flows



#### Content Processor 9 CP9

Content Processors act as co-processors to offload resource-intensive processing of security functions. The ninth generation of the Fortinet Content Processor, the CP9, accelerates resource-intensive SSL (including TLS 1.3) decryption and security functions while delivering:

- Pattern matching acceleration and fast inspection of real-time traffic for application identification
- IPS pre-scan/pre-match, signature correlation offload, and accelerated antivirus processing





Intuitive view and clear insights into network security posture with FortiManager

## **Centralized Network and Security Management at Scale**

FortiManager, the centralized management solution from Fortinet, enables integrated management of the Fortinet security fabric, including devices like FortiGate, FortiSwitch, and FortiAP. It simplifies and automates the oversight of network and security functions across diverse environments, serving as the fundamental component for deploying Hybrid Mesh Firewalls.



#### **Use Cases**



#### **Next Generation Firewall (NGFW)**

- FortiGuard Labs' suite of Al-powered Security Services—natively integrated with your NGFW—secures web, content, and devices and protects networks from ransomware and sophisticated cyberattacks
- Real-time SSL inspection (including TLS 1.3) provides full visibility into users, devices, and applications across the attack surface
- Fortinet's patented SPU (Security Processing Unit) technology provides industry-leading high-performance protection



#### **Secure SD-WAN**

- FortiGate WAN Edge powered by one OS and unified security and management framework and systems transforms and secures WANs
- Delivers superior quality of experience and effective security posture for work-from-any where models, SD-Branch, and cloud-first WAN use cases
- Achieve operational efficiencies at any scale through automation, deep analytics, and self-healing



#### **Universal ZTNA**

- Control access to applications no matter where the user is and no matter where the application is hosted for universal application of access policies
- Provide extensive authentications, checks, and enforce policy prior to granting application access—every time
- Agent-based access with FortiClient or agentless access via proxy portal for guest or BYOD



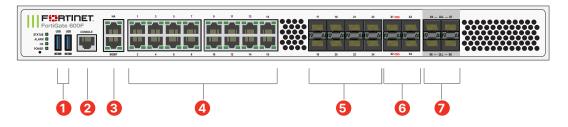
#### Segmentation

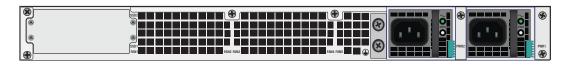
- Dynamic segmentation adapts to any network topology to deliver true end-to-end security—from the branch to the datacenter and across multi-cloud environments
- Ultra-scalable, low latency, VXLAN segmentation bridges physical and virtual domains with Layer 4 firewall rules
- Prevents lateral movement across the network with advanced, coordinated protection from FortiGuard Security Services detects and prevents known, zero-day, and unknown attacks



#### Hardware

#### FortiGate 600F Series





#### Interfaces

- 1. 2 x USB Ports
- 2. 1 x Console Port
- 3. 2 x GE RJ45 MGMT/HA Ports
- 4. 16 x GE RJ45 Slots
- 5. 8 x GE SFP Slots
- 6. 4 x 10GE/GE SFP+/SFP Slots
- 4x 25GE/10GE SFP28/ SFP+ Ultra Low Latency Slots

#### **Hardware Features**



#### **Trusted Platform Module (TPM)**

The FortiGate 600F Series features a dedicated module that hardens physical networking appliances by generating, storing, and authenticating cryptographic keys. Hardware-based security mechanisms protect against malicious software and phishing attacks.

#### **Access Layer Security**

FortiLink protocol enables you to converge security and the network access by integrating the FortiSwitch into the FortiGate as a logical extension of the NGFW. These FortiLink enabled ports can be reconfigured as regular ports as needed.



## **Specifications**

	FG-600F FG-601F			
Interfaces and Modules	10 0011			
Hardware Accelerated GE RJ45 Interfaces	16			
Hardware Accelerated GE SFP Slots	8			
Hardware Accelerated 10GE SFP+ / GE SFP Slots	4			
Hardware Accelerated 25GE SFP28/ 10GE SFP+ Ultra Low Latency Slots	4			
GE RJ45 MGMT/HA Ports	2			
USB Ports	2			
RJ45 Console Port	1			
Onboard Storage	0 2× 240 GB SSD			
Included Transceivers	2x SFP (SX 1 GE)			
System Performance — Enterprise Traffic Mix	C			
IPS Throughput <sup>2</sup>	14 Gbps			
NGFW Throughput <sup>2, 4</sup>	11.5 Gbps			
Threat Protection Throughput <sup>2,5</sup>	10.5 Gbps			
System Performance and Capacity				
IPv4 Firewall Throughput (1518 / 512 / 64 byte, UDP)	139 / 137.5 / 70 Gbps			
IPv6 Firewall Throughput (1518 / 512 / 64 byte, UDP)	139 / 137.5 / 70 Gbps			
Firewall Latency (64 byte, UDP)	4.12 µs / 2.5 µs*			
Firewall Throughput (Packet per Second)	105 Mpps			
Concurrent Sessions (TCP)	8 Million			
New Sessions/Second (TCP)	550 000			
Firewall Policies	30 000			
IPsec VPN Throughput (512 byte) 1	55 Gbps			
Gateway-to-Gateway IPsec VPN Tunnels	2000			
Client-to-Gateway IPsec VPN Tunnels	50 000			
SSL-VPN Throughput <sup>6</sup>	4.3 Gbps			
Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode)	10 000			
SSL Inspection Throughput (IPS, avg. HTTPS) <sup>3</sup>	9 Gbps			
SSL Inspection CPS (IPS, avg. HTTPS) <sup>3</sup>	7500			
SSL Inspection Concurrent Session (IPS, avg. HTTPS) <sup>3</sup>	840 000			
Application Control Throughput (HTTP 64K) <sup>2</sup>	32 Gbps			
CAPWAP Throughput (HTTP 64K)	64.5 Gbps			
Virtual Domains (Default / Maximum)	10 / 10			
Maximum Number of FortiSwitches Supported	96			
Maximum Number of FortiAPs (Total / Tunnel)	1024 / 512			
Maximum Number of FortiTokens	5000			
High Availability Configurations	Active-Active, Active-Passive, Clustering			

	FG-600F	FG-601F		
	FG-600F	FG-601F		
Dimensions and Power				
Height x Width x Length (inches)	1.75 × 17.0 × 15.0			
Height x Width x Length (mm)	44.45 × 432 × 380			
Weight	15.6 lbs (7.1 kg)	16.2 lbs (7.35 kg)		
Form Factor (supports EIA/non-EIA standards)	Rack Mount, 1 RU			
AC Power Consumption (Average / Maximum)	169 W / 255 W	174 W / 260 W		
AC Power Input	100-240V AC, 50/60Hz			
AC Current (Maximum)	6A@100V			
Heat Dissipation	871 BTU/h	888 BTU/h		
Redundant Power Supplies (Hot Swappable)	Yes (comes with 2PSU default)			
Power Supply Efficiency Rating	80Plus Compliant			
Operating Environment and Certifications				
Operating Temperature	32°F to 104°F (0°C to 40°C)			
Storage Temperature	-31°F to 158°F (-35°C to 70°C)			
Humidity	5% to 90% non-condensing			
Noise Level	55 dBA			
Airflow	Side and Front to Back			
Operating Altitude	Up to 10 000 ft (3048 m)			
Compliance	FCC Part 15 Class A, RCM, VCCI, CE, UL/cUL, CB			
Certifications	USGv6/IPv6			

<sup>\*</sup> Latency based on Ultra Low Latency (ULL ports)

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



 $<sup>^{\</sup>mbox{\tiny 1}}$  IPsec VPN performance test uses AES256-SHA256.

<sup>&</sup>lt;sup>2</sup> IPS (Enterprise Mix), Application Control, NGFW and Threat Protection are measured with Longing enabled

 $<sup>^{\</sup>mbox{\scriptsize 3}}$  SSL Inspection performance values use an average of HTTPS sessions of different cipher suites.

 $<sup>^{\</sup>rm 4}$  NGFW performance is measured with Firewall, IPS and Application Control enabled.

 $<sup>^{\</sup>rm 5}$  Threat Protection performance is measured with Firewall, IPS, Application Control and Malware Protection enabled.

<sup>&</sup>lt;sup>6</sup> Uses RSA-2048 certificate.

## **Ordering Information**

Product	SKU	Description
FortiGate 600F	FG-600F	4× 25G SFP28 slots, 4× 10GE SFP+ slots, 18x GE RJ45 ports (including 1x MGMT port, 1x HA port, 16x switch ports), 8x GE SFP slots, SPU NP7 and CP9 hardware accelerated, dual AC power supplies.
FortiGate 601F	FG-601F	4× 25G SFP28 slots, 4× 10GE SFP+ slots, 18x GE RJ45 ports (including 1x MGMT port, 1x HA port, 16x switch ports), 8x GE SFP slots, SPU NP7 and CP9 hardware accelerated, 480GB onboard SSD storage, dual AC power supplies.
Optional Accessories		
AC Power Supply	SP-FG400F-PS	AC power supply for FG-400/401F, FG-600/601F, power cable SP-FGPCOR-XX sold separately.
Transceivers		
1 GE SFP LX Transceiver Module	FN-TRAN-LX	1 GE SFP LX transceiver module for all systems with SFP and SFP/SFP+ slots.
1 GE SFP RJ45 Transceiver Module	FN-TRAN-GC	1 GE SFP RJ45 transceiver module for all systems with SFP and SFP/SFP+slots.
1 GE SFP SX Transceiver Module	FN-TRAN-SX	1 GE SFP SX transceiver module for all systems with SFP and SFP/SFP+ slots.
10 GE SFP+ RJ45 Transceiver Module	FN-TRAN-SFP+GC	10 GE SFP+ RJ45 transceiver module for systems with SFP+ slots.
10 GE SFP+ Transceiver Module, Short Range	FN-TRAN-SFP+SR	10 GE SFP+ transceiver module, short range for all systems with SFP+ and SFP/SFP+ slots.
10 GE SFP+ Transceiver Module, Long Range	FN-TRAN-SFP+LR	10 GE SFP+ transceiver module, long range for all systems with SFP+ and SFP/SFP+ slots.
10 GE SFP+ Transceiver Module, Extended Range	FN-TRAN-SFP+ER	10 GE SFP+ transceiver module, extended range for all systems with SFP+ and SFP/SFP+ slots.
10 GE SFP+ Transceiver Module, 30 km Long Range	FN-TRAN-SFP+BD27	10 GE SFP+ transceiver module, 30KM long range single BiDi for systems with SFP+ and SFP/SFP+ slots (connects to FN-TRAN-SFP+BD33, ordered separately).
10 GE SFP+ Transceiver Module, 30 km Long Range	FN-TRAN-SFP+BD33	10 GE SFP+ transceiver module, 30KM long range single BiDi for systems with SFP+ and SFP/SFP+ slots (connects to FN-TRAN-SFP+BD27, ordered separately).
10 GE SFP+ Transceiver Module, 80km Extreme Long Range	FN-TRAN-SFP+ZR	10GE SFP+ transceiver module, 80km extreme long range, for systems with SFP+ and SFP/SFP+ slots.
25 GE SFP28 Transceiver Module, Short Range	FN-TRAN-SFP28-SR	25 GE/10GE Dual Rate SFP28 transceiver module, short range for all systems with SFP28/SFP+ slots.
25 GE SFP28 Transceiver Module, Long Range	FN-TRAN-SFP28-LR	25 GE SFP28 transceiver module, long range for all systems with SFP28 slots.
Cables		
10 GE SFP+ Passive Direct Attach Cable, 1m Range	FN-CABLE-SFP+1	10 GE SFP+ passive direct attach cable, 1m range, for systems with SFP+ slots.
10 GE SFP+ Passive Direct Attach Cable 3m Range	FN-CABLE-SFP+3	10 GE SFP+ passive direct attach cable, 3m range, for systems with SFP+ slots.
10 GE SFP+ Passive Direct Attach Cable, 5m Range	FN-CABLE-SFP+5	10 GE SFP+ passive direct attach cable, 5m range, for systems with SFP+ slots.
25 GE SFP28 Passive Direct Attach Cable, 1m Range	FN-CABLE-SFP28-1	25 GE SFP28 passive direct attach cable, 1m range, for systems with SFP28 slots.
25 GE SFP28 Passive Direct Attach Cable 3m Range	FN-CABLE-SFP28-3	25 GE SFP28 passive direct attach cable, 3m range, for systems with SFP28 slots.
25 GE SFP28 Passive Direct Attach Cable, 5m Range	FN-CABLE-SFP28-5	25 GE SFP28 passive direct attach cable, 5m range, for systems with SFP28 slots.



### **Subscriptions**

			Bundles			
Service Category	Service Offering	A-la-carte	Enterprise Protection	Unified Threat Protection	Advanced Threat Protection	
FortiGuard Security Services	IPS — IPS, Malicious/Botnet URLs	•	•	•	•	
	Anti-Malware Protection (AMP)—AV, Botnet Domains, Mobile Malware, Virus Outbreak Protection, Content Disarm and Reconstruct <sup>3</sup> , Al-based Heurestic AV, FortiGate Cloud Sandbox	•	•	•	•	
	URL, DNS and Video Filtering — URL, DNS and Video <sup>3</sup> Filtering, Malicious Certificate	•	•	•		
	Anti-Spam		•	•		
	Al-based Inline Malware Prevention <sup>3</sup>	•	•			
	Data Loss Prevention (DLP) 1	•	•			
	Attack Surface Security — IoT Device Detection, IoT Vulnerability Correlation and Virtual Patching, Security Rating, Outbreak Check	•	•			
	OT Security—OT Device Detection, OT vulnerability correlation and Virtual Patching, OT Application Control and IPS <sup>1</sup>	•				
	Application Control		included with FortiCare Subscription			
	Inline CASB <sup>3</sup>		included with FortiCare Subscription			
SD-WAN and SASE Services	SD-WAN Underlay Bandwidth and Quality Monitoring	•				
	SD-WAN Overlay-as-a-Service	•				
	SD-WAN Connector for FortiSASE Secure Private Access	•				
	SASE connector for FortiSASE Secure Edge Management (with 10Mbps Bandwidth) <sup>2</sup>	•				
NOC and SOC Services	FortiConverter Service for one time configuration conversion	•	•			
	Managed FortiGate Service—available 24×7, with Fortinet NOC experts performing device setup, network, and policy change management	•				
	FortiGate Cloud—Management, Analysis, and One Year Log Retention	•				
	FortiManager Cloud	•				
	FortiAnalyzer Cloud	•				
	FortiGuard SOCaaS—24×7 cloud-based managed log monitoring, incident triage, and SOC escalation service	•				
Hardware and Software Support	FortiCare Essentials <sup>2</sup>	•				
	FortiCare Premium	•	•	•	•	
	FortiCare Elite	•				
Base Services	Device/OS Detection, GeoIPs, Trusted CA Certificates, Internet Services and Botnet IPs, DDNS (v4/v6), Local Protection, PSIRT Check, Anti-Phishing		included with Fort	iCare Subscription		

- 1. Full features available when running FortiOS 7.4.1.
- 2. Desktop Models only.
- 3. Not available for FortiGate/FortiWiFi 40F, 60E, 60F, 80E, and 90E series from 7.4.4 onwards.



#### **FortiGuard Bundles**

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.



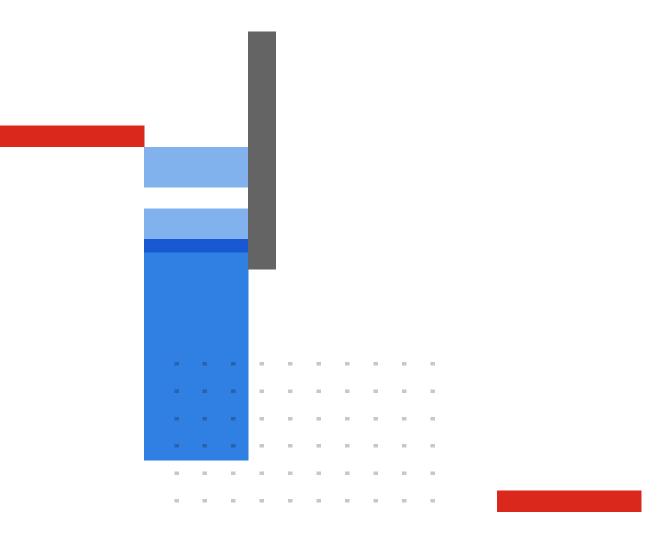
#### **FortiCare Services**

Fortinet prioritizes customer success through FortiCare Services, optimizing the Fortinet Security Fabric solution. Our comprehensive lifecycle services include Design, Deploy, Operate, Optimize, and Evolve. The FortiCare Elite, one of the service variants, offers heightened SLAs and swift issue resolution with a dedicated support team. This advanced support option includes an Extended End-of-Engineering-Support of 18 months, providing flexibility. Access the intuitive FortiCare Elite Portal for a unified view of device and security health, streamlining operational efficiency and maximizing Fortinet deployment performance.



#### **Fortinet Corporate Social Responsibility Policy**

Fortinet is committed to driving progress and sustainability for all through cybersecurity, with respect for human rights and ethical business practices, making possible a digital world you can always trust. You represent and warrant to Fortinet that you will not use Fortinet's products and services to engage in, or support in any way, violations or abuses of human rights, including those involving illegal censorship, surveillance, detention, or excessive use of force. Users of Fortinet products are required to comply with the Fortinet EULA and report any suspected violations of the EULA via the procedures outlined in the Fortinet Whistleblower Policy.





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