

POWERFUL AND INNOVATIVE INTRUSION PREVENTION SYSTEMS

FortiGate IPS

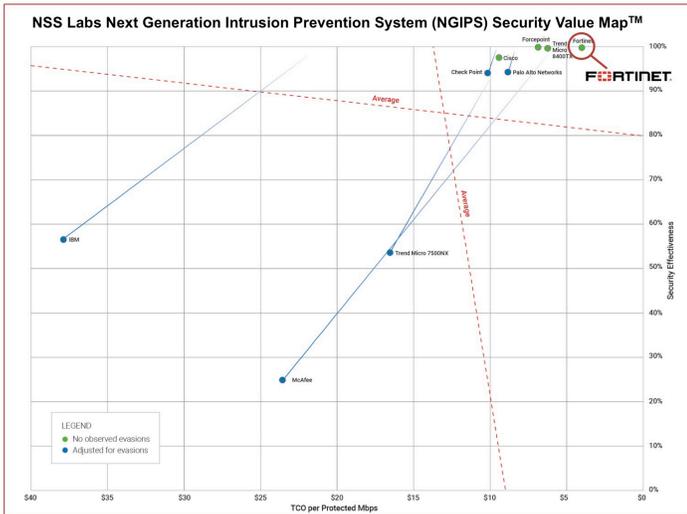
INTRODUCTION

Critics of standalone Intrusion Prevention Systems (IPS) claim the market is slowing down or even contracting, thinking this is reason to pursue alternatives to IPS technology. While many standalone IPS products at smaller branch sites and mid-sized campus sites are being replaced with IPS technology packaged into a firewall solution, the continued evolution of data centers has caused explosive growth for standalone IPS deployments. Whether part of a firewall solution or as a separate standalone appliance, IPS technology is becoming an increasingly ubiquitous part of network security defenses.

No organization that is concerned about sophisticated and targeted attacks can afford to ignore the protection offered by deep IPS inspection. However, that deep IPS inspection becomes computationally expensive with the ever-growing traffic volume of the data center, challenging organizations to balance their aggressive performance requirements against the reality of conservative budgets. Moreover, even with performance challenges managed, the talent shortage of qualified security professionals stretches teams to the point where the workload grows beyond their capacity. Fortunately, there is a flexible IPS solution that helps organizations address these challenges today, and its name is FortiGate IPS.

KEY FEATURES AND BENEFITS OF FORTIGATE IPS

- Deep inspection for advanced threats, botnets, zero days, and targeted attacks on the network
- Independent third-party validation demonstrates superior detection and best price performance
- Innovative security processor (SPU) technology for high-performance network throughput and deep security inspection
- Seamless integration – appliance or cloud service – with world-class sandboxing for advanced threats
- Special security controls for web servers and applications, including cross-site scripting and SQL injection
- Data protection controls to prevent sensitive data exfiltration



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PROVEN, WORLD-CLASS IPS

Fortinet, well known for its next-generation firewall (NGFW) solution, has built IPS technology as part of FortiGate firewalls for more than ten years. However, unlike other firewall vendors that only offer minimal IPS functionality, FortiGate IPS is advanced. It even meets the high standard of a full next-generation IPS (NGIPS), both the original definition and the current evolution, that is commonly achieved only by standalone IPS products.

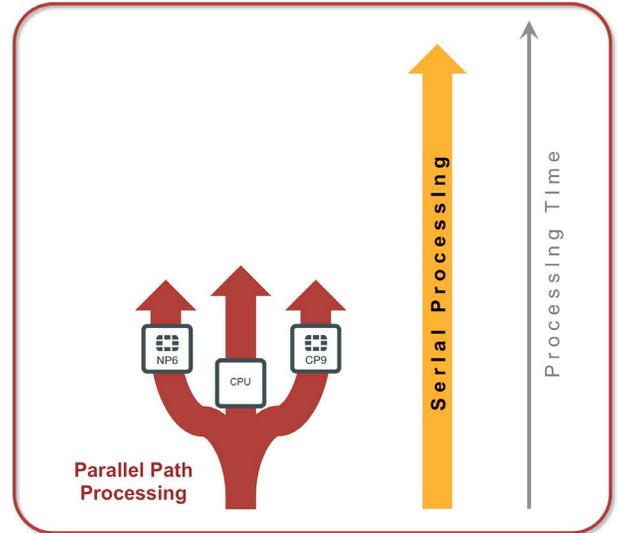
However, checking boxes on a list of features is no guarantee of defending against real-world security challenges. Quantitatively proving capability, Fortinet continues to achieve the highest “recommended” ratings from NSS Labs in both NGIPS and DCIPS testing year after year. FortiGate IPS consistently delivers full-featured IPS that proves itself against the most challenging benchmarks.

Original NGIPS Definition	Current NGIPS Standard
<input checked="" type="checkbox"/> 1 st -generation IPS engine	<input checked="" type="checkbox"/> Signatures
<input checked="" type="checkbox"/> Application awareness	<input checked="" type="checkbox"/> Protocol analysis
<input checked="" type="checkbox"/> Context awareness	<input checked="" type="checkbox"/> Application and user awareness
<input checked="" type="checkbox"/> Content awareness	<input checked="" type="checkbox"/> Context awareness
<input checked="" type="checkbox"/> Agile platform	<input checked="" type="checkbox"/> Threat intelligence service
	<input checked="" type="checkbox"/> Content awareness
	<input checked="" type="checkbox"/> User extensibility
	<input checked="" type="checkbox"/> Advanced threat detection
	<input checked="" type="checkbox"/> Historical analysis
	<input checked="" type="checkbox"/> Optional routing and NAT
2011	2017

POWERFUL IPS

Fortinet customers depend on and expect high performance from FortiGate firewalls and FortiGate IPS benefits from this legacy delivering, pound-for-pound, the best IPS performance available in the market today. That power comes from Fortinet's parallel path architecture and purpose-built security processing technology. Serial or single path processing means that packets and network flows are handled one-by-one, passing sequentially through each network or security process before moving on to the next. While traditional and easier to build, it is an inherently slow architecture that struggles to scale. In contrast, Fortinet's parallel path architecture divides up the work, so the total time required to process network flows, whether via software or hardware, is much shorter.

However, that is only part of the FortiGate IPS story. Years of engineering investment, which cannot be replicated with common-off-the-shelf (COTS) general processors, gave birth to a specialized network processor, currently in its ninth generation, and a sophisticated security content processor, currently in its sixth generation. The network processor boosts throughput and network handling capacity of FortiGate IPS, while the content processor ensures processes such as IPS inspection and cryptography do not dramatically lower overall throughput, as is common with other standalone IPS and firewall appliances. Working simultaneously in parallel, they deliver powerful performance and high value for customer environments.



INNOVATIVE IPS

FortiGate IPS, following a different evolution path, innovates to deliver a superior solution compared to other standalone IPS products. To start, FortiGate IPS effortlessly plugs into appliance and cloud FortiSandbox advanced threat solutions. Borrowing from web application firewall capabilities, FortiGate IPS includes security controls specialized for web servers, such as protection from cross-site scripting and SQL injection. FortiGate IPS also comes with data protection controls, preventing exfiltration of sensitive data such as government ID or credit card numbers. Simple to use templates allow customers to quickly tag or customize inspection of traffic leaving their networks.

As part of the Fortinet Security Fabric, FortiGate IPS benefits from and contributes to intelligence sharing with Fortinet products as well as Fabric-ready partner products – even those not directly visible to the sensor. This makes investigation and incident response more productive as they can take place in the context of the whole Fabric instead of a myopic view from one IPS or firewall sensor. Additionally, FortiGate IPS is a rich source of forensic details that are equally available to other Security Fabric products, improving customers' overall security posture.

SUMMARY

In both standalone IPS and converged next-generation firewall deployments, the innovative FortiGate IPS delivers proven, world-class protection. Powered by dedicated security processing units and a modern, efficient architecture, performance in even the largest data centers is reliably consistent. Automated security and operational processes gives security talent more time to focus on other security needs. As part of Fortinet Security Fabric, FortiGate IPS shares global and local security intelligence with other Fortinet solutions and trusted third-party products, ensuring it is assessing risk with the most up-to-date information, as well as improving overall security posture.