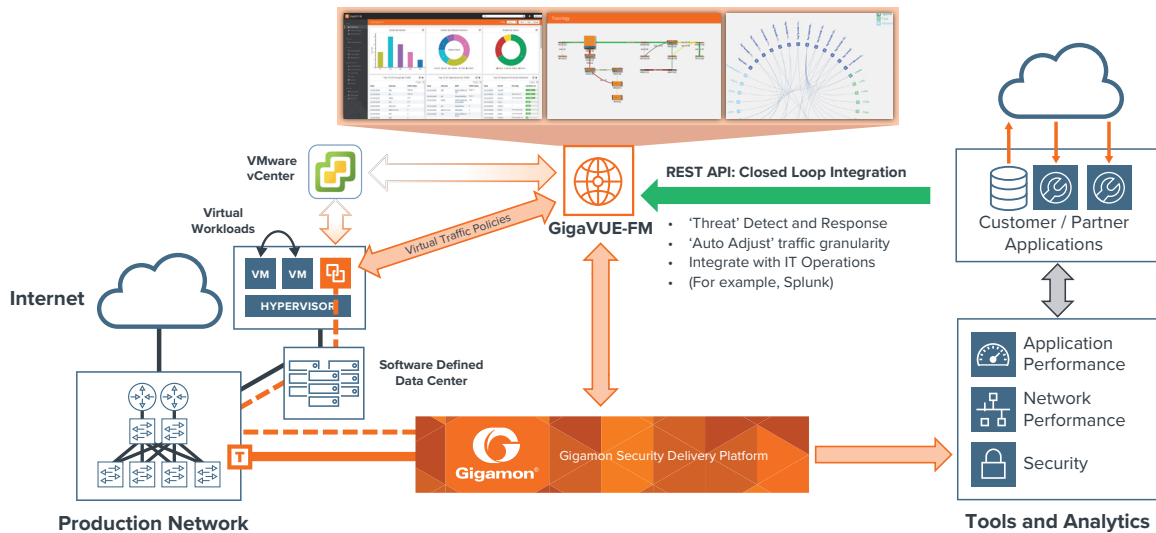


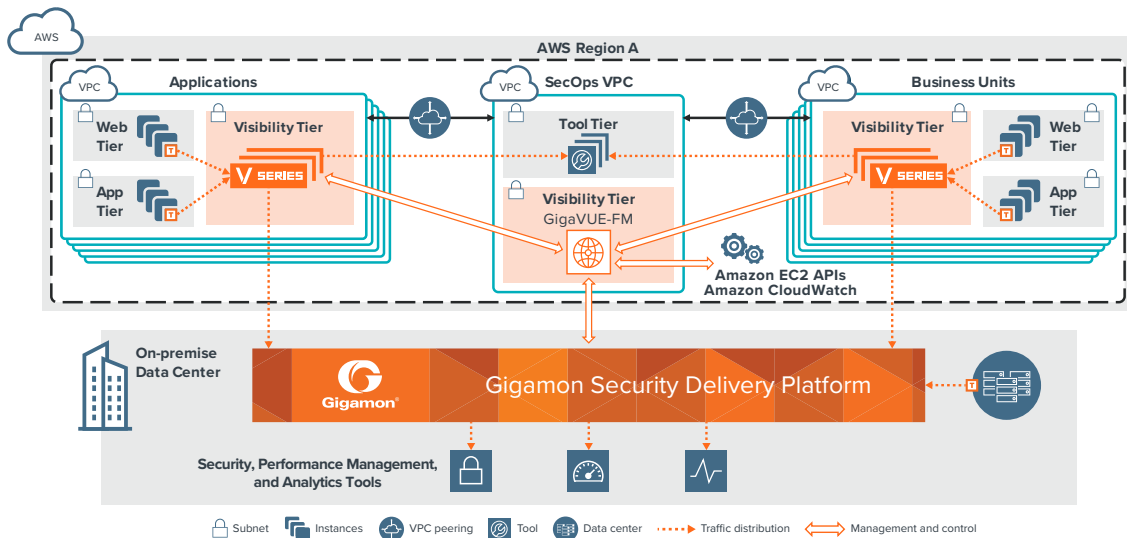
Orchestration and Management of the Gigamon Security Delivery Platform

The Gigamon Security Delivery Platform delivers pervasive visibility across enterprise, data center, public cloud and service provider environments to enable security, network and application performance analytics and management. GigaVUE-FM delivers a single pane-of-glass view of all the physical and virtual nodes across the Security Delivery Platform, while also providing a simple-to-use graphical user interface (GUI) to orchestrate the patented Flow Mapping® traffic policies, visualize network topology connectivity and to identify visibility hot spots.

Gigamon Security Delivery Platform managed by GigaVUE-FM



Gigamon Security Delivery Platform managed by GigaVUE-FM



A single instance of GigaVUE-FM can manage hundreds of physical and virtual Visibility Nodes across multiple locations or data centers or AWS Virtual Private Clouds (VPCs). With tiered pay-as-you grow licensing, GigaVUE-FM also allows customers to grow their management capabilities proportional to the complexity, reach, and attach of the GigaSECURE® Security Delivery Platform to the production networks.

GigaVUE-FM is available as both a software-only virtual appliance for VMware ESX, Microsoft Hyper-V, KVM, Amazon Machine Image (AMI) and as a hardware appliance for deployments where customers prefer a turnkey solution for management, or when the reach and scale of the Security Delivery Platform needs dedicated compute capacity for management.

The GigaVUE-FM software-only option is available at no charge for single physical node management and is also available as trials for customers wishing to try it in on-premises deployments or in public, private or hybrid cloud environments.

Table 1: Features and Benefits

Features	Benefits
Centralized management and control	Provides centralized management, monitoring, and configuration of the physical and virtual traffic policies for the Security Delivery Platform allowing administrators to map and direct network traffic to the security and monitoring tools or analytics.
Tool Capacity Planning with GigaVUE-FM Tool View	<ul style="list-style-type: none"> • Making sure the tool is optimally utilized • Enable users to select the best tool to route network traffic based on resource availability • Track the tool's storage capacity and data wrap-around time
Flow Mapping® across clusters	Fabric Maps enables Flow Mapping® across clusters that scales network visibility across hundreds of nodes.
Public, private and hybrid cloud visibility	Integration with Amazon EC2, CloudWatch, VMware ESX/NSX and OpenStack APIs to orchestrate the deployment and configuration of the Security Delivery Platform for Public (V Series nodes) and Private Clouds (GigaVUE-VM), including automated visibility for elastic workloads in AWS and VMware NSX powered Software-Defined Data Centers (SDDC).
Auto Discovery of Network Topology	Automatic discovery and topology visualization of the attached networks using Cisco Discovery Protocol (CDP) or Link Layer Discovery Protocol (LLDP) analysis from the sourced traffic. Using the Security Delivery Platform, NetOps and SecOps teams can trace back the production network interfaces that are detected to be at fault—this helps to drastically cut down on the mean time to resolution (MTTR).
Network topology views with traffic policy overlays	End-to-end visualization of edge-to-core connectivity between the Visibility Nodes, import and display connected production network switches, and pre-defined security and monitoring tools; overlay traffic policies from the ingress network port to the egress tool port.
Group-based Visibility	Create hierarchical grouping of visibility nodes per site or location or data centers to allow for granular control and management.
Network-wide Reporting	Summarize and customize dashboards for inventory, node/cluster status, events, audit trail, and Top-N/Bottom-N port/map usage with options to export and schedule HTML/PDF reports for offline viewing.

Note that the above features are only available for GigaVUE H Series nodes. Support for GigaVUE G Series nodes is limited to inventory, health, events, firmware management and backup/restore capabilities.

Table 1: Features and Benefits continued

Features	Benefits
Advanced Monitoring with Faster MTTR	Pro-actively monitor and troubleshoot hot spots in your network: – Top-N, Bottom-N network/tool port and map usage widgets in the dashboard – Identify unhealthy traffic policies based on network and port operational status – Historical trend analysis (1 hour, 1 day, 1 week, 1 month) for port and traffic policies – Live contextual search to quickly troubleshoot hot spots (ports, traffic policies, VMs, IPs, MACs, etc.)
FabricVUE™ Traffic Analyzer	Provides network-centric visualization of network traffic, allowing IT administrators to use GigaVUE-FM as a first-level dashboard to identify Top-N conversations, applications, end points, and protocols. Uses NetFlow/IPFIX /CEF records from GigaVUE® Visibility Nodes to collect and analyze network traffic: <ul style="list-style-type: none"> • That is being filtered out of the monitoring appliances • To identify any hot spots on new traffic that needs to be forwarded to the monitoring appliances
Programmable APIs for Software-Defined Visibility	RESTful APIs that can be used by the traffic monitoring or IT operations management tools to discover the visibility nodes for inventory and status collection.
Gigamon Visibility App for Splunk	Enables integration of the Security Delivery Platform inventory, health, port, and traffic insight into Splunk Enterprise. This application, available at no charge from the Splunk App Store (splunkbase), uses REST APIs to periodically collect information from GigaVUE-FM and display the data within the Splunk dashboards.
Scheduling capabilities	<ul style="list-style-type: none"> • Schedule firmware version updates to one or many Visibility Nodes to streamline software rollouts in an automated fashion • Schedule configuration backups of the Visibility Nodes which allows customers to restore a good baseline if inadvertent changes are applied
Backup and restore capabilities	<ul style="list-style-type: none"> • Backup and restore across multiple visibility nodes to quickly back-out changes if required due to errors or change control requirements • Backup and restore of GigaVUE-FM configuration DB which allows for GigaVUE-FM appliance replacement or restore to a well-known configuration

Note that the above features are only available for GigaVUE H Series nodes. Support for GigaVUE G Series nodes is limited to inventory, health, events, firmware management and backup/restore capabilities.

Use Cases

- Centralized Operations Center looking to configure, direct, and control traffic from any network (i.e. public, private, hybrid cloud, onpremises data centers or service provider networks) to the security or monitoring tools for analysis
- Network security team that is chartered with detecting, reacting, and responding to emerging threats based on packet- or flow-based traffic analysis
- SecOps and NetOps teams tasked to monitor and troubleshoot traffic hot spots with the help of the Gigamon Visibility Platform

The following describes the minimum requirements for the hardware on which the GigaVUE-FM virtual appliance is deployed.

Table 2: Hypervisor Requirements for Software Edition

Requirement	Description
Hypervisor	<ul style="list-style-type: none"> VMware vSphere 5.0 and above Microsoft Hyper-V (Windows Server 2008 R2 SP1 and later, 2012 R2 and later) KVM Hypervisor
CPU	<ul style="list-style-type: none"> One or more 64-bit x86 CPUs with virtualization assist (Intel-VT or AMD-V) enabled
RAM	<ul style="list-style-type: none"> At least 8Gb
Disk Space	<ul style="list-style-type: none"> Shared or locally attached storage
Network	<ul style="list-style-type: none"> At least one 1 Gbps NIC

The following table lists the virtual computing resources that the hypervisor must provide for each GigaVUE-FM instance. Note that additional computing resources may be required for increased scale and feature add-ons. Please refer to user guide and release notes for more details.

Table 3: Virtual Computing Requirements for GigaVUE-FM Software Edition

Requirement	Description
Memory	<ul style="list-style-type: none"> Minimum 4Gb memory (at least 16Gb, if using FabricVUE Traffic Analyzer)
Virtual CPU (VCPU)	<ul style="list-style-type: none"> One (1) (at least 4 vCPU, if using FabricVUE Traffic Analyzer)
Virtual storage for OS	<ul style="list-style-type: none"> 60Gb using Virtual IDE (100Gb+ if using FabricVUE Traffic Analyzer)
Virtual network interfaces	<ul style="list-style-type: none"> 1 vNIC

Table 4: Computing Requirements and Supported limits for FabricVUE Traffic Analyzer

Requirement	Virtual Appliance			Hardware Appliance		
	4 vCPU	8 vCPU	12 vCPU	12 vCPU (Dual 6 Core)		
CPU	4 vCPU	8 vCPU	12 vCPU	12 vCPU (Dual 6 Core)		
RAM	16GB	32GB	64GB	16GB	32GB	64GB
Flows per Second (FPS)	4K	8K	15K	5K	10K	20K

GigaVUE-FM Hardware Appliance Product Specifications

Table 5: Specifications

Feature	Description
Rack Mounting	<ul style="list-style-type: none"> • 1 Rack Unit (1RU) • Tool-less mounting in 4-post racks with square or unthreaded round holes • Toolled mounting in 4-post threaded hole racks • Cable management arm
Dimensions	<ul style="list-style-type: none"> • Height: 1.68in (42.8mm) • Width: 18.99in (482.4mm) • Depth: 23.9in (607mm)
Weight	<ul style="list-style-type: none"> • 19.9kg (43.87lb)
Operating System	<ul style="list-style-type: none"> • GigaVUE-FM OS (Gigamon appliance hardened Linux)
Processor	<ul style="list-style-type: none"> • Dual Intel Xeon E5-2603 v3 1.6GHz,15M Cache,6C/6T
Memory	<ul style="list-style-type: none"> • 16GB RAM (expandable up to 384GB RAM)
Storage	<ul style="list-style-type: none"> • OS: 2 x 120GB SSD SATA Boot MLC 6Gb 2.5in Hot-plug Drive (RAID1) • Data: 2 x 1TB 7.2K RPM Self-Encrypting NLSAS 6Gb 2.5in Hot-plug Hard Drive, FIPS140-2 (RAID1)
Systems Management	<ul style="list-style-type: none"> • IPMI 2.0 compliant • iDRAC8 Enterprise with dedicated 10/100/1000 BaseT network connection
Appliance Management	<ul style="list-style-type: none"> • 10/100/1000 BaseT LAN • Serial Console (115,200 baud)
Power Supply	<ul style="list-style-type: none"> • Dual, Hot-plug, Redundant Power Supply (1+1) • 550W (Platinum) AC (100–240V, 50/60Hz, 7.4A-3.7A)
Heat Dissipation	<ul style="list-style-type: none"> • 2107BTU/hr
Temperature	<ul style="list-style-type: none"> • Operating: 10° to 35° C (50° to 95° F) • Storage: -40° to 65° C (-40° to 149° F)
Maximum Altitude	<ul style="list-style-type: none"> • Operating: 3048m (10,000 feet) • Storage: 12,000m (39,370 feet)
Connectors	<p>Back</p> <ul style="list-style-type: none"> • Four 10/100/1000Mbps LOM • One 10/100/1000Mbps iDRAC8 Enterprise • One DB9 Serial • One USB 3.0, One USB 2.0 • One DB15 VGA <p>Front</p> <ul style="list-style-type: none"> • Two USB 2.0 (Disabled in BIOS) • One DB15 VGA

Table 6: Compliance

Type	Description
Safety	IEC 60950-1 IT Equipment; EN 60950-1 IT Equipment
Emissions	FCC Part 15, Class A; EN55022/CISPR-22 Class A; CISPR 24; GOST Russia; CE Mark EN 5502 Class A; Industry Canada ICES-003 Class A; EN 55024; KCC Korea, CCC China
Environmental	RoHS Directive 2011/65/EU; WEE; Global ENERGY STAR 2.0; Nordic NEMKO; REACH Directive; CECP China

Please contact Gigamon for the full compliance list.

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 www.gigamon.com/support-and-services/overview-and-benefits

Ordering Information

Table 7: GigaVUE-FM

Part Number	Description
GFM-FM001	GigaVUE-FM free edition that manages 1 Physical Visibility Fabric Node
GFM-FM005	GigaVUE-FM 5-Pack Software Edition, supports up to 5 GigaVUE Physical Nodes
GFM-FM010	GigaVUE-FM 10-Pack Software Edition, supports up to 10 GigaVUE Physical Nodes
GFM-FM000	GigaVUE-FM Prime Software Edition, supports up to 200 GigaVUE Physical Nodes, includes Feature Add-Ons
GFM-UPG-510	GigaVUE-FM Upgrade from 5-Pack to the 10-Pack Software Edition
GFM-UPG-5P	GigaVUE-FM Upgrade from 5-Pack to the Prime Software Edition
GFM-HW0-FM010	GigaVUE-FM Hardware Appliance, manages up to 10 Physical Visibility Fabric Nodes
GFM-UPG-10P	GigaVUE-FM Upgrade from 10-Pack to the Prime Edition (Software and Hardware Appliance)
GFM-FM-FTA	GigaVUE-FM Feature Add-On for FabricVUE Traffic Analyzer

For More Information

For more information about Gigamon or to contact your local representative, please visit: www.gigamon.com