



### Highlights

- Ensure controllable network connectivity even in the event of device failure
- Manage asymmetric traffic flows to ensure efficient performance of the organization's firewall
- Deploy firewalls out of band with full functionality to test performance and then move in-line at the touch of a button
- Aggregate or load balance traffic flows to optimize device performance

## The Challenge

Today's networks are highly complex and mission critical to the businesses that operate them so neither downtime nor security breaches are acceptable. Next-generation firewalls, purchased to protect the network, must be both highly capable and deployed in such a way as to maximize their effectiveness and minimize their operational overhead. Next-generation firewalls need to accurately identify and control applications – regardless of port, protocol, evasive tactic or SSL encryption – and scan content to stop threats and prevent data leaks. In order to do all of this, firewalls must have efficient access to the traffic they need to monitor and operate seamlessly, even in unwelcoming routing schemes, and not introduce a single point of failure into the network.

## Gigamon

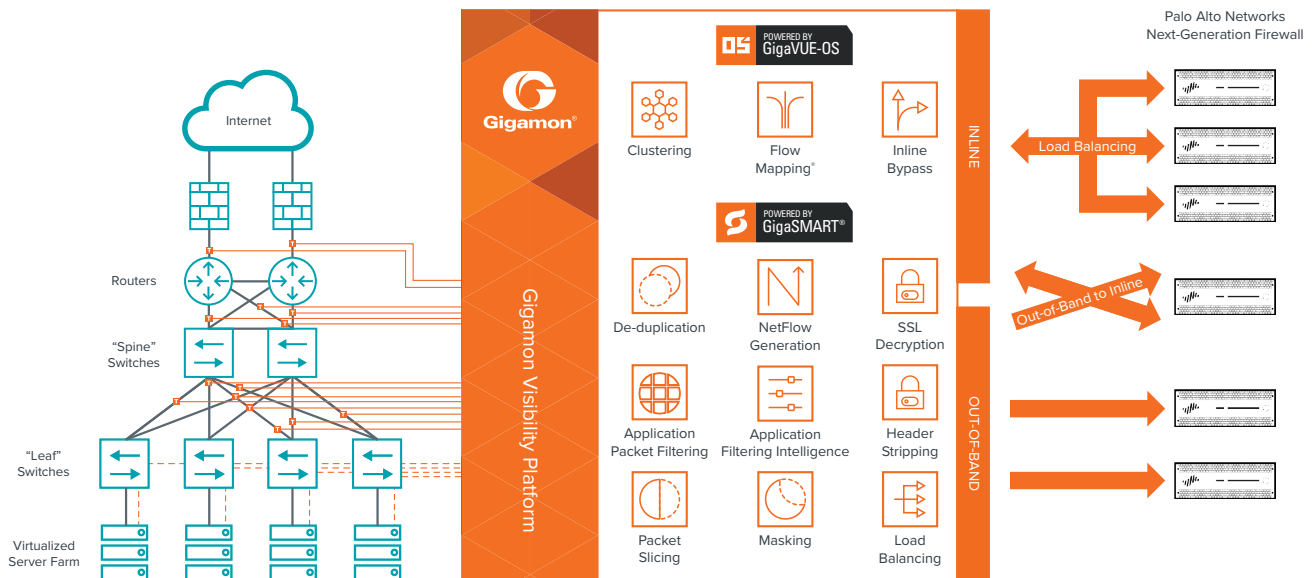
Ensuring traffic visibility for NGFW, regardless of the network type or topology, and securing network connectivity, even in the event of device failure, is increasingly essential. Gigamon provides high-availability design options, the ability to deploy easily in asymmetrically routed networks, and the ability to easily change the deployment mode of your firewalls without time-consuming physical recabling and change orders.

## Palo Alto Networks

The Palo Alto Networks Security Operating Platform prevents successful cyberattacks through intelligent automation. It combines network and endpoint security with threat intelligence and accurate analytics to help streamline routine tasks, automate protection, and prevent cyber breaches. Tight integrations across the platform and with ecosystem partners deliver consistent security across clouds, networks, and mobile devices, natively providing the right capabilities at the right place across all stages of an attack lifecycle.

## The Gigamon and Palo Alto Networks Joint Solution

Gigamon's Visibility Platform helps network owners get the most from their investment in Palo Alto Networks® next-generation firewall. Key features for Palo Alto Networks deployments include:



**Bypass Protection:** Deploy Palo Alto Networks devices in virtual wire mode and use the Gigamon functionality to provide physical bypass-traffic protection in the event of power loss and logical bypass-traffic protection in the event of an in-line tool failure.

**Heart Beat Monitoring:** Inline tools are monitored to ensure availability. Unavailable tools can be bypassed and traffic for inspection can be sent to alternative tools if they are available.

**Manage Asymmetric Routing:** Most security devices, including those from Palo Alto Networks, require inspection of all the packets in a session to be inspected by the same device. The Gigamon platform provides an intelligent and efficient way to ensure this happens even when different network links are being used for ingress and egress traffic.

**Traffic Distribution:** Improve the scalability of in-line security by distributing the traffic across multiple security devices, allowing them to share the load and inspect more traffic or aggregating multiple traffic flows into a single flow for efficient port utilization on the firewall.

**Traffic Filtering:** Send specific traffic to your Palo Alto Networks devices based on Layer 2 to Layer 4 rules so that applications and services are protected while known safe traffic can bypass inspection.

**Agile Deployment:** Add, remove, and/or upgrade firewalls without disrupting network traffic; convert tools from out-of-band monitoring to in-line inspection on the fly without rewiring.

**Traffic Aggregation:** Maximize the efficiency of port utilization on your firewalls by aggregating low volume links into the same port for inspection. The Gigamon platform will ensure inspected traffic is returned onto the correct links for onward delivery.

#### **Use Case #1: Ensure n+1 Security Resilience**

*Challenge:* The cost of a business being offline is large and increasing. Whether due to network changes, planned maintenance or failure building a resilient architecture makes sense.

*Solution:* Deploying multiple Palo Alto Networks next-generation firewalls with the Gigamon platform providing intelligent session load balancing allows for continued operation of the business, even if a device is not available.

*Additional Benefit:* An n=1 architecture also allows you to add more Palo Alto Networks devices as your traffic demands grow, leveraging the existing devices for protection and incremental scale.

#### **Use Case #2: Deploy Effectively in Asymmetric Networks**

*Challenge:* Networks may route single traffic sessions on different links depending on the flow direction. For optimum protection, Palo Alto Networks devices need to see complete session traffic.

*Solution:* The Gigamon platform can be utilized to stitch sessions back together from different links before sending the traffic to the NGFW for inspection.

*Additional Benefits:* Low traffic links can be aggregated, sent to the NGFW for inspection and then placed back on the correct network link to maximize the possible utilization of the ports available on the NGFW devices.

## About Gigamon

Gigamon® is the company leading the convergence of network and security operations to help organizations reduce complexity and increase efficiency of their security stack. The Company's Visibility Platform is a next generation network packet broker that helps customers make threats more visible across cloud, hybrid and on-prem environments, deploy resources faster and maximize the performance of their security tools. Global 2000 companies and government agencies rely on Gigamon solutions to help stop tool sprawl and save costs. Learn how you can make your infrastructure more resilient, more agile and more secure at [www.gigamon.com](http://www.gigamon.com).

## About Palo Alto Networks

We are the global cybersecurity leader, known for always challenging the security status quo. Our mission is to protect our way of life in the digital age by preventing successful cyberattacks. This has given us the privilege of safely enabling tens of thousands of organizations and their customers. Our pioneering Security Operating Platform emboldens their digital transformation with continuous innovation that seizes the latest breakthroughs in security, automation, and analytics. By delivering a true platform and empowering a growing ecosystem of change makers like us, we provide highly effective and innovative cybersecurity across clouds, networks, and mobile devices. Find out more at [www.paloaltonetworks.com](http://www.paloaltonetworks.com).

**For more information on Gigamon and Palo Alto Networks, visit:**

[www.gigamon.com](http://www.gigamon.com) and [www.paloaltonetworks.com](http://www.paloaltonetworks.com)