



# GigaVUE Licensing Guide

**GigaVUE-FM and GigaVUE-OS**

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Gigamon Inc.  
3300 Olcott Street  
Santa Clara, CA 95054  
408.831.4000

# Change Notes

When a document is updated, the document version number on the cover page will indicate a new version and will provide a link to this Change Notes table, which will describe the updates.

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## About this Guide

Gigamon offers both fixed and floating licensing options for its various product portfolios. This guide describes the different types of software licenses and provides details on how to install, activate, and manage the licenses.

Refer to the following sections for details:

- [License Models](#)
- [GigaVUE-FM Licenses](#)
- [GigaSMART Application Licenses](#)
- [GigaVUE-OS and GigaVUE-OS Module Licenses](#)
- [GigaVUE TA Series Licenses](#)
- [Volume-based Licenses](#)
- [Licenses - GUI Options in GigaVUE-FM](#)
- [License Command](#)
- [Grace Period Behavior \(from Software Version 6.1.00\)](#)
- [Gigamon License Portal](#)
- [FAQs For Licensing](#)

**NOTE:** This guide does not provide details on the licenses for the hardware devices.

## License Models

The following licensing models are implemented at Gigamon:

| Model                               | Description   | Features  |
|-------------------------------------|---|---|
| <b>Fixed Licensing Model</b>        | Licenses of this model are termed as <b>Node-locked licenses</b> .<br>License is attached to a specific card serial number or chassis serial number.  | <ul style="list-style-type: none"> <li>License key is generated through the licensing portal.</li> <li>You can manage the licenses from CLI or through GigaVUE-FM GUI.</li> <li>Automatic renewal of licenses is not supported. You must manually create the license in the Licensing Portal, import the licenses to GigaVUE-FM and assign the new licenses in GigaVUE-FM.</li> </ul> |
| <b>Flexible Licensing Model</b>     | Licenses of this type are termed as <b>Floating licenses</b> .<br>License is not attached to a specific card or chassis. You can move the licenses across the cards within a chassis or across the chassis. | <ul style="list-style-type: none"> <li>License file with pooled floating licenses is generated in License Portal, and imported into GigaVUE-FM through GUI.</li> <li>You can manage the licenses using GigaVUE-FM.</li> <li>Automatic renewal of licenses is supported.</li> </ul>  |
| <b>Volume-based Licensing Model</b> | Licenses are offered based on volume. Licenses of this type are termed as <b>Volume-based licenses</b> .  | License file with bundled volume license is generated in the License Portal, and imported into GigaVUE-FM through GUI.  |

Based on the duration, licenses can be term licenses or perpetual licenses:

|   | Software and Feature Usability | Support                                  | Grace Period, Expiry and Renewal   |
|---|--------------------------------|--|--|
| <b>Term Licenses can be:</b> <ul style="list-style-type: none"> <li><b>Evaluation</b></li> <li><b>Subscriptions:</b> Subscription licenses are available as monthly or yearly subscriptions (1, 3, 5, and 7 year term)</li> </ul> | Until the license expires      | Elite Support included with the license  | License expires and must be renewed. <ul style="list-style-type: none"> <li>Evaluation licenses expire after 45 days. You must upgrade to a fully licensed software at the end of the evaluation period.</li> <li>Subscription licenses expire at the end of the subscription period and can be either renewed or upgraded.</li> </ul> |
| <b>Perpetual Licenses</b>   | Can be used indefinitely       | Elite support to be purchased separately | Does not expire.   |

## Notes

- **Managing Licenses:** GigaVUE-FM must be installed for purchasing and managing floating licenses. Node-locked licenses can be managed either from the GigaVUE-FM GUI or using the Command Line Interface.
- **Grace Period:** Term licenses come with a grace period. Refer to the [Grace Period Behavior \(from Software Version 6.1.00\)](#) section for more details.

## GigaVUE-FM Licenses

GigaVUE-FM is provisioned by default with a base license or an evaluation license. With base license you can add one physical node, one virtual node, and 10 virtual tap points for each of the applicable cloud platforms. Contact your Gigamon representative to get an evaluation license for GigaVUE-FM.

Table 1: GigaVUE-FM Evaluation License Package

| License Types                | Physical Nodes | Virtual Nodes        | OpenStack/AWS/Azure   | Features available   | Notes  |
|------------------------------|----------------|----------------------|-----------------------|--|--|
| <b>GigaVUE-FM Evaluation</b> | Up to 200      | 1 (included as Base) | 10 Virtual TAP Points | All features available with Prime for the evaluation period. | License automatically expires after 45 days. |

Evaluation licenses are not recommended for deployment in production environment. At the end of the evaluation period, if you fail to upgrade GigaVUE-FM to a fully licensed version, the features are disabled automatically.

**NOTE:** To run only GigaVUE-VM, there is no requirement to purchase additional licenses for GigaVUE-FM. For information about GigaVUE-VM licensing, refer to the *GigaVUE Cloud Suite for VMware—GigaVUE V Series Guide*.

## GigaVUE-FM License Packages

Upgrade packages for GigaVUE-FM are available if you have already purchased GigaVUE-FM. The packages allow users to upgrade from a 5-pack option to a 10-pack or a Prime package. There is also an option to upgrade from a 10-pack to a Prime package. To find out more about the upgrade purchase, contact your Gigamon Sales representative.

The following table summarizes the GigaVUE-FM License packages.

Table 2: GigaVUE-FM License Packages

| Features                    | Base / Evaluation License (Free of charge)   | 5-Pack       | 10-Pack      | Prime                               |
|-----------------------------|--|--------------|--------------|-------------------------------------|
| <b>Physical Node Count</b>  | 1  | Up to 5      | Up to 10     | <sup>1</sup> Greater than 10 nodes. |
| <b>Rest API</b>             | Yes  | Yes          | Yes          | Yes                                 |
| <b>Audit, Events Logs</b>   | Yes  | Yes          | Yes          | Yes                                 |
| <b>Firmware Upgrade</b>     | Yes  | Yes          | Yes          | Yes                                 |
| <b>Configuration Backup</b> | Yes  | Yes          | Yes          | Yes                                 |
| <b>Dashboard</b>            | <p>Only the following Static Widgets are displayed:</p> <ul style="list-style-type: none"> <li>● Top 10 Network Ports by Traffic</li> <li>● Top 10 Tool Ports by Traffic</li> <li>● Top 10 Maps by Traffic</li> <li>● Audit Logs By Result</li> <li>● Events By Severity</li> <li>● Ports Link Status Summary</li> <li>● Unhealthy Maps Status Summary</li> <li>● Unhealthy Flows</li> </ul> | Customizable | Customizable | Customizable                        |
| <b>Reports</b>              | No   | Yes          | Yes          | Yes                                 |
| <b>Trending Data</b>        | 1 Day  | 1 Week       | 1 Month      | 1 Month                             |

<sup>1</sup>Refer to the GigaVUE-FM specifications for the maximum number of nodes.

## Manage GigaVUE-FM License

You can manage GigaVUE-FM licenses from the GigaVUE-FM GUI. To access the GigaVUE-FM license(s) page:

1. On the left navigation pane, click .
2. Select **System > Licenses > FM/Cloud**.

This page lists the Challenge MAC address of GigaVUE-FM, GigaVUE-FM license type and the applicable licenses for the various cloud platforms and the virtual nodes.

| Licenses                                     | FM/Cloud                                     | Node Locked | Floating        | Volume Usage | Expiry | Settings |
|--|--|-------------|-----------------|--------------|--------|----------|
| Challenge MAC :                              | 00:50:56:9b:a7:65                            |             |                 |              |        |          |
| GigaVUE-FM License :                         | Prime - Licensed for 200 nodes               |             |                 |              |        |          |
| GigaVUE Cloud Suite for VM License :         | Active - Licensed for 1 GigaVUE-VM Nodes     |             |                 |              |        |          |
| GigaVUE Cloud Suite for NSX-T License :      |  |             |                 |              |        |          |
| GigaVUE Cloud Suite for OpenStack License :  | Licensed for 10 Virtual Tap Points           |             |                 |              |        |          |
| GigaVUE Cloud Suite for Kubernetes License : |  |             |                 |              |        |          |
| GigaVUE Cloud Suite for Nutanix License :    |  |             |                 |              |        |          |
| GigaVUE Cloud Suite for AWS License :        |  |             |                 |              |        |          |
| GigaVUE Cloud Suite for Azure License :      |  |             |                 |              |        |          |
| GigaVUE Cloud Suite for AnyCloud License :   |  |             |                 |              |        |          |
| <input type="checkbox"/> License Key         | Description                                  | State       | Expiration Date |              |        |          |
| <input type="checkbox"/>                     | GFM-FM000: GigaVUE-FM Prime Edition, mana... | Active      |                 |              |        |          |

Use the following buttons to manage GigaVUE-FM licenses:

| Button                  | Description   |
|-------------------------|---|
| <b>Activate License</b> | Use this button to activate the GigaVUE-FM licenses. Refer to <a href="#">Activate GigaVUE-FM License</a> section for more information. |
| <b>Delete</b>           | Use this button to delete the licenses. Refer to <a href="#">Delete GigaVUE-FM License</a> the details.                                 |
| <b>Revoke</b>           | Use to button to revoke the licenses. Refer to <a href="#">Revoke License</a> section for details.                                      |
| <b>Export</b>           | Use this button to export the details in the Activate Licenses page to a CSV or XLSX page.  |

## Activate GigaVUE-FM License

To activate the license key, you need the following:

|                       |   |
|-----------------------|---|
| <b>Entitlement ID</b> | Locate the email sent to you by Gigamon containing the licensing information for your installation. This email contains one or more <b>EID</b> (Entitlement ID) values.                   |
| <b>Challenge MAC</b>  | Locate the Challenge MAC displayed in the GigaVUE-FM GUI. The license is only valid with the corresponding MAC address. If GigaVUE-FM is deleted or re-installed, contact Gigamon Support |

GigaVUE-FM licenses can be activated by clicking **Activate License** and following the on-screen advice. The instructions provide a link directly to the Gigamon License Portal at <https://licensing.gigamon.com>

To activate a license:

1. On the left navigation pane, click , and select **System > Licenses > FM/Cloud**.
2. Click **Activate** to activate a GigaVUE-FM license.

### Activate your license

**In order to activate your license, follow the steps below**

- 1 Download this inventory (.json) file, which contains everything we need to know about your GigaVUE-FM.
 

You can choose to include the below device information. If you exclude the IP or Hostname, you will have to identify the chassis or GigaSMART card by its ID when activating.

IP Address  
 Hostname

This file will only be valid for the next 1 hour. If you need to export a new file, you can download your file again.

[Download Fabric Inventory \(.Json\)](#)
- 2 Upload the above file to your [Gigamon license portal](#), after choosing a SKU to activate in the portal.
- 3 After uploading the inventory (.json) file, the license portal will provide you with a license key. Proceed to the [Add FM License](#) page to manually activate your license.

[Cancel](#)

3. The *Activate your license* pop-up appears with instructions to:
  - a. Download the Fabric Inventory File, which is a JSON file that contains the details about GigaVUE-FM. For more details, refer to [What is a Fabric Inventory File?](#)
  - b. Upload the Fabric Inventory file to the Gigamon License Portal. Refer to the [Gigamon License Portal](#) section for instructions on how to activate the licenses from the portal.
  - c. After activating the license, record the license key or keys.
    - i. Return to GigaVUE-FM GUI.
    - ii. Click the **Add FM License** link in the pop-up that appears. The Add License page is displayed. Enter the license key.
    - iii. To add more than one license, click the **+** button.
    - iv. Click **Save**.

The license and its description is added to the Licenses page.

## Delete GigaVUE-FM License

To delete a license, do the following:

1. On the left navigation pane, click .
2. Go to **System > Licenses > FM/Cloud**.
3. Select the license key to be deleted.
4. Click **Delete** to delete the license.

A deleted license can be added again to GigaVUE-FM and can be reused.

## Revoke License

To revoke a license, do the following:

1. On the left navigation pane, click .
2. Go to **System > Licenses > FM/Cloud**.
3. Select the license key to be revoked.
4. Click **Revoke** to remove the license.

Once a license is revoked, you cannot add the license again in GigaVUE-FM.

**NOTE:** A separate revocation key is not generated for revoked licenses.

## Obtaining a New License

Contact your Sales representative to obtain a new license for GigaVUE-FM Nodes (see [Contacting Sales](#) for the contact information).

## Retrieving a Lost License

If you lost an existing license, contact Gigamon Technical Support for assistance. For the contact information, refer to [Contact Technical Support](#).

## Upgrade and Downgrade License Packages

- Upgrading of license packages is available at all times.
- To purchase a new license, please contact Gigamon Sales Representative.
- All licenses are perpetual therefore they carry in to any software upgrades without re-applying the licenses, except evaluation licenses are set for expiration. Software upgrades can be managed during valid evaluation period.
- Licenses can be upgraded from Base to either a 45 day evaluation or to paid version.
- If an evaluation license is upgraded to Express or Advanced version, the Add-on features are automatically disabled. To retain the Add-On features, please purchase the license, or upgrade to the Prime Package.
- Purchased licenses cannot be downgraded.
- Licenses can be deleted and re-entered as long as the MAC address tied to the license is still valid.

In case of expiration of the evaluation license, GigaVUE-FM will revert back to supporting only 1 physical and 1 virtual node.

The list below shows the node priorities in case a License is invalid and nodes are deactivated. In such a case, the nodes will be visible but deactivated. They can be re-activated if the license is reinstalled. This is especially important if the evaluation license expires and you need extra time to enter a valid license.

(1) If a cluster exists:

- Leader
  - In case of multiple clusters, the cluster with the top level priorities as shown in standalone will take over. For example, a cluster with leader as GigaVUE-FM and GigaVUE-OS-2404 will have preference over a cluster with leader as GigaVUE-HC2.
- Standalone node *(Based on the node priority levels as shown below)*
- Standby leader, in case the leader is removed
- Stack/Cluster member
- Unreachable
- Unknown

(2) If there is no cluster (*G Series nodes have top preference*)

- GigaVUE-FM and GigaVUE-OS-212
- GigaVUE-FM and GigaVUE-OS-420
- GigaVUE-FM and GigaVUE-OS-2404
- GigaVUE-FM and GigaVUE-OS-0216
- GigaVUE-FM and GigaVUE-OS-TA100-CXP
- GigaVUE-HC3
- GigaVUE-HC2
- GigaVUE-HC1
- GigaVUE-FM and GigaVUE-OS-TA10
- GigaVUE-FM and GigaVUE-OS-TA40
- GigaVUE-FM and GigaVUE-OS-TA100
- GigaVUE-FM and GigaVUE-OS-TA10A
- White box with GigaVUE-OS

In cases where nodes have connectivity issues as listed below, the next level nodes as shown in Scenarios (1) and (2) will take effect:

- Nodes should not have any connectivity issue
- Nodes can be reached but node response has parsing problem
- Nodes can be reached but authentication is invalid
- Node cannot be reached
- Nodes cannot be added

## GigaSMART Application Licenses

GigaSMART applications improve network visibility, traffic handling, and tool efficiency. You need licensing keys to enable GigaSMART applications in the devices. GigaSMART licenses can be procured as either node-locked or floating and are available in the following licensing models:

| Licensing Modal     | Description   |
|---------------------|---|
| <b>Evaluation</b>   | Use an evaluation license to evaluate GigaSMART applications. During the evaluation period of 45 days, you will have access to the full functionality of the GigaSMART applications under evaluation. You can obtain an evaluation license for any GigaSMART application, for either a single or for a number of GigaSMART applications combined into a bundle. |
| <b>Subscription</b> | Few GigaSMART applications, such as De-duplication, Inline SSL, and Application Intelligence, are available only as bundles through a subscription license.   |
| <b>Perpetual</b>    | Perpetual licenses are node-locked to a specific card. These can be managed from CLI as well as GigaVUE-FM  |

GigaSMART licenses can be purchased individually or as bundles. Refer to the [GigaSMART Data Sheet](#) for the GigaSMART License SKU for the various devices.

**NOTE:** Bundled features can only run on the corresponding GigaSMART hardware.

## GigaSMART Application Licenses

GigaSMART applications are enabled using license keys. This section provides summaries of the applications associated with each GigaSMART License:

### Base GigaSMART Applications

- **GigaVUE-FM and GigaVUE-OS-HC0 Module** – The base applications include Packet Slicing, Masking, Trailer, and IP and L2GRE Tunnel Decap.
- **GigaVUE-HC3 SMT-HC3-C05 Module** – The base applications include Packet Slicing, Masking, Trailer, and IP and L2GRE Tunnel Decap.
- **GigaVUE-HC1 Node** – The base applications include Packet Slicing, Masking, and Trailer.

GigaSMART applications with the Base license available on GigaVUE-FM and GigaVUE-OS H Series nodes:

- GigaSMART Packet Slicing

- GigaSMART Masking
- Using GigaSMART Trailers
- GigaSMART IP Encapsulation/Decapsulation (GigaSMART Tunnel)
- GigaSMART Layer 2 GRE Tunnel Encapsulation/Decapsulation
- GigaSMART VXLAN Tunnel Decapsulation
- GigaSMART Custom Tunnel Decapsulation

## Advanced Tunneling License/Tunneling License

**NOTE:** Advanced Tunneling license on GigaVUE-HC2, and GigaVUE-HC3. Referred to as “Tunneling license” on GigaVUE-HC1,

The **Advanced Tunneling License/Tunneling License** enables the following GigaSMART applications:

- GigaSMART IP Encapsulation/Decapsulation (GigaSMART Tunnel)
- GigaSMART Layer 2 GRE Tunnel Encapsulation/Decapsulation
- GigaSMART VXLAN Tunnel Decapsulation
- GigaSMART Custom Tunnel Decapsulation
- GigaSMART ERSPAN Tunnel Decapsulation

## De-duplication License

The **De-duplication License** enables the following GigaSMART applications:

- GigaSMART De-duplication

## Header Stripping License

The **Header Stripping License** enables the following applications:

- GigaSMART Header Addition
- GigaSMART Header Stripping

## Adaptive Packet Filtering (APF) License

The **Adaptive Packet Filtering License** enables the following GigaSMART applications:

- GigaSMART Adaptive Packet Filtering (APF)

## Application Session Filtering (ASF) License

The **Application Session Filtering License** enables the following GigaSMART applications:

- GigaSMART Application Session Filtering (ASF) and Buffer ASF

## GTP Filtering & Correlation License

The **GTP Filtering & Correlation License** enables the following GigaSMART applications:

- GigaSMART GTP Correlation

- GigaSMART GTP Whitelisting and GTP Flow Sampling
- GTP Scaling
- GTP Stateful Session Recovery

## SIP/RTP Correlation License

The **SIP/RTP Correlation License** enables the following GigaSMART application:

- GigaSMART SIP/RTP Correlation

## FlowVUE License

The **FlowVUE License** enables the following GigaSMART applications:

- GigaSMART FlowVUE

## NetFlow Generation License

The **NetFlow Generation License** enables the following GigaSMART applications:

- GigaSMART NetFlow Generation

## SSL Decryption Licenses

The **SSL Decryption Licenses** enable the following GigaSMART applications:

- GigaSMART Passive SSL Decryption
- GigaSMART SSL Decryption for Inline and Out-of-Band Tools

### NOTES:

- GigaSMART load balancing does not require a separate license. Stateless load balancing is included with base licenses. Stateful load balancing for GTP and ASF are included with the GTP Filtering & Correlation and Application Session Filtering (ASF) licenses. Stateful load balancing for tunnel is included with the tunneling licenses. Refer to GigaSMART Load Balancing in GigaVUE Fabric Management Guide.
- GigaSMART MPLS traffic performance enhancement does not require a separate license. Refer to GigaSMART MPLS Traffic Performance Enhancement in GigaVUE Fabric Management Guide.

## GigaVUE-OS and GigaVUE-OS Module Licenses

Starting in software version 5.12.00, Gigamon hardware devices can be manufactured with or without a software license:

| License Type  | Supported Platforms   |
|---|---|
| Fully licensed devices (integrated devices)                               | Provisioned with both hardware and software licenses.<br>Software license is a perpetual license.                     |
| Hardware-only licensed devices (suffixed with "-HW" in the hardware type) | Provisioned with only the hardware license. Need additional software licenses for the device to be fully operational. |

The following software licenses must be installed in the hardware-only licensed devices for the chassis and the modules to be active and operational:

- GigaVUE-OS License.
- GigaVUE-OS Module License.

Refer to the following notes:

- GigaVUE-OS and GigaVUE-OS Module licenses support both Term and Perpetual licensing.
- You can activate the GigaVUE-OS and GigaVUE-OS Module licenses from the Gigamon Licensing portal or from the GigaVUE-FM GUI. Refer to [Manage GigaSMART, GigaVUE-OS, and GigaVUE-OS Module Licenses](#)
  - When assigning GigaVUE-OS licenses, only the relevant chassis (based on the model) is available for assignment (GigaVUE-HC1, GigaVUE-HC2, GigaVUE-HC3, GigaVUE-HC1Plus) based on the specific SKU.
  - When assigning GigaVUE-OS module licenses, only the relevant cards (based on the card type) is available for assignment (PRT-, BPS-, TAP-, SMT-) based on the specific SKU of the card.
- Activation of licenses from GUI is applicable only for the following devices. Devices must be running software version 6.2.00:
  - GigaVUE-HC1
  - GigaVUE-HC1Plus
  - GigaVUE-HC2
  - GigaVUE-HC3
- You cannot transfer the GigaVUE-OS and GigaVUE-OS Modules licenses across chassis and cards.
- On the GigaVUE-OS and GigaVUE-OS Module licenses that are activated from the GigaVUE-FM GUI, an F-icon is displayed.

Refer to the [GigaVUE HC Series Data Sheet](#) for the license SKUs.

## Supported Hardware Devices

The following table shows the licenses applicable for the GigaVUE HC series and TA series devices and their behavior during the grace period<sup>1</sup> and expiry of the license.

| License Type              | Supported Platforms  | Installation of License  | Uninstallation/Expiry of License   | Grace Period Behavior   |
|---------------------------|--|--|--|---|
| GigaVUE-OS License        | <ul style="list-style-type: none"> <li>● GigaVUE-HC1/HCI1P</li> <li>● GigaVUE-HC2</li> <li>● GigaVUE-HC3</li> </ul>  | <ul style="list-style-type: none"> <li>● Chassis will be operationally up and active.</li> </ul>   | <ul style="list-style-type: none"> <li>● All the modules except the CC cards will be in shutdown state.</li> <li>● You cannot bring the cards up through CLI or GigaVUE-FM until the licenses are renewed.</li> </ul>  | Existing traffic flow will be unaffected. No traffic-based configurations (map configurations) are allowed.                         |
|                           | <ul style="list-style-type: none"> <li>● GigaVUE-TA25</li> <li>● GigaVUE-TA25E</li> <li>● GigaVUE-TA100</li> <li>● GigaVUE-TA200</li> <li>● GigaVUE-TA200E</li> <li>● GigaVUE-TA400</li> <li>● GigaVUE-TA10</li> <li>● GigaVUE-TA40</li> </ul> | <ul style="list-style-type: none"> <li>● Default ports will be up and active.</li> <li>● Non-default ports (Pseudo slot) will require appropriate port license.</li> </ul> | <ul style="list-style-type: none"> <li>● All ports in the device will go to inactive state.</li> <li>● Port level configurations (such as, admin enable, port type change) are not allowed until licenses are renewed.</li> </ul>  |   |
| GigaVUE-OS Module License | <ul style="list-style-type: none"> <li>● GigaVUE-HC1/HCI1P</li> <li>● GigaVUE-HC2</li> <li>● GigaVUE-HC3</li> </ul>  | <ul style="list-style-type: none"> <li>● Ports will be up and active.</li> </ul>   | <ul style="list-style-type: none"> <li>● Ports will be in inactive state.</li> <li>● Port level configurations (such as, admin enable, port type change) are not allowed until licenses are renewed.</li> </ul> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>NOTE:</b> The GigaVUE-HC1-X12G4 card does not require a separate module license. The GigaVUE-OS license is used to bring up / down the card.</p> </div> | Existing traffic flow will be unaffected. Traffic-based configurations (map configurations) specific to the module are not allowed. |

<sup>1</sup>Grace period for GigaVUE-OS and GigaVUE-OS Module license is 45 days.

Appropriate banner notifications will be displayed on expiry of licenses and also during the grace period.

The GTAP/Dell platforms do not support GigaVUE-OS and GigaVUE-OS Module License. The GigaVUE TA Series devices do not support GigaVUE-OS Module license.

The following table provides additional details on the dependency between the chassis and the modules types for software version 5.12.00 and above (for the GigaVUE H Series devices):

| Chassis License Type               | Module License Type               | Dependency   |
|------------------------------------|-----------------------------------|--|
| Chassis with Hardware only license | Module with Hardware only license | GigaVUE-OS license and GigaVUE-OS Module license are required for the chassis and the modules to be operationally up and active. |
| Chassis with integrated license    | Module with integrated license    | No license requirement for chassis and module to be operationally up.  |
| Chassis with Hardware only license | Module with integrated license    | GigaVUE-OS license is required for the modules to be operationally up.<br>No license requirement for the ports.                  |
| Chassis with integrated license    | Module with Hardware only license | GigaVUE-OS Module license is required for the ports to be in active state.<br>No license requirement for the chassis.            |

If the GigaVUE-OS Module license expires on the BPS card, physical bypass is enabled on all protected inline-networks in the card, allowing traffic to be physically bypassed when licenses are expired.

## Rules and Notes

- For OOB clusters, it is recommended to install license for all the nodes from the leader.
- For Inband clusters, GigaVUE-OS and GigaVUE-OS module licenses (as applicable) must be installed in the individual nodes before the cluster is formed.

- On expiry of the GigaVUE-OS or GigaVUE-OS Module licenses:
  - Inband cluster will break.
  - Logical inline traffic flows will get affected.
  - `config switch-to` will fail.
  - Switching to FIPS/Crypto Mode will fail

**NOTE:** Renew the licenses for the above functionality/commands to work.

## Install GigaVUE-OS and GigaVUE-OS Module license

Use the `license` command to install the GigaVUE-OS and GigaVUE-OS Module license:

For example: To install the GigaVUE-OS license:

```
(config) # license install box 1 key LK2-GVOS-****-****-****-****-****-****-
****-****-****-****-****
                                     -****-*
```

**NOTE:** Execute the **Write Memory** command after installing the license.

To verify that the GigaVUE-OS license is installed:

**show license**

```
-----
Box 2
-----
Slot      Feature      Parameters  Start Date  Expiration Date
-----
1         GVOS-module  -           -           Never
Chassis-Feature  Parameters  Start Date  Expiration Date
-----
GVOS      -           2021/02/22  Never
```

To verify that the cards and ports are operationally up:

**show card**

```
Box ID: 2
```

```

Slot   Config   Oper Status   HW Type   Product Code   Serial Num
HW Rev  PowerReq  PowerPriority
-----
-----

```

```

cc1    yes     up           HC3-Main-Board   132-00DR   1DR0-1100
1.0-00 N/A       N/A

1      yes     up           PRT-HC3-X24-HW   132-00DY   1DY0-1000
1.0-0  60       1

2      yes     up           PRT-HC3-C08Q08   132-00DW   1DW0-2001
1.0-0  160      2

3      yes     up (unlicensed) SMT-HC3-C05-HW   132-00DX   1DX0-1005
1.0-0  200      3

4      yes     up (unlicensed) PRT-HC3-C08Q08-HW 132-00DW   1DW0-2002
1.0-0  160      4

```

The above **show card** output indicates the following:

- GigaVUE-OS license is installed for the chassis: *cc1 is displayed as licensed*.
- GigaVUE-OS Module license is installed for Module 1: *Module 1 is displayed as licensed*.
- Module 2 (PRT-HC3-C08Q08) is displayed as licensed, since it has the integrated license.
- The rest of the modules are displayed as unlicensed (highlighted in gray).

**NOTE:** To assign GigaVUE-OS and GigaVUE-OS Module licenses from GUI Refer to [Activate Licenses](#) section.

## Troubleshooting Scenarios

Use the following table to troubleshoot issues that you might encounter on expiry of the GigaVUE-OS and GigaVUE-OS Module licenses.

| Problem   | Solution  |
|---|---|
| On expiry of the GigaVUE-OS Module license, installing the new term license or perpetual license will not move the ports to active state.     | <ul style="list-style-type: none"> <li>• Uninstall the new license and re-install it.</li> <li>• Execute the <b>write memory</b> command after installing the license.</li> </ul> |
| <b>GigaVUE TA Series devices:</b><br>On expiry of the GigaVUE-OS license, installing the new term license or perpetual license will not bring | <ul style="list-style-type: none"> <li>• Uninstall the new license and re-install it.</li> <li>• Execute the <b>write memory</b> command after installing the license.</li> </ul> |

| Problem   | Solution  |
|---|---|
| up the cards.   |   |
| <p><b>GigaVUE HC Series devices:</b><br/>On expiry of the GigaVUE-OS license, installing the new term license or perpetual license will not bring up the cards.</p>       | <ul style="list-style-type: none"> <li>● Execute the <code>no card slot &lt;slot number&gt; down</code> command for all the cards.</li> <li>● If the problem persists, uninstall the new license and re-install it.</li> <li>● Execute the <code>write memory</code> command after installing the license.</li> </ul> |
| <p>During new cluster formation or adding a node to a cluster, the leader does not detect member nodes license that have been installed before the cluster formation.</p> | <ul style="list-style-type: none"> <li>● Install the member nodes license once again from the leader after the cluster is formed.</li> <li>● If the problem persists, uninstall the new license and re-install it.</li> <li>● Execute the <code>write memory</code> command.</li> </ul>                               |

## Manage GigaSMART, GigaVUE-OS, and GigaVUE-OS Module Licenses

You can manage the following licenses from the GigaVUE-FM GUI:

- GigaSMART License
- GigaVUE-OS License
- GigaVUE-OS Module License

To access the licenses page for managing the above:

1. On the left navigation pane, click .
2. Select **System > Licenses > Floating > Activated**.

This page displays the license details of the nodes managed by GigaVUE-FM.

Use the following buttons to manage the licenses:

| Button                   | Description   |
|--------------------------|---|
| <b>Activate Licenses</b> | Use this button to activate the licenses. Refer to <a href="#">Manage GigaSMART, GigaVUE-OS, and GigaVUE-OS Module Licenses</a> for more information. |
| <b>Deactivate</b>        | Use this button to deactivate the licenses. Refer to <a href="#">Deactivation of Licenses</a> for more information.                                   |
| <b>Replace Licenses</b>  | Use this button to replace licenses.  |
| <b>Renewal</b>           | Use this button to renew the licenses.  |
| <b>Export</b>            | Use this button to export the details in the Activate Licenses page to a CSV or XLSX page.  |
| <b>Filter</b>            | Use this button to narrow down the list of active GigaSMART Licenses that are displayed on the VBL active page.                                       |

### Activation of Licenses

Prior to activating the licenses, ensure that you have the following information:

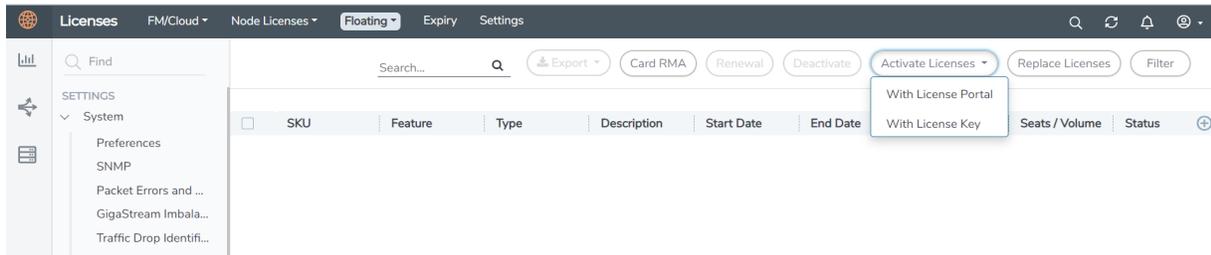
- **Entitlement IDs:** Locate the email sent to you by Gigamon containing the licensing information for your installation. This email contains one or more EID (Entitlement ID) values. You will use these EIDs to generate License Keys on the Gigamon Licensing Website.
- **Challenge MAC Address:** Locate the Challenge MAC address of the virtual network adapter associated with the GigaVUE-FM installation.

To activate or find the license or licenses, do the following:

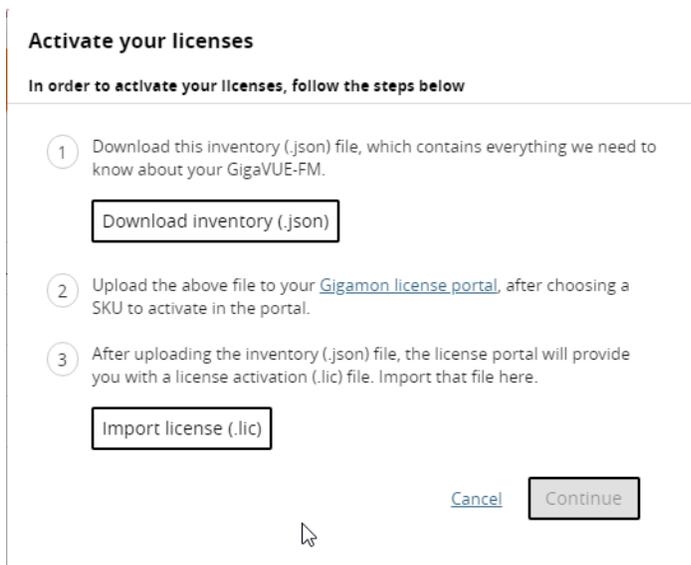
1. On the left navigation pane, click .
2. Go to **System > Licenses > Floating**. Click **Activated**.

You can use this page to access the Gigamon license portal where you can activate licenses. You can then use this page to assign the active licenses to the devices.

3. Click **Activate Licenses > With License Portal**:



4. Follow the instructions on the screen to activate your licenses.



In these next steps you will:

- o Download the fabric inventory (.json) file from GigaVUE-FM. For more details, refer to [What is a Fabric Inventory File?](#)
- o Go to the Gigamon license portal and find license you want to activate and complete the three screens to activate your license. On the second screen, you will be prompted to upload the fabric inventory (.json) file. Refer to the [Gigamon License Portal](#) section for instructions on how to activate the licenses from the portal.
- o After activating the license, you can download the license (.lic) files or record the license key or keys.

**NOTE:** When downloading the license file, ensure to not include special characters such as '(', ')', or ' ' in the name of the license file.

- Return to GigaVUE-FM, log in as an administrator, and return to the license activation screen.
  - Click the gear icon, then navigate to **System > Licenses Activation View > With License Portal** and complete the activation by importing the downloaded License (.lic) files.
  - Or, navigate to **System > Licenses Activation View > With License Key** and complete the activation by entering the license key.

**NOTE:** To access the Gigamon license portal, directly, you can go to the Licensing Portal at <https://licensing.gigamon.com>.

**NOTE:** Please contact technical support team for assistance.

## Deactivation of Licenses

You can deactivate licenses that are in grace period or that have expired and also the license must not be assigned to any node. To deactivate the licenses:

1. On the left navigation pane, click .
2. Go to **System > Licenses > Floating**. Click **Activated**.
3. Select the license that you want to deactivate and click the **Deactivate** button.

The license will get deactivated and will be added to the list view in the **Deactivated** tab.

# Manage GigaSMART Application Licenses using CLI

## Install GigaSMART Licenses

Generate the license key from the licensing portal. GigaSMART licenses can be either node-locked or floating licenses. Use the **license** command to associate the hardware to the license key.

The key consists of a long string beginning with LK2, which is a protocol, followed by the line card or module (SMT\_HCO\_R), followed by the content of the license key.

## Notify Evaluation License Expiry

After installation, the evaluation license will expire after 45 days, on a specific date.

To notify you as the evaluation license approaches the expiry date, you can enable a notification. When enabled, the notification will be sent when there are 30, 15, 10, 5, 4, 3, 2, and 1 days remaining before the license expires.

Use the following CLI command to enable the evaluation license reminder:

```
(config) # snmp-server enable notify evallicensereminder
```

You can also use the **show license** command to display the expiration date of an evaluation license.

## How to Combine Evaluation and Perpetual Licenses

An evaluation license can be for a number of GigaSMART applications combined in a bundle. If you have a perpetual license for one GigaSMART application, for example, de-duplication, and you want to evaluate a bundle that contains 10 GigaSMART applications, including de-duplication, the 45-day evaluation period will apply to the other 9 GigaSMART applications, while the perpetual license will apply to de-duplication.

If you obtain a perpetual license after an evaluation license, the perpetual license will overwrite the evaluation license.

## GigaSMART Application after Expiry

Once an evaluation license expires, access to the GigaSMART application is disabled. If maps were configured using GigaSMART applications on the evaluation license, traffic will be dropped when the evaluation license expires.

**NOTE:** Traffic will flow through maps with perpetually licensed GigaSMART applications.

In addition, the **gsop** command will not be available once the evaluation license has expired.

However, if a new evaluation license for the same GigaSMART application is installed, a new 45-day evaluation period will begin.

## Move Evaluation and Perpetual Licenses

Evaluation and perpetual license keys are saved on the GigaSMART line card or module, while license information is stored in the configuration database. The license key on the line card or module has to match the license information stored in the database, otherwise a license mismatch will result.

Line cards or modules may sometimes need to be moved or swapped. For the procedure to move a license, refer to [Move Licensed GigaSMART Line Card to a New Slot](#). This procedure will clear a license mismatch under certain circumstances. Moving a license depends on the license type, as well as the expiry date, as follows:

| License Key Saved on GigaSMART Line Card/Module  | License Information Stored on Configuration Database | Can be Moved? |
|--|--|---------------|
| Perpetual License  | Evaluation License                                   | Yes           |
| Evaluation License   | Perpetual License                                    | No            |
| Evaluation License with an earlier expiry date than the one stored on the configuration database | Evaluation License                                   | No            |
| Evaluation License with a later expiry date than the one stored on the configuration database    | Evaluation License                                   | Yes           |

## Move Licensed GigaSMART Line Card to a New Slot

On the GigaVUE-FM and GigaVUE-OS HD Series, you can move a GigaSMART line card from one slot to another. On the GigaVUE-HC2 or GigaVUE-HC3, you can move a GigaSMART front module from one bay to another. However on the GigaVUE-HC2, you cannot move the GigaSMART rear module from the rear to the front.

If there are no GigaSMART operations (gsops) configured on the line card or module to be moved, you can move the line card or module to the new slot or bay.

If there are GigaSMART operations (gsop), GigaSMART groups (gsgroup), and maps configured on the line card or module to be moved, the system will report a license mismatch if you try to move it without first removing the related configuration.

To clear the settings related to the GigaSMART line card or module from its previous slot, allowing you to create new GigaSMART operations, GigaSMART groups, and maps using the GigaSMART line card or module in its new slot, use the following procedure:

1. Issue the following CLI command:

**(config) # show running-config**

2. Copy and paste the output to a file such as Notepad, for reference.
3. Remove the map that uses the gsop defined on the gsgroup of the GigaSMART line card or module to be moved, using the following CLI command:

**(config) # no map alias <alias>**

4. Remove the gsop that was defined on the gsgroup of the GigaSMART line card or module to be moved, using the following CLI command:

**(config) # no gsop alias <alias>**

5. Remove the gsgroup that was defined on GigaSMART line card or module to be moved, using the following CLI command:

**(config) # no gsgroup alias <alias>**

6. Issue the following CLI command on GigaSMART line card or module to be moved:

**(config) # no card slot <slot ID>**

7. Assuming that the new slot does not have a GigaSMART line card or module inserted, issue the following CLI command on the new slot:

**(config) # no card slot <slot ID>**

8. Issue the following CLI command on the new slot:

**(config) # card slot <slot ID>**

On the new slot, configure gsgroup, gsop, and reapply the map that uses the gsop on the GigaSMART line card or module.

-----  
GigaSMART applications are enabled using license keys. Refer to the **license** command in the *GigaVUE-OS CLI Configuration Guide* for details.

Contact your Sales Representative for information on obtaining a license key to enable additional GigaSMART applications.

**Note:** The “show license” command also displays the start time and end time to support term licenses.

For **perpetual licenses**, the Expiration Date column has the word Never to indicate that there is no expiration date.

For **evaluation licenses**, the Expiration Date column has a specific date on which the license expires. For more information on evaluation licenses, refer to [Install GigaSMART Licenses](#).

## GigaSMART Evaluation Licenses

Use an evaluation license to evaluate GigaSMART applications. During the evaluation period of 45 days, you will have access to the full functionality of the GigaSMART applications under evaluation. You can obtain an evaluation license for any GigaSMART application, for either a single or for a number of GigaSMART applications combined in a bundle.

To obtain an evaluation license, contact your Sales Representative. A license key will be generated by Gigamon and sent to you. You then install the license, which enables the GigaSMART application for evaluation purposes.

### Install Evaluation Licenses

You install an evaluation license the same way you install a perpetual license, using the **license** command.

The key consists of a long string beginning with LK2, which is a protocol, followed by the line card or module (SMT\_HCO\_R), followed by the content of the license key.

### Notify Evaluation License Expiry

After installation, the evaluation license will expire after 45 days, on a specific date.

To notify you as the evaluation license approaches the expiry date, you can enable a notification. When enabled, the notification will be sent when there are 30, 15, 10, 5, 4, 3, 2, and 1 days remaining before the license expires.

Use the following CLI command to enable the evaluation license reminder:

```
(config) # snmp-server enable notify evallicensereminder
```

You can also use the **show license** command to display the expiration date of an evaluation license.

### How to Combine Evaluation and Perpetual Licenses

An evaluation license can be for a number of GigaSMART applications combined in a bundle. If you have a perpetual license for one GigaSMART application, for example, de-duplication,

and you want to evaluate a bundle that contains 10 GigaSMART applications, including de-duplication, the 45-day evaluation period will apply to the other 9 GigaSMART applications, while the perpetual license will apply to de-duplication.

If you obtain a perpetual license after an evaluation license, the perpetual license will overwrite the evaluation license.

## GigaSMART Application after Expiry

Once an evaluation license expires, access to the GigaSMART application is disabled. If maps were configured using GigaSMART applications on the evaluation license, traffic will be dropped when the evaluation license expires.

**NOTE:** Traffic will flow through maps with perpetually licensed GigaSMART applications.

In addition, the **gsop** command will not be available once the evaluation license has expired.

However, if a new evaluation license for the same GigaSMART application is installed, a new 45-day evaluation period will begin.

## Move Evaluation and Perpetual Licenses

Evaluation and perpetual license keys are saved on the GigaSMART line card or module, while license information is stored in the configuration database. The license key on the line card or module has to match the license information stored in the database, otherwise a license mismatch will result.

Line cards or modules may sometimes need to be moved or swapped. For the procedure to move a license, refer to [Move Licensed GigaSMART Line Card to a New Slot](#). This procedure will clear a license mismatch under certain circumstances. Moving a license depends on the license type, as well as the expiry date, as follows:

| License Key Saved on GigaSMART Line Card/Module  | License Information Stored on Configuration Database | Can be Moved? |
|--|--|---------------|
| Perpetual License  | Evaluation License                                   | Yes           |
| Evaluation License   | Perpetual License                                    | No            |
| Evaluation License with an earlier expiry date than the one stored on the configuration database | Evaluation License                                   | No            |
| Evaluation License with a later expiry date than the one stored on the configuration database    | Evaluation License                                   | Yes           |

## Move Licensed GigaSMART Line Card to a New Slot

On the GigaVUE-FM and GigaVUE-OS HD Series, you can move a GigaSMART line card from one slot to another. On the GigaVUE-HC2 or GigaVUE-HC3, you can move a GigaSMART front module from one bay to another. However on the GigaVUE-HC2, you cannot move the GigaSMART rear module from the rear to the front.

If there are no GigaSMART operations (gsops) configured on the line card or module to be moved, you can move the line card or module to the new slot or bay.

If there are GigaSMART operations (gsop), GigaSMART groups (gsgroup), and maps configured on the line card or module to be moved, the system will report a license mismatch if you try to move it without first removing the related configuration.

To clear the settings related to the GigaSMART line card or module from its previous slot, allowing you to create new GigaSMART operations, GigaSMART groups, and maps using the GigaSMART line card or module in its new slot, use the following procedure:

1. Issue the following CLI command:

```
(config) # show running-config
```

2. Copy and paste the output to a file such as Notepad, for reference.
3. Remove the map that uses the gsop defined on the gsgroup of the GigaSMART line card or module to be moved, using the following CLI command:

```
(config) # no map alias <alias>
```

4. Remove the gsop that was defined on the gsgroup of the GigaSMART line card or module to be moved, using the following CLI command:

```
(config) # no gsop alias <alias>
```

5. Remove the gsgroup that was defined on GigaSMART line card or module to be moved, using the following CLI command:

```
(config) # no gsgroup alias <alias>
```

6. Issue the following CLI command on GigaSMART line card or module to be moved:

```
(config) # no card slot <slot ID>
```

7. Assuming that the new slot does not have a GigaSMART line card or module inserted, issue the following CLI command on the new slot:

```
(config) # no card slot <slot ID>
```

8. Issue the following CLI command on the new slot:

```
(config) # card slot <slot ID>
```

On the new slot, configure gsgroup, gsop, and reapply the map that uses the gsop on the GigaSMART line card or module.

## GigaVUE TA Series Licenses

GigaVUE TA Series devices need the following two licenses:

- Port Licenses
- Advanced Feature

Port licenses and advanced feature licenses are node-locked licenses and can be activated only from the License portal. You need the Chassis Serial number to activate the licenses. For instructions on how to activate node-locked licenses refer to [Activate Node-locked licenses section](#). for details.

### Port Licenses

**Table 1: GigaVUE TA Series License Types** lists perpetual licenses available on GigaVUE-FM and GigaVUE-OS TA Series nodes.

Table 1: GigaVUE TA Series License Types

| Port License               |   |
|----------------------------|---|
| GigaVUE-OS                 | <p>To enable ports on a white box after installing GigaVUE-OS, the appropriate license needs to be installed on the whitebox. The license can be purchased by calling the Gigamon representative. The initial key sent to the user is the Gigamon Installation Key.</p> <p>Using the digital footprint and serial number of the white box along with the EID, the license key can be obtained from the Gigamon licensing portal. After obtaining the license key, install it directly on the white box from either the CLI or GigaVUE-FM.</p> <p>This enables all ports on the white box.</p> |
| GigaVUE-TA10/GigaVUE-TA10A | <p>The GigaVUE-TA10 devices can have either twenty-four (24) or forty-eight (48) 1Gb/10Gb ports enabled:</p> <ul style="list-style-type: none"> <li>• The GigaVUE-TA10 devices with all forty-eight (48) 1Gb/10Gb ports and four (4) 40Gb ports enabled does not require a port license.</li> <li>• The 24-port GigaVUE-TA10 is called the GigaVUE-TA10A. A port license is available to expand the GigaVUE-TA10A to include all 48 1Gb/10Gb ports as well as the four (4) 40Gb ports.</li> </ul> <p>For details, refer to the GigaVUE-TA10 Hardware Installation Guide.</p>                  |
| GigaVUE-TA25/GigaVUE-TA25A | <p>The GigaVUE-TA25 can have either twenty-four (24) or forty-eight (48) 1Gb/10Gb/25Gb ports enabled.</p> <ul style="list-style-type: none"> <li>• The GigaVUE-TA25 devices with all forty-eight (48) 1Gb/10Gb/25Gb ports and eight (8) 40/100Gb ports enabled does not require a port license.</li> <li>• The 24-port GigaVUE-TA25 is called the GigaVUE-TA25A. A port license is available to expand the GigaVUE-TA25A to include all 48 1Gb/10Gb/25Gb ports as well as the eight (8) 40/100Gb ports.</li> </ul> <p>For details, refer to the GigaVUE-TA25 Hardware Installation Guide.</p> |

| Port License   |  |
|----------------|--|
| GigaVUE-TA100  | On the GigaVUE-TA100, only the first 16 out of 32 ports are enabled. Two port licenses are available to enable an additional 8 or 16 ports to expand to 24 or 32 ports. For details, refer to the <i>Hardware Installation Guide</i> . |
| GigaVUE-TA200  | On the GigaVUE-TA200, only the first 32 out of 64 ports are enabled. A port license is available to enable an additional 32 ports. For details, refer to the GigaVUE-TA200 Hardware Installation Guide.                                |
| GigaVUE-TA200E | On the GigaVUE-TA200E, only the first 32 out of 64 ports are enabled. A port license is available to enable an additional 32 ports. For details, refer to the GigaVUE-TA200E Hardware Installation Guide.                              |

**NOTE:** GigaVUE-TA25E, GigaVUE-TA40, and GigaVUE-TA400 have all ports enabled. No separate port license is required for these devices.

## Advanced Feature Licenses

With Advanced Feature licenses, the following capabilities are available on the GigaVUE TA Series devices:

| Capability               | Description   |
|--------------------------|---|
| <b>Clustering</b>        | Clustering is enabled with an Advanced Features License. <ul style="list-style-type: none"> <li>● GigaVUE-TA10</li> <li>● GigaVUE-TA25</li> <li>● GigaVUE-TA25E</li> <li>● GigaVUE-TA40</li> <li>● GigaVUE-TA100</li> <li>● GigaVUE-TA200</li> <li>● GigaVUE-TA200E</li> <li>● GigaVUE-TA400</li> </ul> |
| <b>Stack Port</b>        | For ports containing stacking enabled will be moved to disabled state after license expired. Once the license is renewed, the stack port needs to be manually enabled. Disabling of stack port will stop the traffic flowing.   |
| <b>Circuit Port</b>      | After license expiry, all the maps containing circuit port or circuit GigaStream will be moved to disabled state and the traffic is dropped. Upon license renewal, the map will be enabled again.   |
| <b>PTP/Time Stamping</b> | After license expiry, all the ports having PTP / Timestamp enabled will be moved to disabled state. Upon license renewal, the PTP / Timestamp is enabled again on the port.   |

## Manage Licenses for GigaVUE-FM and GigaVUE-OS TA Series

To view all licenses assigned to a TA Series node:

1. From the device view, select **Settings > Config and Licenses**, from the navigation pane.
2. Click **Licenses**.

You can view the list of licenses. Advanced Features Licenses will start with ADV while Ports licenses will have PRT in the license key. For all licenses, the **Expiration Date** column has the word Never to indicate that there is no expiration date. Evaluation licenses are currently not available for GigaVUE-FM and GigaVUE-OS TA Series.

To view serial numbers:

1. From the device view, select **System > Chassis** from the navigation pane.
2. Click **Table View**

The serial number is displayed in the **Serial Number** column under **Properties**.

To install licenses:

1. From the device view, select **Settings > Config and Licenses > Licenses** from the navigation pane.
2. Click **Install**.
3. Enter the license key in the License Key field and select the **Box ID** of the chassis to which to apply the license.

For standalone nodes, there will be only one Box ID available.

## Volume-based Licenses

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 licenses are available as monthly subscription licenses with 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](#).

Refer to the Data Sheet for the required GigaVUE Cloud Suite for more information.

### 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.

## 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.

The list of the available add-on SKUs are:

- VBL-50T-ADD-5GC
- VBL-250T-ADD-5GC
- VBL-2500T-ADD-5GC
- VBL-25KT-ADD-5GC

## 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 Licenses

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 to <a href="#">Activate Volume-based 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 button 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.   |
| <b>Deactivate</b>         | Use this button to deactivate the licenses. You can only deactivate licenses that are in grace period or that have expired.       |

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        |

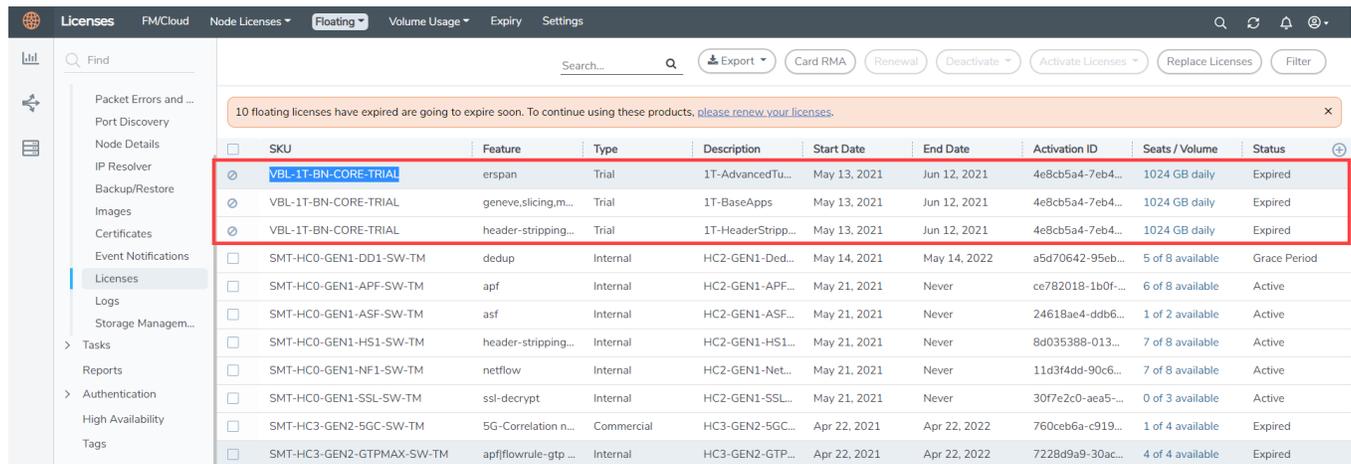
## Activate Volume-based Licenses

To activate Volume-based licenses:

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.
3. Click **Activate Licenses**. The **Activate License** page appears. Perform the following steps:
  - a. Download the fabric inventory file that contains information about GigaVUE-FM. Click **Next**.
  - b. Navigate to the Licensing Portal. Upload the Fabric Inventory file in the portal. Once the fabric inventory file is uploaded, select the required license and click **Activate**. A license key is provided. Record the license key or keys
  - c. Return to GigaVUE-FM and add the additional licenses.

## 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).



| SKU                       | Feature             | Type       | Description        | Start Date   | End Date     | Activation ID    | Seats / Volume   | Status       |
|---------------------------|---------------------|------------|--------------------|--------------|--------------|------------------|------------------|--------------|
| VBL-1T-BN-CORE-TRIAL      | erspan              | Trial      | 1T-AdvancedTu...   | May 13, 2021 | Jun 12, 2021 | 4e8cb5a4-7eb4... | 1024 GB daily    | Expired      |
| VBL-1T-BN-CORE-TRIAL      | geneve,slicing,m... | Trial      | 1T-BaseApps        | May 13, 2021 | Jun 12, 2021 | 4e8cb5a4-7eb4... | 1024 GB daily    | Expired      |
| VBL-1T-BN-CORE-TRIAL      | header-stripping... | Trial      | 1T-HeaderStripp... | May 13, 2021 | Jun 12, 2021 | 4e8cb5a4-7eb4... | 1024 GB daily    | Expired      |
| 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 |
| SMT-HC0-GEN1-APF-SW-TM    | apf                 | Internal   | HC2-GEN1-APF...    | May 21, 2021 | Never        | ce782018-1b0f... | 6 of 8 available | Active       |
| SMT-HC0-GEN1-ASF-SW-TM    | asf                 | Internal   | HC2-GEN1-ASF...    | May 21, 2021 | Never        | 24618ae4-ddb6... | 1 of 2 available | Active       |
| SMT-HC0-GEN1-HS1-SW-TM    | header-stripping... | Internal   | HC2-GEN1-HS1...    | May 21, 2021 | Never        | 8d035388-013...  | 7 of 8 available | Active       |
| SMT-HC0-GEN1-NF1-SW-TM    | netflow             | Internal   | HC2-GEN1-Net...    | May 21, 2021 | Never        | 11d3f4dd-90c6... | 7 of 8 available | Active       |
| SMT-HC0-GEN1-SSL-SW-TM    | ssl-decrypt         | Internal   | HC2-GEN1-SSL...    | May 21, 2021 | Never        | 30f7e2c0-aea5... | 0 of 3 available | Active       |
| 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      |
| SMT-HC3-GEN2-GTPMAX-SW-TM | apfflowrule-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

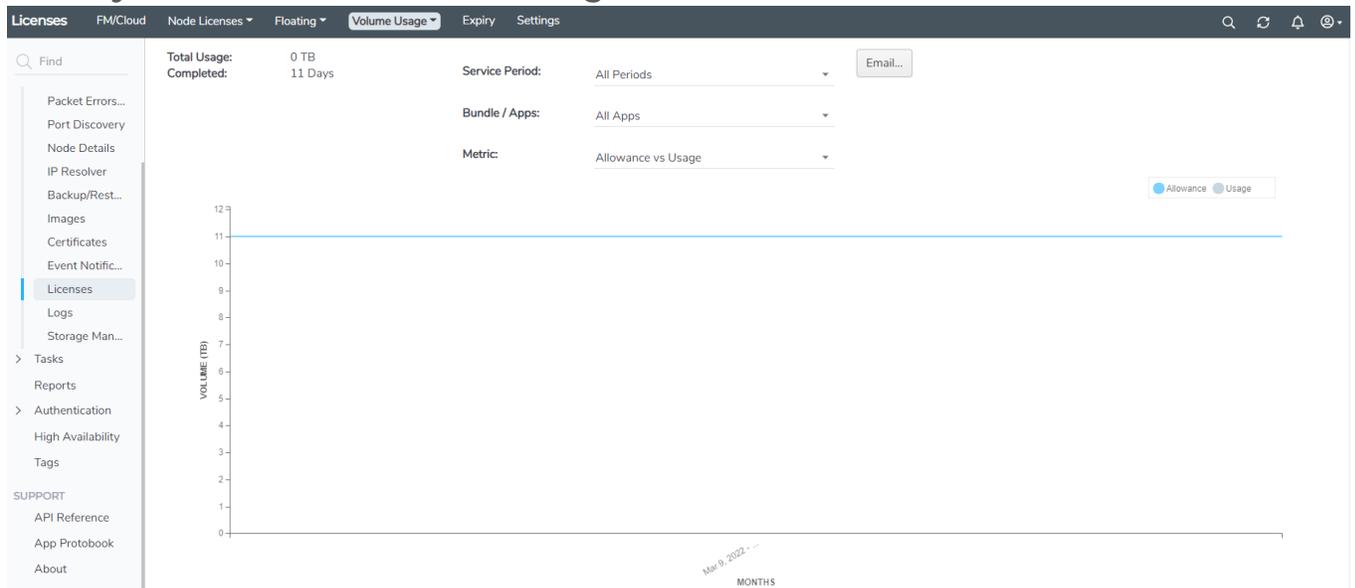
**NOTE:** There is no grace period for the trial license. If you do not have any other Volume-based licenses installed, then after 30 days, on expiry of the trial license, any deployed monitoring sessions will be undeployed from the existing V series 2.0 nodes.

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

## Volume Usage

The Volume Usage page displays the usage of licensed applications for specific time periods. To view the volume-based license usage details:

1. On the left navigation pane, click  .
2. Go to **System > Licenses > Volume Usage**.



3. Select one of the following two options from the drop-down and enter the required details:

| Option        | Description   |
|---------------|---|
| All Periods   | <p><b>Total Usage:</b> Displays total usage</p> <p><b>Completed:</b> Days for which usage data has been collected and aggregated.</p> <p><b>Service Period:</b> The required service period for which the usage details need to be viewed. Options are:</p> <ul style="list-style-type: none"> <li>• All Periods</li> <li>• Latest period (3 months)</li> <li>• Last 2 periods (6 months)</li> <li>• Last 4 periods (1 year)</li> <li>• Last 8 periods (2 years)</li> </ul> <p><b>Bundle/Apps:</b> The required bundle/Apps for which the usage details need to be viewed. Options are:</p> <ul style="list-style-type: none"> <li>• CoreVUE</li> <li>• Trailer</li> <li>• Geneve</li> <li>• Slicing</li> <li>• Erspan</li> <li>• Masking</li> <li>• Header-Stripping</li> <li>• Flowmap</li> <li>• LB</li> <li>• Tunneling</li> <li>• Add-Header</li> <li>• All Apps</li> </ul> <p><b>Metric:</b> Select the required metric:</p> <ul style="list-style-type: none"> <li>• Allowance vs Usage</li> <li>• Overage by Volume</li> <li>• Overage by Days</li> </ul> |
| Single Period | <p><b>Total Usage:</b> Total usage</p> <p><b>Completed:</b> Days for which usage data has been collected and aggregated.</p> <p><b>Overage:</b> Amount of license usage exceeding licensed allowance.</p> <p><b>Service Period:</b> The required service period. Options are:</p> <ul style="list-style-type: none"> <li>• All Periods</li> <li>• Latest period (3 months)</li> </ul>   |

| Option | Description   |
|--------|---|
|        | <ul style="list-style-type: none"> <li>• Last 2 periods (6 months)</li> <li>• Last 4 periods (1 year)</li> <li>• Last 8 periods (2 years)</li> </ul> <p><b>Bundle/Apps:</b> The required bundle/Apps:</p> <ul style="list-style-type: none"> <li>• CoreVUE</li> <li>• Trailer</li> <li>• Geneve</li> <li>• Slicing</li> <li>• Erspan</li> <li>• Masking</li> <li>• Header-Stripping</li> <li>• Flowmap</li> <li>• LB</li> <li>• Tunneling</li> <li>• Add-Header</li> <li>• All Apps</li> </ul> <p><b>Metric:</b> The required metric:</p> <ul style="list-style-type: none"> <li>• Allowance vs Usage</li> <li>• Overage by Volume</li> <li>• Allowance vs 95th Percentile Usage</li> </ul> |

Use the **Email** option to send the volume usage details to the email recipients.

**NOTE:** Volume-based license usage dashboards display precise and richer set of information, and should be preferred over the Volume Usage tab in the GigaVUE-FM GUI. Refer to the [Dashboards for Volume Based Licenses Usage](#) section for details.

## Licenses - GUI Options in GigaVUE-FM

The licenses page in the GigaVUE-FM GUI allows you to perform the following tasks:

Table 1: Licensing Tasks from GigaVUE-FM GUI

| Task  | Description  | Refer to  |
|---|--|---|
| Activate Licenses                                 | To Activate licenses for the following:  |   |
|   | - GigaVUE-FM   | <a href="#">Manage GigaVUE-FM License</a>                               |
|   | - GigaSMART  | <a href="#">Manage GigaSMART License</a>                                |
|   | - GigaVUE-OS and GigaVUE-OS Module Licenses  |   |
|   | Volume-based Licenses  | <a href="#">Manage Volume-based Licenses</a>                            |
|   | Advanced Feature and Port Licenses   | <a href="#">Manage Licenses for GigaVUE-FM and GigaVUE-OS TA Series</a> |
| View Activated, Deactivated, and Missing Licenses | View details of activated, deactivated, and missing licenses for GigaSMART and GigaVUE-OS and GigaVUE-OS Module. | <a href="#">Floating</a>  |
| View Expired Licenses                             | View details of expired licenses   | <a href="#">Expiry</a>  |
| Configure Settings for Event Notifications        | Configure the settings for event notifications   | <a href="#">Settings</a>  |
| View Node-locked Licenses                         | View hierarchical and list view pages for the nodes  | <a href="#">Node Licenses</a>   |

### Floating

The Floating page displays the license details of floating licenses. This page has the following three tabs:

- **Activated:** The Activated tab displays the list of active licenses. You can activate, deactivate and replace licenses from this page. To activate a license, refer to [Activate Licenses](#).
- **Deactivated:** The Deactivated tab displays the list of deactivated licenses.
- **Missing :** The Missing tab displays the list of GigaVUE-OS and GigaVUE-OS module licenses that are missing or not installed on a particular chassis or card.

**Licenses**    FM/Cloud    Node Locked    Floating    Volume Usage    Expiry    Settings

Activated    Deactivated    Missing

---

**GigaVUE-OS module license missing on 6 cards:**

- Cluster mughil, Box id 1, Slot 2, Serial number 1DW0-2001
- Cluster mughil, Box id 1, Slot 3, Serial number 1DX0-1005
- Cluster mughil, Box id 1, Slot 4, Serial number 1DW0-2002
- Cluster mughil, Box id 2, Slot 2, Serial number 1DW0-2001
- Cluster mughil, Box id 2, Slot 3, Serial number 1DX0-1005
- Cluster mughil, Box id 2, Slot 4, Serial number 1DW0-2002

## Delete Default Trial Licenses

GigaVUE-FM allows you to deactivate the default trial licenses from this page. To deactivate the license:

1. On the left navigation pane, click .
2. Go to **System > Licenses > Floating**. Click **Activated**.
3. Click **Deactivate > Default Trial VBL**.

The VBL trial licenses is deactivated and is no longer listed in the Activated page. However, you can view these deactivated licenses from the Deactivated page.

## Node Licenses

To access the Node Licenses page:

On the left navigation pane, click  and select **System > Licenses > Node Licenses**.

The following views are available:

- Hierarchical View
- List View

### Hierarchical View

This is a view only page showing the cluster-host-slot details along with the license expiry information. In hierarchical view:

- The cluster-host-slot is displayed as an expandable column.
- The serial number column shows chassis or card serial number, depending on the row it represents.
- The collapse all/expand all on the top right corner of the page allows you to collapse and expand in a single click.
- You can drill down in to the license information on each card of any cluster or chassis.

| Licenses                                 |                    |          |                   |        |          |
|--|--------------------|----------|-------------------|--------|----------|
| FM/Cloud                                 | <b>Node Locked</b> | Floating | Volume Usage      | Expiry | Settings |
| <b>Hierarchical View</b>                 | List View          |          |                   |        |          |
| Expand All Collapse All                  |                    |          |                   |        |          |
| Cluster > Host > Slot                    | Serial Number      | Expiry   | Features          |        |          |
| Host HC1: gigamon-ad963c (10.115.38.62)  | H963C              |          |                   |        |          |
| Slot cc1                                 | 1D60-0010          |          |                   |        |          |
| Slot 1                                   | 1D60-0010          |          |                   |        |          |
| Slot 2                                   | 1EH0-009C          |          |                   |        |          |
| Slot 3                                   | 1D80-0020          |          |                   |        |          |
| Cluster mughil                           |                    |          |                   |        |          |
| Host HC3: gigamon-ad1ceb (10.115.38.138) | J1CEB              | Never    | GigaVUE-OS        |        |          |
| Slot cc1                                 | 1DR0-1100          |          |                   |        |          |
| Slot 1                                   | 1DY0-1000          | Never    | GigaVUE-OS module |        |          |
| Slot 2                                   | 1DW0-2001          |          |                   |        |          |

### List View

The list view provides a flat view of all licenses as retrieved from the devices. This is a view only page showing the node and cluster details along with the license expiry information.

**NOTE:** When you login to GigaVUE-FM, a notification is displayed on the top of the page with license expiry details for the nodes which have validity less than 30 days. Click the **Go To Licenses** option to go to the **Licenses** page.

The **Expires** option indicates the status of the license:

- **Never:** License is a life time license and will never expire
- **Expired:** License has already expired
- **Exact date:** Date when the license will expire (for example Oct 12, 2019)

Licenses    Fabric Manager/Cloud    Node View    Activation View

| Cluster ID    | Host name   | Serial# (chassis or card) | Slot ID | Features                      | Expires |
|---------------|-------------|---------------------------|---------|-------------------------------|---------|
| 10.115.39.243 | FMHC1-39... | 1D60-0329                 | 1       | Add Header                    | Never   |
| 10.115.39.243 | FMHC1-39... | 1D60-0329                 | 1       | Adaptive Packet Filtering     | Never   |
| 10.115.39.243 | FMHC1-39... | 1D60-0329                 | 1       | Application Session Filtering | Never   |
| 10.115.39.243 | FMHC1-39... | 1D60-0329                 | 1       | De-duplication                | Never   |
| 10.115.39.243 | FMHC1-39... | 1D60-0329                 | 1       | ERSPAN                        | Never   |
| 10.115.39.243 | FMHC1-39... | 1D60-0329                 | 1       | Flow Sampling                 | Never   |
| 10.115.39.243 | FMHC1-39... | 1D60-0329                 | 1       | Header Stripping              | Never   |
| 10.115.39.243 | FMHC1-39... | 1D60-0329                 | 1       | Masking                       | Never   |

◀ < Go to page: 1 of 16 > ▶ Total Records: 125

## Expiry

The Expiry tab displays the list of node-locked licenses (licenses that are locked to specific cards or chassis serial numbers) and floating licenses (licenses that are pooled and dynamically re-assignable from one card to another) in the following three categories:

- **Expired:** License has already expired
- **Expiring Soon:** License expiry is within the notification period
- **Expiring in 90 Days**

The license expiry events are triggered accordingly and can be seen in the Events page. Click on an event related to expiry of license in the Events page to navigate to the Expiry page.

**Licenses**      FM/Cloud      Node Locked      Floating      Volume Usage      Expiry      Settings

|                      | Floating | Node-Locked |
|----------------------|----------|-------------|
| Expired:             | 0        | 0           |
| Expiring Soon:       | 0        | 0           |
| Expiring in 90 days: | 5        | 0           |

**5 Floating Licenses Expiring in 90 days:**

- Qty 1 of SKU VBL-1T-BN-CORE-TRIALexpiry on 2021/04/29 [AID 4e8cb5a4-7eb4-4c2b-9ac9-0883428d6dc7]
- Qty 1 of SKU VBL-1T-BN-CORE-TRIALexpiry on 2021/04/29 [AID 4e8cb5a4-7eb4-4c2b-9ac9-0883428d6dc7]
- Qty 1 of SKU VBL-1T-BN-CORE-TRIALexpiry on 2021/04/29 [AID 4e8cb5a4-7eb4-4c2b-9ac9-0883428d6dc7]
- Qty 1 of SKU VBL-1T-BN-CORE-TRIALexpiry on 2021/04/29 [AID 4e8cb5a4-7eb4-4c2b-9ac9-0883428d6dc7]
- Qty 1 of SKU SMT-HC1-AMI expiry on 2021/05/26 [AID 95afa667-255f-4de4-86ee-58ff261e365a]

## Settings

The Settings page allows you to configure the settings for event notifications and emails. Click the **Edit** button on the top right corner of the page to configure the following:

Table 1: Configure License settings

| Field   | Description  |
|---|--|
| Volume Usage Event Notification                   | Enable this to receive a notification when daily volume usage exceeds the threshold.<br><br>Configure the required threshold level for volume usage. |
| License Expiry Event Notifications                | Enable this to receive a notification when license is within 90 days of expiry or has expired.   |
| Email Server Configured                           | Configure the email server for receiving emails. Click on the link to navigate to the Email Servers page.  |
| Email Recipients for Volume Usage Reports         | Enter the email recipients for receiving volume usage reports.   |
| Email Recipients for License Expiry Notifications | Enter the email recipients for license expiry notifications.   |

Licenses

FM/Cloud

Node Locked

Floating

Volume Usage

Expiry

Settings

Edit

### Volume Usage Event Notification: ?

Status On  
Threshold 100%

### License Expiry Event Notifications: ?

Status On

### Email Server Configured:

Status On [To configure, go here](#)

### Email Recipients for Volume Usage Reports:

Mandatory Vbl-Reports@subscriptions.gigamon.com

Others

### Email Recipients for License Expiry Notifications:

Mandatory License-Renewal@subscriptions.gigamon.com

Others

## License Command

The following licenses can be managed from the command line interface:

- GigaSMART Licenses
- GigaVUE-OS and GigaVUE-OS Module Licenses
- Advanced Feature Licenses
- Port Licenses

The license command is used to configure and manage licenses from CLI.

## license

### Required Command-Line Mode = Configure

Use the **license** command to enable additional GigaVUE-FM and GigaVUE-OS features. Some license keys enable GigaSMART applications. Other license keys enable ports or clustering.

The following products have GigaSMART licensing:

- GigaVUE-HC1
- GigaVUE-HC2
- GigaVUE-HC3

For GigaSMART licensing details, refer to the “*Working with GigaSMART Operations*” chapter in the *GigaVUE Fabric Management Guide*.

The following products have port licensing:

- GigaVUE-FM and GigaVUE-OS-TA10A (a 24-port version of GigaVUE-FM and GigaVUE-OS-TA10)
- GigaVUE-TA25A (a 24-port version of GigaVUE-TA25)
- GigaVUE-FM and GigaVUE-OS-TA100
- GigaVUE-FM and GigaVUE-OS-TA200
- Certified Traffic Aggregation White Box

**NOTE:** GigaVUE-FM and GigaVUE-OS-TA10, GigaVUE-FM and GigaVUE-OS-TA40, GigaVUE-FM and GigaVUE-OS-TA100-CXP and GigaVUE-TA25 have all ports enabled.

The following products have Advanced Features License:

- GigaVUE-FM and GigaVUE-OS-TA1
- GigaVUE-FM and GigaVUE-OS-TA10 and GigaVUE-FM and GigaVUE-OS-TA10A
- GigaVUE-TA25 and GigaVUE-TA25A
- GigaVUE-FM and GigaVUE-OS-TA40
- GigaVUE-FM and GigaVUE-OS-TA100
- GigaVUE-FM and GigaVUE-OS-TA200
- Certified Traffic Aggregation White Box

For port licensing and Advanced Features License details, refer to the respective **Hardware Installation Guide**.

The **license** command has the following syntax:

```
(config) # license install box-id <box ID> key <license key>
```

For example:

```
(config) # license install box-id 1 key LK2-SMT_HCO_R-7YF0-QL2M-1G5L-Q32C-T27X-C0VU-
CD5H-NJUK-77XC-0UB1-EDMN-JUK7-7XC0-W3JC-5LNQ-RBJ7-XHY1-T7AU-KECM-N6JU-K741-
6L2G-RW60-Q3LC-A479-0L6E-HH70-W30E-9T8G-V20Q-UFEM-P78F-9Q86-GT6B-BH3Y-N8QQ-
9H20-056C-BHQQ-8KUV
```

The key is generated by Gigamon. It consists of a long string beginning with LK2, which is a protocol, followed by the card or module (SMT\_HCO\_R), followed by the content of the license key.

The following table describes the arguments for the **license** command:

| Argument                        | Description   |
|---------------------------------|---|
| <b>box-id</b> <box ID>          | Configures the system's box ID. The box ID identifies the node in the system.                                     |
| <b>key</b> <license key>        | Configures the license key.   |
| <b>revoke key</b> <license key> | Revokes the license key. Once the license is revoked, the same key cannot be used for the same device at anytime. |

### Related Commands

The following table summarizes other commands related to the **license** command:

| Task   | Command                        |
|--|--------------------------------|
| Displays all installed licenses.                     | <b># show license</b>          |
| Displays the installed licenses on a specified node. | <b># show license box-id 1</b> |

## Grace Period Behavior (from Software Version 6.1.00)

Gigamon offers a uniform grace period of 45 days from the day the license expires (applicable for term licenses). During the grace period:

- There is no impact to the flow of traffic.
- Creating new maps and editing existing map configurations are allowed.
- Appropriate notifications are displayed in CLI and GigaVUE-FM.

At the end of the grace period, the license expires. You will not be allowed to create new maps or edit existing maps. The following tables summarize the configuration behavior based on the state of the license for the different license types.

### For GigaVUE HC Series devices:

| License State              | Restrictions / Permissions                         | GigaVUE-OS License                         | GigaVUE-OS Module License | GigaSMART License    |
|----------------------------|--|--|---------------------------|----------------------|
| <b>Not Installed</b>       | All cards in chassis will be in down state         | ✓  | -                         | -                    |
|                            | All ports of the card will be in inactive state.   | -  | ✓                         | -                    |
|                            | Configuring new maps with GigaSMART operations     | -  | -                         | Cannot be configured |
| <b>During Grace Period</b> | Creating new maps and editing existing maps        | ✓  | ✓                         | ✓                    |
|                            | Periodic notification from GigaVUE-FM and devices. | ✓  | ✓                         | ✓                    |
|                            | Banner Notification in CLI                         | ✓  | ✓                         | ✓                    |
| <b>On Expiry</b>           | Creating new maps and editing existing maps        | Cannot create new maps/ edit existing maps |                           |                      |
|                            | Periodic notification from GigaVUE-FM and devices. | ✓  | ✓                         | ✓                    |
|                            | Banner Notification in CLI                         | ✓  | ✓                         | ✓                    |

### GigaVUE TA Series devices:

| License State              | Permissions / Restrictions   | GigaVUE-OS License                         | Port License |
|----------------------------|--|--|--------------|
| <b>Not Installed</b>       | All ports will be inactive   | ✓  | -            |
|                            | Ports that need licenses for activation will be in inactive state. |  | ✓            |
| <b>During Grace Period</b> | Creating new maps and editing existing maps                        | ✓  | ✓            |
|                            | Periodic notification from GigaVUE-FM and devices.                 | ✓  | ✓            |
|                            | Banner Notification in CLI   | ✓  | ✓            |
| <b>On Expiry</b>           | Creating new maps and editing existing maps.                       | Cannot create new maps/ edit existing maps |              |
|                            | Periodic notification from GigaVUE-FM and devices.                 | ✓  | ✓            |
|                            | Banner Notification in CLI   | ✓  | ✓            |

Grace period behavior for Inline Bypass license is as follows

| License State              | Restrictions for TA Series Devices (applicable only for GigaVUE-TA25 and GigaVUE-TA200)  |
|----------------------------|--|
| <b>Not Installed</b>       | You are not allowed to configure inline network and inline tool ports  |
| <b>Installed and valid</b> | You can: <ul style="list-style-type: none"> <li>● Configure inline network and inline tool ports.</li> <li>● Edit port parameters (admin enable, port type change).</li> </ul>                           |
| <b>During Grace Period</b> | <ul style="list-style-type: none"> <li>● You can create or edit flexible inline maps.</li> <li>● Periodic notification from GigaVUE-FM and devices.</li> <li>● Banner Notification in CLI.</li> </ul>    |
| <b>On Expiry</b>           | <ul style="list-style-type: none"> <li>● You cannot create or edit flexible inline maps.</li> <li>● Periodic notification from GigaVUE-FM and devices.</li> <li>● Banner Notification in CLI.</li> </ul> |

**NOTE:** Until software version 6.0.00, during the grace period no map configurations (creating and editing of maps) were allowed. Refer to [Grace Period Behavior \(until Software Version 6.0.00\)](#) for details.

## Grace Period Behavior (until Software Version 6.0.00)

The following tables describe the grace period behavior for the various license types:

### For GigaVUE HC Series devices:

| License State                | Restrictions / Permissions                         | GigaVUE-OS License                         | GigaVUE-OS Module License | GigaSMART License    |
|------------------------------|--|--|---------------------------|----------------------|
| <b>Not Installed/Expired</b> | Cards will be in down state                        | ✓  | -                         | -                    |
|                              | All ports of the card will be in inactive state.   | -  | ✓                         | -                    |
|                              | Configuring new maps with GigaSMART operations     | -  | -                         | Cannot be configured |
| <b>During Grace Period</b>   | Creating new maps and editing existing maps        | Cannot create new maps/ edit existing maps |                           |                      |
|                              | Periodic notification from GigaVUE-FM and devices. | ✓  | ✓                         | ✓                    |
|                              | Banner Notification in CLI                         | ✓  | ✓                         | ✓                    |
| <b>On Expiry</b>             | Cards will be in down state                        | ✓  | -                         | -                    |
|                              | All ports of the card will be in inactive state.   |  | ✓                         |                      |
|                              | Configuring new maps with GigaSMART operations     |  |                           | ✓                    |

### GigaVUE TA Series devices:

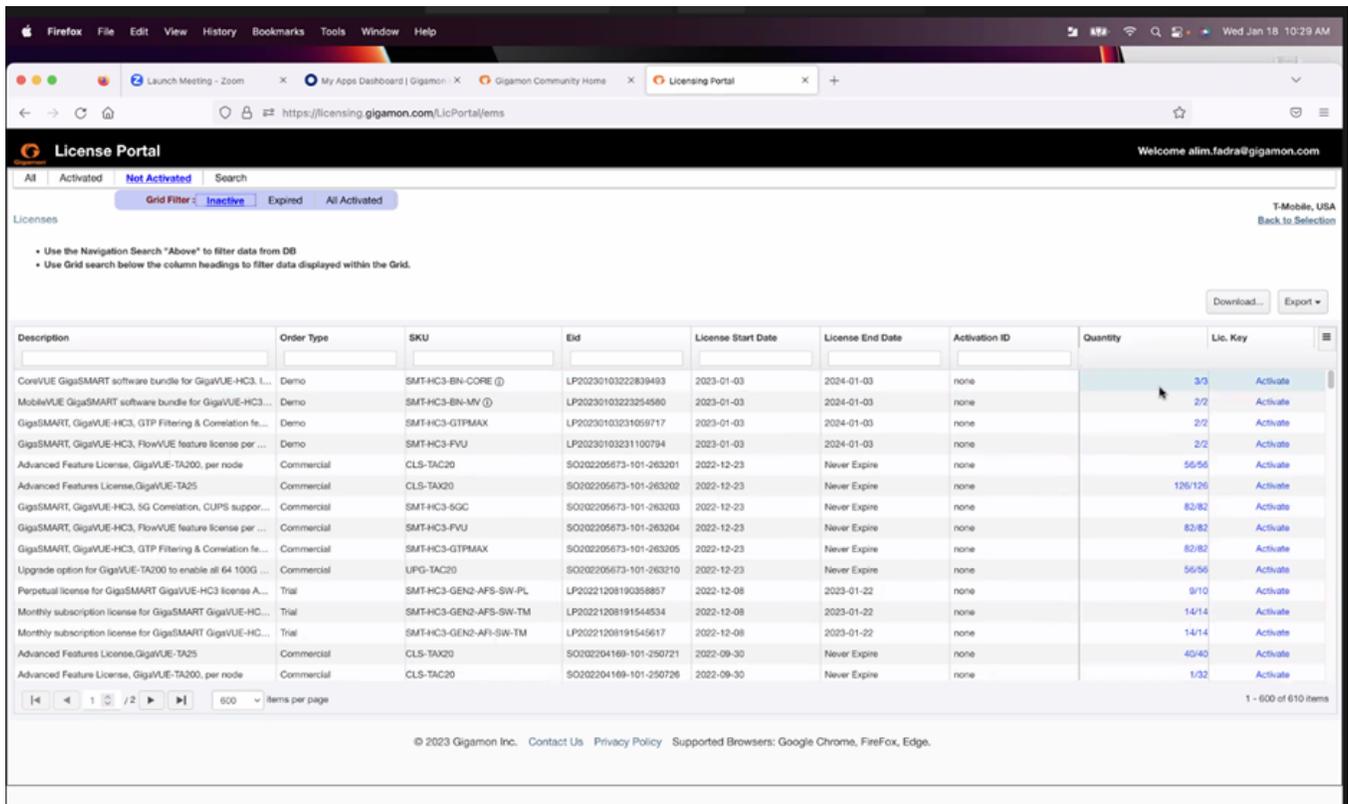
| License State              | Permissions / Restrictions   | GigaVUE-OS License                         | Port License |
|----------------------------|--|--|--------------|
| <b>Not Installed</b>       | All ports will be inactive   | ✓  | -            |
|                            | Ports that need licenses for activation will be in Inactive state. | -  | ✓            |
| <b>During Grace Period</b> | Creating new maps and editing existing maps.                       | Cannot create new maps/ edit existing maps |              |
|                            | Periodic notification from GigaVUE-FM and devices.                 | ✓  | ✓            |
|                            | Banner Notification in CLI   | ✓  | ✓            |
| <b>On Expiry</b>           | All ports will be inactive   | ✓  |              |
|                            | Ports that need licenses for activation will be in Inactive state. |  | ✓            |

Grace period behavior for Inline Bypass license is as follows:

| License State              | Restrictions TA Series Devices (applicable only for GigaVUE-TA25 and GigaVUE-TA200)   |
|----------------------------|---|
| <b>Not Installed</b>       | You are not allowed to configure inline network and inline tool ports   |
| <b>Installed and Valid</b> | You can: <ul style="list-style-type: none"> <li>● Create inline network and inline tool ports.</li> <li>● Edit port parameters (admin enable, port type change).</li> </ul>   |
| <b>During Grace Period</b> | You cannot create or edit flexible inline map.  |
| <b>On Expiry</b>           | <ul style="list-style-type: none"> <li>● Inline network and inline tool ports move to inactive state.</li> <li>● You cannot edit port parameters for inline network/inline tool: Speed change, admin enable for ports of type.</li> <li>● You can change the port type to network port or tool port, so that you can continue using the port for other operations. However, you are not allowed to change inline network to inline tool or vice-e-versa.</li> </ul> |

## Gigamon License Portal

The Gigamon License Portal is a web-based application that allows you to view the license entitlements for your purchased software. You can activate the licenses from the portal, as required.



The portal lists licenses of all the product/features that you have paid for and are available in your entitlement. These features are listed as Stock Keeping Units (SKUs).

The licensing portal consists of the following tabs:

| Tab                  | Description  |
|----------------------|--|
| <b>All</b>           | Lists all the licenses                               |
| <b>Activated</b>     | Lists the licenses activated                         |
| <b>Not Activated</b> | Lists only the licenses that have not been activated |
| <b>Search</b>        | Use to search the portal and fetch the results       |

The licenses in the portal consists of the following fields:

| Field            | Description   |
|------------------|---|
| Activation       | Date the license got activated  |
| Device Locked To | <ul style="list-style-type: none"> <li>Device ID for node-locked licenses</li> <li>MAC Address for floating licenses</li> </ul> |
| Customer         | Customer who purchased the license  |
| Description      | Detailed description of the license   |
| Order Type       | Order type  |
| SKU              | SKU of the license  |

|                    |  |
|--------------------|--|
| Type               | Type of license, either floating or node locked  |
| Eid                | Entitlement Id of the license  |
| License Start Date | License start date   |
| License End Date   | License end date   |
| Activation ID      | Activation id for the license  |
| Quantity           | Number of licenses. This is displayed as a ratio of the activated verses total number of licenses. |
| Status             | Status of licenses, whether activated or not-activated   |
| Lic.key            | License key. For inactive licenses, link to Activation is provided.                                |
| Revoke (button)    | Indicated as revoked for revoked licenses.   |

The last three columns listed below are fixed. They will always be visible even when you resize the page:

- Quantity
- Status
- License Key

## Activate Licenses from the Portal

You can activate both Node-locked and Floating licenses from the portal:

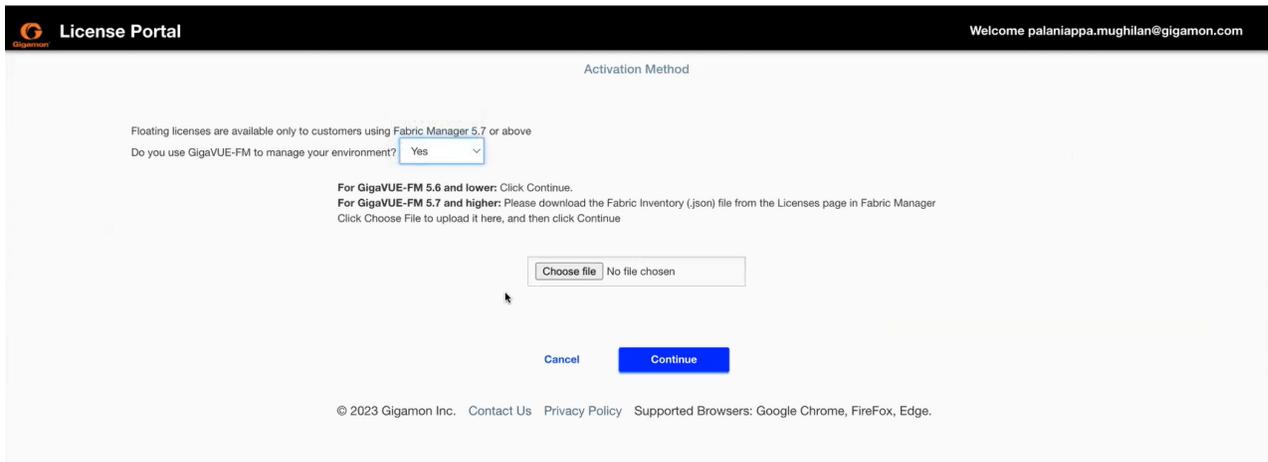
### Activate Floating Licenses

Prior to activating the licenses, ensure that you have the following information:

- **Entitlement IDs:** Locate the email sent to you by Gigamon containing the licensing information for your installation. This email contains one or more EID (Entitlement ID) values. You will use these EIDs to generate License Keys on the Gigamon Licensing Website.
- **Challenge MAC Address:** Locate the Challenge MAC address of the virtual network adapter associated with the GigaVUE-FM installation.
- **Fabric Inventory File:** Download the Fabric Inventory JSON file and save it in your local folder.

To activate a floating license:

1. Identify and select the license(s) that you want to activate from the list of available licenses.
2. Click **Activate**. The Activation Method page appears.
3. In the *Do you use GigaVUE-FM to manage your environment* option, select **Yes**.



License Portal

Welcome palaniappa.mughilan@gigamon.com

### Activation Method

Floating licenses are available only to customers using Fabric Manager 5.7 or above

Do you use GigaVUE-FM to manage your environment? Yes

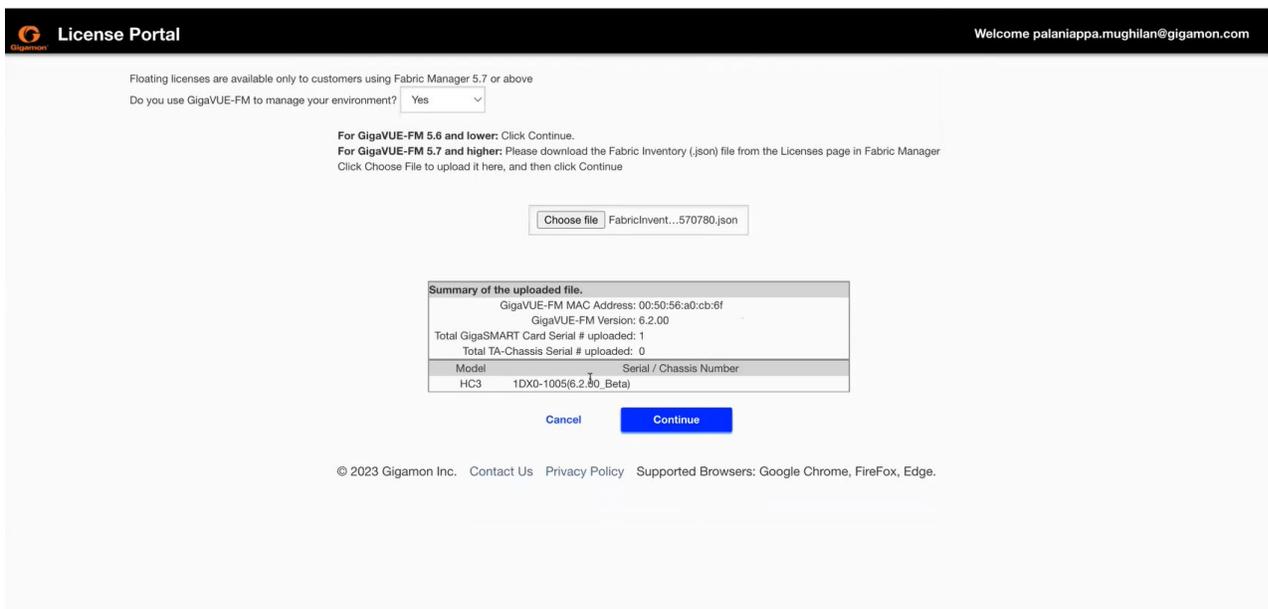
For GigaVUE-FM 5.6 and lower: Click Continue.  
 For GigaVUE-FM 5.7 and higher: Please download the Fabric Inventory (.json) file from the Licenses page in Fabric Manager  
 Click Choose File to upload it here, and then click Continue

Choose file No file chosen

Cancel Continue

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- Choose the Fabric Inventory File downloaded from GigaVUE-FM and click **Continue**.



License Portal

Welcome palaniappa.mughilan@gigamon.com

### Activation Method

Floating licenses are available only to customers using Fabric Manager 5.7 or above

Do you use GigaVUE-FM to manage your environment? Yes

For GigaVUE-FM 5.6 and lower: Click Continue.  
 For GigaVUE-FM 5.7 and higher: Please download the Fabric Inventory (.json) file from the Licenses page in Fabric Manager  
 Click Choose File to upload it here, and then click Continue

Choose file FabricInvent...570780.json

**Summary of the uploaded file.**

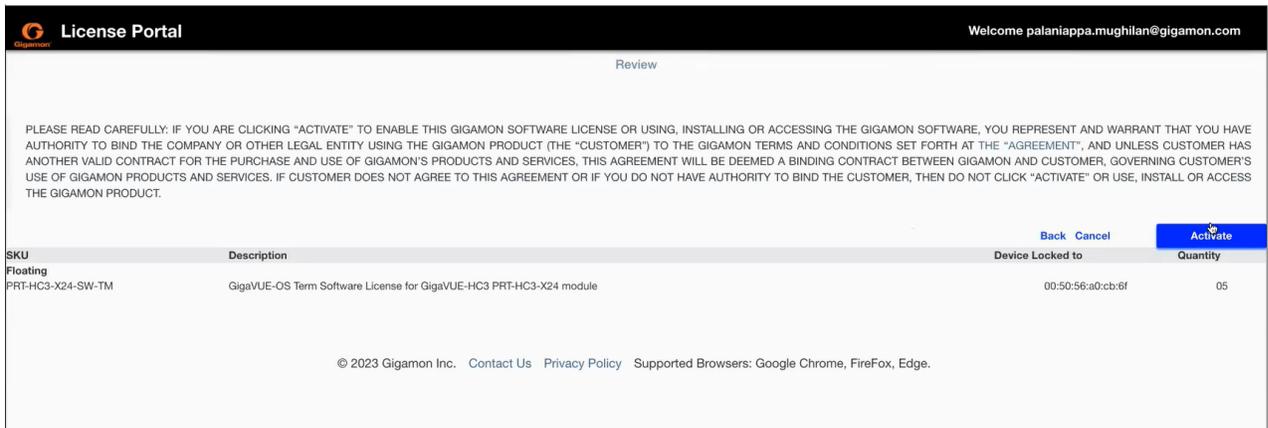
GigaVUE-FM MAC Address: 00:50:56:a0:cb:6f  
 GigaVUE-FM Version: 6.2.00  
 Total GigaSMART Card Serial # uploaded: 1  
 Total TA-Chassis Serial # uploaded: 0

| Model | Serial / Chassis Number |
|-------|-------------------------|
| HC3   | 1DX0-1005(6.2.0_Beta)   |

Cancel Continue

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- Select the required quantity of the licenses. Click **Review**.
- After reviewing the license details, click **Activate** to activate the license.



The Activation Results page appears with the following details:

- Details of the SKU
  - Device to which the license is locked to
  - License file that can be downloaded.
7. Click **Download** to download the license file.
  8. Navigate to GigaVUE-FM GUI and upload the license file.

A message prompts up in the GigaVUE-FM GUI to indicate that the license has been successfully activated.

## Activate Node-locked licenses

You need the following details for activating node-locked licenses:

- Chassis Serial Number for the devices
- Challenge MAC Address for GigaVUE-FM

To activate a node-locked license:

1. Identify and select the license that you want to activate.

The screenshot shows the 'License Portal' interface. At the top, there are tabs for 'All', 'Activated', and 'Not Activated', along with a search bar. Below the tabs, there are instructions: 'Use the Navigation Search "Above" to filter data from DB' and 'Use Grid search below the column headings to filter data displayed within the Grid.' A 'Download...' and 'Export' button are visible. The main content is a table with columns: Activation..., Device L..., Custome..., Description, Order Ty..., SKU, Type, Eid, License ..., License ..., Activati, Quantity ..., Status, Lic. Key ..., Rev... The table contains several rows of license data. The third row is highlighted with a red border. The data in this row is: Description: Monthly subscription license for GigaSMART G..., Order Ty...: Internal, SKU: SMT-HC1-GEN2-HS1-SW-TM, Type: none, Eid: LP20221..., License ...: 2023-03-16, License ...: 2023-04-30, Activati: none, Quantity ...: 1/1, Status: Inactive, Lic. Key ...: Activate.

2. Click **Activate**. The Activation Method page appears.

The screenshot shows the 'Activation Method' page. It contains a message: 'Floating licenses are available only to customers using Fabric Manager 5.7 or above'. Below this is a question: 'Do you use GigaVUE-FM to manage your environment?' with a dropdown menu set to 'No'. There are 'Cancel' and 'Continue' buttons. The 'Continue' button is highlighted in blue. At the bottom, there is a copyright notice: '© 2023 Gigamon Inc. Contact Us Privacy Policy Supported Browsers: Google Chrome, FireFox, Edge.'

3. In the "Do you use GigaVUE-FM to manage your environment" option, select **No** and click **Continue**. The Activation Quantity page appears.

The screenshot shows the 'Activation Quantity' page. It displays the SKU: GFM-FM000 and the Description: GigaVUE-FM Prime Edition, manage up to 1000 Physical Visibility Fabric Nodes, includes VMware NSX Manager Integration (GFM-VM-NSX) add-ons. There are 'Back', 'Cancel', and 'Review' buttons. Below this is a table with columns: Type, Version, Device Locked to, Qty, and Action. The table contains one row with Type: Node-Locked, Version: pre57, Device Locked to: (empty), Qty: 1, and Action: (+) (-). Below the table, there is a 'Remaining Quantity:' label with the value 41. A warning message is displayed: 'You are activating a license for encryption technology for a Gigamon hardware product. The activation of encryption features may change the classification of the Gigamon hardware product for import and/or export purposes. If you plan on exporting, re-exporting or transferring the hardware product after activating this encryption license, please contact your trade compliance team to ensure you use the correct Export Control Classification Number (ECCN) and obtain any required import or export authorization.' At the bottom, there is a copyright notice: '© 2023 Gigamon Inc. Contact Us Privacy Policy Supported Browsers: Google Chrome, FireFox, Edge.'

4. In the **Device Locked To** field, enter the serial number of the chassis or the serial number of the card for the devices. For GigaVUE-FM enter the Challenge MAC address of GigaVUE-FM.
5. Specify the required quantity of the licenses. Click the +/- options under **Action** column. Click **Review**.
6. Review the license you wish to activate. Click **Activate** to activate the license. The Activation Results page with the License Key is displayed.

Install the license keys either using the GigaVUE-FM GUI or the `license` command (for GigaVUE TA Series devices and Port licenses).

## Search for Licenses in the Portal

Use the filter options in the Gigamon license portal to find the required license. The following search options are available.

- **Navigation Search:** Use navigational search to filter the data from the database. You can search based on the following criteria:
  - Device Locked To
  - EID
  - SKU
  - Date Range
- **Grid Search:** Use the Grid Search below the column headings to further refine the data fetched from the navigation search.

The screenshot shows the Gigamon License Portal interface. At the top, there's a navigation bar with the Gigamon logo and the text "License Portal". On the right, it says "Welcome alim.fadra@gigamon.com". Below the navigation bar, there are tabs for "All", "Activated", "Not Activated", and "Search". A search filter is set to "Device Locked To" with a dropdown arrow. There are radio buttons for "NodeLocked" (selected) and "Floating", and a text input field containing "M02FE". There are "Search" and "Reset" buttons. Below the search area, there are instructions: "Use the Navigation Search 'Above' to filter data from DB" and "Use Grid search below the column headings to filter data displayed within the Grid." There are "Download..." and "Export" buttons. The main content is a table with the following columns: Activation, Device Loc..., Customer, Description, Order Type, SKU, Type, Eid, License Sta..., License En..., Activation, Quantity, Status, Lic. Key, and Revoke. The table contains one row of data:

| Activation | Device Loc... | Customer      | Description                            | Order Type | SKU       | Type        | Eid          | License Sta... | License En... | Activation | Quantity | Status    | Lic. Key                 | Revoke                 |
|------------|---------------|---------------|--|------------|-----------|-------------|--------------|----------------|---------------|------------|----------|-----------|--------------------------|------------------------|
| 2022-06-09 | M02FE         | T-Mobile, USA | Advanced Features License,GigaVUE-TA25 | Commercial | CLS-TAX20 | Node-Locked | SO2021168... | 2021-03-19     | Never Expires | d000c83d   | 1        | Activated | <a href="#">Download</a> | <a href="#">Revoke</a> |

The search operation performed from a specific page is applicable only for the items listed in the Grid on that specific page. For example, consider you are on Page 3 of the portal and perform the following searches:

- Specific **EID** from the navigation search menu
- Specific **License Start Date** from the Grid search.

Only Page 3 of the portal is updated with the search results. If you navigate to Page 4, it will still list all the items. Apply the search criteria again in each of the individual pages to get the updated results.

## FAQs For Licensing

This section provides information about some of the issues that you may face while working with Licenses.

### How to Clear License Mismatch when Moving Licenses Between Cards

A license mismatch may occur in the following cases:

- When a GigaSMART card crashes: It is possible for all licenses stored in the GigaSMART card to be erased.
- When moving licenses between cards.

In the above cases, the `show license` command output displays license-mismatch.

Re-install one of the licenses to clear the license-mismatch flag on the card. This allows you to continue using the card with the newly installed license.

**NOTE:** It is always recommended to execute `show license` command before installing a new license. Ensure to re-install all licenses that are lost.

### How to Activate License when GigaVUE-FM does not have network access?

In this case, the Fabric Inventory file (JSON file) downloaded from GigaVUE-FM cannot be uploaded in the Licensing portal. You must generate the license key manually by performing the following steps (applicable for ):

On a system that can reach the License Portal:

1. Open a notepad and paste the below.

```
{
  "virtualMac": "00:50:56:94:68:c1",
  "fmSwVersion": "6.0.00",
  "timeOfReportCreation": "2022-08-22T17:48:39Z",
  "allocationMaps": [],
  "revokedTargets": [],
  "revokedFmLicences": []
}
```

2. Change the virtualMAC to the MAC address of GigaVUE-FM and change the timeOfReportCreation to reflect current Zulu time.
3. Save and change the file extension to .json.
4. Log in to the License Portal and select the required Volume-based License and click **Activate**.
5. In the next step, select **Yes** to manage with GigaVUE-FM.
6. Choose the JSON that file you created.
7. Review the information and change quantity accordingly.
8. Generate the .lic file that you can download. Move this file to the network where GigaVUE-FM resides.
9. Log into GigaVUE-FM. Go to **Settings > Licenses > Floating > Activated > Activated Licenses > With License Portal**.
10. In the dialogue box, select Import License (.Lic). Select the license file downloaded. Click **Open > Continue**

The required Volume-based License is successfully activated.

## What is a Fabric Inventory File?

Fabric Inventory File is a JSON file that must be downloaded while activating the licenses. This file contains the following details.

- Details about GigaVUE-FM from which license is activated.
- Inventory of all the physical nodes connected to GigaVUE-FM.
- Inventory of GigaSMART cards within the nodes
- License information of each of the GigaSMART cards.

The file must then be uploaded in the Licensing Portal. Refer to [Activate floating licenses](#)

**NOTE:** The file is encrypted to prevent unauthorized use. However, you can obtain an unencrypted version of the inventory information (in JSON format) using the following API: <https://<fm-IP>/api/v1.3/licensing/inventory>.

Refer to the following tables for details:

| For GigaVUE-FM   |
|--|
| The Virtual MAC address of GigaVUE-FM (the primary GigaVUE-FMs MAC address in a HA group)  |
| Software version of GigaVUE-FM   |
| Time of report creation  |
| List of cards from which all license keys have been revoked (possibly because of card RMA) |
| List of GigaVUE-FM license keys that have been revoked                                     |

**For each of the devices connected to GigaVUE-FM**

|   |
|---|
| Serial number of the chassis                    |
| IP address                                      |
| Host name                                       |
| The model of the chassis (HC1 etc)              |
| Name of the chassis cluster to which it belongs |
| The version of software running on the device   |
| Whether the device is healthy                   |
| Information about all GigaSMART cards           |

**For each GigaSMART Card**

|   |
|---|
| Serial Number of the card                             |
| Slot number in the chassis where the card is inserted |
| The type of card                                      |
| Whether the card is healthy (operational etc.)        |

**For each GigaSMART Card, the following information about all the license keys that are added on the card is collected:**

|                     |
|---------------------|
| License SKU         |
| License start date  |
| License end date    |
| Encoded license key |

## What is a License SKU?

An SKU in the licensing portal is a unique identifier defined for the various products offered by Gigamon. Depending on the type of license, the SKU identifier varies. However, it has a consistent format.

The first three letters in the SKU indicate the product, as seen in the following table:

| SKU        | Product/Module       |
|------------|----------------------|
| <b>GFM</b> | GigaVUE-FM           |
| <b>GVS</b> | GigaVUE-OS           |
| <b>BPS</b> | By Pass Switch       |
| <b>PRT</b> | Port Module          |
| <b>SMT</b> | GigaSMART Module     |
| <b>VBL</b> | Volume-based license |
| <b>TAP</b> | TAP module           |
| <b>CLS</b> | Advanced Features    |

## Where can I find the license SKUs for the various products?

You can find the license SKUs in the respective product data sheets.

| <b>GigaVUE Data Sheets</b>                |
|---|
| GigaVUE-FM Data Sheet                     |
| GigaSMART Data Sheet                      |
| GigaVUE HC Series Data Sheet              |
| GigaVUE TA Series Data Sheet              |
| GigaVUE Cloud Suite for VMware Data Sheet |
| GigaVUE Cloud Suite for AWS Data Sheet    |
| GigaVUE Cloud Suite for Azure Data Sheet  |
| GigaVUE Cloud Suite for OpenStack         |
| GigaVUE Cloud Suite for Nutanix           |
| GigaVUE Cloud Suite for Kubernetes        |

# 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

---

### forward list

selective forwarding - forward (formerly whitelist)

## L

---

### leader

leader in clustering node relationship (formerly master)

## M

---

### member node

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

## N

---

### no-decrypt list

no need to decrypt (formerly whitelist)

**nodecryptlist**

no need to decrypt- CLI Command (formerly whitelist)

**P**

---

**primary source**

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

**R**

---

**receiver**

follower in a bidirectional clock relationship (formerly slave)

**S**

---

**source**

leader in a bidirectional clock relationship (formerly master)