The growing need for agility is driving organizations to transition business critical applications from on-premises data centers to public cloud environments and SaaS offerings. This digital transformation is forcing the enterprises to reevaluate the traditional on-premises security perimeter architectures, which are not optimized for the distributed nature of the cloud applications.

Enterprises are seeking to transition their familiar and trusted stateful next-generation network security services from the on-premises data centers and colocation facilities, and into the public cloud environments they are servicing. Such cloud environments offer global presence and vast compute resources; however, they are lacking the necessary routing, policy and operational controls enterprises require for a streamlined cloud firewall deployment. The do-it-yourself (DIY) approach for cloud network security deployment results in a significant sprawl of virtual machine instances, sub-optimal resource consumption and complex traffic management scenarios. The matter is greatly exacerbated in a multi-cloud environment.

Enterprise IT teams tasked with defining cloud architecture are forced to make compromises when it comes to network design and product selection as they strive to balance cost and operational complexity.

SECURING CLOUD WITHOUT THE COMPROMISE

The joint solution from Check Point and Alkira allows organizations to confidently transition the security infrastructure to a cloud delivered as-a-service model, avoiding the complexity that comes with navigating native single cloud and multi-cloud architectures. Joint customers can continue to operate with familiar Check Point security management tools and security policy constructs, while Alkira Cloud Services Exchange® (CSX) fully automates the provisioning, licensing, service insertion, scaling and health monitoring of the Check Point CloudGuard Network Security gateways. CloudGuard is available from the Alkira network services marketplace.

Alkira's solution seamlessly inserts the CloudGuard security gateways at any point in the Alkira global cloud backbone, providing stateful security controls for any on-premises, cloud, and Internet application traffic.

SOLUTION DETAILS

Check Point CloudGuard can be rapidly provisioned into one or multiple globally distributed Alkira Cloud Exchange Points (CXP) to provide security policy enforcement for application traffic between any set of endpoints connected to the Alkira global cloud backbone. Security
policy can also be enforced for ingress and egress Internet traffic through the regional Internet breakouts. Simply select Check Point CloudGuard from the Alkira network service marketplace and be guided through an automated provisioning process with options for choosing SMS or MDS management platform, bring-your-own (BYOL) or a pay-as-you-go (PAYG) licensing model, auto scaling high and low-water marks, target network segments and service billing tags.

Once provisioned, Check Point CloudGuard hosted within the Alkira Cloud Exchange Point® can be utilized to secure a range of use cases:

- Security policy to and between public cloud workloads
- Cloud hosted, stateful firewall services for branch and data center locations
- Regionalized Internet breakouts for secure SaaS applications access
- Cloud DMZ environment for Internet facing applications
- Shared cloud application services for partners and M&As

![Figure 1: Solution Integration](image)

Alkira connectors form the basic unit of connectivity within the Alkira CSX. They support a variety of connectivity needs for on-premises and cloud environments, such as standards-based IPsec, SD-WAN, remote access VPN, private cloud cross-connects, Internet and the cloud native connectivity for AWS, Azure and GCP cloud workloads. The connectors are isolated into different segments and optionally grouped within segments to create a micro-segmentation. Segmentation and micro-segmentation (groups) can be extended toward the Check Point CloudGuard to maintain isolation for network policy (e.g., line-of-business segmentation), compliance (e.g., PCI DSS, HIPAA) or deployment environment separation (e.g., production, development, and staging) purposes.

Alkira intent-based policy provides granular selection of application traffic, based on 6-tuple or application recognition, for redirection to provisioned CloudGuard instances. By selectively sending the flows that explicitly require firewall inspection, firewall resource consumption can be managed to enable effective right-sizing. During redirection Alkira’s routing fabric automatically tracks session state to ensure symmetric connection steering through firewall instances while maintaining original source and destination IP addressing without the need for network address translation (NAT). Where multiple firewall instances are provisioned, the Alkira routing fabric natively manages load balancing across these instances in an active-active fashion.
Configuration of policy is made easy with Alkira’s visual policy manager which provides a straightforward approach to policy scoping and inspection while simplifying auditing for assurance and compliance purposes.

Check Point CloudGuard security policy provisioned within the Alkira solution is managed from the Check Point security management servers reachable via private or public connectivity. Configuration, rich security policies and the full breadth of features offered by CloudGuard work in unison with the Alkira CSX that supports full lifecycle management and operational visibility of the CloudGuard instances, including day-2 operations to monitor platform health and traffic utilization, application traffic redirection and system resource consumption.

SUMMARY
Alkira Cloud Services Exchange offers Check Point CloudGuard as part of the Alkira network services marketplace. It allows organizations to simplify their cloud and multi-cloud networking journey while utilizing the rich security capabilities offered by the Check Point solution. The entire integrated solution is consumed as a service unlocking a true cloud-native networking experience which is highly resilient, performant and secure.

ABOUT ALKIRA
Alkira Network Cloud, powered by Alkira Cloud Services Exchange® (www.alkira.com), is the industry's first solution offering global cloud network infrastructure as-a-service. With Alkira, enterprises can have a consistent and significantly simplified experience deploying a global cloud network for end-to-end and any-to-any network connectivity across users, sites, and clouds with integrated network and security services, full-day 2 operational visibility, advanced controls, and governance. The entire network is drawn on an intuitive design canvas, deployed in a single click and is ready in minutes! The Network. Reinvented for Cloud.®

ABOUT CHECK POINT
Check Point Software Technologies Ltd. (www.checkpoint.com) is a leading provider of cyber security solutions to governments and corporate enterprises globally. Its solutions protect customers from cyber-attacks with an industry leading catch rate of malware, ransomware and other types of attacks. Check Point offers a multilevel security architecture that defends enterprises’ cloud, network and mobile device held information, plus the most comprehensive and intuitive one point of control security management system. Check Point protects over 100,000 organizations of all sizes.