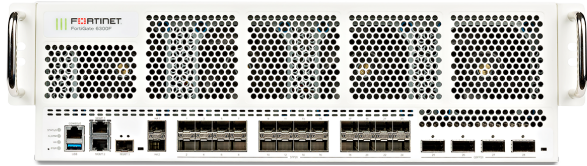


FortiGate® 6000F Series

FG-6300F/-DC, FG-6301F/-DC, FG-6500F/-DC, FG-6501F/-DC

**Next Generation Firewall
Segmentation
IPS
Mobile Security**



The FortiGate 6000F series delivers high performance next generation firewall (NGFW) capabilities for large enterprises and service providers. With multiple high-speed interfaces, high-port density, and high-throughput, ideal deployments are at the enterprise edge, hybrid data center core, and across internal segments. Leverage industry-leading IPS, SSL inspection, and advanced threat protection to optimize your network’s performance. Fortinet’s Security-Driven Networking approach provides tight network integration to the new security generation.

Security

- Identifies thousands of applications inside network traffic for deep inspection and granular policy enforcement
- Protects against malware, exploits, and malicious websites in both encrypted and non-encrypted traffic
- Prevent and detect against known and unknown attacks using continuous threat intelligence from AI-powered FortiGuard Labs security services

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

Networking

- Delivers advanced networking capabilities that seamlessly integrate with advanced layer 7 security and virtual domains (VDMs) to offer extensive deployment flexibility, multi-tenancy and effective utilization of resources
- Delivers high-density, flexible combination of various high-speed interfaces to enable best TCO for customers for data center and WAN deployments

Management

- Includes a management console that is effective, simple to use, and provides comprehensive network automation and visibility
- Provides Zero Touch Integration with Security Fabric’s Single Pane of Glass Management
- 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 provide broader visibility, integrated end-to-end detection, threat intelligence sharing, and automated remediation

FEATURE	FG-6300F/-DC and 6301F/-DC	FG-6500F/-DC and 6501F/-DC
FIREWALL	239 Gbps	239 Gbps
IPS	110 Gbps	170 Gbps
NGFW	90 Gbps	150 Gbps
THREAT PROTECTION	60 Gbps	100 Gbps
NETWORK INTERFACES	Multiple 40/100 GE QSFP28, 1/10/25 GE SFP28, 1/10 GE SFP+ and GE RJ45	Multiple 40/100 GE QSFP28, 1/10/25 GE SFP28, 1/10 GE SFP+ and GE RJ45

Refer to specification table for details

DEPLOYMENT



Next Generation Firewall (NGFW)

- Reduce the complexity and maximize your ROI by integrating threat protection security capabilities into a single high-performance network security appliance, powered by Fortinet's Security Processing Unit (SPU)
- Full visibility into users, devices, applications across the entire attack surface and consistent security policy enforcement irrespective of asset location
- Protect against network exploitable vulnerabilities with Industry-validated IPS security effectiveness, low latency and optimized network performance
- Automatically block threats on decrypted traffic using the Industry's highest SSL inspection performance, including the latest TLS 1.3 standard with mandated ciphers
- Proactively block newly discovered sophisticated attacks in real-time with AI-powered FortiGuard Labs and advanced threat protection services included in the Fortinet Security Fabric



Segmentation

- Segmentation that adapts to any network topology, delivering end-to-end security from the branch level to data centers and extending to multiple clouds
- Reduce security risks by improving network visibility from the components of the Fortinet Security Fabric, which adapt access permissions to current levels of trust and enforce access control effectively and efficiently
- Delivers defense in depth security powered by high-performance L7 inspection and remediation by Fortinet's SPU, while delivering third party validated TCO of per protected Mbps
- Protects critical business applications and helps implement any compliance requirements without network redesigns



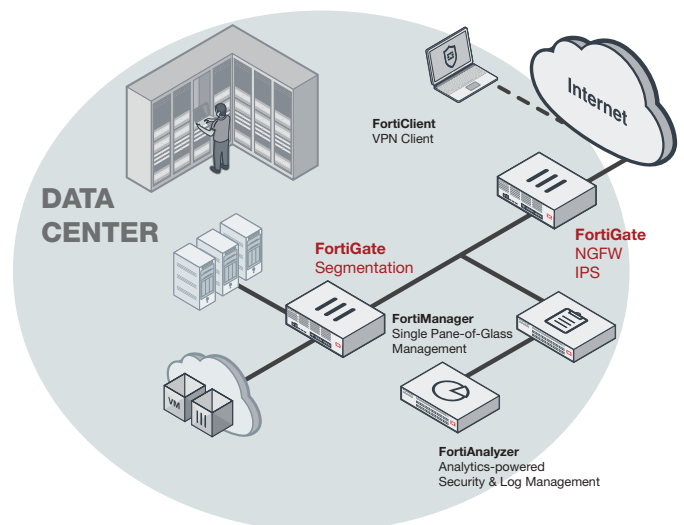
IPS

- Purpose-built security processors delivering industry validated IPS performance with high throughput and low latency
- Deploy virtual patches at the network level to protect against network exploitable vulnerabilities and optimize network protection time
- Deep packet inspection at wire speeds offers unparalleled threat visibility into network traffic including traffic encrypted with the latest TLS 1.3
- Proactively block newly discovered sophisticated attacks in real-time with advanced threat protection provided by the intelligence services of the Fortinet Security Fabric



Mobile Security for 4G, 5G, and IOT

- SPU accelerated, high performance CGNAT and IPv4 and IPv6 traffic, for 4G SGi LAN and 5G N6 security
- RAN Access Security with highly scalable and best performing IPsec aggregation and control security gateway (SecGW)
- User plane security enabled by full Threat Protection and visibility into GTP-U inspection
- 4G and 5G security for user and data plane traffic SCTP, GTP-U/C and SIP that provides protection against attacks
- 4G and 5G cores IoT signaling storm protection
- High-speed interfaces to enable deployment flexibility

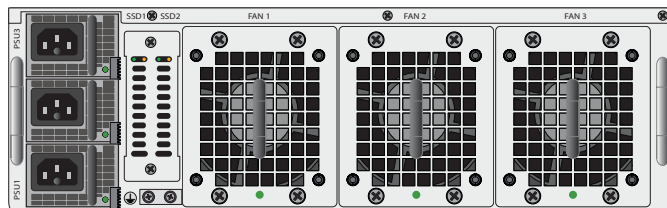
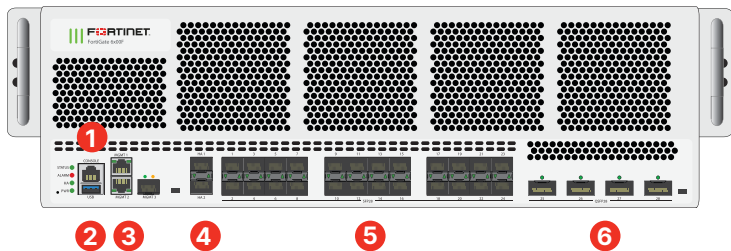


Data Center Deployment (IPS/NGFW, Intent-based Segmentation)



HARDWARE

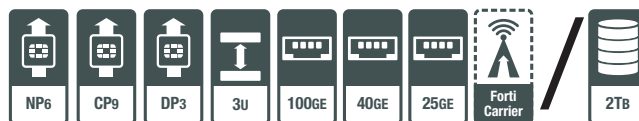
FortiGate 6300F/-DC, 6301F/-DC, 6500F/-DC, 6501F/-DC



Interfaces

1. Console Port
2. USB Port
3. 2x GE RJ45, 1x 1/10 GE SFP+ Management Ports
4. 2x 10 GE SFP+ HA Slots
5. 24x 1/10/25 GE SFP28 Slots
6. 4x 40/100 GE QSFP28 Slots

Hardware Features



Powered by SPU



- Fortinet’s custom SPU processors deliver the power you need to detect malicious content at multi-Gigabit speeds
- Other security technologies cannot protect against today’s wide range of content- and connection-based threats because they rely on general-purpose CPUs, causing a dangerous performance gap
- SPU processors provide the performance needed to block emerging threats, meet rigorous third-party certifications, and ensure that your network security solution does not become a network bottleneck

Network Processor

Fortinet’s new, breakthrough SPU NP6 network processor works inline with FortiOS functions delivering:

- Superior firewall performance for IPv4/IPv6, SCTP and multicast traffic with ultra-low latency
- VPN and IP tunnel acceleration
- Anomaly-based intrusion prevention, checksum offload, and packet defragmentation
- Traffic shaping and priority queuing

Content Processor

Fortinet’s ninth generation custom SPU CP9 content processor works outside of the direct flow of traffic and accelerates the inspection.

Distribution Processor

Fortinet’s SPU DP3 distribution processor provides hardware load balancing for traffic to multiple processing units.



FORTINET SECURITY FABRIC

Security Fabric

The industry's highest-performing cybersecurity platform, powered by FortiOS, with a rich ecosystem designed to span the extended digital attack surface, delivering fully automated, self-healing network security.

- **Broad:** Coordinated detection and enforcement across the entire digital attack surface and lifecycle with converged networking and security across edges, clouds, endpoints, and users
- **Integrated:** Integrated and unified security, operation, and performance across different technologies, location, deployment options, and the richest ecosystem
- **Automated:** Context aware, self-healing network and security posture leveraging cloud-scale and advanced AI to automatically deliver near-real-time, user-to-application coordinated protection across the Fabric

The Fabric empowers organizations of any size to secure and simplify their hybrid infrastructure on the journey to digital innovation.



FortiOS™ Operating System

FortiOS, Fortinet's leading operating system enable the convergence of high performing networking and security across the Fortinet Security Fabric delivering consistent and context-aware security posture across network endpoint, and clouds. The organically built best of breed capabilities and unified approach allows organizations to run their businesses without compromising performance or protection, supports seamless scalability, and simplifies innovation consumption.

The release of FortiOS 7 dramatically expands the Fortinet Security Fabric's ability to deliver consistent security across hybrid deployment models of Hardware, Software, and Software As-a-Service with SASE and ZTNA, among others.

SERVICES

FortiGuard™ Security Services

FortiGuard Labs offer 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™ Services

Fortinet is dedicated to helping our customers succeed, and every year FortiCare services help thousands of organizations get the most from their Fortinet Security Fabric solution. We have more than 1000 experts to help accelerate technology implementation, provide reliable assistance through advanced support, and offer proactive care to maximize security and performance of Fortinet deployments.



SPECIFICATIONS

FORTIGATE	6300F/-DC 6301F/-DC	6500F/-DC 6501F/-DC
Interfaces and Modules		
Hardware Accelerated 40/100 GE QSFP28 Slots		4
Hardware Accelerated 1/10/25 GE SFP28 Slots		24
Hardware Accelerated 10 GE SFP+ Slots		3
GE RJ45 Management Ports		2
USB Port		1
Console Port		1
Onboard Storage	2x 1 TB NVMe (for 6301F and 6501F only)	
Included Transceivers	2x SFP+ (SR 10 GE)	
System Performance — Enterprise Traffic Mix		
IPS Throughput ²	110 Gbps	170 Gbps
NGFW Throughput ^{2,4}	90 Gbps	150 Gbps
Threat Protection Throughput ^{2,5}	60 Gbps	100 Gbps
System Performance and Capacity		
IPv4 Firewall Throughput (1518 / 512 / 64 byte, UDP)	239 / 238 / 135 Gbps	239 / 238 / 135 Gbps
IPv6 Firewall Throughput (1518 / 512 / 86 byte, UDP)	239 / 238 / 135 Gbps	239 / 238 / 135 Gbps
Firewall Latency (64 byte, UDP)	4.80 µs	4.80 µs
Firewall Throughput (Packet per Second)	202.5 Mpps	202.5 Mpps
Concurrent Sessions (TCP)	120 Million	200 Million
New Sessions/Second (TCP)	2 Million	3 Million
Firewall Policies	200 000	200 000
IPsec VPN Throughput (512 byte) ¹	96 Gbps	160 Gbps
Gateway-to-Gateway IPsec VPN Tunnels	16 000	16 000
Client-to-Gateway IPsec VPN Tunnels	90 000	90 000
SSL-VPN Throughput	9 Gbps	9 Gbps
Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode)	30 000	30 000
SSL Inspection Throughput (IPS, avg. HTTPS) ³	66 Gbps	110 Gbps
SSL Inspection CPS (IPS, avg. HTTPS) ³	30 000	50 000
SSL Inspection Concurrent Session (IPS, avg. HTTPS) ³	10 Million	18 Million
Application Control Throughput (HTTP 64K) ²	150 Gbps	220 Gbps
CAPWAP Throughput (HTTP 64K)	N/A	N/A
Virtual Domains (Default / Maximum)	10 / 500	
Maximum Number of FortiSwitches Supported	256	
Maximum Number of FortiAPs (Total / Tunnel)	N/A	
Maximum Number of FortiTokens	20 000	
High Availability Configurations	Active-Active (FGSP), Active-Passive, Clustering	

FORTIGATE	6300F/-DC 6301F/-DC	6500F/-DC 6501F/-DC
Dimensions and Power		
Height x Width x Length (inches)	5.20 × 17.20 × 26.18	5.3 × 17.2 × 27.3
Height x Width x Length (mm)	132 × 437 × 665	133 × 437 × 694
Weight	67.68 lbs (30.7 kg) 69.00 lbs (31.3 kg)	78.26 lbs (35.5 kg) 79.59 lbs (36.1 kg)
Form Factor (supports EIA/non-EIA standards)	Rack Mount, 3 RU	
AC Power Supply	100–240V AC, 50/60 Hz	
Power Consumption (Average / Maximum)	977 W / 1,217 W 977 W / 1,237 W	1,308 W / 1,548 W 1,328 W / 1,568 W
AC Current (Maximum)	30A@100VAC, 20A@240VAC	
DC Power Supply	-48 to -60V DC	
DC Current (Maximum)	25–32A (x2)	
Heat Dissipation	4153 BTU/h / 4221 BTU/h	5282 BTU/h / 5350 BTU/h
Redundant Power Supplies	2+1 Redundant / 1+1 Redundant if using high line power Hot Swappable	
Fan Trays	Hot Swappable	
Operating Environment and Certifications		
Operating Temperature	32°–104°F (0°–40°C)	
Storage Temperature	-31°–158°F (-35°–70°C)	
Humidity	10%–90% non-condensing	
Noise Level	57.43 dBA	
Forced Airflow	Front to Back	
Operating Altitude	Up to 7400 ft (2250 m)	
Compliance	FCC Part 15 Class A, RCM, VCCI, CE, UL/cUL, CB	
Certifications	ICSA Labs: Firewall, IPsec, IPS, Antivirus, SSL-VPN, USGv6/IPv6	

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

1. IPsec VPN performance test uses AES256-SHA256.
2. IPS (Enterprise Mix), 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.
5. Threat Protection performance is measured with Firewall, IPS, Application Control, and Malware Protection enabled.



ORDERING INFORMATION

Product	SKU	Description
FortiGate 6300F	FG-6300F	4 × 40/100 GE QSFP28 slots, 24 × 1/10/25 GE SFP28 slots, 2 × 1 GE RJ45 management ports, 2 × 10 GE SFP+ HA ports, 1 × 1/10 GE SFP+ management port, and 3x AC power supplies.
FortiGate 6300F-DC	FG-6300F-DC	4 × 100GE QSFP28 slots, 24 × 25GE SFP28 slots, 3 × 10GE SFP+ slots, 2 × GE RJ45 MGMT port, and 2 × DC power supplies.
FortiGate 6301F	FG-6301F	4 × 40/100 GE QSFP28 slots, 24 × 1/10/25 GE SFP28 slots, 2 × 1 GE RJ45 management ports, 2 × 10 GE SFP+ HA ports, 1 × 1/10 GE SFP+ management port, 2 × 1 TB NVMe, and 3x AC power supplies.
FortiGate 6301F-DC	FG-6301F-DC	4 × 100/40GE QSFP28 slots, 24 × 25/10GE SFP+ slots, 2 × 1GE RJ45 management ports, 2 × 10GE SFP+ HA ports, 1 × 10GE SFP+ MGMT port, 2 × 1TB NVMe, and 2 × DC power supplies.
FortiGate 6500F	FG-6500F	4 × 40/100 GE QSFP28 slots, 24 × 1/10/25 GE SFP28 slots, 2 × 1 GE RJ45 management ports, 2 × 10 GE SFP+ HA ports, 1 × 1/10 GE SFP+ management port, and 3x AC power supplies.
FortiGate 6500F-DC	FG-6500F-DC	4 × 100/40GE QSFP28 slots, 24 × 25/10GE SFP+ slots, 2 × 1GE RJ45 management ports, 2 × 10GE SFP+ HA ports, 1 × 10GE SFP+ MGMT port and 2 × DC power supplies.
FortiGate 6501F	FG-6501F	4 × 40/100 GE QSFP28 slots, 24 × 1/10/25 GE SFP28 slots, 2 × 1 GE RJ45 management ports, 2 × 10 GE SFP+ HA ports, 1 × 1/10 GE SFP+ management port, 2 × 1 TB NVMe, and 3x AC power supplies.
FortiGate 6501F-DC	FG-6501F-DC	4 × 100/40GE QSFP28 slots, 24 × 25/10GE SFP+ slots, 2 × 1GE RJ45 management ports, 2 × 10GE SFP+ HA ports, 1 × 10GE SFP+ MGMT port, 2 × 1TB NVMe, and 2 × DC power supplies.
Training		
FortiGate Chassis-based Firewall Platform (FGT 6000 series) Training - 2 days	FT-FGT-CHS-6K	<p>Course description: https://training.fortinet.com/local/staticpage/view.php?page=library_fortigate-6000-series</p> <p>Upcoming sessions: https://training.fortinet.com/calendar/view.php/Course:FortiGate_6000_Series</p> <p>Price includes lab access and course material (Lab and Study guides). Exam voucher not included.</p>
Optional Accessories/Spares		
Optional Accessories/Spares	SKU	Description
1GE SFP RJ45 transceiver module	FN-TRAN-GC	1GE SFP RJ45 transceiver module for all systems with SFP and SFP/SFP+ slots.
1GE SFP SX transceiver module	FN-TRAN-SX	1GE SFP SX transceiver module for all systems with SFP and SFP/SFP+ slots.
1GE SFP LX transceiver module	FN-TRAN-LX	1GE SFP LX transceiver module for all systems with SFP and SFP/SFP+ slots.
10GE copper SFP+ RJ45 Transceiver (30m range)	FN-TRAN-SFP+GC	10GE copper SFP+ RJ45 Fortinet Transceiver (30m range) for systems with SFP+ slots.
10GE SFP+ transceiver module, short range	FN-TRAN-SFP+SR	10GE SFP+ transceiver module, short range for all systems with SFP+ and SFP/SFP+ slots.
10GE SFP+ transceiver module, long range	FN-TRAN-SFP+LR	10GE SFP+ transceiver module, long range for all systems with SFP+ and SFP/SFP+ slots.
10Gbase-ER SFP+ transceivers	FN-TRAN-SFP+ER	10Gbase-ER SFP+ transceivers for FortiSwitch and FortiGate, 1550nm. Single Mode. 40km range for systems with SFP+ Slots.
25GE SFP28 transceiver module, short range	FN-TRAN-SFP28-SR	25GE/10GE Dual Rate SFP28 transceiver module, short range for all systems with SFP28/SFP+ slots.
25GE SFP28 transceiver module, long range	FN-TRAN-SFP28-LR	25GE SFP28 transceiver module, long range for all systems with SFP28 slots.
40GE QSFP+ transceivers, short range	FN-TRAN-QSFP+SR	40GE QSFP+ transceivers, short range for all systems with QSFP+ Slots.
40GE QSFP+ transceivers, long range	FN-TRAN-QSFP+LR	40GE QSFP+ transceivers, long range for all systems with QSFP+ Slots.
100GE QSFP28 transceivers	FN-TRAN-QSFP28-SR	100GE QSFP28 transceivers, 4 channel parallel fiber, short range for all systems with QSFP28 Slots.
100 GE QSFP28 transceivers, long range	FN-TRAN-QSFP28-LR	100 GE QSFP28 transceivers, 4 channel parallel fiber, long range for all systems with QSFP28 Slots.
100 GE QSFP28 transceivers	FN-TRAN-QSFP28-CWDM4	100 GE QSFP28 transceivers, LC connectors, 2KM for all systems with QSFP28 Slots.
Fan Tray	SP-FG4K6K-FAN	Spare Hotswappable Fan Module for FG-420xF/440xF/6000F.
AC 1500W Power Supply	FG-7040E-PS-AC	1500W AC Power Supply for FG-7030E,FG-7040E, 6000F and FG-3900E series (not compatible for use with FG-7060E), does not include SP-FGPCORC15-XX power cord.
AC 2000W Power Supply	SP-FG4000F-PS	2000W AC power supply for 4000F and 6000F series, does not include SP-FGPCORC15-XX power cord.
DC Power Supply	SP-FG4000F-DC-PS	DC power supply for FG-4200F-DC/4201F-DC, FG-4400F-DC/4401F-DC and FG-6000F-DC.
Power Cord	SP-FGPCORC15-XX	6 ft power cord, 15A125V XXX, PSE BLACK ROHS-6, for FG-3900E, 4000F, 6000F and 7000E/F Series.



BUNDLES



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	Enterprise Protection	Unified Threat Protection	Advanced Threat Protection
FortiCare	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 ¹ Filtering Service	•	•	
FortiGuard Antispam Service	•	•	
FortiGuard Security Rating Service	•		
FortiGuard IoT Detection Service	•		
FortiGuard Industrial Service	•		
FortiConverter Service	•		

1. Available when running FortiOS 7.0



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