

Boost Your Data Center's Performance and Security with FortiGate 7000F Series

The Most Comprehensive Data Center Security Solution

What Is a Hybrid Mesh Firewall?

Data centers are in the midst of an evolution. Physical, virtual, and cloud infrastructures are converging and changing the nature of on-premises data centers. Some believe this trend toward hybrid networks spells the end of the data center as well as traditional data center security—but they are far from dead.

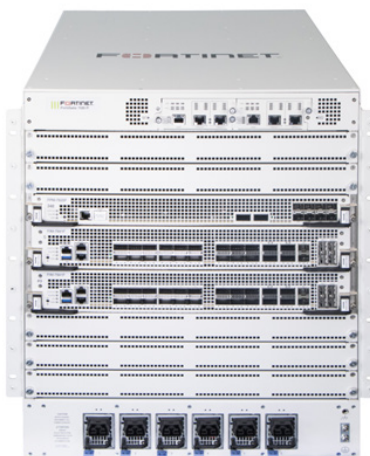
A data center will always be an important element of any architecture. Therefore, fortifying data centers remains as vital as ever. To secure the modern evolving data center, Fortinet has the industry's most comprehensive data center cybersecurity solution. It's called FortiGate 7000F Series Next-Generation Firewall (NGFW) and it offers increased threat protection, performance, and energy efficiency.

Significantly Better Than the Industry Standard

The FortiGate 7000F Series sets the standard for comprehensive data center security that protects mission-critical data across hybrid IT infrastructure. Performance and security are the two pillars of any NGFW, and, compared to the industry standard, the FortiGate 7000F Series delivers a security compute rating of:

- 5x NGFW performance
- 2x better threat protection
- 2x IPSec VPN throughput

Also, FortiGate 7000F Series is 73% more energy efficient per Gbps of firewall throughput compared to the industry standard. (To learn more about how our FortiGates compare to competing products, read the blog titled: [Benchmarking Security Performance with Fortinet's Security Compute Ratings.](#))



FG-7000F Series NGFW

Fortinet Security Compute Rating Table

Specification	FortiGate 7080F	Secure Compute Rating	Industry Average	Palo Alto Networks PA-5450	Check Point QLS 800	Cisco Firepower 9300	Juniper Networks SRX 5800
Firewall (Gbps)	1190	2.9x	410	200	205	235	1000
NGFW (Gbps)	330	5.3x	62.5	-	96	29	-
IPSec VPN (Gbps)	370	3.4x	110	87	49	74	230
Threat protection (Gbps)	312	4.1x	76.8	123.6	30	-	-
SSL Inspection (Gbps)	320	11.4x	28	-	-	28	-
Concurrent sessions	600 million	3.6x	~166 million	100 million	32 million	195 million	338 million
Watts per Gbps Threat Protection	23.4	2.5x	58.5	23	93.9	-	-

Eliminate Point Products and Reduce Complexity

Like all FortiGate NGFWs, the FortiGate 7000F Series eliminates point products, reduces complexity, and enables the industry's best performance and return on investment (ROI).

Since our beginning, Fortinet has designed and built security devices so that they never become a performance bottleneck. The FortiGate 7000F Series continues to follow that founding principle, delivering 1.2 Tbps of firewall throughput coupled with 312 Gbps of threat protection—using 60% fewer watts of Gbps threat protection compared to the industry average.

Scaling without disrupting operations is a concern for many organizations, which is why the FortiGate 7000F Series was built to reduce the need for point products and simplify operations. It includes a high-power, energy-efficient eight-slot chassis that can house up to six Fortinet Processor Modules (FPMs) and includes 400GE ports that empower businesses to meet their evolving needs. (Fortinet remains the only firewall vendor to offer 400GE ports.)

The ASIC Advantage

Like all FortiGate solutions, the cornerstone of the FortiGate 7000F Series's performance and power savings is proprietary ASIC security processing units (SPU) specifically engineered for security and networking purposes.

Our NP7 network processor delivers trail-blazing VXLAN hardware acceleration and IPsec Elephant flows. The NP7 is designed to accelerate essential network functions such as IPv4, IPv6, Multicast, GRE, and IPsec decryption, among others. And the FortiGate 7000F Series supports 4.5 million connections per second session setup speeds for firewall and NAT sessions, supplying hyperscale security for hyperscale data centers.

Accelerating Security Functions

The FortiGate 7000F Series also addresses the need to find and mitigate risk as quickly as possible. Our CP9 content processor acts as a co-processor to the main CPU to offload resource-intensive processing and drive content inspection to accelerate security functions. Additionally, the CP9 performs fast inspection of real-time traffic for application identification, all without compromising user experience. It enables full network visibility, thus eliminating blind spots.

The parallel path processing architecture embodied with our latest NP7 and CP9 security processors offers unmatched L4-L7 performance. These all-new capabilities build on the industry-leading security and threat detection included in all of the Fortinet NGFW offerings:

- The FortiOS operating system is the foundation of the [Fortinet Security Fabric](#)—the industry's highest-performing cybersecurity mesh platform that delivers coordinated detection and enforcement across the entire attack surface. FortiOS is a single operating system that provides centralized and unified management and visibility across the network.
- FortiGuard AI-Powered Security Services, developed by FortiGuard Labs (the Fortinet elite cybersecurity research organization), counter threats in real time with machine-learning-powered, coordinated protection.
- Intrusion prevention provides the most up-to-date defenses against stealthy network-level threats to protect organizations from thousands of IPS signatures covering known vulnerabilities and exploits.
- Application control service quickly creates policies to allow, deny, or restrict access to applications or entire categories of applications to keep malicious, risky, and unwanted applications out of your network through control points like the data center.

Hybrid Mesh Firewall Ready

As businesses increasingly turn to hybrid environments to address the rise in cloud-based applications and remote workforces, it's critical for NGFWs, including solutions like the FortiGate 7000F Series, to work in conjunction with firewalls deployed across the network—including in the cloud.

Hybrid mesh firewall (HMF) is an emerging term for a unified security platform that provides coordinated protection to multiple areas of enterprise IT, including corporate sites such as branches, campuses, and data centers; public and private clouds; and remote workers.



Because FortiGate and all other Fortinet firewall solutions were and continue to be built on FortiOS, we have delivered on the HMF concept for years. Using Fortinet solutions empowers IT teams with centralized and unified management and an open ecosystem that enables consistent security policies across all firewall deployments.

To learn more about the FortiGate 7000F Series and our associated services for the data center, visit the [Fortinet NGFW web page](#).



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