



SOLUTION BRIEF



Modernized Network Delivery Through Fully Codified Infrastructure

Overview

The place where applications, data, and systems intersect is the network, and automation today plays a more important role than ever in scaling the business and decreasing time-to-market. Enterprise networks today are managed in many ways with an increasing number of tools and methods. Public cloud adoption has ushered in additional design complexity and tooling along with an exponentially increasing rate of change. These changes in the technology landscape have set automation as a critical business imperative.

Enterprises are looking for the network to be a utility that offers the performance, reliability, and scale required to do business in the cloud era. If the network is slow, everything is slow. If the network isn't continuously available, it gets noticed. If the network can't recover from disaster, the whole business is impacted. The Alkira Platform offers the performance, scale, and elasticity to meet current and future demands, and HashiCorp's Terraform provides the single interaction surface to operate Alkira with modern DevOps/CICD practices.



Benefits



Consolidate Interaction Surfaces

Consolidate interaction touch-points by leveraging a single Terraform provider to provision Core, Edge, and Multi-Cloud networking powered by the Alkira solution.



Reduce Time-To-Provision

Significantly reduce the time to provision by moving the full network into Infrastructure-as-Code operation leveraging the rich Alkira portal APIs.



Minimize Configuration Drift

By leveraging Alkira with Terraform, the network will become consistent with configuration drift being minimized.



Common Toolchain

Embracing DevOps practices enables a joint toolchain across the entire infrastructure stack, including networking and security, with increased and safe collaboration.



Standardized Deployment Workflow

Reusable Terraform configurations, managed in version control, provide a consistent and controlled method for managing networking and security infrastructure lifecycle.



Harnessing Network Infrastructure as Code

With cloud resources being decoupled from physical hardware, a new method of managing infrastructure has steadily gained popularity. Infrastructure as Code (IaC) automates the provisioning of resources via declarative human-readable configuration files.

Managing these configuration files in Version Control Systems (VCSs) provides additional opportunities for collaboration, long-term change history, traceability, consistent delivery, and advanced roll-back capabilities.

Solution

Terraform Providers offer the ability to define and provision resource types and/or data sources on a given platform like Alkira. Using **Alkira's Terraform Provider** makes it simple to incorporate networking inside and across clouds, on-premises, and edge networks into a new or already existing DevOps pipeline. Leveraging Terraform together with Alkira enhances the ability of the business to adapt and scale continually with market changes.

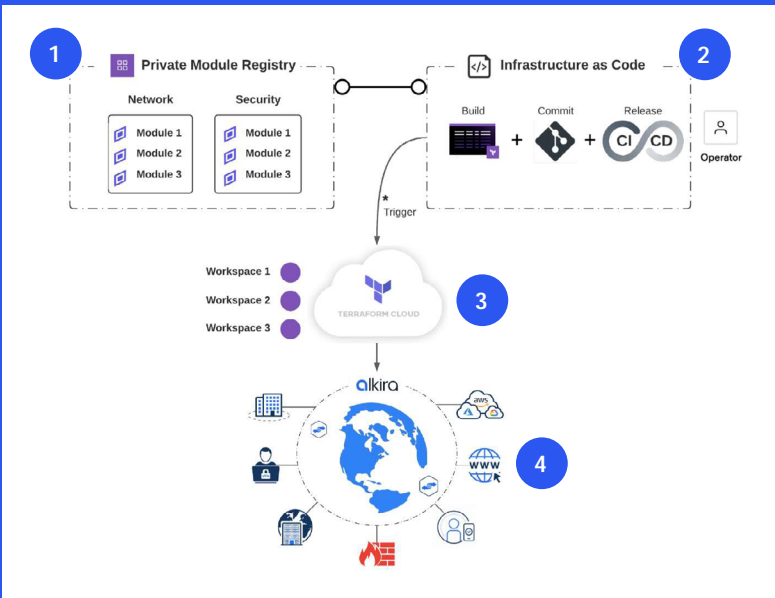
The Alkira Platform provides a global unified network infrastructure as-a-service that enterprises can leverage for simple and consistent deployment of global cloud and multi-cloud networks. In some circumstances, a need to integrate with an existing DevOps process and toolchain will be desired. Alkira in combination with Terraform enables practitioners to provision core, edge, and cloud networking via fully repeatable infrastructure as code.

Once Terraform is leveraged to provision the Alkira Platform, automating the entire network via Infrastructure as Code becomes a reality. Unified security policy can be codified into repeatable declarative blocks and deployed across the entire network. This sets the network up to be a business enabler by significantly reducing lead time and providing quicker recovery from faults. As resources scale, a well thought out approach with Infrastructure as Code can offer tremendous value in modernizing the enterprise intake process and operational workflows.





Terraform Modules



1 Terraform Modules can help manage tightly coupled components which share the same lifecycle. These modules can be managed through a Private Module Registry making it seamless to control, collaborate, and deploy networking across an organization.

2 Operators can leverage modules to simplify and standardize the provisioning of Alkira services via Infrastructure as Code. Alkira’s seamless workflow and integration into the HashiCorp ecosystem make it seamless to integrate with existing workflows.

3 Collections of infrastructure can be organized into Workspaces which can be configured to run based on CI/CD triggers.

4 Provision a global cloud backbone for end-to-end and any-to-any connectivity across on-premises sites, remote users, and hybrid and multi-cloud environments with integrated security services, all via Infrastructure as Code.



About Alkira

The Alkira Platform is the fastest way to unify clouds, sites, and users. With the Alkira Platform, you can deliver secure, end-to-end networking in hours instead of months. One cloud or many. Enjoy an elastic network that scales up and down based on business demand. The only enterprise-grade network built 100% in the cloud. Agentless. And delivered as-a-service. With Alkira, your network team will move faster. Manage less. And save more.



About HashiCorp

HashiCorp (www.hashicorp.com) provides open-source tools and commercial products that assist technology practitioners in provisioning, securing, and managing infrastructure. With Terraform, practitioners can define and provision data center infrastructure using declarative configuration files across a broad spectrum of clouds, products, and services.