

# GigaVUE Cloud Suite for Google Cloud



The Power of Deep Observability for Your GCP Workloads

GigaVUE® Cloud Suite, a key component of the Gigamon Deep Observability Pipeline, is a fully Google Cloud-certified product that acquires and processes traffic from your GCP environments before distributing optimized network-based intelligence to the security and observability tools of your choice. You get complete application and packet-level visibility into all data in motion running within your Google Cloud Platform — without having to invest in new tools.

By extending your existing on-prem or cloud tools to monitor and secure your GCP workloads and applications, you can:

- Ensure a consistent security and compliance posture across hybrid and multi-cloud environments
- Eliminate network blind spots, including East-West and container traffic, where threats can hide
- Lower operational friction associated with cloud migration and the need to learn new tools and processes

The Gigamon Deep Observability Pipeline goes even further by augmenting the capabilities of your current metrics, events, logs, and traces, or MELT-based SIEM, APM, and observability tools with actionable network-derived intelligence. This powerful combination of network-based data and MELT helps CloudOps and InfoSec teams speed issue resolution and root cause analysis. It also brings new security use cases to your current set of observability tools, such as detecting unauthorized activities like crypto mining or compliance risks such as expiring TLS certificates.

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## How Gigamon Works in Google Cloud Platform

GigaVUE Cloud Suite integrates with Google Compute Engine APIs to automatically discover new cloud instances, deploy visibility nodes in VPCs, and apply advanced traffic intelligence to streamline and load balance traffic prior to sending the data to security and monitoring tools. Traffic acquisition can be done through native Packet Mirroring, Cloud VPN Tunnels, or GigaVUE G-vTAPs. Best of all, there's minimal impact on resources and no need to implement individual tool agents just to get traffic to a specific tool. Gigamon also supports GCP VPC network gateways to ensure visibility for tools across interconnected VPCs and on-premises networks. Visibility is also available for workloads deployed in the Google Kubernetes Engine (GKE).

After Gigamon is deployed, we remove operational burdens by offering the same level of elastic scalability you expect in your GCP deployments. Gigamon automatically detects changes in the number and locations of GCP VPCs being monitored. Gigamon cloud visibility nodes are then expanded (or contracted) to whatever levels are required.

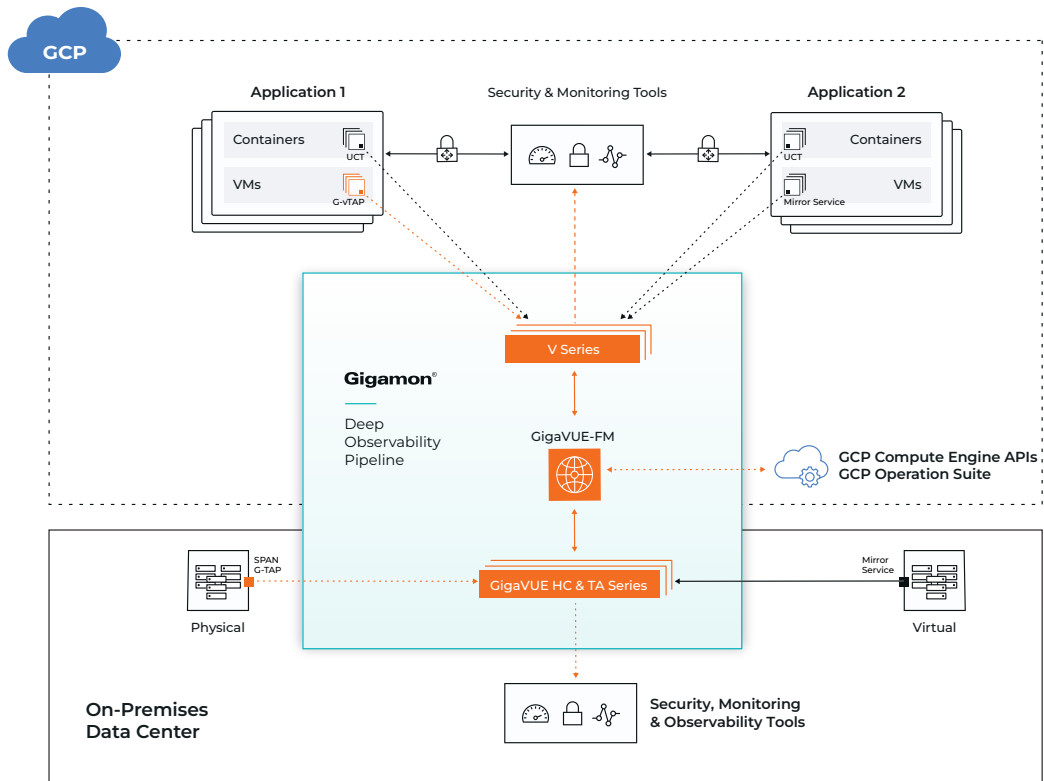


Figure 1. The Gigamon Deep Observability Pipeline acquires, processes, and forwards traffic within an GCP VPC.

The Gigamon Deep Observability Pipeline acquires traffic in any GCP cloud environment, intelligently processes this data, and then sends optimized network traffic and/or app metadata to your security and observability tools.

## Solution Highlights

### STRENGTHEN SECURITY AND COMPLIANCE WITHIN GCP

- IT teams can use proven, familiar security tools to monitor GCP workloads
- Gigamon Application Metadata Intelligence (AMI), generated through deep packet inspection, provides thousands of important application attributes to existing observability and SIEM tools

### INCREASE TOOL EFFICIENCY AND EFFECTIVENESS

- Traffic intelligence features, such as Application Filtering, Packet Slicing, Advanced Flow Slicing, De-duplication, and NetFlow generation, work to streamline traffic and reduce the burden on monitoring and security tools

## EASILY ACQUIRE TRAFFIC AND SCALE OBSERVABILITY

- GigaVUE Cloud Suite supports traffic acquisition from VMs or containers within GCP infrastructure using either native Packet Mirroring or lightweight Gigamon G-vTAPs
- Google VPC gateway support ensures tools also see traffic across interconnected VPCs
- Automatic Target Selection® enables dynamic discovery and monitoring of new workloads — without any manual action
- Traffic steering and tool load-balancing techniques optimize traffic distribution across multiple tools to ensure high availability

## GET UNIFIED ORCHESTRATION AND MANAGEMENT

- One common platform — GigaVUE-FM fabric manager — supports orchestration and management of your entire observability fabric across physical, cloud, and virtual environments
- Or choose native orchestration and services or third-party tools like Ansible and Terraform to simplify management

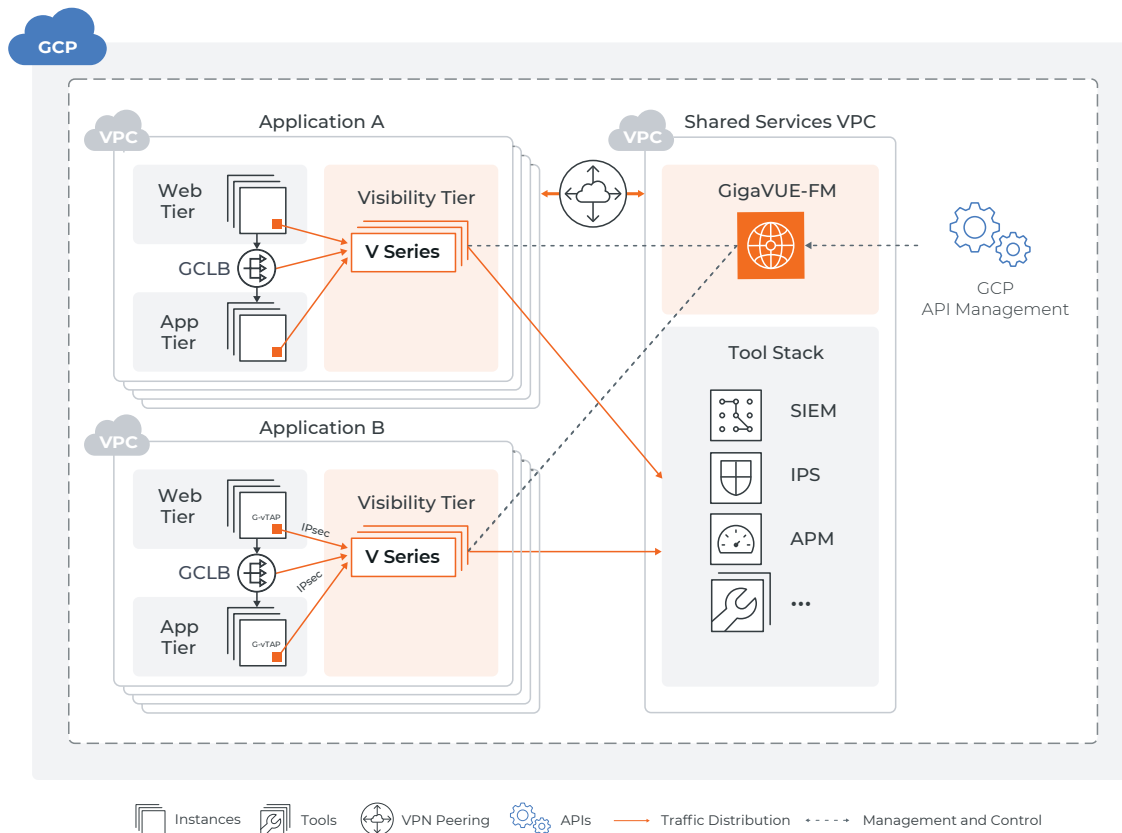


Figure 2. GigaVUE Cloud Suite acquires, processes, and forwards traffic across multiple GCP VPCs.

GigaVUE Cloud Suite for GCP supports multiple VPCs and integrates with Google cloud management tools to enable automation. Use native Packet Mirroring or Gigamon G-vTAPs to collect all traffic VM and container streams.

## Components of GigaVUE Cloud Suite for Google Cloud Platform

**Next-Gen G-vTAP** – The next generation of G-vTAP takes advantage of advanced Linux functionality to mirror production traffic and send to GigaVUE V Series node. This enhances performance and reduces resource impact in VM-based environments and makes it easier to tap VMs.

**G-vTAP module** – Optional lightweight agent, deployed in a GCP compute instance, mirrors production traffic and sends it to GigaVUE V Series nodes. G-vTAP modules can be deployed using GigaVUE-FM or via third-party orchestration tools such as Terraform.

Refer to the GigaVUE Cloud Suite for Kubernetes [data sheet](#) for traffic acquisition within Google EKS.

**GigaVUE V Series** – Visibility nodes deployed in GCP aggregate, replicate, and select traffic of interest, then optimize and distribute acquired traffic to multiple tools located in any VPC. Take advantage of Flow Mapping® and tool load balancing functions to reduce burden on tools.

**GigaSMART® applications** – GigaSMART applications, running on top of V Series, provide application and traffic intelligence, including Application Filtering Intelligence, Application Metadata Intelligence, De-duplication, Adaptive Packet Filtering, and Packet Slicing and Masking.

**GigaVUE-FM** – GigaVUE-FM fabric manager provides centralized orchestration and management across all environments, including GCP, AWS, and Azure; private clouds (Nutanix, OpenStack, and VMware); and on-prem physical infrastructure. Traffic policies for GigaVUE V Series are configured using a simple drag-and-drop user interface.

**G-vTAP Controller and GigaVUE V Series Proxy (optional)** – For hybrid and multi-GCP deployments, GigaVUE uses a controller-based design to proxy the command-and-control APIs while preserving existing IP addressing schemes or Network Address Translation (NAT). The G-vTAP Controller proxies commands from GigaVUE-FM to the G-vTAP Modules (see Figure 3), while the GigaVUE V Series Proxy proxies commands from GigaVUE-FM to the GigaVUE V Series nodes.

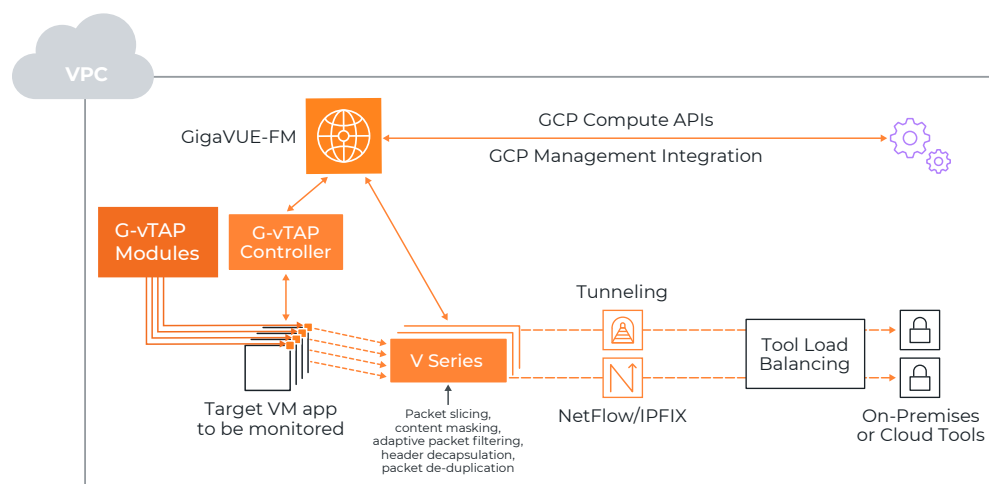


Figure 3. GigaVUE Cloud Suite for GCP is composed of four components: G-vTAP, V Series, G-vTAP Controller, and GigaVUE-FM.

## Key Features and Benefits

### G-vTAP Module

Optional lightweight agents, available at no cost, mirror traffic and send to GigaVUE V Series.

#### Simplified Traffic Mirroring

If packet mirroring is not an option, deploy just one lightweight agent per Google compute instance (vs. one per security tool), reducing impact on compute CPU utilization and operational overhead.

#### Reduce Application Downtime

No infrastructure redesign needed to add new agents as applications or tools scale out in GCP.

#### Scale What's Being Monitored

Integration between GigaVUE-FM, Google Compute Engine APIs, and Google Cloud management enables agents to automatically scale as compute instances scale.

#### Minimize Production Changes

Use the production Network Interface or separate Network Interface Card (NIC) to mirror workload traffic. The separate NIC option allows IT to preserve application traffic policies.

### GigaVUE V Series

Visibility nodes that aggregate, select, optimize, and distribute traffic. V Series nodes work seamlessly with Google Cloud management templates.

#### Traffic Brokering with Flow Mapping: Acquire, Aggregate, Select, Replicate and Distribute

- Acquire traffic from multiple compute instances via GRE or VXLAN tunnels, using packet mirroring, vTAP, or third-party sources.
- Support tunnel-as-a-source to gather encapsulated traffic from other virtual TAPs.
- Aggregate traffic from the various acquisition sources and replicate to send to different tools.
- Select traffic of interest with a variety of L2-L4 criteria policies and then forward it to specific tools. Criteria can include IP addresses/subnets, TCP/UDP ports, protocols, instance tags, and more.
- Distribute selected traffic to multiple tools anywhere: Support for 5-tuple load balancing to tool instances improves tool deployment efficiency and eliminates the need for discrete load balancers.

#### Traffic Intelligence: Transform, Optimize, and Obfuscate

- Reduce traffic volume by removing duplicated packets, slicing superfluous content, and sampling packet flows to reduce tool overload and traffic backhaul
- Remove unwanted protocols by stripping specific headers and encapsulations to reduce tool overload
- Obfuscate confidential, private, or sensitive information by masking specific data to maintain compliance
- Filter on encapsulated headers or on payload content via Adaptive Packet Filtering

#### Application Intelligence

- Identify more than 3,500 predefined applications in real time and create custom definitions using Perl-Compatible Regular Expressions (PCRE).
- Selectively drop or send application traffic to specific tools to improve their efficiency and effectiveness.
- Extract and forward application metadata from traffic using Application Metadata Intelligence to empower your SIEM and observability tools with contextual insights. Select from more than 5,000 application-aware metadata attributes, such as protocols, URLs, or basic app identifications.

#### Elastic Scale and Performance

- Automatic Target Selection: Automatically extract traffic of interest anywhere in the infrastructure being monitored
- Automatically scale based on varying number of compute instances without lowering performance of visibility node
- Process at multi-Gbps rates per instance

## GigaVUE-FM

Centralized management and orchestration.

### Centralized Orchestration and Management

- Centralized orchestration and single-pane-of-glass enable visualization across your entire infrastructure — physical, virtual, and cloud
- Configure all policies in GigaVUE V Series and manage their self-registration process in conjunction with the orchestration tool used; drag-and-drop user interface simplifies definition of traffic policies
- GigaVUE-FM monitors heartbeat communications from all fabric elements to help ensure high availability and give detailed information on fabric health
- Software-Defined Networking constructs enable configuration of intelligent traffic policies

### Automation

- Tight integration with Google Compute Engine APIs detects compute changes in VPCs and automatically adjusts the visibility tier.
- Integration with third-party orchestration tools enables instantiation of all visibility fabric components: G-vTAP Modules and their Controller and V Series nodes and their Proxy (if needed).
- Open REST APIs published by GigaVUE-FM can be consumed by tools to dynamically adjust traffic received or to orchestrate new traffic policies. GigaVUE-FM automatically scales V Series based on traffic levels, not on the number of VMs.

### Topology View

- Auto-discovery and end-to-end topology visualization provide insight into visibility tier and compute instances.

## Minimum Requirements for GigaVUE Cloud Suite for GCP

Table 1: Recommended minimum compute specifications

SOLUTION COMPONENT	MINIMUM COMPUTE INSTANCE TYPE	DESCRIPTION
G-vTAP Module	Any	Linux: Available as an RPM or Debian package
G-vTAP Controller	Standard_B1ms	Command-and-Control component for the G-vTAP agents
GigaVUE V Series Node	Standard_D4_v3, Standard_D4_v4	Requires minimum of two NICs NIC 1: Management NIC 2: Traffic acquisition and distribution NIC 3+: Optional additional data acquisition and distribution
GigaVUE-FM	Standard_D4_v3, Standard_D4_v4  40GB root disk  40GB data disk	GigaVUE-FM must be able to access both the controller instances for relaying the commands.  GigaVUE-FM automatically spins up additional V Series nodes based on a pre-defined configuration in the user interface.  For on-premises GigaVUE-FM requirements and ordering information, please refer to the GigaVUE-FM <a href="#">data sheet</a> .

Based on the number of virtual TAP points, GigaVUE Series nodes will be auto-launched by GigaVUE-FM.

## Ordering Information, Renewals

GigaVUE Cloud Suite for GCP, with all the solution components, can be purchased in the following way:

GigaVUE Cloud Suite for GCP uses a monthly term license and pricing is based on total volume of traffic processed daily. Users can purchase directly from Gigamon or associated partners. Customers receive an unlimited number of components (e.g., G-vTAP modules or V Series instances) at no additional charge.

Table 2: Part Numbers for the Solution

PART NUMBER	DESCRIPTION
VBL-50T-BN-CORE	Monthly Term license for CoreVUE software up to 50TB per day in V Series for cloud and virtual environments. Capabilities included: Advanced Tunneling, Slicing, Masking, Advanced Load Balancing. Minimum term is 12 months. Includes bundled Elite Support.
VBL-250T-BN-CORE	Monthly Term license for CoreVUE software up to 250TB per day in V Series for cloud and virtual environments. Capabilities include: Advanced Tunneling, Slicing, Masking, Advanced Load Balancing. Minimum term is 12 months. Includes bundled Elite Support.
VBL-2500T-BN-CORE	Monthly Term license for CoreVUE software up to 2500TB per day in V Series for cloud and virtual environments. Capabilities include: Advanced Tunneling, Slicing, Masking, Advanced Load Balancing. Minimum term is 12 months. Includes bundled Elite Support.
VBL-25KT-BN-CORE	Monthly Term license for CoreVUE software up to 25000TB per day in V Series for cloud and virtual environments. Capabilities include: Advanced Tunneling, Slicing, Masking, Advanced Load Balancing. Minimum term is 12 months. Includes bundled Elite Support.
VBL-50T-BN-NV	Monthly Term license for NetVUE software up to 50TB per day in V Series for cloud and virtual environments. Capabilities include: CoreVUE for V Series, De-duplication, NetFlow. Minimum term is 12 months. Includes bundled Elite Support.
VBL-250T-BN-NV	Monthly Term license for NetVUE software up to 250TB per day in V Series for cloud and virtual environments. Capabilities include: CoreVUE for V Series, De-duplication, NetFlow. Minimum term is 12 months. Includes bundled Elite Support.
VBL-2500T-BN-NV	Monthly Term license for NetVUE software up to 2,500TB per day in V Series for cloud and virtual environments. Capabilities include: CoreVUE for V Series, De-duplication, NetFlow. Minimum term is 12 months. Includes bundled Elite Support.
VBL-25KT-BN-NV	Monthly Term license for NetVUE software up to 25,000TB per day in V Series for cloud and virtual environments. Capabilities include: CoreVUE for V Series, De-duplication, NetFlow. Minimum term is 12 months. Includes bundled Elite Support.
VBL-50T-BN-SVP	Monthly Term license for SecureVUE Plus software up to 50TB per day in V Series for cloud and virtual environments. Capabilities include: SecureVUE for V Series, App Metadata Intelligence, App Filter Intelligence. Minimum term is 12 months. Includes bundled Elite Support.
VBL-250T-BN-SVP	Monthly Term license for SecureVUE Plus software up to 250TB per day in V Series for cloud and virtual environments. Capabilities include: SecureVUE for V Series, App Metadata Intelligence, App Filter Intelligence. Minimum term is 12 months. Includes bundled Elite Support.
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**Note:** Licenses are activated from GigaVUE-FM.

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## Support and Services

Gigamon offers a range of support and maintenance services. For details regarding the Gigamon Limited Warranty and its Product Support and Software Maintenance Programs, visit [gigamon.com/support-and-services/overview-and-benefits](https://gigamon.com/support-and-services/overview-and-benefits).

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## Learn More

For more information about the Gigamon Deep Observability Pipeline, or to contact a local representative, please visit [gigamon.com](https://gigamon.com).