



# GigaVUE V Series Quick Start Guide

**GigaVUE Cloud Suite**

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# Change Notes

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# GigaVUE V Series Quick Start

GigaVUE Cloud Suites are cloud-native solutions that acquire, optimize and distribute selected traffic to security and monitoring tools. The suites enable enterprises to extend their security posture to both public and private cloud and also accelerate the time to detect threats to applications while taking advantage of a reliable, scalable and available cloud environment.

This solution includes three main components:

**GigaVUE V Series Node:** Processes network traffic and allows administrators to provide additional functionality including forwarding, de-duplication, and NetFlow generation

**G-vTAP Agents:** Acquires traffic from the host on which it is deployed and transfers it to the V Series Node.

**GigaVUE-FM:** Provides detailed analytics for the solution and can optionally orchestrate the deployed components.

## What is a V Series Node?

A V Series Node is a virtual machine running in the customer's infrastructure which processes and distributes network traffic. It plays the same role as an H Series appliance in a physical deployment, running many of the same GigaSMART applications and feeding data to tools in a similar manner. Because V Series nodes reside in a virtualized environment, inbound and outbound traffic is tunneled (because there are no physical device ports).

### V Series 1.x nodes:

- Platform support—AWS, Azure, OpenStack, "AnyCloud"
- GigaSMART support—Deduplication, NetFlow generation, Slicing, Masking
- Licensing—Licensed per platform (Sold in bundles of nodes, e.g. 100 / 1000), separate SKUs for each

### V Series 2.x nodes:

- Platform support—AWS, Azure, VMware (ESXi and NSX-T), OpenStack
- GigaSMART support—Deduplication, NetFlow, AMI, AFI, Slicing, Masking

- **Licensing**—Licensed according to traffic volume. With Volume Based Licensing, the customer can choose any supported platform, or combination of platforms.

GigaVUE Cloud Suite supports V Series 1 and V Series 2, however, V Series 2 is recommended. V Series 1 are older and are replaced by the newer and better V Series 2.

Cloud Platform	Guides	V Series
<b>Public Cloud</b>		
AWS	GigaVUE Cloud Suite for AWS Guide	V Series 1 and V Series 2
Azure	GigaVUE Cloud Suite for Azure Guide	V Series 1 and V Series 2
<b>Private Cloud</b>		
OpenStack	GigaVUE Cloud Suite for OpenStack Guide	V Series 2
VMware	GigaVUE Cloud Suite for VMware—GigaVUE V Series Guide	V Series 2
Nutanix	GigaVUE Cloud Suite for Nutanix Guide—GigaVUE V Series 2 Guide	V Series 2
<b>Other Platforms</b>		
AnyCloud	GigaVUE Cloud Suite for AnyCloud Guide	V Series 1

## Note on Legacy Products

Before V Series nodes were supported in VMware environments, Gigamon's visibility solution utilized a different architecture. Virtualized traffic acquisition was performed by a GigaVUE-VM running on an ESXi hypervisor and that traffic was forwarded to H Series appliances for processing and distribution.

If you wish to keep that network architecture a V Series 2 node can be configured to forward all traffic to an H Series appliance, effectively functioning as a GigaVUE-VM. In order to start applying GigaSMART applications in the V Series node, you must allocate more RAM and vCPU resources to the nodes.

Topics:

- [Volume-Based Licensing](#)
- [GigaVUE V Series in VMware](#)
- [GigaVUE V Series in OpenStack](#)
- [GigaVUE V Series in Azure](#)
- [GigaVUE V Series in AWS](#)
- [GigaVUE-FM Version Compatibility Matrix](#)
- [Supported GigaSMART Operations](#)
- [Troubleshooting](#)

- [GigaVUE V Series Logs and Commands](#)

## Volume-Based Licensing

All the V Series 2 nodes connected to GigaVUE-FM periodically reports statistics on the amount of traffic that flows through the V Series Nodes. The statistics give information on the actual data volume that flows through the V Series Nodes. All licensed applications, when running on the node, generate usage statistics. In the Volume-Based Licensing (VBL) scheme, a license entitles specific applications on your devices to use a specified amount of total data volume over the term of the license. The distribution of the license to individual nodes or devices becomes irrelevant for Gigamon's accounting purpose. GigaVUE-FM tracks the total amount of data processed by the various licensed applications and provides visibility into the actual amount of data, each licensed application is using on each node, and track the overuse if any.

Volume-based licensing has a service period of 1 month. Service period is the period of time for which the total usage or overage is tracked. There is a grace period for each license that is encoded in the license file. The license effectively provides data allowance for this additional time after the official end time of the license.

For purchasing licenses with the Volume-Based License (VBL) option, contact our Sales. Refer to [Contact Sales](#).

## Base Bundles

GigaVUE-FM has the following three base bundles:

- SecureVUEPlus (highest)
- NetVUE (intermediate)
- CoreVUE (lowest)

The number in the SKU indicates the total volume allowance of the SKU. For example, VBL-250T-BN-CORE has a volume allowance of 250 terabytes.

## Bundle Replacement Policy

You can always upgrade to a higher bundle but you cannot move to a lower version. You cannot have two different base bundles at the same time however, you can have multiple base bundles of the same type. Once upgraded to a higher bundle, the existing lower bundles will be automatically deactivated.

While upgrading to a higher bundle, the total licensed allowance of the higher bundle must be at least equal to the total licensed allowance of the replaced bundle.



## Add-on Packages

GigaVUE-FM allows you to add additional packages called add-on packages to the base bundles. These add-on packages allow you to add additional applications to your base bundles. Add-on packages have their own start/end date and volume specifications.

### Rules for add-on packages:

- Add-on packages can only to be added when there is an active base bundle available in GigaVUE-FM.
- The base bundle limits the total volume usage of the add-on package.
- If your add-on package has volume allowance less than the base bundle, then your add-on package can only handle volume allocated for add-on package.
- When the life term of an add-on package extends beyond the base bundle, then when the base bundle expires, the volume allowance of the add-on package will be reduced to zero until a new base bundle is added.

For more information about SKUs refer to the respective Data Sheets as follows:

GigaVUE Data Sheets	
<a href="#">GigaVUE Cloud Suite for VMware Data Sheet</a>	
<a href="#">GigaVUE Cloud Suite for AWS Data Sheet</a>	
<a href="#">GigaVUE Cloud Suite for Azure Data Sheet</a>	
<a href="#">GigaVUE Cloud Suite for OpenStack</a>	
<a href="#">GigaVUE Cloud Suite for Nutanix</a>	
<a href="#">GigaVUE Cloud Suite for Kubernetes</a>	


## How GigaVUE-FM Tracks Volume-Based License Usage

GigaVUE-FM tracks the license usage for each V series node as follows:

- When you create and deploy a monitoring session, GigaVUE-FM allows you to use only those applications that are licensed at that point.
- When a license goes into grace period, you will be notified, along with a list of monitoring sessions that would be affected after the expiry of the grace period.
- When a license expires (and has not been renewed yet), the monitoring sessions using the corresponding license will be undeployed, but not deleted from the database.
- When a license is renewed or newly imported, the undeployed monitoring sessions will be redeployed.

## Manage Volume-Based License

To manage active Volume-Based License:

1. On the left navigation pane, click .
2. Go to **System > Licenses**. From the top navigation bar, select the **VBL Active** from the **FM/Cloud** drop-down.

This page lists information like SKUs, Bundles, Start date, End date, Type, and Activation ID of the Volume-Based Licenses that are active. The expired licenses are automatically moved to the **VBL Inactive** page, which can be found under the **FM/Cloud** drop-down in the top navigation bar.

Click on the individual SKU to view the list of applications available for that particular SKU.

Use the following buttons to manage your active VBL.

Button	Description
<b>Activate Licenses</b>	Use this button to activate a Volume-Based License. Refer <a href="#">Activate Licenses</a> for more information.
<b>Email Volume Usage</b>	Use this button to send the volume usage details to the email recipients.
<b>Filter</b>	Use this option to narrow down the list of active Volume-Based Licenses that are displayed on the VBL active page.
<b>Export</b>	Use this button to export the details in the VBL active page to a CSV or XLSX file.

For more detailed information on dashboards and reports generation for Volume-Based Licensing refer the following table:

For details about:	Reference section	Guide
How to generate Volume-Based License reports	<a href="#">Generate VBL Usage Reports</a>	GigaVUE Administration Guide
Volume-Based Licensed report details	<a href="#">Volume Based License Usage Report</a>	GigaVUE Administration Guide
Fabric health analytics dashboards for Volume-Based Licenses usage	<a href="#">Dashboards for Volume Based Licenses Usage</a>	GigaVUE-FM User Guide

## Default Trial Licenses

After you install GigaVUE-FM, a default free 1TB of CoreVUE trial volume-based license (VBL) is provided one-time for 30 days (from the date of installation).

Licenses										
<div> <div> <div>Find</div> <div>Search...</div> <div>Q</div> </div> <div> <div>Export</div> <div>Card RMA</div> <div>Renewal</div> <div>Deactivate</div> <div>Activate Licenses</div> <div>Replace Licenses</div> <div>Filter</div> </div> </div>										
<div> <div>10 floating licenses have expired are going to expire soon. To continue using these products, <a href="#">please renew your licenses</a>.</div> <div>X</div> </div>										
SKU	Feature	Type	Description	Start Date	End Date	Activation ID	Seats / Volume	Status		
<input checked="" type="checkbox"/> VBL-1T-BN-CORE-TRIAL	erspan	Trial	1T-AdvancedTu...	May 13, 2021	Jun 12, 2021	4e8cb5a4-7eb4...	1024 GB daily	Expired		
<input checked="" type="checkbox"/> VBL-1T-BN-CORE-TRIAL	geneve,slicing,m...	Trial	1T-BaseApps	May 13, 2021	Jun 12, 2021	4e8cb5a4-7eb4...	1024 GB daily	Expired		
<input checked="" type="checkbox"/> VBL-1T-BN-CORE-TRIAL	header-stripping...	Trial	1T-HeaderStripp...	May 13, 2021	Jun 12, 2021	4e8cb5a4-7eb4...	1024 GB daily	Expired		
<input type="checkbox"/> SMT-HC0-GEN1-DD1-SW-TM	dedup	Internal	HC2-GEN1-Ded...	May 14, 2021	May 14, 2022	a5d70642-95eb...	5 of 8 available	Grace Period		
<input type="checkbox"/> SMT-HC0-GEN1-APF-SW-TM	apf	Internal	HC2-GEN1-APF...	May 21, 2021	Never	ce782018-1b0f...	6 of 8 available	Active		
<input type="checkbox"/> SMT-HC0-GEN1-ASF-SW-TM	asf	Internal	HC2-GEN1-ASF...	May 21, 2021	Never	24618ae4-ddb6...	1 of 2 available	Active		
<input type="checkbox"/> SMT-HC0-GEN1-HS1-SW-TM	header-stripping...	Internal	HC2-GEN1-HS1...	May 21, 2021	Never	8d035388-013...	7 of 8 available	Active		
<input type="checkbox"/> SMT-HC0-GEN1-NF1-SW-TM	netflow	Internal	HC2-GEN1-Net...	May 21, 2021	Never	11d3f4dd-90c6...	7 of 8 available	Active		
<input type="checkbox"/> SMT-HC0-GEN1-SSL-SW-TM	ssl-decrypt	Internal	HC2-GEN1-SSL...	May 21, 2021	Never	30f7e2c0-aea5...	0 of 3 available	Active		
<input type="checkbox"/> SMT-HC3-GEN2-5GC-SW-TM	5G-Correlation n...	Commercial	HC3-GEN2-5GC...	Apr 22, 2021	Apr 22, 2022	760ceb6a-c919...	1 of 4 available	Expired		
<input type="checkbox"/> SMT-HC3-GEN2-GTPMAX-SW-TM	apf flowrule-gtp ...	Internal	HC3-GEN2-GTP...	Apr 22, 2021	Apr 22, 2022	7228d9a9-30ac...	4 of 4 available	Expired		

This license includes the following applications:

- ERSPAN
- Geneve
- Slicing
- Masking
- Trailer
- Tunneling
- Load Balancing
- Enhanced Load Balancing
- Flowmap
- Header-stripping
- Add header

**NOTE:** There is no grace period for the trial license. If you do not have any other Volume-based licenses installed, then after 30 days, on expiry of the trial license, any deployed monitoring sessions will be undeployed from the existing V series 2.0 nodes.

To deactivate the trial VBL refer to Delete Default Trial Licenses section for details.

# GigaVUE V Series in AWS

## Recommended Instance Types for AWS

GigaVUE fabric component	Recommended Instance Types
GigaVUE V Series Proxy	t2.micro
GigaVUE V Series Node	c5n.xlarge c5n.2xlarge t3a.xlarge

**NOTE:** Additional instance types are also supported. Refer to Support, Sales, or Professional Services for deployment optimization.

GigaVUE V Series 2 deployments in AWS can also be deployed in conjunction with a Network Load Balancer. Refer to the [Configure an External Load Balancer](#) topic for more information.

More detailed information and step-by-step instructions for deployment, refer to the [GigaVUE Cloud Suite for AWS–GigaVUE V Series 2](#).

## Network Firewall Requirements for AWS

The following table lists the Network Firewall Requirements for GigaVUE V Series V Series 2 Node deployment.

Direction	Type	Protocol	Port	CIDR	Purpose
<b>GigaVUE-FM</b>					
Inbound	<ul style="list-style-type: none"> <li>HTTPS</li> <li>SSH</li> </ul>	TCP	<ul style="list-style-type: none"> <li>443</li> <li>22</li> </ul>	Administrator Subnet	Management connection to GigaVUE-FM
Inbound	Custom TCP Rule	TCP	5671	V Series 2 Node IP	Allows GigaVUE V Series 2 Nodes to send traffic health updates to GigaVUE-FM Allows Next Generation G-vTAP Agents to send statistics to GigaVUE-FM.
Outbound	Custom TCP Rule	TCP(6)	9900	GigaVUE-FM IP	Allows G-vTAP Controller to communicate with GigaVUE-FM

Direction	Type	Protocol	Port	CIDR	Purpose
Outbound (optional)	Custom TCP Rule	TCP	8890	V Series Proxy IP	Allows GigaVUE-FM to communicate with V Series Proxy
Outbound	Custom TCP Rule	TCP	8889	V Series 2 Node IP	Allows GigaVUE-FM to communicate with GigaVUE V Series node
<b>G-vTAP Controller</b>					
Inbound	Custom TCP Rule	TCP(6)	9900	GigaVUE-FM IP	Allows G-vTAP Controller to communicate with GigaVUE-FM
Outbound	Custom TCP Rule	TCP(6)	9901	G-vTAP Controller IP	Allows G-vTAP Controller to communicate with G-vTAP Agents
<b>G-vTAP Agent</b>					
Inbound	Custom TCP Rule	TCP(6)	9901	G-vTAP Controller IP	Allows G-vTAP Agents to communicate with G-vTAP Controller
Outbound	<ul style="list-style-type: none"> <li>• UDP</li> <li>• IP</li> </ul>	<ul style="list-style-type: none"> <li>• UDP (VXLAN)</li> <li>• IP Protocol (L2GRE)</li> </ul>	VXLAN (default 4789)	G-vTAP Agent or Subnet IP	Allows G-vTAP Agents to (VXLAN/L2GRE) tunnel traffic to V Series nodes
<b>GigaVUE V Series V Series Proxy (optional)</b>					
Inbound	Custom TCP Rule	TCP	8890	GigaVUE-FM IP	Allows GigaVUE-FM to communicate with V Series Proxy
Outbound	Custom TCP Rule	TCP	8889	V Series 2 node IP	Allows V Series Proxy to communicate with V Series node
<b>GigaVUE V Series V Series 2 Node</b>					
Inbound	Custom TCP Rule	TCP	8889	<ul style="list-style-type: none"> <li>• GigaVUE-FM IP</li> <li>• V Series Proxy IP</li> </ul>	Allows V Series Proxy or GigaVUE-FM to communicate with V Series node
Inbound	<ul style="list-style-type: none"> <li>• UDP</li> <li>• IP</li> </ul>	<ul style="list-style-type: none"> <li>• UDP (VXLAN)</li> <li>• IP Protocol (L2GRE)</li> </ul>	<ul style="list-style-type: none"> <li>• VXLAN (default 4789)</li> <li>• L2GRE</li> </ul>	G-vTAP Agent or Subnet IP	Allows G-vTAP Agents to (VXLAN/L2GRE) tunnel traffic to V Series nodes
Inbound	UDP	UDPGRE	4754	Ingress Tunnel	Allows to UDPGRE Tunnel to communicate and tunnel traffic to V Series nodes

Direction	Type	Protocol	Port	CIDR	Purpose
Outbound	Custom TCP Rule	TCP	5671	GigaVUE-FM IP	Allows GigaVUE V Series Node to send traffic health updates to GigaVUE-FM
Outbound	Custom UDP Rule	<ul style="list-style-type: none"> <li>UDP (VXLAN)</li> <li>IP Protocol (L2GRE)</li> </ul>	VXLAN (default 4789)	Tool IP	Allows V Series node to communicate and tunnel traffic to the Tool
Outbound (optional)	ICMP	ICMP	<ul style="list-style-type: none"> <li>echo request</li> <li>echo reply</li> </ul>	Tool IP	Allows V Series node to health check tunnel destination traffic

# GigaVUE V Series in Azure

## Recommended Instance Type

**NOTE:** Additional instance types are also supported. Refer to Support, Sales, or Professional Services for deployment optimization.

Product	Instance Type	vCPU	RAM
GigaVUE V Series Node	Standard_D4s_v4	4 vCPU	16 GB
	Standard_D8S_V4	8 vCPU	32 GB
GigaVUE V Series Proxy	Standard_B1s	1 vCPU	1 GB
G-vTAP Controller	Standard_B1s	1 vCPU	1 GB

## Network Firewall Requirements for Azure

The following table lists the Network Firewall Requirements for GigaVUE V Series V Series 2 Node deployment.

Direction	Type	Protocol	Port	CIDR	Purpose
<b>GigaVUE-FM</b>					
Inbound	<ul style="list-style-type: none"> <li>HTTPS</li> </ul>	TCP	<ul style="list-style-type: none"> <li>443</li> </ul>	Administrator	Management connection

Direction	Type	Protocol	Port	CIDR	Purpose
	• SSH		• 22	Subnet	to GigaVUE-FM
Inbound	Custom TCP Rule	TCP	5671	V Series 2 Node IP	Allows GigaVUE V Series 2 Nodes to send traffic health updates to GigaVUE-FM Allows Next Generation G-vTAP Agents to send statistics to GigaVUE-FM.
Outbound	Custom TCP Rule	TCP(6)	9900	GigaVUE-FM IP	Allows G-vTAP Controller to communicate with GigaVUE-FM
Outbound (optional)	Custom TCP Rule	TCP	8890	V Series Proxy IP	Allows GigaVUE-FM to communicate with V Series Proxy
Outbound	Custom TCP Rule	TCP	8889	V Series 2 Node IP	Allows GigaVUE-FM to communicate with GigaVUE V Series node
<b>G-vTAP Controller</b>					
Inbound	Custom TCP Rule	TCP(6)	9900	GigaVUE-FM IP	Allows G-vTAP Controller to communicate with GigaVUE-FM
Outbound	Custom TCP Rule	TCP(6)	9901	G-vTAP Controller IP	Allows G-vTAP Controller to communicate with G-vTAP Agents
<b>G-vTAP Agent</b>					
Inbound	Custom TCP Rule	TCP(6)	9901	G-vTAP Controller IP	Allows G-vTAP Agents to communicate with G-vTAP Controller
Outbound	<ul style="list-style-type: none"> <li>• UDP</li> <li>• IP</li> </ul>	<ul style="list-style-type: none"> <li>• UDP (VXLAN)</li> <li>• IP Protocol (L2GRE)</li> </ul>	VXLAN (default 4789)	G-vTAP Agent or Subnet IP	Allows G-vTAP Agents to (VXLAN/L2GRE) tunnel traffic to V Series nodes
<b>GigaVUE V Series V Series Proxy (optional)</b>					
Inbound	Custom TCP Rule	TCP	8890	GigaVUE-FM IP	Allows GigaVUE-FM to communicate with V Series Proxy
Outbound	Custom TCP Rule	TCP	8889	V Series 2 node IP	Allows V Series Proxy to communicate with V Series node
<b>GigaVUE V Series V Series 2 Node</b>					
Inbound	Custom TCP Rule	TCP	8889	<ul style="list-style-type: none"> <li>• GigaVUE-FM IP</li> </ul>	Allows V Series Proxy or GigaVUE-FM to

Direction	Type	Protocol	Port	CIDR	Purpose
				<ul style="list-style-type: none"> <li>V Series Proxy IP</li> </ul>	communicate with V Series node
Inbound	<ul style="list-style-type: none"> <li>UDP</li> <li>IP</li> </ul>	<ul style="list-style-type: none"> <li>UDP (VXLAN)</li> <li>IP Protocol (L2GRE)</li> </ul>	<ul style="list-style-type: none"> <li>VXLAN (default 4789)</li> <li>L2GRE</li> </ul>	G-vTAP Agent or Subnet IP	Allows G-vTAP Agents to (VXLAN/L2GRE) tunnel traffic to V Series nodes
Inbound	UDP	UDPGRE	4754	Ingress Tunnel	Allows to UDPGRE Tunnel to communicate and tunnel traffic to V Series nodes
Outbound	Custom TCP Rule	TCP	5671	GigaVUE-FM IP	Allows GigaVUE V Series Node to send traffic health updates to GigaVUE-FM
Outbound	Custom UDP Rule	<ul style="list-style-type: none"> <li>UDP (VXLAN)</li> <li>IP Protocol (L2GRE)</li> </ul>	VXLAN (default 4789)	Tool IP	Allows V Series node to communicate and tunnel traffic to the Tool
Outbound (optional)	ICMP	ICMP	<ul style="list-style-type: none"> <li>echo request</li> <li>echo reply</li> </ul>	Tool IP	Allows V Series node to health check tunnel destination traffic

The following is the Network Firewall Requirements for V Series 1 node deployment.

Direction		Protocol	Port Range	Source and CIDR, IP, or Security Group	Purpose
<b>GigaVUE-FM Inside Azure</b>					
Inbound	HTTPS	TCP(6)	443	Anywhere Any IP	Allows G-vTAP Controllers, GigaVUE V Series Controllers, and GigaVUE-FM administrators to communicate with GigaVUE-FM
<b>G-vTAP Controller</b>					
Inbound	Custom TCP Rule	TCP	9900	Custom GigaVUE-FM IP	Allows GigaVUE-FM to communicate with G-vTAP Controllers



Direction		Protocol	Port Range	Source and CIDR, IP, or Security Group	Purpose
<b>G-vTAP Agent</b>					
Inbound	Custom TCP Rule	TCP	9901	Custom G-vTAP Controller IP	Allows G-vTAP Controllers to communicate with G-vTAP Agents
<b>GigaVUE V Series Controller</b>					
Inbound	Custom TCP Rule	TCP	9902	Custom GigaVUE-FM IP	Allows GigaVUE-FM to communicate with GigaVUE V Series Controllers
<b>GigaVUE V Series 1 node</b>					
Inbound	Custom TCP Rule	TCP	9903	Custom GigaVUE V Series Controller IP	Allows GigaVUE V Series Controllers to communicate with GigaVUE V Series nodes
<b>VXLAN Traffic</b>					
Inbound	Custom UDP Rule	VXLAN	4789		Allows mirrored traffic from G-vTAP Agents to be sent to GigaVUE V Series nodes using VXLAN tunnel Allows monitored traffic to be sent from GigaVUE V Series nodes to the tools using VXLAN tunnel

## GigaVUE V Series in OpenStack

This section describes the requirements and prerequisites for configuring the GigaVUE Cloud Suite for OpenStack. Refer to the following section for details.

- [Minimum Compute Requirements for OpenStack](#)
- [Recommended Instance Type for OpenStack](#)
- [Security Group](#)
- [Network Requirements](#)

## Minimum Compute Requirements for OpenStack

In OpenStack, flavors set the vCPU, memory, and storage requirements for an image. Gigamon recommends that you create a flavor that matches or exceeds the minimum recommended requirements listed in the following tables.

### Requirements for V Series 1

Compute Instances	vCPU	Memory	Disk Space	Description
G-vTAP Agent	2 vCPU	4GB	N/A	Available as rpm or Debian package. Instances can have a single vNIC or dual vNICs configured for monitoring the traffic.
G-vTAP OVS Agent	N/A	N/A	N/A	Available as rpm or Debian package.
G-vTAP Controller	1 vCPU	4GB	8GB	Based on the number of agents being monitored, multiple controllers will be required to scale out horizontally.
V Series Node	2 vCPU	3.75GB	20GB	NIC 1: Monitored Network IP; Can be used as Tunnel IP NIC 2: Tunnel IP (optional) NIC 3: Management IP
V Series Controller	1 vCPU	4GB	8GB	Based on the number of GigaVUE V Series nodes being monitored, multiple controllers will be required to scale out horizontally
GigaVUE-FM	2 vCPU	16GB	2x 40GB	GigaVUE-FM must be able to access the controller instance for relaying the commands. Use a flavor with a root disk and an ephemeral disk each of minimum 40GB.

### Requirements for V Series 2

Compute Instances	vCPU	Memory	Disk Space	Description
G-vTAP Agent	2 vCPU	4GB	N/A	Available as rpm or Debian package. Instances can have a single vNIC or dual vNICs configured for monitoring the traffic.
G-vTAP Controller	1 vCPU	4GB	8GB	Based on the number of agents being monitored, multiple

Compute Instances	vCPU	Memory	Disk Space	Description
				controllers will be required to scale out horizontally.
V Series Node	2 vCPU	3.75GB	20GB	NIC 1: Monitored Network IP; Can be used as Tunnel IP NIC 2: Tunnel IP (optional) NIC 3: Management IP
V Series Proxy	1 vCPU	4GB	8GB	Based on the number of GigaVUE V Series nodes being monitored, multiple controllers will be required to scale out horizontally
GigaVUE-FM	4 vCPU	8GB	40GB	GigaVUE-FM must be able to access the controller instance for relaying the commands. Use a flavor with a root disk of minimum 40GB and an ephemeral disk of minimum 4GB.

## Recommended Instance Type for OpenStack

The instance size of the V Series is configured and packaged as part of the qcow2 image file. The following table lists the available instance types and sizes based on memory and the number of vCPUs for a single V series node. Instances sizes can be different for V Series nodes in different OpenStack VMs and the default size is Small.

Type	Memory	vCPU	Disk space	vNIC
Small	4GB	2 vCPU	8GB	1 Management interface, 1 to 8 Tunnel interfaces
Medium	8GB	4 vCPU		
Large	16GB	8 vCPU		

## Network Firewall Requirements for OpenStack

Direction	Ether Type	Protocol	Port	CIDR	Purpose
<b>GigaVUE-FM</b>					
Inbound	HTTPS	TCP	443	Any IP address	Allows users to connect to the GigaVUE-FM GUI.

Direction	Ether Type	Protocol	Port	CIDR	Purpose
Inbound	IPv4	UDP	53	Any IP address	Allows GigaVUE-FM to communicate with standard DNS server
Inbound	Custom TCP Rule	TCP	5671	V Series 2 Node IP	Allows GigaVUE V Series 2 Nodes to send traffic health updates to GigaVUE-FM Allows Next Generation G-vTAP Agents to send statistics to GigaVUE-FM.
Outbound (optional)	Custom TCP Rule	TCP	8890	V Series Proxy IP	Allows GigaVUE-FM to communicate with V Series Proxy
Outbound	Custom TCP Rule	TCP	8889	V Series 2 Node IP	Allows GigaVUE-FM to communicate with V Series node
<b>G-vTAP Controller</b>					
Inbound	Custom TCP Rule	TCP	9900	Custom GigaVUE-FM IP	Allows GigaVUE-FM to communicate with G-vTAP Controllers
<b>G-vTAP Agent</b>					
Inbound	Custom TCP Rule	TCP	9901	Custom G-vTAP Controller IP	Allows G-vTAP Controllers to communicate with G-vTAP Agents
<b>G-vTAP OVS Controller</b>					
Inbound	Custom TCP Rule	TCP	9900	Custom GigaVUE-FM IP	Allows GigaVUE-FM to communicate with G-vTAP OVS Controllers
<b>G-vTAP OVS Agent</b>					
Inbound	Custom TCP Rule	TCP	9901	Custom G-vTAP OVS Controller IP	Allows G-vTAP OVS Controllers to communicate with G-vTAP OVS Agents
<b>GigaVUE V Series Proxy</b>					
Inbound	IPv4	TCP	8890	GigaVUE-FM IP address	Allows GigaVUE-FM to communicate with GigaVUE Cloud Suite V Series Proxys.
Outbound	Custom	TCP	8889	V Series 2	Allows V Series Proxy to communicate

Direction	Ether Type	Protocol	Port	CIDR	Purpose
	TCP Rule			node IP	with V Series node
<b>GigaVUE V Series 2 Node</b>					
Inbound	Custom TCP Rule	TCP(6)	8889	GigaVUE V Series Proxy IP address	Allows GigaVUE V Series Proxys to communicate with GigaVUE V Series nodes
Outbound	IPv4	TCP	8890	GigaVUE-FM IP address	Allows GigaVUE V Series Node to communicate with GigaVUE V Series Proxy
Outbound	Custom UDP Rule	UDP	<ul style="list-style-type: none"> <li>VXLAN (default 4789)</li> <li>L2GRE (IP 47)</li> </ul>	Tool IP	Allows V Series node to communicate and tunnel traffic to the Tool
Outbound	Custom TCP Rule	TCP	5671	GigaVUE-FM IP	Allows GigaVUE V Series Node to send traffic health updates to GigaVUE-FM

**NOTE:** The Security Group Rules table lists only the ingress rules. Make sure the egress ports are open for communication. Along with the ports listed in the Security Group Rules table, make sure the suitable ports required to communicate with Service Endpoints such as Identity, Compute, and Cloud Metadata are also open.

## Network Requirements

The following table lists the recommended requirements to setup the network topology.

Network	Purpose
<b>Management</b>	Identify the subnets that GigaVUE-FM uses to communicate with the GigaVUE V Series nodes and controllers.
<b>Data</b>	<p>Identify the subnets that receives the mirrored tunnel traffic from the monitored instances.</p> <p>In data network, if a tool subnet is selected then the V Series node egress traffic on to the destinations or tools.</p>

# GigaVUE V Series in VMware

## Prerequisites for Integrating V Series Nodes with vCenter

Few VMware vCenter versions are supported, with the GigaVUE Cloud Suite V Series nodes hosted on ESXi hosts. Refer to the Release Notes for the hardware requirements on which VMware ESXi runs V Series Node.

**NOTE:** To support internationalized characters in the VMware vCenter environment ensure that the vCenter character encoding is set to UTF-8.

The following are the prerequisites for integrating V Series nodes with ESXi:

- VMware ESXi Standard Version must be either 6.7 u3 or 7.0.
- VMware vCenter Server Version must be either 6.7 u3 or 7.0.

**NOTE:** Both VMware ESXi Standard Version and VMware vCenter Server Version must be same. For example, if the VMware ESXi Standard Version is 6.7 u3, the VMware vCenter Server Version must also be 6.7 u3.

- ESXi hosts must have the minimum vCPU and memory resources.
- GigaVUE-FM version 5.12.xx or later.
- V Series 2.x device OVA image file.
- All the target VMs must have VMware guest tools or Open VM tools if workload VMs is selected based on IP address.
- Port number 8889 must be available for GigaVUE-FM to access V Series nodes.

The V Series 2 Node OVA image files can be downloaded from the [Gigamon Customer Portal](#).

## Network Firewall Requirements for ESXi

Following are the Network Firewall Requirements for GigaVUE V Series 2 Node deployment.

Source	Destination	Source Port	Destination Port	Protocol	Service	Purpose
GigaVUE-FM	ESXi hosts	Any (1024-65535)	443	TCP	https	Allows GigaVUE-FM to communicate with vCenter and all ESXi hosts to import the V Series OVA files
	vCenter					
GigaVUE-FM	GigaVUE V Series Nodes	Any (1024-65535)	8889	TCP	Custom API	Allows GigaVUE-FM to communicate with GigaVUE V Series Node
GigaVUE-FM	GigaVUE V Series Nodes	Any (1024-65535)	5671	TCP	Custom TCP	Allows GigaVUE V Series 2 Nodes to send traffic health updates to GigaVUE-FM
Administrator	GigaVUE-FM	Any (1024-65535)	443	TCP	https	Management connection to GigaVUE-FM
			22		ssh	
Remote Source	GigaVUE V Series Nodes	Custom Port (VXLAN and UDPGRE),N/A for GRE	4789	UDP	VXLAN	Allows to UDPGRE Tunnel to communicate and tunnel traffic to GigaVUE V Series Nodes (Applicable for Tunnel Ingress option only)
			N/A	IP 47	GRE	
			4754	UDP	UDPGRE	
GigaVUE V Series Nodes	Tool/ HC Series instance	Custom Port (VXLAN),N/A for GRE	4789	UDP	VXLAN	Allows GigaVUE V Series Node to communicate and tunnel traffic to the Tool
			N/A	IP 47	GRE	
GigaVUE V Series Nodes	Tool/ HC Series instance	N/A	N/A	ICMP	Echo Request	Allows GigaVUE V

					Echo Response	Series Node to health check tunnel destination traffic (Optional)
GigaVUE V Series Nodes	GigaVUE-FM	Any (1024-65535)	Any (1024-65535)	TCP	Custom TCP	Allows GigaVUE V Series 2 Nodes to send traffic health updates to GigaVUE-FM

## Recommended Instance Types for ESXi

The instance size of the V Series is configured on the OVF file and packaged as part of the OVA image file. The following table lists the available instance types and sizes based on memory and the number of vCPUs for a single V series node. Instances sizes can be different for V Series nodes in different ESXi hosts and the default size is Small.

Type	Memory	vCPU	Disk space	vNIC
Small	4GB	2 vCPU	8GB	1 Management interface, 1 Tunnel interface, and 8 vTAP interfaces
Medium	8GB	4 vCPU		
Large	16GB	8 vCPU		

**Note:** Refer to Support, Sales, or Professional Services for deployment optimization.

## Required VMware Virtual Center Privileges

This section lists the minimum privileges required for the GigaVUE-FM user in Virtual Center. You assign privileges to Virtual Center users by selecting Roles > Administration > Role, and then use the Edit Role dialog box in vCenter. Roles should be applied at the vSphere Virtual Center level and not the Data Center or Host levels.

The following table lists the minimum required permissions for GigaVUE-FM to manage the virtual center.

Category	Required Privilege	Purpose
<b>Host</b>	Configuration <ul style="list-style-type: none"> <li>Network Configuration</li> </ul>	VSS Tapping
	Inventory <ul style="list-style-type: none"> <li>Modify Cluster</li> </ul>	Pin V Series Node to the host in cluster configurations. This prevents automatic migration.
<b>Datastore</b>	<ul style="list-style-type: none"> <li>Allocate space</li> </ul>	V Series Node Deployment



Category	Required Privilege	Purpose
<b>Distributed Switch</b>	<ul style="list-style-type: none"> <li>VSPAN Operation</li> </ul>	VDS Tapping
<b>Network</b>	<ul style="list-style-type: none"> <li>Assign network</li> <li>Configure</li> </ul>	V Series Node Deployment/VSS Tapping V Series Node Deployment
<b>Resource</b>	<ul style="list-style-type: none"> <li>Assign virtual machine to resource pool</li> </ul>	V Series Node Deployment
<b>vApp</b>	<ul style="list-style-type: none"> <li>Import</li> <li>vApp instance configuration</li> </ul>	V Series Node Deployment V Series Node Deployment
<b>Virtual machine</b>	<b>Configuration</b> <ul style="list-style-type: none"> <li>Add new disk</li> <li>Add or remove device</li> <li>Modify device settings</li> </ul>	V Series Node Deployment V Series Node Deployment/VSS Tapping
	<b>Interaction</b> <ul style="list-style-type: none"> <li>Connect devices</li> <li>Power on</li> <li>Power off</li> </ul>	V Series Node Deployment V Series Node Deployment V Series Node Deployment
	<b>Inventory</b> <ul style="list-style-type: none"> <li>Create from existing</li> <li>Remove</li> </ul>	V Series Node Deployment V Series Node Deployment
	<b>Provisioning</b> <ul style="list-style-type: none"> <li>Clone virtual machine</li> </ul>	V Series Node Deployment

## Prerequisites for Integrating V Series Nodes with NSX-T

Refer to the Release Notes for the hardware requirements on which VMware NSX-T runs V Series Node.

The following are the prerequisites for integrating V Series nodes with NSX-T:

- VMware vCenter Standard Version must be 6.7 u3, and 7.0 with the required privileges. Refer to [Required VMware Virtual Center Privileges](#) for more information on vCenter privileges.
- Before deploying V Series nodes through GigaVUE-FM, Service segments must be created in the NSX-T manager.
- NSX-T versions must be 2.5.1, 2.5.2, 3.0, 3.0.2, 3.1.2. If you have other versions, please contact Gigamon support.

**NOTE:** NSX-T is different than the ESXi implementation for hosting the V Series OVA file on an image server. In that you need to have an image server to host the V Series image file. The default http port supported is 80. However, if the image server listens on any port other than the default http port then, the port number should be provided in the image URL. For example: If the image server listens on port 8080, then the image URL should be `http://IP_Address:8080/path_to_ova`.

- GigaVUE-FM version 5.12.xx or later.
- V Series 2.2 device OVA image file.
- Port number 8889 must be available for GigaVUE-FM to access V Series nodes.

**NOTE:** You cannot have both GigaVUE-VM and V Series node visibility solutions deployed on the same vCenter.

The V Series 2.x Node OVA image files can be downloaded from the [Gigamon Customer Portal](#).

## Network Firewall Requirements for NSX-T

Following are the Network Firewall Requirements for V Series 2 node deployment.

Source	Destination	Source Port	Destination Port	Protocol	Service	Purpose
GigaVUE-FM	ESXi hosts	Any (1024-65535)	443	TCP	https	Allows GigaVUE-FM to communicate with vCenter, NSX-T and all ESXi hosts.
	NSX-T Manager					
	vCenter					
GigaVUE FM	GigaVUE V Series Nodes	Any (1024-65535)	8889	TCP	Custom API	Allows GigaVUE-FM to communicate with GigaVUE V Series Node
Administrator	GigaVUE-FM	Any (1024-65535)	443	TCP	https	Management connection to GigaVUE-FM
			22		ssh	
GigaVUE-FM	GigaVUE V Series Nodes	Any (1024-65535)	5671	TCP	Custom TCP	Allows GigaVUE V Series 2 Nodes to send traffic health updates to GigaVUE-FM
Remote Source	GigaVUE V Series Nodes	Custom Port (VXLAN and UDPGRE),N/A for GRE	4789	UDP	VXLAN	Allows to UDPGRE Tunnel to communicate and tunnel traffic to GigaVUE V Series Nodes (Applicable for Tunnel Ingress option only)
			N/A	IP 47	GRE	
			4754	UDP	UDPGRE	
V Series Nodes	Tool/ HC Series instance	Custom Port (VXLAN),N/A for GRE	4789	UDP	VXLAN	Allows GigaVUE V Series Node to communicate and tunnel traffic to the Tool
			N/A	IP 47	GRE	
V Series Nodes	Tool/ HC Series instance	N/A	N/A	ICMP	echo Request	Allows V Series node to health check tunnel destination traffic (Optional)
					echo Response	

GigaVUE-FM	GigaVUE V Series Nodes	Any (1024-65535)	5671	TCP	Custom TCP	Allows GigaVUE V Series 2 Nodes to send traffic health updates to GigaVUE-FM
GigaVUE-FM	External Image Server URL	Any (1024-65535)	Custom port on web Server	TCP	http	Access to image server to image lookup and checks, and downloading the image
NSX-T Manager						
vCenter						

## Recommended Instance Types for NSX-T

The instance size of the V Series is configured on the OVF file and packaged as part of the OVA image file. The following table lists the available instance types and sizes based on memory and the number of vCPUs for a single V series node. Instances sizes can be different for V Series nodes in different NSX-T hosts and the default size is Small.

Type	Memory	vCPU	Disk space	Recommended Traffic Volume
Small	4GB	2 vCPU	8GB	upto 2G
Medium	8GB	4 vCPU	8GB	upto 4G
Large	16GB	8 vCPU	8GB	More than 4G

For more specific throughput information on specific applications, please contact Gigamon Support.

# GigaVUE-FM Version Compatibility Matrix

The following tables list the different versions of GigaVUE Cloud Suite Cloud Suite solutions, GigaVUE cloud components with different versions of GigaVUE-FM.

**NOTE:** GigaVUE-FM version 6.3 supports the latest fabric components version as well as (n-2) versions. It is always recommended to use the latest version of fabric components with GigaVUE-FM, for better compatibility.

Refer to the following topics for detailed information:

- [Version Compatibility for V Series 2 Configuration](#)
- [Version Compatibility for V Series 1 Configuration](#)

## Version Compatibility for V Series 2 Configuration

GigaVUE-FM	GigaVUE Cloud Suites	G-vTAP Agent	Next Generation G-vTAP Agent	G-vTAP Controller	GigaVUE V Series Node	GigaVUE V Series Proxy
6.3.00	AWS	v6.3.00	v6.3.00	v6.3.00	v6.3.00	v6.3.00
	Azure	v6.3.00	v6.3.00	v6.3.00	v6.3.00	v6.3.00
	OpenStack	v6.3.00	v6.3.00	v6.3.00	v6.3.00	v6.3.00
	VMware	N/A	N/A	N/A	v6.3.00	N/A
	Third Party Orchestration	v6.3.00	v6.3.00	v6.3.00	v6.3.00	v6.3.00
6.2.00	AWS	v6.2.00	v6.2.00	v6.2.00	v6.2.00	v6.2.00
	Azure	v6.2.00	v6.2.00	v6.2.00	v6.2.00	v6.2.00
	OpenStack	v6.2.00	v6.2.00	v6.2.00	v6.2.00	v6.2.00
	VMware	N/A	N/A	N/A	v6.2.00	N/A
	Third Party Orchestration	v6.2.00	v6.2.00	v6.2.00	v6.2.00	v6.2.00
6.1.00	AWS	v6.1.00	N/A	v6.1.00	v6.1.00	v6.1.00
	Azure	v6.1.00	N/A	v6.1.00	v6.1.00	v6.1.00
	OpenStack	v6.1.00	N/A	v6.1.00	v6.1.00	v6.1.00
	VMware	N/A	N/A	N/A	v6.1.00	N/A
	Third Party Orchestration	v6.1.00	N/A	v6.1.00	v6.1.00	v6.1.00

GigaVUE-FM	GigaVUE Cloud Suites	G-vTAP Agent	Next Generation G-vTAP Agent	G-vTAP Controller	GigaVUE V Series Node	GigaVUE V Series Proxy
6.0.00	AWS	v1.8-7	N/A	v1.8-7	v2.7.0	v2.7.0
	Azure	v1.8-7	N/A	v1.8-7	v2.7.0	v2.7.0
	OpenStack	v1.8-7	N/A	v1.8-7	v2.7.0	v2.7.0
	VMware	N/A	N/A	N/A	v2.7.0	N/A
	AnyCloud	v1.8-7	N/A	v1.8-7	v2.7.0	v2.7.0
5.16.00	AWS	v1.8-5	N/A	v1.8-5	v2.6.0	v2.6.0
	Azure	v1.8-5	N/A	v1.8-5	v2.6.0	v2.6.0
	OpenStack	v1.8-5	N/A	v1.8-5	v2.6.0	v2.6.0
	VMware	N/A	N/A	N/A	v2.6.0	N/A
	AnyCloud	v1.8-5	N/A	v1.8-5	v2.6.0	v2.6.0
5.15.00	AWS	v1.8-5	N/A	v1.8-5	v2.5.0	v2.5.0
	Azure	v1.8-5	N/A	v1.8-5	v2.5.0	v2.5.0
	OpenStack	v1.8-5	N/A	v1.8-5	v2.5.0	v2.5.0
	VMware	N/A	N/A	N/A	v2.5.0	N/A
	AnyCloud	v1.8-5	N/A	v1.8-5	v2.5.0	v2.5.0
5.14.00	AWS	v1.8-4	N/A	v1.8-4	v2.4.0	v2.4.0
	Azure	v1.8-4	N/A	v1.8-4	v2.4.0	v2.4.0
	OpenStack	v1.8-4	N/A	v1.8-4	v2.4.0	v2.4.0
	VMware	N/A	N/A	N/A	v2.4.0	N/A
	AnyCloud	v1.8-4	N/A	v1.8-4	v2.4.0	v2.4.0

GigaVUE-FM	GigaVUE Cloud Suites	G-vTAP Agent	Next Generation G-vTAP Agent	G-vTAP Controller	GigaVUE V Series Node	GigaVUE V Series Proxy
5.13.01	AWS	v1.8-3	N/A	v1.8-3	v2.3.3	v2.3.3
	Azure	v1.8-3	N/A	v1.8-3	v2.3.3	v2.3.3
	OpenStack	v1.8-3	N/A	v1.8-3	v2.3.3	v2.3.3
	VMware	N/A	N/A	N/A	v2.3.3	N/A
	AnyCloud	v1.8-3	N/A	v1.8-3	v2.3.3	v2.3.3
5.13.00	AWS	v1.8-2	N/A	v1.8-2	v2.3.0	v2.3.0
	Azure	v1.8-2	N/A	v1.8-2	v2.3.0	v2.3.0
	OpenStack	v1.8-2	N/A	v1.8-2	v2.3.0	v2.3.0
	VMware	N/A	N/A	N/A	v2.3.1	N/A
5.12.01	AWS	v1.8-1	N/A	v1.8-1	v2.2.0	v2.2.0
	OpenStack	v1.8-1	N/A	v1.8-1	v2.2.0	v2.2.0
	VMware	N/A	N/A	N/A	v2.2.1	N/A
5.12.00	AWS	v1.7-1	N/A	v1.7-1	v2.1.0	v2.1.0
	OpenStack	v1.7-1	N/A	v1.7-1	v2.1.0	v2.1.0
	VMware	N/A	N/A	N/A	v2.2.0	N/A

## Version Compatibility for V Series 1 Configuration

GigaVUE-FM	GigaVUE Cloud Suites	G-vTAP Agent	G-vTAP Controller	GigaVUE V Series Node	GigaVUE V Series Controller
6.3.00	AWS	v6.3.00	v6.3.00	v1.7-4	v1.7-4
	Azure	v6.3.00	v6.3.00	v1.7-4	v1.7-4
	OpenStack	v6.3.00	v6.3.00	v1.7-4	v1.7-4
	AnyCloud	v6.3.00	v6.3.00	v1.7-4	v1.7-4
6.2.00	AWS	v6.2.00	v6.2.00	v1.7-4	v1.7-4
	Azure	v6.2.00	v6.2.00	v1.7-4	v1.7-4
	OpenStack	v6.2.00	v6.2.00	v1.7-4	v1.7-4
	AnyCloud	v6.2.00	v6.2.00	v1.7-4	v1.7-4
6.1.00	AWS	v6.1.00	v6.1.00	v1.7-4	v1.7-4
	Azure	v6.1.00	v6.1.00	v1.7-4	v1.7-4
	OpenStack	v6.1.00	v6.1.00	v1.7-4	v1.7-4
	AnyCloud	v6.1.00	v6.1.00	v1.7-4	v1.7-4
6.0.00	AWS	v1.8-7	v1.8-7	v1.7-4	v1.7-4
	Azure	v1.8-7	v1.8-7	v1.7-4	v1.7-4
	OpenStack	v1.8-7	v1.8-7	v1.7-4	v1.7-4
	AnyCloud	v1.8-7	v1.8-7	v1.7-4	v1.7-4
5.16.00	AWS	v1.8-5	v1.8-5	v1.7-3	v1.7-3
	Azure	v1.8-5	v1.8-5	v1.7-3	v1.7-3
	OpenStack	v1.8-5	v1.8-5	v1.7-3	v1.7-3
	AnyCloud	v1.8-5	v1.8-5	v1.7-3	v1.7-3



GigaVUE-FM	GigaVUE Cloud Suites	G-vTAP Agent	G-vTAP Controller	GigaVUE V Series Node	GigaVUE V Series Controller
5.15.00	AWS	v1.8-5	v1.8-5	v1.7-2	v1.7-2
	Azure	v1.8-5	v1.8-5	v1.7-2	v1.7-2
	OpenStack	v1.8-5	v1.8-5	v1.7-2	v1.7-2
	AnyCloud	v1.8-5	v1.8-5	v1.7-2	v1.7-2
5.14.00	AWS	v1.8-4	v1.8-4	v1.7-1	v1.7-1
	Azure	v1.8-4	v1.8-4	v1.7-1	v1.7-1
	OpenStack	v1.8-4	v1.8-4	v1.7-1	v1.7-1
	AnyCloud	v1.8-4	v1.8-4	v1.7-1	v1.7-1
5.10.01, 5.11.00, 5.11.01, 5.12.00, 5.13.00, 5.13.01	AWS	v1.7-1	v1.7-1	v1.7-1	v1.7-1
	Azure	v1.7-1	v1.7-1	v1.7-1	v1.7-1
	OpenStack	v1.7-1	v1.7-1	v1.7-1	v1.7-1
	AnyCloud	v1.7-1	v1.7-1	v1.7-1	v1.7-1

## Supported GigaSMART Operations

The following table lists the supported GigaSMART operations by GigaVUE V Series 2 Nodes.

GigaSMART Operation	GigaVUE Cloud Suite for AWS	GigaVUE Cloud Suite for Azure	GigaVUE Cloud Suite for OpenStack	GigaVUE Cloud Suite for VMware (ESXi)	GigaVUE Cloud Suite for VMware (NSX-T)	GigaVUE Cloud Suite for Third Party Orchestration	GigaVUE Cloud Suite for Nutanix
Masking	✓	✓	✓	✓	✓	✓	✓
Packet Slicing	✓	✓	✓	✓	✓	✓	✓
De-Duplication	✓	✓	✓	✓	✓	✓	✓
Application Metadata Exporter	✓	✓	✗	✓	✓	✓	✗
L2GRE Tunnel Encapsulation	✓	✗	✓	✓	✓	✗	✗
VXLAN Tunnel Encapsulation	✓	✓	✓	✓	✓	✗	✗
L2GRE Tunnel Decapsulation	✓	✗	✓	✓	✓	✗	✗
VXLAN Tunnel Decapsulation	✓	✓	✓	✓	✓	✗	✗
ERSPAN Tunnel Decapsulation	✓	✗	✓	✓	✓	✗	✗
UDPGRE Tunnel Decapsulation	✓	✗	✓	✓	✓	✗	✗
GENEVE Decap	✓	✗	✗	✗	✓ (NSX-T)	✗	✗
Header Stripping	✓	✓	✓	✓	✓	✓	✓
Header	✗	✗	✗	✗	✗	✗	✗

GigaSMART Operation	GigaVUE Cloud Suite for AWS	GigaVUE Cloud Suite for Azure	GigaVUE Cloud Suite for OpenStack	GigaVUE Cloud Suite for VMware(ESXi)	GigaVUE Cloud Suite for VMware(NSX-T)	GigaVUE Cloud Suite for Third Party Orchestration	GigaVUE Cloud Suite for Nutanix
Addition							
FlowVUE (IP-based)	x	x	x	x	x	x	x
Adaptive Packet Filtering (APF) without RegEx	✓	✓	✓	✓	✓	✓	x
Application Session Filtering (ASF)	✓	✓	x	✓	✓	✓	x
Application Filtering Intelligence (AFI)	✓	✓	x	✓	✓	✓	x
Application Metadata Intelligence (AMI)	✓	✓ (Includes NetFlow)	✓ (Supports only NetFlow)	✓	✓	✓	x
Application Visualization	✓	✓	x	✓	✓	x	x
Load Balancing (Stateless)	✓	✓	✓	✓	✓	✓	✓
Load Balancing (Stateful)	x	x	x	x	x	x	x

GigaSMA RT Operation	GigaVUE Cloud Suite for AWS	GigaVUE Cloud Suite for Azure	GigaVUE Cloud Suite for OpenStack	GigaVUE Cloud Suite for VMware(ESXi)	GigaVUE Cloud Suite for VMware(NSX-T)	GigaVUE Cloud Suite for Third Party Orchestration	GigaVUE Cloud Suite for Nutanix
SSL Decryption for Out-of- Band Tools (Passive SSL)	✓	✓	✓	✓	✗	✓	✓
SSL Decryption for Inline Tools	✗	✗	✗	✗	✗	✗	✗
5G-Service Based Interface Application (5G-SBI)	✗	✗	✓	✓	✓	✓	✗

## Troubleshooting

The following commands can be used for debugging and troubleshooting.

Command	Location	Use
apiv node		This command can be used to the Software Version and the build information.
<pre>1   apiv -x post system/sysdumpGenerate &lt;&lt;     EOF 2   EOF</pre>	<ul style="list-style-type: none"> <li>• /var/crash</li> <li>• /var/opt/vseries/sysdumps</li> </ul>	This command is used to generate the system dump and

		to collect statistics and logs. Sysdumps are also generated automatically by the process manager when there is a crash. These sysdump files can be used to troubleshoot the system
apiv stats	/var/opt/vseries/sysdumps/sysdump-vseries-date-time/	This command can be used in system console to troubleshoot networking issues.
ip rule > /tmp/networks.txt	/tmp/networks.txt	This command can be used in system console to troubleshoot networking issues.
ip -6 rule >> /tmp/networks.txt	/tmp/networks.txt	This command can be used in system console to troubleshoot networking

		issues.
<code>cat /etc/iproute2/route tables &gt;&gt; /tmp/networks.txt</code>	<code>/tmp/networks.txt</code>	This command can be used in system console to troubleshoot networking issues.
<code>ip route list table all &gt;&gt; /tmp/networks.txt</code>	<code>/tmp/networks.txt</code>	This command can be used in system console to troubleshoot networking issues.
<code>ip -6 route list table all &gt;&gt; /tmp/networks.txt</code>	<code>/tmp/networks.txt</code>	This command can be used in system console to troubleshoot networking issues.
<code>find /etc/netplan/* -print -exec cat {} &gt;&gt; /tmp/networks.txt \;</code>	<code>/tmp/networks.txt</code>	This command can be used in system console to troubleshoot networking issues.

# GigaVUE V Series Logs and Commands

## CLI Commands

Device/Component	Platform	Commands
GvTAP Controller	AWS/OpenStack/Azure/Anycloud	gvtapr
GvTAP OVS Controller	OpenStack	gvtapr
GvTAP Agent Log	AWS/OpenStack/Azure/Anycloud	gvtapl
GvTAP OVS Agent Log	OpenStack	gvtapl

## Logs

Device/Component	Platform	Logs
Fabric Manager(FM)	NA	<b><i>https://&lt;FM IP&gt;/api/0.9/sys/log/file/vmm.log</i></b>
GvTAP Controller	AWS/OpenStack/Azure/Anycloud	<b><i>/var/log</i></b>
GvTAP OVS Controller	OpenStack	<b><i>/var/log/syslog</i></b>
GvTAP Agent	AWS/OpenStack/Azure/Anycloud	<b><i>/var/log</i></b>
GvTAP OVS Agent Log	OpenStack	<b><i>/var/log/gvtap-agent.log</i></b>
V Series Controller	AWS/OpenStack/Azure/Anycloud	<b><i>/var/log</i></b>

# Additional Sources of Information

This appendix provides additional sources of information. Refer to the following sections for details:

- [Documentation](#)
- [Documentation Feedback](#)
- [Contact Technical Support](#)
- [Contact Sales](#)
- [The VÜE Community](#)

## Documentation

This table lists all the guides provided for GigaVUE Cloud Suite software and hardware. The first row provides an All-Documents Zip file that contains all the guides in the set for the release.

**NOTE:** In the online documentation, view [What's New](#) to access quick links to topics for each of the new features in this Release; view [Documentation Downloads](#) to download all PDFs.

Table 1: Documentation Set for Gigamon Products

GigaVUE Cloud Suite 6.3 Hardware and Software Guides	
<b>DID YOU KNOW?</b>	If you keep all PDFs for a release in common folder, you can easily search across the doc set by opening one of the files in Acrobat and choosing <b>Edit &gt; Advanced Search</b> from the menu. This opens an interface that allows you to select a directory and search across all PDFs in a folder.
<b>Hardware</b>	how to unpack, assemble, rack-mount, connect, and initially configure ports the respective GigaVUE Cloud Suite devices; reference information and specifications for the respective GigaVUE Cloud Suite devices
<b>GigaVUE-HC1 Hardware Installation Guide</b>	
<b>GigaVUE-HC2 Hardware Installation Guide</b>	
<b>GigaVUE-HC3 Hardware Installation Guide</b>	
<b>GigaVUE-HC1-Plus Hardware Installation Guide</b>	
<b>GigaVUE-TA25 Hardware Installation Guide</b>	
<b>GigaVUE-TA25E Hardware Installation Guide</b>	
<b>GigaVUE-TA100 Hardware Installation Guide</b>	



<b>GigaVUE Cloud Suite 6.3 Hardware and Software Guides</b>	
<b>GigaVUE-TA200 Hardware Installation Guide</b>	
<b>GigaVUE-TA200E Hardware Installation Guide</b>	
<b>GigaVUE-TA400 Hardware Installation Guide</b>	
<b>GigaVUE-OS Installation Guide for DELL S4112F-ON</b>	
<b>G-TAP A Series 2 Installation Guide</b>	
<b>GigaVUE M Series Hardware Installation Guide</b>	
<b>GigaVUE-FM Hardware Appliance Guide for GFM-HW1-FM010 and and GFM-HW1-FM001-HW</b>	
<b>Software Installation and Upgrade Guides</b>	
<b>GigaVUE-FM Installation, Migration, and Upgrade Guide</b>	
<b>GigaVUE-OS Upgrade Guide</b>	
<b>GigaVUE V Series Migration Guide</b>	
<b>Fabric Management and Administration Guides</b>	
<b>GigaVUE Administration Guide</b>	covers both GigaVUE-OS and GigaVUE-FM
<b>GigaVUE Fabric Management Guide</b>	how to install, deploy, and operate GigaVUE-FM; how to configure GigaSMART operations; covers both GigaVUE-FM and GigaVUE-OS features
<b>Cloud Guides</b>	
how to configure the GigaVUE Cloud Suite components and set up traffic monitoring sessions for the cloud platforms	
<b>*GigaVUE V Series Applications Guide</b>	
<b>GigaVUE V Series Quick Start Guide</b>	
<b>GigaVUE Cloud Suite for AWS—GigaVUE V Series 2 Guide</b>	
<b>GigaVUE Cloud Suite for Azure—GigaVUE V Series 2 Guide</b>	
<b>GigaVUE Cloud Suite for OpenStack—GigaVUE V Series 2 Guide</b>	
<b>*GigaVUE Cloud Suite for Nutanix Guide—GigaVUE V Series 2 Guide</b>	
<b>GigaVUE Cloud Suite for VMware—GigaVUE V Series Guide</b>	
<b>*GigaVUE Cloud Suite for Third Party Orchestration</b>	
<b>GigaVUE Cloud Suite for AnyCloud Guide</b>	
<b>Universal Container Tap Guide</b>	

## GigaVUE Cloud Suite 6.3 Hardware and Software Guides

### Gigamon Containerized Broker Guide

### GigaVUE Cloud Suite for AWS—GigaVUE V Series 1 Guide

### GigaVUE Cloud Suite for Azure—GigaVUE V Series 1 Guide

### GigaVUE Cloud Suite for OpenStack—GigaVUE V Series 1 Guide

### GigaVUE Cloud Suite for Nutanix Guide—GigaVUE-VM Guide

### GigaVUE Cloud Suite for VMware—GigaVUE-VM Guide

### GigaVUE Cloud Suite for AWS Secret Regions Guide

## Reference Guides

### GigaVUE-OS CLI Reference Guide

library of GigaVUE-OS CLI (Command Line Interface) commands used to configure and operate GigaVUE HC Series and TA Series devices

### GigaVUE-OS Security Hardening Guide

### GigaVUE Firewall and Security Guide

### GigaVUE Licensing Guide

### GigaVUE-OS Cabling Quick Reference Guide

guidelines for the different types of cables used to connect Gigamon devices

### GigaVUE-OS Compatibility and Interoperability Matrix

compatibility information and interoperability requirements for Gigamon devices

### GigaVUE-FM REST API Reference in GigaVUE-FM User's Guide

samples uses of the GigaVUE-FM Application Program Interfaces (APIs)

## Release Notes

### GigaVUE-OS, GigaVUE-FM, GigaVUE-VM, G-TAP A Series, and GigaVUE Cloud Suite Release Notes

new features, resolved issues, and known issues in this release ;  
important notes regarding installing and upgrading to this release

**NOTE:** Release Notes are not included in the online documentation.

**NOTE:** Registered Customers can log in to [My Gigamon](#) to download the Software and Release Notes from the Software & Docs page on to [My Gigamon](#). Refer to [How to Download Software and Release Notes from My Gigamon](#).

## In-Product Help

### GigaVUE-FM Online Help

how to install, deploy, and operate GigaVUE-FM.

## How to Download Software and Release Notes from My Gigamon

Registered Customers can download software and corresponding Release Notes documents from the **Software & Release Notes** page on to [My Gigamon](#). Use the My Gigamon Software & Docs page to download:

- Gigamon Software installation and upgrade images,
- Release Notes for Gigamon Software, or
- Older versions of PDFs (pre-v5.7).

**To download release-specific software, release notes, or older PDFs:**

1. Log in to [My Gigamon](#)
2. Click on the **Software & Release Notes** link.
3. Use the **Product** and **Release** filters to find documentation for the current release. For example, select Product: "GigaVUE-FM" and Release: "5.6," enter "pdf" in the search box, and then click **GO** to view all PDF documentation for GigaVUE-FM 5.6.xx.

**NOTE:** My Gigamon is available to registered customers only. Newer documentation PDFs, with the exception of release notes, are all available through the publicly available online documentation.

## Documentation Feedback

We are continuously improving our documentation to make it more accessible while maintaining accuracy and ease of use. Your feedback helps us to improve. To provide feedback and report issues in our documentation, send an email to:

[documentationfeedback@gigamon.com](mailto:documentationfeedback@gigamon.com)

Please provide the following information in the email to help us identify and resolve the issue. Copy and paste this form into your email, complete it as able, and send. We will respond as soon as possible.

Documentation Feedback Form		
About You	Your Name	
	Your Role	
	Your Company	

<b>For Online Topics</b>	<b>Online doc link</b>	(URL for where the issue is)
	<b>Topic Heading</b>	(if it's a long topic, please provide the heading of the section where the issue is)
<b>For PDF Topics</b>	<b>Document Title</b>	(shown on the cover page or in page header )
	<b>Product Version</b>	(shown on the cover page)
	<b>Document Version</b>	(shown on the cover page)
	<b>Chapter Heading</b>	(shown in footer)
	<b>PDF page #</b>	(shown in footer)
<b>How can we improve?</b>	<b>Describe the issue</b>	Describe the error or issue in the documentation. (If it helps, attach an image to show the issue.)
	<b>How can we improve the content?</b> <b>Be as specific as possible.</b>	
	<b>Any other comments?</b>	

## Contact Technical Support

For information about Technical Support: Go to **Settings**  **> Support > Contact Support** in GigaVUE-FM.

You can also refer to <https://www.gigamon.com/support-and-services/contact-support> for Technical Support hours and contact information.

Email Technical Support at [support@gigamon.com](mailto:support@gigamon.com).

# Contact Sales

Use the following information to Gigamon channel partner or Gigamon sales representatives.

**Telephone:** +1.408.831.4025

**Sales:** [inside.sales@gigamon.com](mailto:inside.sales@gigamon.com)

**Partners:** [www.gigamon.com/partners.html](http://www.gigamon.com/partners.html)

# Premium Support

Email Gigamon at [inside.sales@gigamon.com](mailto:inside.sales@gigamon.com) for information on purchasing 24x7 Premium Support. Premium Support entitles you to round-the-clock phone support with a dedicated Support Engineer every day of the week.

# The VÜE Community

The [VÜE Community](#) is a technical site where Gigamon users, partners, security and network professionals and Gigamon employees come together to share knowledge and expertise, ask questions, build their network and learn about best practices for Gigamon products.

Visit the VÜE site to:

- Find knowledge base articles and documentation
- Ask and answer questions and learn best practices from other members.
- Join special-interest groups to have focused collaboration around a technology, use-case, vertical market or beta release
- Take online learning lessons and tutorials to broaden your knowledge of Gigamon products.
- Open support tickets (Customers only)
- Download the latest product updates and documentation (Customers only)

The VÜE Community is a great way to get answers fast, learn from experts and collaborate directly with other members around your areas of interest.

**Register today at** [community.gigamon.com](http://community.gigamon.com)

**Questions?** Contact our Community team at [community@gigamon.com](mailto:community@gigamon.com).

# Glossary

## D

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### decrypt list

need to decrypt (formerly blacklist)

### decryptlist

need to decrypt - CLI Command (formerly blacklist)

### drop list

selective forwarding - drop (formerly blacklist)

## F

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### forward list

selective forwarding - forward (formerly whitelist)

## L

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### leader

leader in clustering node relationship (formerly master)

## M

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### member node

follower in clustering node relationship (formerly slave or non-master)

## N

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### no-decrypt list

no need to decrypt (formerly whitelist)

## nodecryptlist

no need to decrypt- CLI Command (formerly whitelist)

## P

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## primary source

root timing; transmits sync info to clocks in its network segment (formerly grandmaster)

## R

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## receiver

follower in a bidirectional clock relationship (formerly slave)

## S

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## source

leader in a bidirectional clock relationship (formerly master)