Palo Alto Networks

Introduction

The relentless rise of traffic levels across data networks has created a challenge for even the most high-performance security devices. To tackle these ever-changing and demanding traffic profiles, Arista Networks and Palo Alto Networks have partnered to deliver unique solutions for enterprises. This brief will give a high-level overview of the partnership between Arista and Palo Alto Networks and a symmetric scaling solution to increase firewall capacity.

This simple solution focuses on delivering investment protection by horizontally scaling firewalls to add capacity while maintaining session state. Adding devices in a parallel fashion without architectural changes to the infrastructure can increase firewall capacity.

Scale With Symmetry

In networks that require more than 20 Gbps of firewall throughput or 10 Gbps of threat prevention throughput, a single HA firewall pair is not sufficient. Horizontal scale provides the ability to expand capacity by just adding devices in a parallel fashion. The main benefit to this solution is that the addition requires no architectural changes to the infrastructure. In the past this would require an engineering effort to investigate, and remediate potentially by splitting services into separate pods, which is both service impacting and costly.

Building Blocks

The solution is built upon basic layer 2 connectivity between the "devices requiring symmetric scale" and the Arista 7050 OpenFlow enabled switches. If two switches are used in the topology connectivity to both switches are required. This removes the potential for asymmetric flows being sent to the devices. While asymmetric flows are supported on the Palo Alto Firewalls, disabling TCP SYN checking is highly discouraged.

The Linux underpinnings of the EOS opens the platform to management and applications customizations to optimize the data center network's operation. The switch kernel supports virtualization so add-on network applications can improve network functionality without compromising reliability.
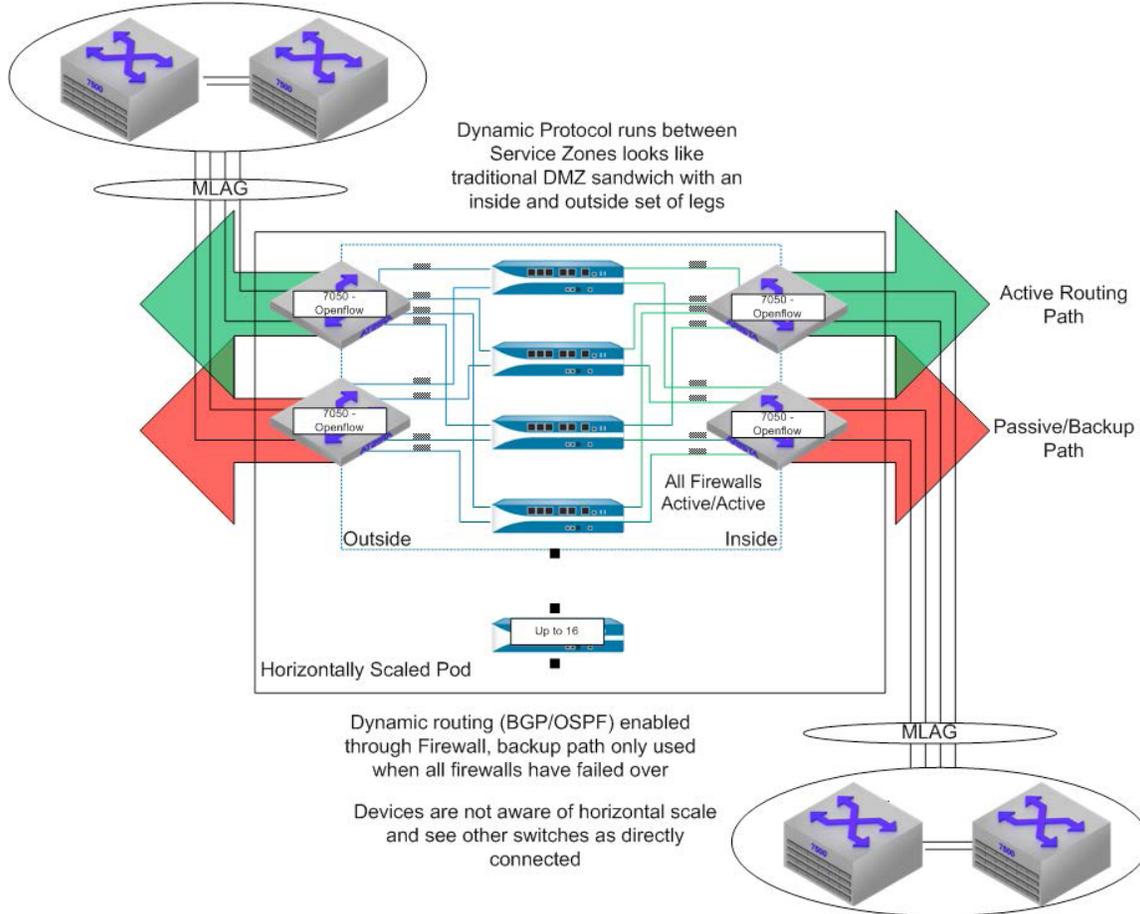
About Palo Alto Networks

Palo Alto Networks® is the network security company. Its innovative platform enables enterprises, service providers, and government entities to secure their networks and safely enable the increasingly complex and rapidly growing number of applications running on their networks. The core of the Palo Alto Networks platform is its next-generation firewall, which delivers application, user, and content visibility and control integrated within the firewall through its proprietary hardware and software architecture. Palo Alto Networks products and services can address a broad range of network security requirements, from the data center to the network perimeter, as well as the distributed enterprise, which includes branch offices and a growing number of mobile devices. More than 11,000 customers in over 100 countries use Palo Alto Networks products.

For more information, visit www.paloaltonetworks.com

Santa Clara—Corporate Headquarters
5453 Great America Parkway,
Santa Clara, CA 95054

Phone: +1-408-547-5500
Fax: +1-408-538-8920
Email: info@arista.com

Ireland—International Headquarters
3130 Atlantic Avenue
Westpark Business Campus
Shannon, Co. Clare
Ireland

Vancouver—R&D Office
9200 Glenlyon Pkwy, Unit 300
Burnaby, British Columbia
Canada V5J 5J8

San Francisco—R&D and Sales Office 1390
Market Street, Suite 800
San Francisco, CA 94102

India—R&D Office
Global Tech Park, Tower A & B, 11th Floor
Marathahalli Outer Ring Road
Devarabeesanahalli Village, Varthur Hobli
Bangalore, India 560103

Singapore—APAC Administrative Office
9 Temasek Boulevard
#29-01, Suntec Tower Two
Singapore 038989

Nashua—R&D Office
10 Tara Boulevard
Nashua, NH 03062