

Palo Alto Networks and Alkira

Benefits of the Integration

The integration of Palo Alto Networks and Alkira technology provides:

- A multi-cloud network delivered as a service, with integrated VM-Series firewall security.
- One-click provisioning for your multi-cloud network, with integrated VM-Series security.
- Stateful firewall security to and between cloud application workloads.
- Secure, optimal access to SaaS and internet applications with regional internet exits.
- Auto-scaling multi-cloud security with horizontally active VM-Series firewalls based on real-time demand.
- Monitoring, visibility, and lifecycle management of VM-Series firewalls for single- and multi-cloud environments.

The Challenge

Cloud adoption is on a steep rise. Organizations are increasingly transitioning business-critical applications from on-premises data centers to single- or multi-cloud environments and software-as-a-service (SaaS) platforms. As organizations extend robust stateful security controls to public cloud workloads and optimally route cloud application traffic, they are forced to rethink their traditional firewall deployment architectures. Security must move to the cloud to keep up with application transitions. However, do-it-yourself public cloud firewall deployments have several key drawbacks, such as:

- Deep expertise required in each and every cloud to handle tedious manual configuration.
- Complicated cloud and multi-cloud routing domain to accommodate symmetric traffic steering for proper stateful firewall operation.
- Inconsistent single- and multi-cloud firewall security policy enforcement due to disparate cloud architectures.
- Lack of elastic firewall capacity for real-time traffic demands to and across clouds.
- Lack of comprehensive firewall operational visibility and lifecycle management.

The use of cloud orchestration tools simplifies firewall provisioning tasks, but it doesn't address the limitations of cloud native capabilities around global enterprise-grade firewall deployment.

Alkira Cloud Services Exchange and Palo Alto Networks VM-Series

Alkira reinvents networking for the cloud era. The Alkira Cloud Services Exchange™ is the world's leading global, unified multi-cloud network that is delivered as a service. It has been designed and built to provide Alkira customers with high-speed, low-latency global network connectivity to and across cloud environments. This solution integrates network services marketplaces with end-to-end network visibility and governance. The entire customer multi-cloud network with network services is drawn on an intuitive digital design canvas, deployed in one click, and ready for use in minutes. Alkira Cloud Services Exchange and Palo Alto Networks VM-Series Virtual Next-Generation Firewall—the virtualized version of the ML-Powered NGFW—jointly deliver enterprise-grade multi-cloud security with these key attributes:

- Leveraging a globally distributed virtual infrastructure of Alkira Cloud Exchange Points™ (virtual multi-cloud points of presence with full routing and network services capabilities), organizations can easily extend security policy enforcement into the public cloud with VM-Series firewalls available through the Alkira network services marketplace.
- Alkira intent-based policies, with graphical policy visualization, allow expression of uniform business logic for enforcing VM-Series security policy without complicated multi-cloud routing or reliance on limited cloud native functionality.
- Alkira cloud-independent segmentation and VM-Series security zones allow joint customers to enforce intra- and inter-zone firewall security policy in single- and multi-cloud environments.
- Symmetric application traffic steering toward globally distributed VM-Series firewalls ensures proper stateful inspection for application traffic to and across cloud workloads.
- Elastic auto-scaling capabilities automatically scale up and down VM-Series deployments based on real-time capacity demand.
- Full lifecycle management and operational visibility of the VM-Series firewalls ensures day-two operational excellence.
- Joint customers can leverage pay-as-you-go (PAYG) and bring-your-own-license (BYOL) models to conveniently deploy VM-Series firewalls with Alkira Cloud Services Exchange.

Use Case No. 1: Stateful Multi-Cloud Security

Challenge

Deploying workloads in single- and multi-cloud environments can introduce significant challenges around providing ubiquitous and highly scalable stateful security controls for traffic between on-premises locations and public cloud instances, including traffic moving between instances. Data center and colocation firewall deployment architectures are not best suited for cloud adoption. Do-it-yourself public cloud firewall deployment architecture requires deep cloud expertise and resources and is vulnerable to restrictive cloud native limits.

Solution

Alkira Cloud Services Exchange delivers a unified as-a-service approach to stateful multi-cloud security by provisioning and inserting VM-Series firewalls into the application traffic moving between enterprise on-premises locations and public cloud instances, as well as traffic between public cloud instances. Leveraging Alkira intent-based policies, enterprises can visually express desired business logic for VM-Series policy enforcement without the need to understand any of the underlying cloud networking constructs. Enterprises can also continue leveraging zone-based and rule-based firewall security approach to maintain strong security posture for the multi-cloud environments.

Symmetric traffic steering across the Alkira Cloud Services Exchange ensures proper stateful VM-Series operation, even in globally distributed multi-region and multi-cloud environments. Alkira Cloud Services Exchange Portal offers VM-Series lifecycle management and day-two operational visibility.

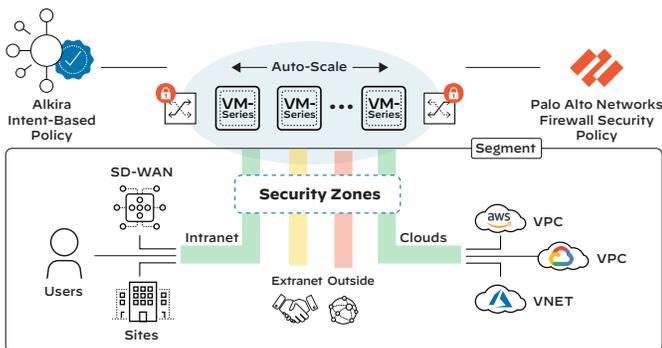


Figure 1: Enterprise-grade multi-cloud security architecture

Use Case No. 2: Secure Regional SaaS/ Internet Access

Challenge

The increased popularity of SaaS applications, such as Microsoft 365™ and Salesforce®, raises challenges in providing adequate SaaS user experience while securing internet exit points. Backhauling SaaS or internet traffic through a data center or colocation facility impacts application performance. Direct Internet Access (DIA) architectures eliminate traffic backhaul but increase administrative overhead.

Solution

Alkira Cloud Services Exchange delivers unified as-a-service approach to internet exit points protected by VM-Series virtual firewalls. Internet exit points are provided through the globally distributed network of Alkira Cloud Exchange Points (CXPs), virtual multi-cloud points of presence. Alkira CXPs host and scale VM-Series firewalls. Remote locations access SaaS applications through the internet exit available at the closest Alkira CXP they are connected to. Alkira intent-based policies make sure that SaaS/internet traffic is forwarded to the VM-Series firewalls for deep inspection and threat prevention. Alkira CXPs perform all necessary network address translation (NAT) functions, which further simplifies VM-Series firewall configuration.

About Alkira

Alkira reinvents networking for the cloud. Alkira Cloud Services Exchange™ (CSX) is the first unified multi-cloud network delivered as-a-service. It is grounded in the very principles of agility and speed, on-demand functionality, as-a-service consumption model, and elastic scale up and scale down, all of which are synonymous with the cloud itself. Organizations can now easily deploy global multi-cloud network with integrated network services, end-to-end visibility and governance. The entire multi-cloud network is drawn on an intuitive digital design canvas, deployed in 1-click and is ready for use in minutes. The Network. Reinvented for Cloud.™ For more information, visit www.alkira.com.

About Palo Alto Networks

Palo Alto Networks, the global cybersecurity leader, is shaping the cloud-centric future with technology that is transforming the way people and organizations operate. Our mission is to be the cybersecurity partner of choice, protecting our digital way of life. We help address the world's greatest security challenges with continuous innovation that seizes the latest breakthroughs in artificial intelligence, analytics, automation, and orchestration. By delivering an integrated platform and empowering a growing ecosystem of partners, we are at the forefront of protecting tens of thousands of organizations across clouds, networks, and mobile devices. Our vision is a world where each day is safer and more secure than the one before. For more information, visit www.paloaltonetworks.com.



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