GigaVUE-FM

Centralized Orchestration and Management of the Gigamon Deep Observability Pipeline



Figure 1. GigaVUE-FM is available both as a physical (shown above) or virtual appliance.

Key Benefits

- Centrally manage, monitor, and configure traffic policies for all Gigamon nodes
- Simplify and automate all aspects of defining, deploying, managing, and operating the Gigamon Deep Observability Pipeline at scale
- Integrate with public and private cloud platforms to reduce manual intervention
- Reduce the mean time to resolution (MTTR) of traffic hot spots for NetOps and SecOps teams with auto-discovery of network topology
- Assign rights to specific roles based on the user's job function to lower risk exposure and prevent accidental changes with role-based access control (RBAC)
- Provide business continuity with high availability (HA) for GigaVUE-FM instances
- Expedite and reduce manual effort for Gigamon Deep
 Observability Pipeline deployments via automation and bulk
 configuration management using REST APIs and Ansible
 Automation

Use Cases

- Centralized operations centers looking to configure, direct, and control traffic from any network (public, private, hybrid cloud, on-premises data centers, or central offices) to security and monitoring tools for analysis
- Network security teams tasked with detecting, reacting, and responding to emerging threats based on packet- or flow-based traffic analysis
- Using the Gigamon Deep Observability Pipeline to monitor and troubleshoot traffic hot spots
- Operations teams aiming to reduce cost and improve efficiency through automation

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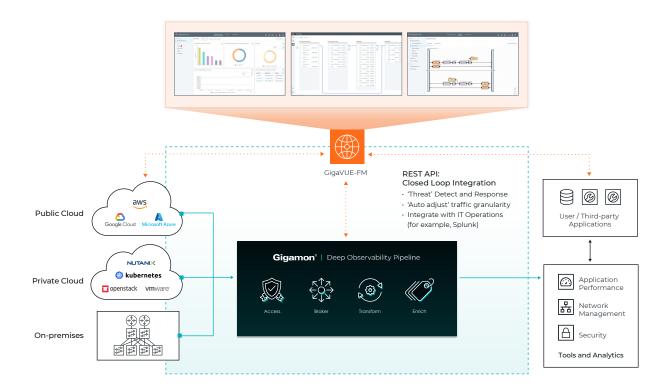


Figure 2. GigaVUE-FM manages all Gigamon visibility nodes: physical, virtual, and cloud (the Gigamon Deep Observability Pipeline).

The Gigamon Deep Observability Pipeline provides pervasive network visibility across physical, virtual, and cloud infrastructure. It also delivers the right traffic to the appropriate security, network, and application performance tools. To manage it all, GigaVUE-FM delivers a single-pane-of-glass view of all physical and virtual Gigamon nodes across the Gigamon Deep Observability Pipeline. With GigaVUE-FM, you get an easy-to-use GUI to orchestrate our patented Flow Mapping® and Fabric Mapping traffic policies, visualize network topology connectivity, and identify visibility hot spots.

A single instance of GigaVUE-FM can manage up to 1,000 Gigamon physical visibility nodes across multiple locations, data centers, public and private clouds, and up to 3,000 in high-availability cluster arrangements. GigaVUE-FM helps protect against failure and lets you scale seamlessly as the size and complexity of your networks grow.

GigaVUE-FM is available as a software-only virtual appliance for AWS AMI, KVM/OpenStack, Microsoft Azure/Hyper-V, Google Cloud Images, Nutanix AHV, and VMware NSX/ESXi. It is also available as a hardware appliance for deployments where turnkey solutions are preferred. The GigaVUE-FM software-only option is available at no charge for cloud-only visibility and/or when managing a single physical device only.

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Table 1. Key Features and Benefits

Centralized Management	Centralizes management, monitoring, and configuration of physical and virtual traffic policies for all Gigamon nodes. Administrators can better map and direct network traffic to security, network, and application-performance monitoring tools.
High Availability	GigaVUE-FM provides high availability in a group of three, ensuring no loss of management or view across the Gigamon Deep Observability Pipeline if an active FM goes offline
Tool View	Facilitates tool capacity planning by: Ensuring the tool is optimally utilized Empowering users to select the best tool to route network traffic based on resource availability Tracking tool storage capacity and data wraparound time
Visibility Policy Workflows	Simplifies visibility policy configuration for: Inline security tools, including traffic forwarding and bypass Visibility into encrypted traffic with inline SSL/TLS decryption Application-aware filtering and metadata Flow Mapping across hundreds of nodes in one or more clusters
Fabric Health Analytics	Advanced dashboards for monitoring the health of the Gigamon Deep Observability Pipeline and identifying hot spots
Alarm Management	Reduces mean time to resolution (MTTR) by providing root cause of a fault in the fabric. Provides accurate node health information and granular alarm views for easier troubleshooting and serviceability.
Network-wide Reporting	Provides summarization and customization of dashboards for inventory, node/cluster status, events, and audit trail with options to export and schedule HTML/PDF reports for offline viewing
Visibility Fabric Topology	Displays physical deployment and interconnectivity, grouping nodes based on user-defined tags to match the physical data center and for hierarchical management and monitoring
License Management	Manages GigaSMART® application licenses for the Gigamon Deep Observability Pipeline and floating licenses between duplicate HC Series nodes
Task Scheduling	 Automates future and periodic actions including: Scheduling of firmware version updates to one or many visibility nodes Scheduling of visibility node configuration backups that allow you to restore a good baseline if inadvertent changes are applied Back up and restoration of the GigaVUE-FM configuration database to allow for GigaVUE-FM appliance replacement or restoration to a well-known configuration
Programmable Integration Interfaces	Includes REST XML API, Ansible – Automation SDK which facilitates operations teams to: Automate bulk fabric configurations, reducing the overall time for fabric deployments Integrate inventory, health, port, and traffic insights of the Gigamon Deep Observability Pipeline into Splunk Enterprise for correlation and analysis Integrate with cloud and virtual infrastructure managers like Amazon CloudWatch, Microsoft Azure Resource Manager, Google Cloud Operations Suite, OpenStack Horizon, and VMware ESXi/NSX-T
Role-Based Access Control	Empower traffic monitoring or IT operation management tools to discover deep observability pipeline nodes for inventory and status collection Allows users to be assigned specific roles based on their function to increase security and provent upper transport of the provent
(RBAC)	prevent unauthorized changes. Create, read, update, and delete operations at granular levels using tags. Simplifies secure single sign-on access including HA deployments to enterprises by
Single Sign-On (SSO)	Simplifies secure single sign-on access including, HA deployments, to enterprises by integrating with identity and access management (IAM) vendors such as Okta

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Automatic Certificate Management Environment (ACME)	Automates updating of authentication certificates from an enterprise's certificate management and repository systems
FIPS 140-2 Level 1 Certified	Certificate #4066

Table 2. Hypervisor Requirements for Software Edition

REQUIREMENTS	SUPPORT UP TO 50 DEVICES	SUPPORT UP TO 500 DEVICES	SUPPORT UP TO 1,000 DEVICES	SUPPORT UP TO 3,000 DEVICES (FM-HA MODE)
Memory	16GB	32GB	128GB	128GB
Virtual CPU (vCPU)	2	4	12	12
Virtual Storage for OS	40GB	40GB	40GB	40GB
Virtual Network Interface	1	1	1	1
Number of FM nodes	1	1	1	3

- · Devices include HC Series and/or TA Series nodes
- Requirements are tested and verified based on VMware ESXi 6.7.0. Microsoft Hyper-V (Windows Server 2008 R2 SP1 and later, 2012 R2 and later) and KVM are supported, but scaling is not verified
- · CPU Min. Speed 2.3GHz

Table 3. Hardware Appliance Product Specifications*

FEATURE	DESCRIPTION
Rack mounting	 One rack unit (1RU) Tool-less mounting in 4-post racks with square or unthreaded round holes Tooled mounting in 4-post threaded hole racks Cable management arm
Dimensions	 Height: 1.68 in. (42.8 mm) Width: 18.97 in. (482.4 mm) Depth: 23.9 in. (607 mm)
Weight	19.9 kg (43.87 lbs)
Operating system	GigaVUE-FM OS (Gigamon appliance-hardened Linux)
Processor	Dual Intel Xeon 2.1GHz, 8C/16T
Memory	128GB RAM (expandable up to 384GB RAM)
Storage	 OS: 1 x 240GB SSD SATA drive Data: 2 x 2.4TB HDD (RAID1, 2TB usable)

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Management	 IPMI 2.0 compliant 2 x 1/10G SFP+ 2 x 100/1000M Base-T LAN Serial console (115,200 baud) 	
Power supply	 Dual, hot-plug, redundant power supply (1+1) 550W (Platinum) AC (100–240V, 50/60Hz, 7.4A–3.7A) 	
Heat dissipation	2559 BTU/hr	
Temperature	 Operating: 10° C to 35° C (50° F to 95° F) Storage: -40° C to 65° C (-40° F to 149° F) 	
Maximum altitude	 Operating: 3,048 m (10,000 ft) Storage: 12,000 m (39,370 ft) 	
Connectors	Back Four 10/100/1000Mbps LOM One 10/100/1000Mbps iDRAC9 Enterprise One DB9 serial One USB 3.0, one USB 2.0 One DB15 VGA	
	Front Two USB 2.0 (disabled in BIOS) One DB15 VGA	

^{*} Applicable to GigaVUE-FM Hardware Appliance SKUs such as GFM-HW1-FM010 and GFM-HW1-FM001-HW.

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Scalability

CONFIGURATION	BASIC (ESXI-VM)	MEDIUM ESXI-VM)	LARGE (ESX)	EXTRA LARGE (FM HARDWARE APPLIANCE)
CPU SPECIFICATION				
CPU count (minimum)	2	4	12	32
CPU Min speed (per CPU)	2.30GHz	2.3GHz	2.3GHz	2.10GHz
MEMORY SPECIFICATION				
Memory Size	16 GB	32GB	128GB	128GB
APPLIANCE SCALABILITY				
Number of HC Series/TA Series nodes (Up to)	50	500	1,000	1,000
DISK SPECIFICATION (STANDALONE)				
OS disk size	40GB	40GB	40GB	40GB
Config disk size – 15 Days data	80GB	620GB	1100GB	1100GB
Config disk size – 35 Days data	160GB	1240GB	2200GB	2200GB
Config disk size – Daily Index 35 days + 120 Days Rollup	200GB	1600GB	2500GB	2500GB
DISK SPECIFICATION (FM HIGH AVAILA	ABILITY MODE – F	OR EACH FM)		
OS disk size	40GB	40GB	40GB	40GB
Config disk size – 15 Days data	80GB	620GB	1600GB	1100GB
Config disk size – 35 Days data	160GB	1240GB	3000GB	3000GB
Config disk size – Daily index 35 Days data (+ Data rollup for 120 Days)	200GB	1600GB	4300GB	4300GB

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Scalability continued

CONFIGURATION	BASIC (ESXI-VM)	MEDIUM ESXI-VM)	LARGE (ESX)	EXTRA LARGE (FM HARDWARE APPLIANCE)
APPLIANCE SCALABILITY				
Number of HC Series/TA Series Nodes (Up to)	50	500	3,020	3,000

Note:

· When deploying FM in ESX use "reservation" option and allocate fixed resource for CPU and memory

Table 5.

TABLE 5A. 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			
TABLE 5B. SCALABI	LITY			
TYPE	DESCRIPTION			
Physical Instance	Up to 1,000 nodes with a single instance and up to 3,000 in a cluster.			
Virtual Instance	Up to 1000 G-vTAP agents with 100 GigaVUE V series nodes.			

Ordering Information

TABLE 6A. TERM LICENSE	
PART NUMBER	DESCRIPTION
GFM-FM005-SW-TM	Monthly subscription license for GigaVUE-FM, manage up to 5 Physical Visibility Fabric Nodes. Includes Elite Software Support Program.
GFM-FM010-SW-TM	Monthly subscription license for GigaVUE-FM, manage up to 10 Physical Visibility Fabric Nodes. Includes Elite Software Support Program.
GFM-FM000-SW-TM	Monthly subscription license for GigaVUE-FM Prime Edition, manage up to 1000 Physical Visibility Fabric Nodes. Includes Elite Software Support Program.
TABLE 6B. FM SOFTWARE	
PART NUMBER	DESCRIPTION
GFM-FM001	GigaVUE-FM, manage 1 physical Visibility Fabric node
GFM-FM005	GigaVUE-FM, manage up to 5 physical Visibility Fabric nodes
GFM-FM010	GigaVUE-FM, manage up to 10 physical Visibility Fabric nodes
GFM-FM000	GigaVUE-FM Prime Edition, manage up to 1,000 physical Visibility Fabric nodes
GFM-UPG-510	GigaVUE-FM Upgrade from the 5-Pack to the 10-Pack Edition
GFM-UPG-5P	GigaVUE-FM Upgrade from the 5-Pack to the Prime Edition
GFM-UPG-10P	GigaVUE-FM Upgrade from the 10-Pack license to the Prime Edition for either Software only or Hardware Appliance
TABLE 6C. FM APPLIANCES	
PART NUMBER	DESCRIPTION
GFM-HW1-FM010	GigaVUE-FM Hardware Appliance (dual 2.1GHz 8 core/16 thread CPU, 2 X 2.4TB hard disk drive with RAID, 2x10Gb and 2x1Gb network interfaces), manages up to 10 physical Visibility Fabric nodes
GFM-HW1-FM001-HW	GigaVUE-FM Hardware Appliance (dual 2.1GHz 8 core/16 thread CPU, 2 TB hard disk drive with RAID, 2x10Gb and 2x1Gb network interfaces) only. Requires GigaVUE-FM license, sold separately.

Support and Services

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

More Information

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