



SOLUTION BRIEF



Unlocking Hyperscale Networking Potential with the Alkira Platform

Transforming Enterprise Networking Through Cloud Infrastructure

In today's digital landscape, cloud computing has revolutionized how organizations deploy global technology resources, eliminating traditional time and cost barriers associated with on-premises architectures. As businesses increasingly migrate to cloud environments, providers have responded with substantial investments in network infrastructure to expand their reach and enhance service delivery capabilities.

The robust network capacity, global presence, and infrastructure resilience now underpinning these cloud networks rival those of the world's largest telecommunications providers. However, the full potential of these sophisticated networks has remained largely inaccessible for conventional enterprise networking use cases.

The Promise of Cloud-Powered Networking

Leveraging cloud provider network infrastructure within enterprise environments would enable organizations to fundamentally reimagine their network architecture and operations, unlocking significant performance improvements, rapid deployment capabilities, and dramatically enhanced TCO models.

While do-it-yourself options exist for building atop these cloud networks, they typically involve substantial compromises in complexity, visibility, and core networking functionality like dynamic routing or essential troubleshooting capabilities. For most organizations, these limitations have kept the promise of hyperscale networking out of practical reach.

Strategic Partnership: Alkira and Google Cloud

In collaboration with Google Cloud, the Alkira Platform offers native integration with Google Cloud Network Connectivity Center (NCC). This partnership enables organizations to leverage Google Cloud's native networking capabilities while benefiting from Alkira's intuitive interface and advanced networking features.



Key Benefits

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Advanced Routing Control
 Utilize Alkira’s global routing policy to optimize traffic forwarding and network selection.
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Multi-Project Google Cloud NCC Support
 Enable transit for inter-project traffic forwarding across multiple NCC environments.
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End-to-End Cloud Network Segmentation
 Implement segmentation and micro-segmentation to isolate GCP NCC environments and reduce security vulnerabilities.
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Unified Cloud Firewall Security
 Easily enforce consistent firewall security policies across single or multi-region Google Cloud application traffic.
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Multi-Cloud Management Through a Single Interface
 Deploy and manage Google NCC connectivity alongside AWS, Azure, and on-premises networks with enhanced capabilities.

Solution Architecture

The Alkira Platform provides an intuitive, topology-driven interface that allows enterprises to instantly integrate Google Cloud NCC with their broader network infrastructure. Users simply log into the Alkira Portal, authenticate to their Google Cloud NCC project, and connect Google Cloud NCC VPCs to one or more Alkira Cloud Exchange Points (CXP) globally.

The Alkira Platform fully automates the discovery, attachment, and configuration of both Alkira and Google Cloud infrastructure components. Cloud resources and sites deployed within the Google Cloud NCC environment can seamlessly communicate with resources attached to the Alkira Platform, including multi-cloud workloads, remote sites, and data centers.

Network peering utilizes standards-based BGP, allowing administrators to manage network path selection through Alkira’s powerful yet straightforward global routing policy. Enterprises can control the advertisement and weighting of routing information exchanged in each region to influence how resources communicate across both infrastructures.



Enhanced Security and Segmentation

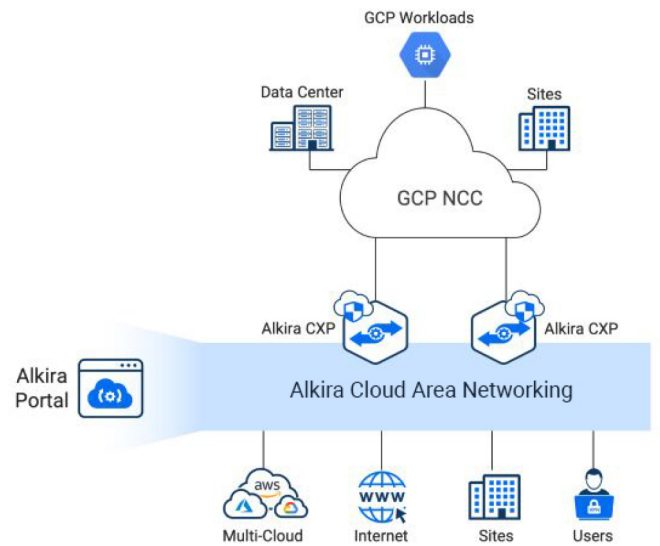
Organizations can easily implement uniform security policies for Google Cloud application traffic across single or multiple regions. Using Alkira’s intent-based policy framework, administrators can implement native traffic controls (security, NAT, etc.) or seamlessly integrate stateful next-generation firewall services hosted within the Alkira Platform at each Cloud Exchange Point.



Alkira’s solution manages automated firewall provisioning, health monitoring, auto-scaling, and symmetric traffic steering for third-party firewall services available through the Alkira Network Services Marketplace.

For environments where cloud workloads span multiple Projects within Google Cloud, the Alkira Platform supports multiple simultaneous peerings with NCC-enabled VPCs. The Alkira routing fabric can function as a transit for inter-project traffic forwarding, connecting otherwise isolated NCC deployments.

Furthermore, NCC VPCs can be compartmentalized through Alkira’s segmentation framework, maintaining global isolation of workloads across NCC environments and Alkira-connected resources. This segmentation enables customers to maintain isolation for network policy, compliance, or deployment environment separation while allowing selective communication between segments when required.



Transformational Impact

The Alkira Platform delivers a common set of enhanced networking capabilities and provides a unified view of policy regardless of workload location. Organizations can onboard Google NCC environments alongside AWS, Azure, and on-premises networks, all managed through Alkira’s intuitive portal.

This integration eliminates the barriers preventing organizations from realizing the full potential of cloud-scale networking while delivering the rich feature set and operational controls essential for enterprise networking requirements.

Summary

The Alkira Platform provides seamless integration with Google Cloud NCC, enhancing network capabilities and operations for Google Cloud customers. Alkira enables organizations to simplify their cloud and multi-cloud networking journey while leveraging Google Cloud’s significant investment in global network infrastructure.

The entire integrated solution is delivered as-a-service, creating a true cloud-native networking experience that is highly resilient, performant, and secure. With Alkira, enterprises can deploy a global cloud network for comprehensive connectivity across users, sites, and clouds with integrated network and security services, full operational visibility, advanced controls, and governance.



About the Partnership



About Alkira

The Alkira Platform 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 Alkira Platform: The Fastest Way to the Cloud.



About Google Cloud

Google Cloud accelerates organizations' ability to digitally transform their business with the best infrastructure, platform, industry solutions and expertise. We deliver enterprise-grade solutions that leverage Google's cutting-edge technology – all on the cleanest cloud in the industry. Customers in more than 200 countries and territories turn to Google Cloud as their trusted partner to enable growth and solve their most critical business problems.