

# FortiGate 900G Series

FG-900G and FG-901G



### **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 900G Series NGFW combines AI-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 900G 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
26 Gbps	22 Gbps	20 Gbps	Multiple 25 GE SFP28, 10 GE SFP+, GE SFP Slots and GE RJ45



Available in



Appliance



Virtual





Cloud



Container

### **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 Al/ 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 multilayered 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 AI-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



### FortiCare Services

Fortinet is dedicated to helping our customers succeed, and every year FortiCare Services help thousands of organizations get the most from our Fortinet Security Fabric solution. Our lifecycle portfolio offers Design, Deploy, Operate, Optimize, and Evolve services. Operate services offer device-level FortiCare Elite service with enhanced SLAs to meet our customer's operational and availability needs. In addition, our customized account-level services provide rapid incident resolution and offer proactive care to maximize the security and performance of Fortinet deployments.

### **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

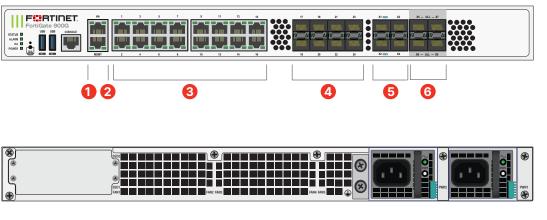


### Segmentation

- 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 900G Series



- 1. 1 × 2.5/1 GE RJ45 HA Port
- 2. 1 x GE RJ45 Management Port
- 3. 16 x GE RJ45 Ports
- 4. 8 x GE SFP Slots
- 5. 4 × 10GE/GE SFP+/SFP Slots
- 6. 4 × 25GE/10GE SFP28/SFP+ ULL (ultra-low latency) Slots



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

The FortiGate 900G 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-900G	FG-901G	
Interfaces and Modules			
Hardware Accelerated 25 GE SFP28 / 10 GE 4 SFP+ Ultra Low Latency Slots			
Hardware Accelerated 10 GE SFP+ / GE SFP Slots	4		
Hardware Accelerated GE SFP Slots	8		
Hardware Accelerated GE RJ45 Slots	16		
2.5 GE / GE HA Port	1		
GE Management Port	1		
USB Ports (Client / Server)	2/2	2	
Console Port	1		
Onboard Storage	No	2× 480 GB	
Trusted Platform Module (TPM)	Yes		
Included Transceivers	2x SFP	SX	
System Performance — Enterprise Traffic Mix			
IPS Throughput <sup>2</sup>	26 Gb	ps	
NGFW Throughput <sup>2, 4</sup>	22 Gb	ps	
Threat Protection Throughput <sup>2,5</sup>	20 Gb	ps	
System Performance and Capacity			
IPv4 Firewall Throughput (1518 / 512 / 64 byte, UDP)	164 / 163 / 153 Gbps		
IPv6 Firewall Throughput (1518 / 512 / 86 byte, UDP)	164 / 163 / 153 Gbps		
Firewall Latency (64 byte, UDP)	3.78 / 2.5 µs*		
Firewall Throughput (Packet per Second)	229.5 Mpps		
Concurrent Sessions (TCP)	16 Million		
New Sessions/Second (TCP)	720 000		
Firewall Policies	10 000		
IPsec VPN Throughput (512 byte) <sup>1</sup>	55 Gbps		
ateway-to-Gateway IPsec VPN Tunnels 2000		C	
Client-to-Gateway IPsec VPN Tunnels	50 000		
SSL-VPN Throughput <sup>6</sup>	Throughput <sup>6</sup> 10 Gbps		
Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode)	10 000		
SSL Inspection Throughput (IPS, avg HTTPS) <sup>3</sup>	16.7 Gbps		
SSL Inspection CPS (IPS, avg. HTTPS) <sup>3</sup>	18 000		
SSL Inspection Concurrent Session (IPS, avg HTTPS) <sup>3</sup>	1.6 Million		
Application Control Throughput (HTTP 64K) <sup>2</sup>	74.8 Gbps		
CAPWAP Throughput (HTTP 64K)	70 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	

Note: All performance values are "u	'up to" and vary	depending on system	configuration.
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<sup>1</sup> IPsec VPN performance test uses AES256-SHA256.

 $^{\rm 2}$  IPS (Enterprise Mix), Application Control, NGFW and Threat Protection are measured with Logging enabled.

<sup>3</sup> SSL Inspection performance values use an average of HTTPS sessions of different cipher suites.

	FG-900G	FG-901G		
Dimensions and Power				
Height x Width x Length (inches)	1.5 × 17.	0 × 15.0		
Height x Width x Length (mm)	44.45 × 4	32 × 380		
Weight	15.98 lbs (7.25 kg) 16.53 lbs (7.5			
Form Factor (supports EIA/non-EIA standards)	Rack Mount, 1RU			
AC Power Supply	100-240VAC, 50/60 Hz			
AC Current (Maximum)	6A@100VAC			
Power Consumption (Average / Maximum)	134 W / 252 W	144 W / 264 W		
Heat Dissipation	861 BTU/h	902 BTU/h		
Power Supply Efficiency Rating	wer Supply Efficiency Rating 80Plus Complian			
Redundant Power Supplies (Hot Swappable)	Yes (comes with 2PSU default)			
Operating Environment and Certifications				
Operating Temperature	32°-113°F (0°-45°C)			
Storage Temperature	-31°-158°F (-35°-70°C)			
Humidity	10%–90% non-condensing			
Noise Level	58 dBA			
Forced 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/IP		6/IPv6		

\* Latency based on Ultra Low Latency (ULL) ports.

<sup>4</sup> NGFW performance is measured with Firewall, IPS and Application Control enabled.

<sup>5</sup> Threat Protection performance is measured with Firewall, IPS, Application Control and Malware Protection enabled.

<sup>6</sup> Uses RSA-2048 certificate.

### Subscriptions

			Bundles		
Service Category	Service Offering	A-la-carte	Enterprise Protection	Unified Threat Protection	Advanced Threat Protection
FortiGuard Security Services	IPS Service				
	Anti-Malware Protection (AMP) — Antivirus, Mobile Malware, Botnet, CDR, Virus Outbreak Protection and FortiSandbox Cloud Service	•	•	•	•
	URL, DNS & Video Filtering Service	•	•	•	
	Anti-Spam		•	•	
	Al-based Inline Malware Prevention Service	•	•		
	Data Loss Prevention Service <sup>1</sup>	•	•		
	OT Security Service (OT Detection, OT Vulnerability correlation, Virtual Patching, OT Signature / Protocol Decoders) <sup>1</sup>	•			
	Application Control		included with FortiCare Subscription		
	CASB SaaS Control		included with For	tiCare Subscription	
SD-WAN and SASE Services	SD-WAN Underlay Bandwidth and Quality Monitoring Service	•			
	SD-WAN Overlay-as-a-Service for SaaS-based overlay network provisioning	•			
	SD-WAN Connector for FortiSASE Secure Private Access	•			
	FortiSASE subscription including cloud management and 10Mbps bandwidth license <sup>2</sup>	•			
NOC and SOC Services	FortiGuard Attack Surface Security Service (IoT Detection, IoT Vulnerability Correlation, and Security Rating Updates) <sup>1</sup>	•	•		
	FortiConverter Service	•	•		
	Managed FortiGate Service	•			
	FortiGate Cloud (SMB Logging + Cloud Management)	•			
	FortiAnalyzer Cloud	•			
	FortiAnalyzer Cloud with SOCaaS	•			
	FortiGuard SOCaaS	•			
Hardware and Software Support	FortiCare Essentials	•			
	FortiCare Premium	•	•	•	•
	FortiCare Elite	•			
Base Services	Internet Service (SaaS) DB Updates				
	GeoIP DB Updates		included with FortiCare Subscription		
	Device/OS Detection Signatures				
	Trusted Certificate DB Updates				
	DDNS (v4/v6) Service				

1. Full features available when running FortiOS 7.4.1 2. Desktop Models only



### **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 Elite

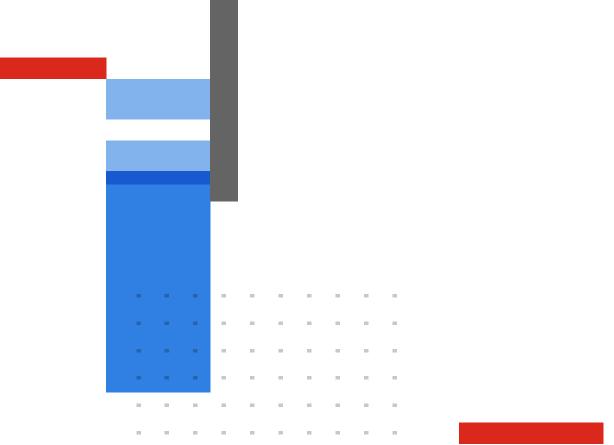
FortiCare Elite offers enhanced SLAs and quick issue resolution through a dedicated support team. It provides single-touch ticket handling, extended Extended End-of-Engineering-Support for 18 months, and access to the new FortiCare Elite Portal for a unified view of device and security health.

## **Ordering Information**

Product	SKU	Description
FortiGate 900G	FG-900G	4× 25G SFP28 slots, 4 × 10GE SFP+ slots, 17 x GE RJ45 ports (including 1 x MGMT port, 16 x switch ports), 1 X 2.5G HA port, 8 x GE SFP slots, SPU NP7 and CP9 hardware accelerated, dual AC PSU.
FortiGate 901G	FG-901G	4× 25G SFP28 slots, 4 × 10GE SFP+ slots, 17 x GE RJ45 ports (including 1 x MGMT port, 16 x switch ports), 1 X 2.5G HA port, 8 x GE SFP slots, SPU NP7 and CP9 hardware accelerated, 2x 480GB onboard SSD storage, dual AC PSU.
Optional Accessories	SKU	Description
AC Power Supply	SP-FG400F-PS	AC power supply for FG-400/401F, FG-600/601F, and FG-900/901G power cable SP-FGPCOR-XX sold separately.
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.
10GE SFP+ Transceiver Module, 30km Long Range	FN-TRAN-SFP+BD27	10GE SFP+ transceiver module, 30km long range single BiDi for systems with SFP+ and SFP/ SFP+ slots (connects to FN-TRAN-SFP+BD33, ordered separately)
10GE SFP+ Transceiver Module, (connects to FN- TRAN-SFP+BD27, ordered separately)	FN-TRAN-SFP+BD33	10GE 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+ Active Direct Attach Cable, 10m / 32.8 ft	SP-CABLE-ADASFP+	10 GE SFP+ active direct attach cable, 10m / 32.8 ft for all systems with SFP+ and SFP/SFP+ slots.
25 GE SFP28 Transceiver Module, Short Range	FN-TRAN-SFP28-SR	25 GE SFP28 transceiver module, short range for all systems with SFP28 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.
25 GE SFP28 Passive Direct Attach Cable	FN-CABLE-SFP28-1	25 GE SFP28 passive direct attach cable 1m for systems with SFP28 slots.
25 GE SFP28 Passive Direct Attach Cable	FN-CABLE-SFP28-3	25 GE SFP28 passive direct attach cable 3m for systems with SFP28 slots.
25 GE SFP28 Passive Direct Attach Cable	FN-CABLE-SFP28-5	25 GE SFP28 passive direct attach cable 5m for systems with SFP28 slots.

#### **Fortinet CSR 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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