

GigaVUE Cloud Suite for AWS

The Power of Deep Observability for Your AWS Environments

GigaVUE® Cloud Suite, a key component of Gigamon Hawk, is a fully AWS-certified deep observability pipeline that acquires and processes traffic from your AWS 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 AWS public cloud and Outposts — without having to invest in new tools.

By extending your existing on-prem or cloud tools to monitor and secure your AWS 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 traffic, where threats can hide
- Lower operational friction associated with cloud migration and the need to learn new tools and processes

Gigamon deep observability goes even further by augmenting the capabilities of your current MELT-based SIEM, APM, and observability tools with actionable network-level intelligence. This powerful combination of network-based data and MELT helps SecOps and CloudOps 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.

How Gigamon Works in AWS

GigaVUE Cloud Suite integrates with Amazon EC2 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 AWS VPC traffic mirroring, external load balancers, or GigaVUE G-vTAPs. Best of all, there's minimal impact on AWS resources and no need to implement individual tool agents just to get traffic to a specific tool. Gigamon also supports AWS transit gateways to ensure visibility for tools across interconnected VPCs and on-premises networks.

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

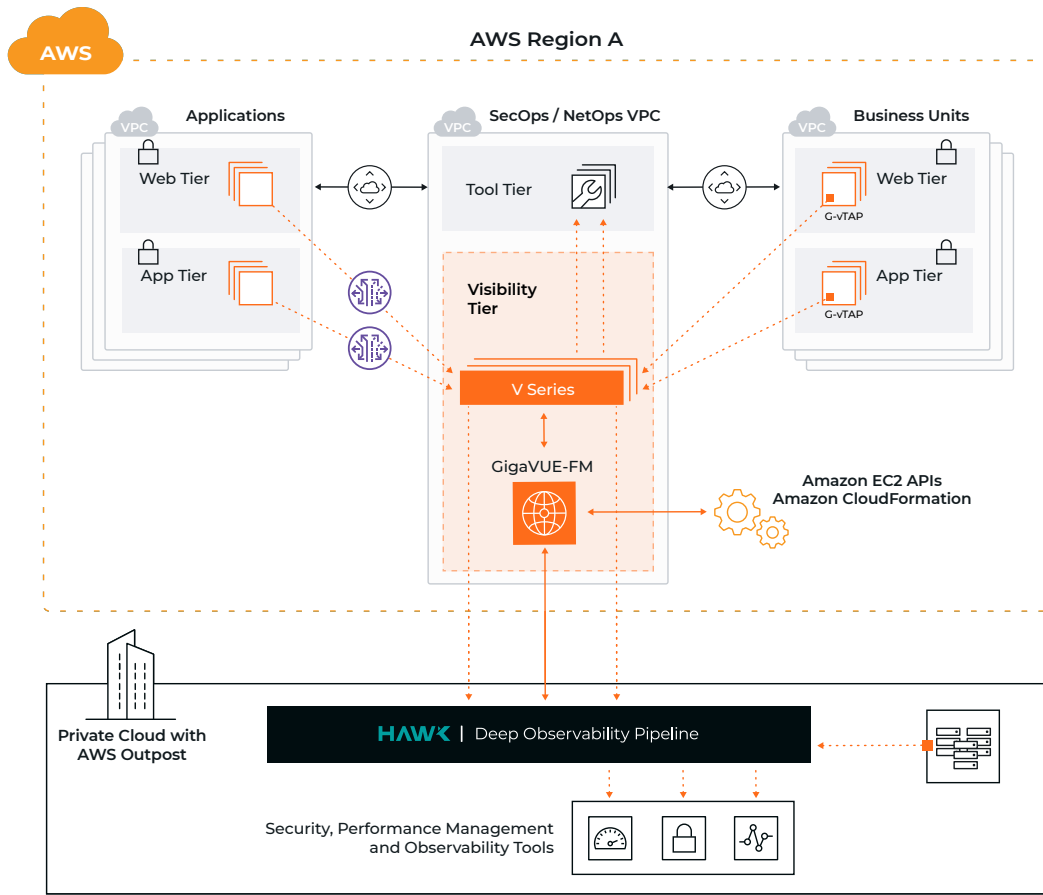


Figure 1. Gigamon Hawk acquiring, processing, and forwarding traffic within an AWS VPC

Gigamon Hawk acquires traffic in any AWS cloud or AWS Outposts environment, intelligently processes this data, and then sends optimized network-level intelligence to your security and observability tools.

Solution Highlights

STRENGTHEN SECURITY AND COMPLIANCE WITHIN AWS

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

INCREASE TOOL EFFICIENCY AND EFFECTIVENESS

- Traffic intelligence features, such as application filtering, packet slicing, advanced flow slicing, packet de-duplication, and NetFlow generation, work to streamline traffic and reduce the burden on monitoring and security tools

EASILY ACQUIRE TRAFFIC AND SCALE OBSERVABILITY

- Gigamon Hawk supports traffic acquisition within AWS infrastructure using either AWS VPC traffic mirroring, external or AWS elastic load balancers, or lightweight Gigamon G-vTAPs
- AWS transit 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
- Tight integration with AWS CloudWatch, as well as third-party orchestration tools like Ansible and Terraform, simplifies management

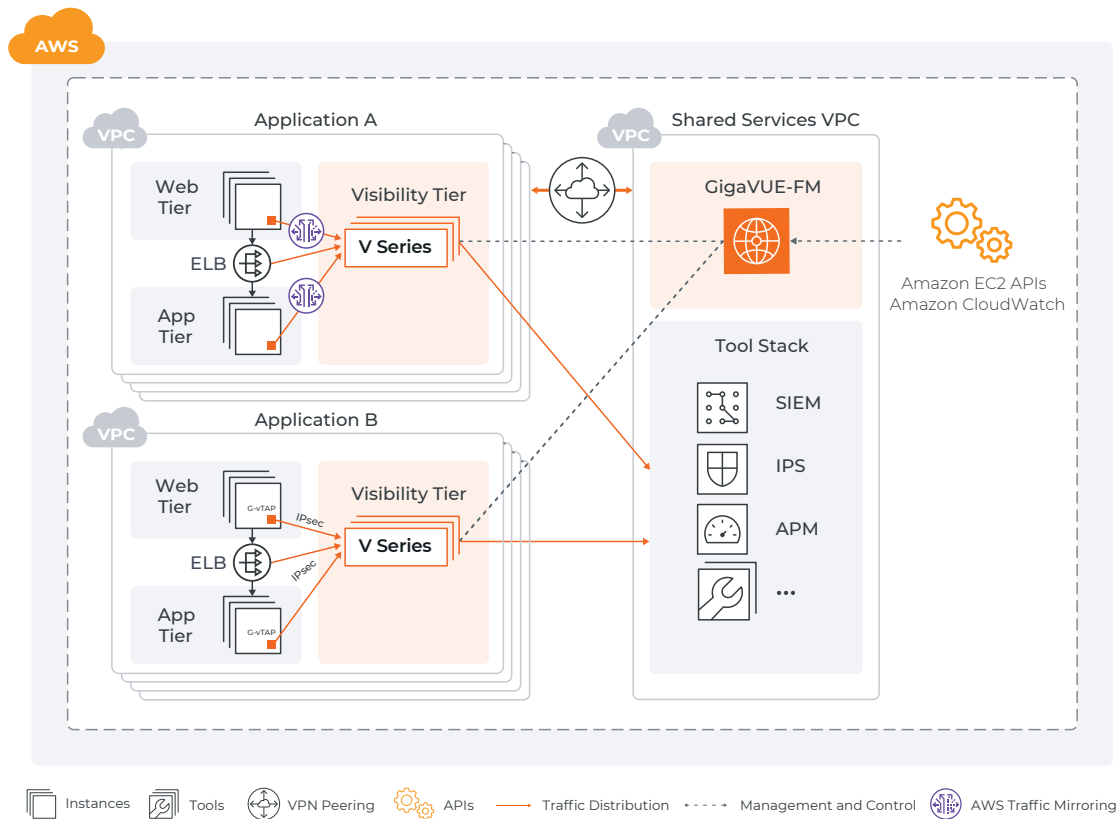


Figure 2. Gigamon Hawk Acquiring, processing, and forwarding traffic across multiple AWS VPCs

GigaVUE Cloud Suite for AWS supports multiple VPCs and integrates with AWS cloud management tools to enable automation. Use AWS agentless native-VPC traffic mirroring, AWS external load balancers, tunnel-as-a-source, or Gigamon G-vTAPs to collect all traffic streams.

Components of GigaVUE Cloud Suite for AWS

G-vTAP module – Optional lightweight agent, deployed in an Amazon EC2 instance, mirrors production traffic and sends it to GigaVUE V Series nodes via IPsec. G-vTAP modules can be deployed using GigaVUE-FM or via third-party orchestration tools such as Terraform.

GigaVUE V Series – Visibility nodes deployed in AWS 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, packet de-duplication, adaptive packet filtering, packet slicing, and masking.

GigaVUE-FM fabric manager – GigaVUE-FM provides centralized orchestration and management across all environments, including AWS, on-premises, and private clouds (Nutanix, OpenStack, and VMware). Traffic policies for 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-VPC 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 V Series Proxy proxies commands from GigaVUE-FM to the GigaVUE V Series nodes.

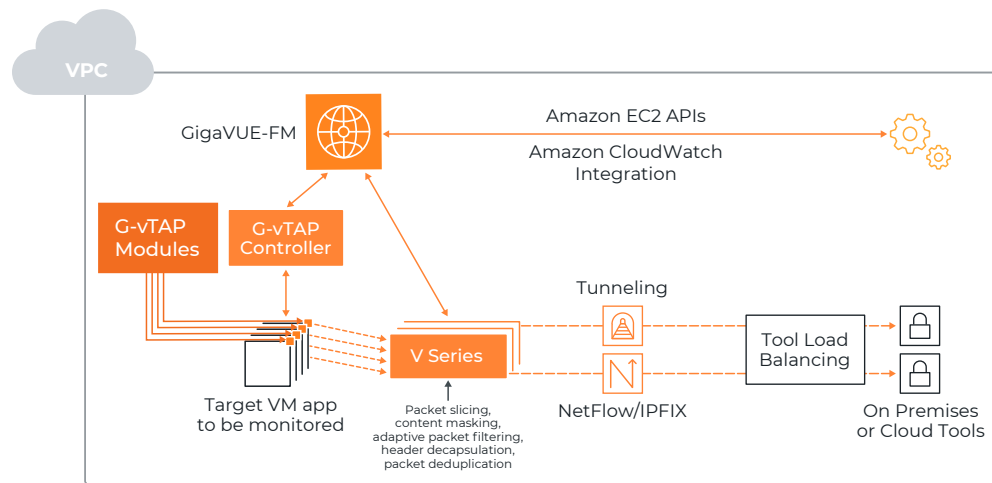


Figure 3. GigaVUE Cloud Suite for AWS is composed of four components: G-vTAP, V Series, G-vTAP Controller, and GigaVUE FM fabric Manager

Key Features and Benefits

G-vTAP Module

Lightweight agents, available at no cost, deployed on an EC2 that mirror traffic and send to GigaVUE V Series.

Simplified Traffic Mirroring

Deploy just one lightweight agent per Amazon EC2 instance (vs. deploying one per security tool), reducing impact on EC2 CPU utilization and operational overhead.

Reduce Application Downtime

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

Scale What's Being Monitored

Integration between GigaVUE FM, Amazon EC2 APIs, and Amazon CloudWatch enables agents to automatically scale as EC2 instances scale.

Minimize Production Changes

Use the production Elastic Network Interface (ENI) or a separate ENI to mirror workload traffic. The separate ENI 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 AWS native VPC mirroring and with AWS CloudFormation templates.

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

- Acquire traffic from multiple EC2 instances via GRE or VXLAN tunnels, using G-vTAP or third-party sources, including AWS-native functionality such as VPC mirroring, network load balancers, or elastic load balancers
- 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 pre-defined 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 EC2s, 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 Amazon APIs detects EC2 changes in the Amazon VPC 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. When deployed with AWS load balancer, 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 EC2 instances.

Minimum Requirements for GigaVUE Cloud Suite for AWS

Table 1: Recommended minimum compute specifications

SOLUTION COMPONENT	MINIMUM EC2 INSTANCE TYPE	DESCRIPTION
G-vTAP Module	Any	<ul style="list-style-type: none"> • Linux: Available as an RPM or Debian package • Windows: Available for Windows Server 2008/2012/2016/2019
G-vTAP Controller	T2 Micro	Command-and-Control component for the G-vTAP agents
GigaVUE V Series Node	T3A.X Large	Requires minimum of two ENIs ENI 1: Management ENI 2: Traffic acquisition and distribution ENI 3+: Optional additional data acquisition and distribution
GigaVUE-FM	M4 xlarge 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 Data Sheet.

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 AWS, with all the solution components, can be purchased in the following way:

GigaVUE Cloud Suite for AWS 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 via the AWS Consulting Partner Private Offers (CPPO) plan. Customers receive an unlimited number of components (e.g. G-vTAP modules, V Series instances, and FM) 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.

PART NUMBER	DESCRIPTION
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Note: Licenses are activated from GigaVUE-FM.

Support and Services

Gigamon offers a range of support and maintenance services. For details regarding Gigamon's Limited Warranty and its Product Support and Software Maintenance Programs, visit gigamon.com/support-and-services/overview-and-benefits.

Learn More

See how GigaVUE Cloud Suite for AWS can work for your organization, visit the [webpage](#), read the [solution brief](#) and request a [demo](#).