

FortiGate 120G Series

FG-120G and FG-121G



Highlights

Gartner Magic Quadrant Leader for both Network Firewalls and SD-WAN.

Security-Driven Networking with FortiOS delivers converged networking and security.

Unparalleled Performance with Fortinet's patented SoC processors.

Enterprise Security with consolidated AI / ML-powered FortiGuard Services.

Simplified Operations with centralized management for networking and security, automation, deep analytics, and self-healing.

Converged Next-Generation Firewall (NGFW) and SD-WAN

The FortiGate Next-Generation Firewall 120G series is ideal for building security-driven networks at distributed enterprise sites and transforming WAN architecture at any scale.

With a rich set of AI/ML-based FortiGuard security services and our integrated Security Fabric platform, the FortiGate 120G series delivers coordinated, automated, end-to-end threat protection across all use cases.

FortiGate has the industry's first integrated SD-WAN and zero-trust network access (ZTNA) enforcement within an NGFW solution and is powered by one OS. FortiGate 120G automatically controls, verifies, and facilitates user access to applications, delivering consistency with a seamless and optimized user experience.

IPS	NGFW	Threat Protection	Interfaces
5.3 Gbps	3.1 Gbps	2.8 Gbps	Multiple GE RJ45, 10 GE RJ45, and SFP+ Shared Media Slots Variants with internal storage



Available in



Appliance



Virtual



Hosted



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 organically built best-of-breed capabilities, unified operating system, and ultra-scalability. The solution 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. It 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 a simplified, single policy and management framework. Its security policies enable 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 AI-based inline malware prevention, our most advanced sandbox service, to analyze and block unknown files in real-time, offering sub-second 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.



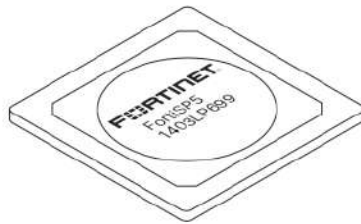
Secure Any Edge at Any Scale



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



Secure SD-WAN ASIC SP5

- Combines a RISC-based CPU with Fortinet's proprietary Security Processing Unit (SPU) content and network processors for unmatched performance
- Delivers industry's fastest application identification and steering for efficient business operations
- Accelerates IPsec VPN performance for best user experience on direct internet access
- Enables best of breed NGFW Security and Deep SSL Inspection with high performance
- Extends security to access layer to enable SD-Branch transformation with accelerated and integrated switch and access point connectivity



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.

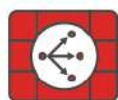


Use Cases



Next Generation Firewall (NGFW)

- FortiGuard Labs' suite of AI-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



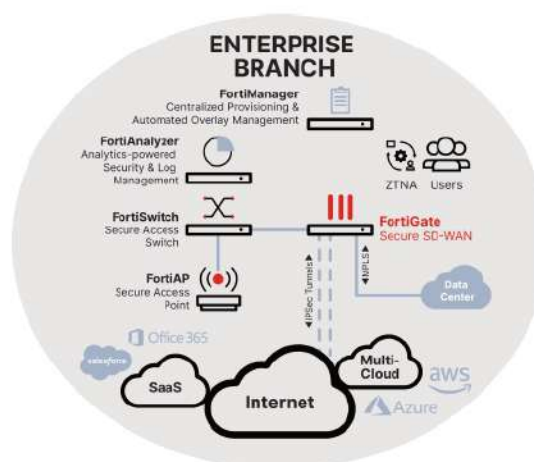
Secure SD-WAN

- 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



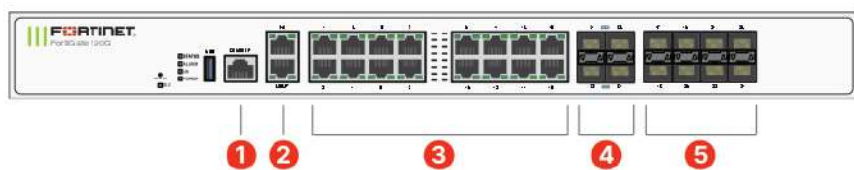
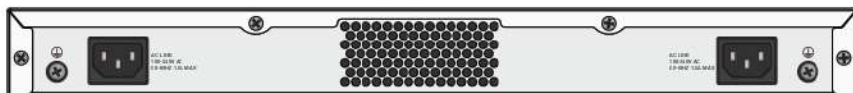
Universal ZTNA

- 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



Hardware

FortiGate 120G/121G



Interfaces

1. 1x RJ45 Console Port
2. 2x RJ45 HA and Management Ports
3. 16x GE RJ45 Ports
4. 4x 10GE SFP+ FortiLink Slots
5. 8x SFP Ports

Hardware Features



Dual Power Supplies

Power supply redundancy is essential in the operation of mission-critical networks. The FortiGate 120G Series offers dual built-in non-hot swappable power supplies.

Access Layer Security

FortiLink protocol enables you to converge security and 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

	FORTIGATE 120G	FORTIGATE 121G
Hardware Specifications		
Hardware Accelerated GE RJ45 Ports	16	
Hardware Accelerated GE RJ45 Management / HA Ports	2	
Hardware Accelerated GE SFP Slots	8	
Hardware Accelerated 10 GE SFP+ FortiLink Slots (default)	4	
USB Ports	1	
Console (RJ45) Port	1	
Internal Storage	–	1 × 480 GB SSD
Trusted Platform Module (TPM)	Yes	
Bluetooth Low Energy (BLE)	Yes	
System Performance* — Enterprise Traffic Mix		
IPS Throughput ²	5.3 Gbps	
NGFW Throughput ^{2,4}	3.1 Gbps	
Threat Protection Throughput ^{2,5}	2.8 Gbps	
System Performance and Capacity		
Firewall Throughput (1518 / 512 / 64 byte UDP packets)	39 / 39 / 28 Gbps	
Firewall Latency (64 byte UDP packets)	3.17 µs	
Firewall Throughput (Packets Per Second)	42 Mpps	
Concurrent Sessions (TCP)	3 M	
New Sessions/Second (TCP)	140 000	
Firewall Policies	10 000	
IPsec VPN Throughput (512 byte) ¹	35 Gbps	
Gateway-to-Gateway IPsec VPN Tunnels	2000	
Client-to-Gateway IPsec VPN Tunnels	16 000	
SSL-VPN Throughput ⁶	1.5 Gbps	
Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode)	500	
SSL Inspection Throughput (IPS, avg. HTTPS) ³	3 Gbps	
SSL Inspection CPS (IPS, avg. HTTPS) ³	2100	
SSL Inspection Concurrent Session (IPS, avg. HTTPS) ³	315 000	
Application Control Throughput (HTTP 64K) ²	6.7 Gbps	
CAPWAP Throughput (HTTP 64K)	35 Gbps	
Virtual Domains (Default / Maximum)	10 / 10	
Maximum Number of FortiSwitches Supported	32	
Maximum Number of FortiAPs (Total / Tunnel Mode)	128 / 64	
Maximum Number of FortiTokens	5000	
High Availability Configurations	Active-Active, Active-Passive, Clustering	

	FORTIGATE 120G	FORTIGATE 121G
Dimensions		
Height x Width x Length (inches)	1.73 × 17 × 10	
Height x Width x Length (mm)	44 × 432 × 254	
Weight	12.17 lbs (5.52 kg)	
Form Factor (supports EIA/non-EIA standards)	Rack Mount, 1RU	
Operating Environment and Certifications		
Input Rating	100-120VAC, 1A-.5A Max, 50-60Hz	
Power Supply Efficiency Rating	N/A	
Redundant Power Supplies	Yes (Default dual non-swappable AC PSU for 1+1 Redundancy)	
Maximum Current	100VAC@1A, 120V@0.5A	
Power Consumption (Average / Maximum)	38 W / 40 W	43 W / 47 W
Heat Dissipation	138 BTU/hr	159 BTU/h
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	20% to 90% non-condensing	10% to 90% non-condensing
Noise Level	49 dBA	
Air Flow	Side to back	
Operating Altitude	Up to 10 000 ft (3048 m)	
Compliance	FCC Part 15B, Class A, CE, RCM, VCCI, UL/cUL, CB, BSMI	
Certifications	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.

⁶ Uses RSA-2048 certificate.



Subscriptions

Service Category	Service Offering	A-la-carte	Bundles		
			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		*	*	
	AI-based Inline Malware Prevention Service	*	*		
	Data Loss Prevention Service ¹	*	*		
	OT Security Service (OT Detection, OT Vulnerability correlation, Virtual Patching, OT Signature / Protocol Decoders) ¹	*			
	Application Control		included with FortiCare Subscription		
	CASB SaaS Control		included with FortiCare 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 ²	*			
NOC and SOC Services	FortiGuard Attack Surface Security Service (IoT Detection, IoT Vulnerability Correlation, and Security Rating Updates) ¹	*	*		
	FortiConverter Service	*	*		
	Managed FortiGate Service	*			
	FortiGate Cloud (SMB Logging + Cloud Management)	*			
	FortiManager Cloud	*			
	FortiAnalyzer Cloud	*			
	FortiAnalyzer Cloud with SOCaaS	*			
	FortiGuard SOCaaS	*			
Hardware and Software Support	FortiCare Essentials ²	*			
	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 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.



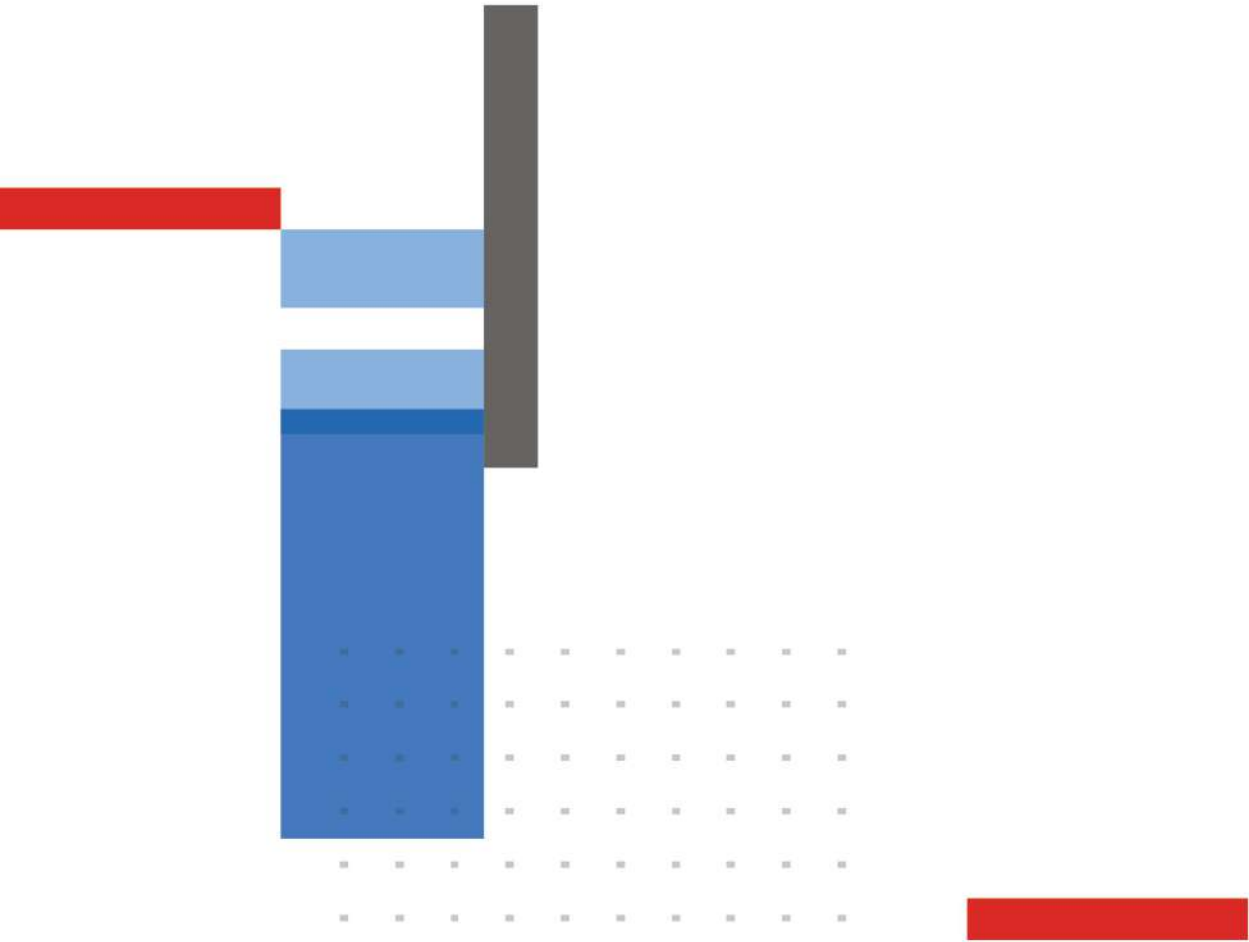
Ordering Information

Product	SKU	Description
FortiGate 120G	FG-120G	18 x GE RJ45 ports (including 1 x MGMT port, 1 X HA port, 16 x switch ports), 8 x GE SFP slots, 4 x 10GE SFP+ slots, SP5 hardware accelerated, dual AC power supplies.
FortiGate 121G	FG-121G	18 x GE RJ45 ports (including 1 x MGMT port, 1 X HA port, 16 x switch ports), 8 x GE SFP slots, 4 x 10GE SFP+ slots, SP5 hardware accelerated, 480GB onboard SSD storage, dual AC power supplies.
Optional Accessories		
1 GE SFP SX Transceiver Module	FN-TRAN-SX	1 GE SFP SX transceiver module for all systems with SFP and SFP/SFP+ slots.
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.
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, 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+ Transceivers, 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+ Passive Direct Attach Cable 5m	FN-CABLE-SFP+5	10 GE SFP+ passive direct attach cable, 5m for systems with SFP+ and SFP/SFP+ slots.
10 GE SFP+ Transceiver Module, Short Range	FN-TRAN-SFP+SR	10GE SFP+ transceiver module, short range for systems with SFP+ and SFP/SFP+ slots.
10 GE 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).
10 GE 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).



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](#).



www.fortinet.com

Copyright © 2024 Fortinet, Inc. All rights reserved. Fortinet®, FortiGate®, FortiCare® and FortiGuard®, and certain other marks are registered trademarks of Fortinet, Inc., and other Fortinet names herein may also be registered and/or common law trademarks of Fortinet. All other product or company names may be trademarks of their respective owners. Performance and other metrics contained herein were attained in internal lab tests under ideal conditions, and actual performance and other results may vary. Network variables, different network environments and other conditions may affect performance results. Nothing herein represents any binding commitment by Fortinet, and Fortinet disclaims all warranties, whether express or implied, except to the extent Fortinet enters a binding written contract, signed by Fortinet's Chief Legal Officer, with a purchaser that expressly warrants that the identified product will perform according to certain expressly-identified performance metrics and, in such event, only the specific performance metrics expressly identified in such binding written contract shall be binding on Fortinet. For absolute clarity, any such warranty will be limited to performance in the same ideal conditions as in Fortinet's internal lab tests. Fortinet disclaims in full any covenants, representations, and guarantees pursuant hereto, whether express or implied. Fortinet reserves the right to change, modify, transfer, or otherwise revise this publication without notice, and the most current version of the publication shall be applicable.