

SOLUTION BRIEF

Selecting Your Next-Generation Firewall Solution

5 Reasons Why the FortiGate 6000F Is the Best Choice

Executive Overview

As security architects consider how to provide comprehensive threat protection for their enterprises, including firewalling, intrusion prevention, antivirus, secure sockets layer (SSL) inspection, and application control, they face a confusing array of feature sets and vendor claims. It becomes even more difficult to make apples-to-apples comparisons when vendors don't publish complete specifications or standards-based performance metrics.

Amid the pressing need to thwart increasing SSL-based attacks without hampering the pace of business, security architects can't dither in their technology selection. This document provides a comprehensive, standards-aligned overview and competitive comparison of the FortiGate 6000F series next-generation compact firewall (NGFW) with other leading offerings. The objective of this solution brief is to help security architects approach their CISOs with a well-informed and compelling threat-protection recommendation.

The FortiGate 6000F—a Game-changer for the Data Center and the Network Edge

A core component of the Fortinet Security Fabric, the FortiGate 6000F NGFW is unique in the industry, in that it simultaneously optimizes threat protection, performance, and economy. With an architecture similar to high-end, chassis-based FortiGate NGFWs, the environmentally friendly FortiGate 6000F 3U-high appliance is designed to meet the demands of both the data center and the network edge.

A comparison of the FortiGate 6000F with other offerings reveals a clear lead for the FortiGate in several key specifications. (See Figure 1.) Following are some of the key areas of differentiation for the FortiGate 6000F:

1. Threat-Protection Performance

Leading NGFWs include a full range of threat-protection capabilities—firewall, antivirus, intrusion prevention, SSL inspection, and application control. When reviewing vendor spec sheets, it is important to compare performance when each NGFW has full threat protection enabled.

Faster threat-protection speeds are critical—they mean that multi-vector attacks can be thwarted more effectively as information gets shared across the network. The FortiGate 6000F delivers threat protection at speeds up to 100 Gbps, ensuring minimal degradation of network performance even with all services running. That's three times faster than the industry average—triple the performance of Palo Alto Networks and 26 times faster than Check Point.¹ (At this time, Cisco does not publish its threat-protection performance results.)

2. SSL Inspection Performance

While some security solutions can decrypt SSL traffic, many are collapsing under growing SSL bandwidth demands and SSL key lengths. Up to 130 Gbps, the FortiGate 6000F delivers SSL inspection with minimal performance impact to the network, executing SSL inspection 20 times faster than the industry average.

Further, Fortinet is the only security vendor to publish full SSL inspection performance against industry-mandated ciphers, providing greater visibility and predictability into how our NGFW solution performs.

3. Session Capacity and Scalability

Most enterprise users now employ multiple devices, and most devices run dozens (in some cases hundreds) of applications. Additionally, many applications open multiple concurrent sessions per application transaction, and a large increase in concurrent sessions can tax NGFW resources and impact performance.

Specification	FortiGate 6300F	Industry Average (based on same price)
Threat Protection (FW + AC + IPS + AV)	60 Gbps	18 Gbps
NGFW	90 Gbps	20 Gbps
SSL Inspection	66 Gbps	<6.5 Gbps
Concurrent Sessions	120 Million	36 Million
HW Load Balancing	Yes	No

Figure 1: FortiGate 6300F Series vs. industry average spec comparison.²

Unparalleled Third-Party Certification

FortiGate NGFWs have undergone extensive third-party performance testing and have received a wide range of certifications for security effectiveness from leading testing organizations. For example, NSS Labs has consistently awarded Fortinet “Recommended” ratings for NGFW, data center security gateway (DCSG), data center firewall (DCFW), data center intrusion prevention system (DCIPS), and next-generation intrusion prevention system (NGIPS) tests.



Unlike most NGFWs in this class, the FortiGate 6000F uses hardware load balancing to achieve very high connectivity rates and throughput four times the industry average. It also delivers up to 200 million concurrent sessions, six times the industry average. NGFWs with lower throughput and connectivity rates may struggle in larger enterprises or other environments with higher transaction rates.

4. Economy and Environmental Benefits

Many vendors offer only two choices: inefficient, high-performance NGFWs at premium prices that are bulky and take up too much space in the data center, or less expensive compact devices with entry-level or mid-level specs. With the FortiGate 6000F, Fortinet offers enterprise-level threat-protection architecture within the confines of a compact 3U form factor, supporting data-center consolidation and footprint reduction.

The smaller footprint also means less power consumption per device and more efficient heat transfer (lower cooling costs). Flexible network interfaces facilitate network migration to 100 Gbps Ethernet, making this NGFW a sound network equipment investment.

5. Plays into Enterprise Security Strategy

Without diminishing the importance of one-to-one comparisons, the FortiGate 6000F delivers value beyond its NGFW functionality

as a component of the Fortinet Security Fabric, a broad, integrated, and automated security architecture. As a gateway into the enterprise or as an arbiter of east-west traffic within the enterprise network, the FortiGate 6000F communicates with other Fortinet and third-party devices throughout the Security Fabric, enabling real-time response to threats anywhere in the network. Integration with each of the different elements in the Security Fabric unlocks automation that enables advanced threat prevention.

The NGFW Leader Is a Secure Choice

Network security demands will continue to evolve, requiring greater throughput and processing capabilities. The FortiGate 6000F NGFW outpaces both industry standards and other leading vendors in all key performance criteria, and its high capacity and scalable architecture are designed to meet these requirements into the future.

Additionally, the FortiGate 6000F NGFW is available in several form factors and integrates with other complementary Fortinet products to create a simplified, end-to-end security infrastructure.

As security architects review their NGFW shortlists, they can feel confident in the vendor behind the FortiGate 6000F. With more than 340,000 customers, Fortinet is the fastest-growing enterprise network security company in the world and provides the most widely adopted network security solutions.

¹ Industry average is calculated based on NGFW appliances from Palo Alto Networks, Check Point, and Cisco. Publicly available performance numbers from data sheets and websites.

² Ibid.