# Alkira Multi–Cloud Networking Overview

Industry's only solution with single-click provisioning of the entire global multi-cloud network and network services. Connect users and sites to public clouds and the public clouds together, while cutting provisioning time from months to minutes

# Cloud Network Challenges

**Today, networking for cloud is complex, mostly static and manually achieved using tedious workflows.**

## You are cloud ready, but is your Network ready?

Cloud has made it possible for cloud architects and application developers to deploy compute and storage when and where needed. They can consume it as-a-service through public cloud providers without the need to invest in on-premise physical and virtual infrastructure. This model helps organizations efficiently utilize their time and resources. Consequently, the cloud model continues to grow in popularity, inexorably pushing organizations to further embrace public cloud infrastructure, as well as the SaaS offerings.

Even though organizations are motivated to move their applications from on-premise data centers to the public cloud and leverage SaaS offerings, the pace of change has been slow as cloud networks do not offer the same level of agility and the same level of consumption models flexibility achieved by compute and storage. Today, networking for cloud is complex, mostly static and manually achieved using tedious workflows. These cloud networks are based on IPSec technologies or leverage colocation facilities with direct cloud access to connect organizational wide area networks to the public cloud. In case of SaaS applications,
access is many times still provisioned through the data centers, which results in elevated application latency and network bandwidth starvation, all of which negatively impact application experience. Disparate public cloud architectures force organizations to acquire deep network expertise for each individual public cloud offering.

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Global unified multi-cloud network as-a-service delivered in minutes. Just register, design, and provision – all with point-and-click ease.
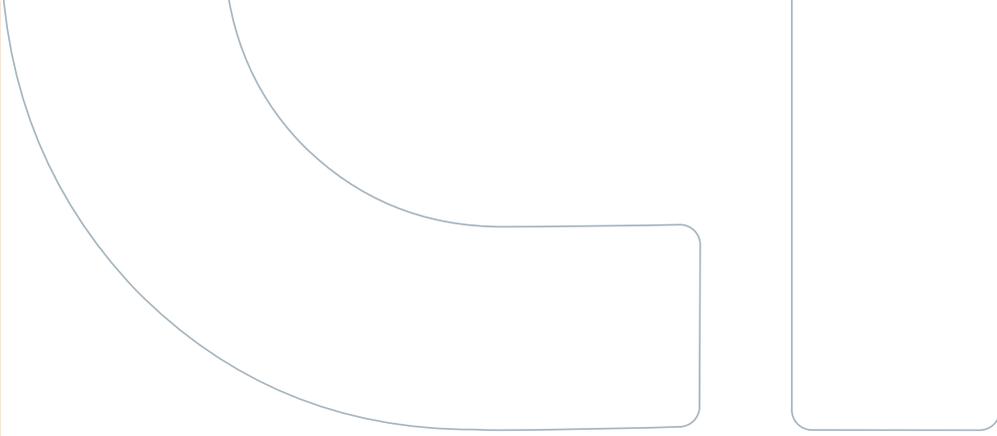
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Deploying cloud networks is complex, inconsistent and costly. Organizations are seeking a more simple and agile approach to connect remote locations to the public cloud and SaaS environments, as well connect multiple public clouds and multiple regions of the same public cloud together. This need extends to intelligently integrating network services, like stateful next generation Firewalls, into the global multi-cloud network and provide full visibility and governance to eliminate blind spots and improve day-2 operations.

# Alkira Cloud Area Networking

Alkira™ is reinventing networks for the cloud era. Alkira Cloud Area Networking is the world's first true as- a-service unified multi-cloud network. Alkira Cloud Area Networking allows organizations to instantly connect remote locations to and across public clouds, intelligently insert on-demand network services, and achieve full operational visibility and governance.

The Alkira Cloud Area Networking is built on a highly available and resilient network of globally distributed Alkira Cloud Exchange Points™ (CXPs), the virtual multi-cloud points of presence. Alkira CXPs are interconnected over high bandwidth low latency infrastructure.

It is time for the network to evolve. It is time for the network to be reinvented for cloud. Read a white paper by Atif Khan, Alkira CTO. ⤢

Leveraging Alkira Cloud Area Networking, organizations can now establish their own multi-region multi-cloud virtual backbone connecting remote locations to public clouds and SaaS/Internet applications, as well as multiple regions of the same public cloud and multiple public clouds together in the matter of minutes. Remote locations and cloud workloads (VPCs and VNets) connect to the geographically closest Alkira CXP, improving overall application performance by shortcutting the last-mile access over less efficient and less predictable Internet transport.

Alkira Cloud Area Networking intelligently inserts network services of choice, e.g. Firewalls, into the customer multi-cloud network. Leveraging Alkira intent-based policies, desired network traffic flowing through the Alkira Cloud Area Networking from remote locations to the public cloud, across multiple regions of the same public cloud and across multiple public clouds can be intelligently steered toward the globally deployed network services. Alkira Cloud Area Networking maintains complete traffic symmetry required for proper stateful network services operation for single cloud or multi-cloud use cases.

In case of Firewalls, organizations can effectively extend their security posture to the cloud workloads. Alkira Cloud Area Networking service insertion and symmetric traffic steering capabilities are independent of individual public cloud capabilities, and are not restricted by them.

End-to-end segmentation capabilities offered by Alkira Cloud Area Networking allow customers to segment their as-a-service global multi- cloud network. Remote locations, data centers,colocation facilities, cloud workloads, SaaS/Internet exit points and network services can all be placed in their respective network segments, effectively isolating them from each other.

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Alkira Cloud Area Networking interoperates with SD-WAN, specifically with Cisco SD-WAN at this time, where customers can extend their Cisco SD-WAN segmentation capabilities used for site-to-site communication into Alkira Cloud Area Networking for communication to and across clouds. Alkira Cloud Area Networking segmentation capabilities are independent of individual public cloud capabilities, they are uniformly extendable across multiple public clouds or multiple regions of the same public cloud, and are not restricted by them.

Alkira Cloud Area Networking Portal offers simple web graphical user interface. Customers can point and click all the elements of their multi-cloud network, like remote sites, data centers, colocation facilities, public cloud instances, SaaS/Internet exit points and network services onto the intuitive design canvas. Provisioning is done with a single-click of a mouse and in the matter of minutes the entire global multi-cloud network with network services is ready for use!

Furthermore, visibility and governance features of Alkira Cloud Area Networking offer customers deep application, network and network services insights. These features drive operational excellence and help NetOps and SecOps teams identify problems before they occur across the entire multi-cloud network. The full API support offers customers a programmatic approach to their entire multi-cloud network and simplifies integration with third-party tools.



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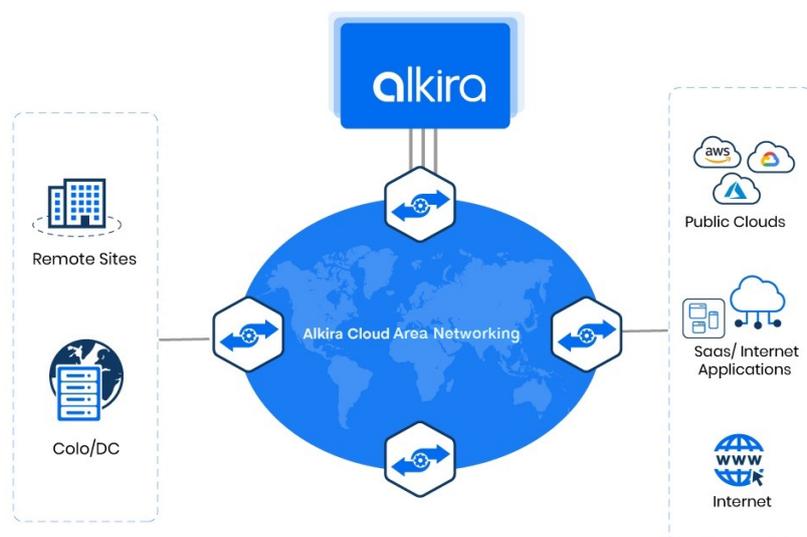
# Solution Benefits

## As A Service Consumption

With Alkira Cloud Area Networking, organizations can now enjoy global multi- cloud network that leverages consumption models fully aligned with other cloud elements, such as compute and storage. Organizations can choose between pay-as-you-go (PAYG) and subscription models or mix the two. Pay-as-you-go model offers the utmost deployment flexibility of paying for only the provisioned service elements, like geographic locations, connectivity to remote sites, connectivity to cloud instances, network services, and the consumed network traffic, for as long as these elements stay provisioned. Subscription model offers utmost cost effectiveness based on committed target spend for the service, irrespective of the provisioned elements. Organizations can elastically expand network and network services capacity, while maintaining service level agreements (SLAs). Ultimately, simplified provisioning leveraging Alkira as-a-service virtual infrastructure, results in overall lower total cost of ownership (TCO).

# Global Multi-Cloud Network Connectivity in Minutes

Building global multi-cloud network connectivity is not easy. It forces organizations to make significant upfront planning, work with service providers, procure and configure network devices. These tasks can take as long as months, depending upon the size of the network. With Alkira Cloud Area Networking, organizations can now leverage intuitive point-and-click design canvas to build a high-speed global multi-cloud network connectivity to and across clouds in minutes. This network is free of restrictive cloud limits, providing elasticity and agility that network architects have been demanding to support business needs in the cloud era.

# On-Demand Network Services Marketplace

Just as applications and workloads are increasing moving from on-premise data centers to the cloud, so are the associated network services. It is imperative for organizations to maintain the same level of network services, such as for example security policy enforcement provided by the stateful next generation Firewalls, as previously offered in the on-premise data centers. To that end, Alkira Cloud Area Networking offers a network services marketplace where customers can easily choose and insert Alkira or third-party network services into their multi-cloud network. Alkira Cloud Area Networking fully automates the provisioning and the lifecycle of the network services. Network services can automatically scale up or down based on the real-time capacity demands without any administrative action. Customers can leverage their existing third-party licenses (bring your own license or BYOL) or opt for pay-as-you-go (PAYG) approach.

# Visibility and Governance

Alkira Cloud Area Networking Portal offers end-to-end visibility and governance that eliminates operational blind spots oftentimes associated with cloud and multi-cloud networking. Organizations can gain comprehensive insights into application and network traffic flows, as well as health and state of their entire multi-cloud network and network services. Auditing capabilities ensure operational accountability and simplify rollback of changes. For governance, Alkira Cloud Area Networking offers an intuitive point-and-click design canvas for provisioning and managing intent-based policies for on-premise and cloud workloads. Lastly, all Alkira service details are exposed through REST API and can be integrated with third-party monitoring or development tools.

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# Summary

In summary, Alkira Cloud Area Networking offers the industry's first leapfrog solution focusing on removing obstacles to successful cloud and multi-cloud adoption. Leveraging globally distributed network of Alkira Cloud Exchange Points™ (multi-cloud virtual points of presence), organizations can establish global on-demand connectivity between remote locations and the public clouds. Organizations can easily insert on-demand stateful global network and security services from the Alkira services marketplace, leveraging intent-based policies. End-to-end visibility and governance offer deep network and network services insights eliminating operational blind spots. The Alkira™ industry-leading graphical user interface enables dramatic operational simplification by offering a point-and-click modeling canvas with single-click provisioning of the entire end-to-end multi-cloud service in minutes.

**Alkira Cloud Area Networking**. The Fastest Way to the Cloud

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