Google Cloud

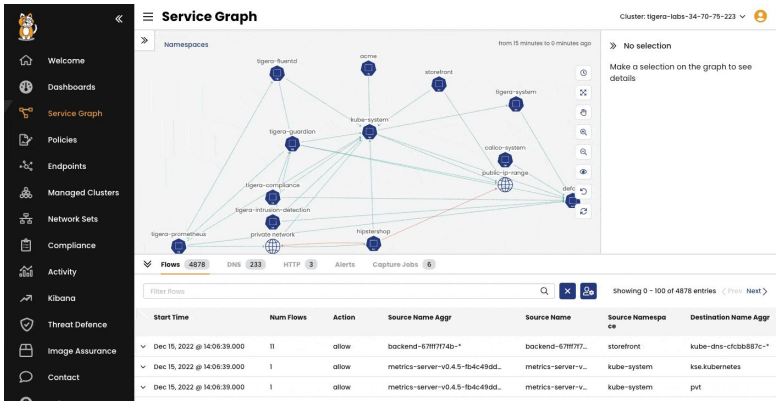
TIGERA

Get full stack network security and observability for your Kubernetes workloads

Better visibility into Kubernetes workload behavior, services, dependencies, how they are interconnected, and which applications and services access them

Kubernetes workloads are highly dynamic, ephemeral, and are deployed on a distributed and agile cloud infrastructure; making it harder for DevOps, cloud platform and site reliability engineers to monitor and troubleshoot.

DevOps and platform engineers need to do data aggregation from different stacks and correlate with Kubernetes context and network security policy knowledge which requires additional time, effort and resources. With this correlation unavailable in real-time, time to resolution for a networking connectivity issue or anomalous behavior takes considerable time.



Calico Cloud and Google Cloud

Tigera's Calico Cloud and Google Cloud provide Devops and platform teams full stack observability from the application layer to the network layer for their Kubernetes workloads.

The solution offers DevOps and platform teams with live graph-based visualization features. Calico Dynamic Service and Threat Graph enables users to filter resources to gain insight into the individual and combined behaviors of workloads. Furthermore, users have the option to save personalized views and share premade views with others. Preview stage visualization in the Calico Policy board helps understand network policy implementation and its enforcement impact on real-time traffic. Custom analytics dashboards help analyze network traffic at workload and cluster level, and dynamic packet capture helps troubleshoot any connectivity issues with just a few clicks.

DevOps team can also specify security and observability as code (SOaC). SOaC is the configuration of security and observability at deployment time by employing Kubernetes primitives and declarative models. Since Calico is Kubernetes-native, all of its security and observability features can be accessed via Kubernetes API server, making it possible to programmatically configure functionality.

Google Cloud

TIGERA

Tigera

- Visibility into workload traffic within and outside the cluster
- Graph-based service map to view workload communication, dependencies, and bottlenecks
- Troubleshoot performance bottlenecks and communication breakdown

Google Cloud

- Global network infrastructure with best in class performance, reliability and security
- Rich, real-time network telemetry and diagnostics. VPC Flow Logs and service logs.
- Scalable and fully automated managed Kubernetes service with container-native networking and security

- Real-time network insights across apps, containers, infrastructure, and availability zones, and more cloud-based observability that auto-scales with workload & infrastructure
- Aggregated and correlated data between network, application, and infrastructure

Highly available multi-environment networking

- High availability networking: Fast, scalable, high availability pod-to-pod networking
- Pluggable dataplane support: Choice of eBPF, Linux & Windows HNS
- Cluster mesh: Connectivity, service discovery & security across multiple clusters
- Egress gateway: Secure gateway for all outbound network traffic. Assign fixed IPs, enforce policies and monitor egress traffic

Simplified network security

- Secure egress traffic: Enforces granular egress access controls
- Microsegmentation: Recommends policies to automate namespace isolation. Also supports granular workload isolation
- Calico network policies: More extensive policies than Kubernetes including policy ordering, deny rules, DNS names and IP ranges
- Rich policy tools: Tools to view, recommend, stage, preview, order, and troubleshoot policies
- Policy as code: Automates policy deployment using GitOps practices. Provides policy tiers to govern the order of enforcement

Network observability and troubleshooting

- Rich network metrics: Metrics with rich context including network, DNS, applications flows, service, process and sockets logs
- Graph-based visualization: Point-to-point representation of network topology and flows to visualize traffic and troubleshoot
- Traffic analytics dashboard: Dashboards to analyze historical network data such as DNS, Tor-VPN, L7 (HTTP) traffic and flow logs
- Fast troubleshooting: Deep network activity inspection for faster troubleshooting

Empower your team with Calico Cloud on Google Cloud to swiftly identify and resolve connectivity challenges, bolstering a resilient microservices architecture in the dynamic Kubernetes landscape

Learn more