



# GigaVUE-OS Upgrade Guide

**GigaVUE-OS**

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# 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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# GigaVUE-OS Upgrade

This guide describes how to upgrade GigaVUE-OS H Series and GigaVUE-OS TA Series nodes to the GigaVUE-OS 6.1.xx release. Refer to the following sections for details:

- [Preparing for Your GigaVUE-OS Upgrade](#)
- [Upgrading GigaVUE-OS Nodes](#)

# Preparing for Your GigaVUE-OS Upgrade

This chapter describes how to upgrade GigaVUE-OS H Series and GigaVUE-OS TA Series nodes to the GigaVUE-OS 6.1.xx release. Refer to the following sections for details:

- [Before You Begin – Required Items](#)
- [Supported Upgrade Path—Standalone Nodes](#)
- [Upgrade Summary – Clustered Nodes](#)
- [Bootloader Code by GigaVUE-OS Release](#)
- [Gateway Ports Converted to Tool Ports](#)
- [GigaVUE-OS TA Series Licenses](#)

## Before You Begin – Required Items

Use this upgrade guide to upgrade to software version 6.1.xx. This guide is for nodes running the previous General Availability (GA) releases or the previous Long Term Support (LTS) release, which is 5.15.xx.

### Obtaining Software Images

To obtain software images, register on the Gigamon Community portal and download the software. You will need to provide the serial number of any one of the nodes to register and download the software. Use the **show chassis** command to retrieve a node's serial number.

To reach the Gigamon Community portal, use the following link:

<https://community.gigamon.com/gigamoncp/>

For assistance, contact Technical Support at the following email address:

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

### Separate Software Images for Different Nodes

The software image upgrade procedure is slightly different depending on the node you are upgrading. Relevant files and documentation are available on the [Gigamon Customer Portal](#). Note the filenames in [Table 2: Required Items for System Upgrade](#).

Table 1: Software Image Filenames Unique to the Node

Control Card or Node	Required Items	Description
GigaVUE-HC1-Plus	hc1p_6.1.00.img	Binary image file containing the updated software for the GigaVUE-HC1-Plus. The <b>xx</b> indicates the exact build number.
GigaVUE-HC1	hc1_6.1.00.img	Binary image file containing the updated software for the GigaVUE-HC1. The <b>xx</b> indicates the exact build number.
GigaVUE-HC2	hc2_6.1.00.img	Binary image file containing the updated software for the GigaVUE-HC2. The <b>xx</b> indicates the exact build number.
GigaVUE-HC3	hc3_6.1.00.img	Binary image file containing the updated software for the GigaVUE-HC3. The <b>xx</b> indicates the exact build number.
GigaVUE-OS-TA10	ta10_6.1.00.img	Binary image file containing the updated software for the GigaVUE-OS-TA10. The <b>xx</b> indicates the exact build number.
GigaVUE-TA25	ta25_6.1.00.img	Binary image file containing the updated software for the GigaVUE-TA25. The <b>xx</b> indicates the exact build number.
GigaVUE-OS-TA40	ta40_6.1.00.img	Binary image file containing the updated software for the GigaVUE-OS-TA40. The <b>xx</b> indicates the exact build number.
GigaVUE-OS-TA100	ta100_6.1.00.img	Binary image file containing the updated software for the GigaVUE-OS-TA100. The <b>xx</b> indicates the exact build number.
GigaVUE-OS-TA100-CXP	tacx100_6.1.00.img	Binary image file containing the updated software for the GigaVUE-OS-TA100-CXP. The <b>xx</b> indicates the exact build number.
GigaVUE-OS-TA200	ta200_6.1.00.img	Binary image file containing the updated software for the GigaVUE-OS-TA200. The <b>xx</b> indicates the exact build number.
GigaVUE-TA400	ta400_6.1.00.img	Binary image file containing the updated software for the GigaVUE-TA400. The <b>xx</b> indicates the exact build number.
G-TAP A Series 2	gtapa_6.1.00.img	Binary image file containing the updated software for the G-TAP A Series 2. The <b>xx</b> indicates the exact build number.

## Required Items for Upgrades

The following table summarizes the items you will need to perform the upgrade to GigaVUE-OS 6.1.xx:



Table 2: Required Items for System Upgrade

Node Type/ Version	Protocols	Description
All	FTP, TFTP, SFTP, SCP, HTTP, HTTPS, or USB	<p>You will need to fetch the GigaVUE-OS nodes' software packages from a file server using one of the supported protocols.</p> <div data-bbox="581 428 1469 548" style="border: 1px solid #ccc; padding: 5px;"> <p><b>NOTE:</b> Only the GigaVUE-HC1, GigaVUE-HC3, GigaVUE-OS-TA100, GigaVUE-OS-TA100CXP, and GigaVUE-OS-TA200 support the USB parameter.</p> </div> <p>The GigaVUE-OS nodes will need the file server's IP address so that it can connect to the server and download the image.</p> <div data-bbox="581 632 1469 751" style="border: 1px solid #ccc; padding: 5px;"> <p><b>NOTE:</b> There are freeware file servers available on the Internet for a variety of operating systems. A Web search will provide links to many implementations.</p> </div> <p>You can also upload a new software build directly from your PC using GigaVUE-FM.</p>

## Supported Upgrade Path—Standalone Nodes

Use the [GigaVUE-OS Upgrade Summary](#) table to determine the path to upgrade your GigaVUE-OS H Series and GigaVUE-OS TA Series nodes to GigaVUE-OS 6.1.xx.



### UPGRADE NOTES:

- All upgrades start and end by saving the node's configuration with the **write memory** command.
- Refer to [Upgrade Summary – Clustered Nodes](#) for considerations when upgrading nodes in a cluster.
- It is recommended that you enable the syslogs with the minimum severity level set to 'info' to help with troubleshooting upgrade issues, if any. After successful upgrade, you can revert to the desired severity level for the syslogs.
- Upgrading to a fresh image install will reboot the device twice. This behavior is noted in GigaVUE-HC1, GigaVUE-HC3, GigaVUE-TA100 and GigaVUE-TA200.

**IMPORTANT— BEFORE ANY UPGRADE, SAVE YOUR CURRENT CONFIGURATION.** Refer to "Device Configuration Backup" in the *GigaVUE Administration Guide* for guidance.

## GigaVUE-OS Upgrade Summary

To upgrade GigaVUE TA Series, GigaVUE-HC1, GigaVUE-HC2, and GigaVUE-HC3 nodes to a 6.1.xx release:

1. Use the **show images** command to display the existing image file names. For the maximum number of images allowed, refer to [Check Number of Images](#)
2. Delete the available image files using the **image delete <filename.img>** command, to create space for the new images.
3. Fetch and install the 6.1.xx software image (based on the node information) and bootloader, set next boot, and reload.

**IMPORTANT**—Before upgrading to 6.1.xx, verify the recommended upgrade path below. For the latest Long Term Support (LTS) release information, refer to the [Gigamon Software Life Cycle](#) FAQ article on the Gigamon Community.

Table 3: GigaVUE-OS Upgrade Summary

To upgrade to 6.1.xx from...	Use the recommended upgrade path for the device...		
	GigaVUE-HC3, GigaVUE-TA Series, and G-TAP A Series 2	GigaVUE-HC1	GigaVUE-HC2
v6.00.xx	6.00.xx ► 6.1.xx	6.00.xx ► 6.1.xx	6.00.xx ► 6.1.xx
v5.16.xx	5.16.xx ► 6.1.xx	5.16.xx ► 6.1.xx	5.16.xx ► 6.1.xx
v5.15.xx	5.15.xx ► 6.1.xx	5.15.xx ► 6.1.xx	5.15.xx ► 6.1.xx
v5.14.xx	5.14.xx ► 5.15.xx ► 6.1.xx	5.14.xx ► 5.15.xx ► 6.1.xx	5.14.xx ► 5.15.xx ► 6.1.xx
v5.13.xx	5.13.xx ► 6.1.xx	5.13.xx ► 6.1.xx	5.13.xx ► 6.1.xx
v5.12.xx	5.12.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.12.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.12.xx ► 5.13.xx or 5.15.xx ► 6.1.xx
v5.11.xx	5.11.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.11.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.11.xx ► 5.13.xx or 5.15.xx ► 6.1.xx
v5.10.xx	5.10.xx*** ► 5.13.xx or 5.15.xx ► 6.1.xx	5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx
v5.9.xx	5.9.xx ► 5.10.xx*** ► 5.13.xx or 5.15.xx ► 6.1.xx	5.9.xx ► 5.9.01.03** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.9.xx ► 5.9.01.16** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx
v5.8.xx	5.8.xx ► 5.10.xx*** ► 5.13.xx or 5.15.xx ► 6.1.xx	5.8.xx ► 5.9.01.03** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.8.xx ► 5.9.01.16** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx
v5.7.xx	5.7.xx ► 5.10.xx*** ► 5.13.xx or 5.15.xx ► 6.1.xx	5.7.xx ► 5.9.01.03** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.7.xx ► 5.9.01.16** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx
v5.6.xx	5.6.xx ► 5.7.xx ► 5.10.xx*** ► 5.13.xx or 5.15.xx ► 6.1.xx	5.6.xx ► 5.7.xx ► 5.9.01.03** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.6.xx ► 5.7.xx ► 5.9.01.16** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx

To upgrade to 6.1.xx from...	Use the recommended upgrade path for the device...		
	GigaVUE-HC3, GigaVUE-TA Series, and G-TAP A Series 2	GigaVUE-HC1	GigaVUE-HC2
	<p><b>NOTE:</b> For older versions of GigaVUE-OS, refer to <a href="#">GigaVUE-OS Legacy Upgrades</a>.</p>		

**VERSION NOTES**—The upgrade paths are mostly the same across platforms, with one noted exception:

- \*\*5.9.01.03 on GigaVUE-HC1:** When upgrading GigaVUE-HC1 to GigaVUE-OS 5.10.xx, add the 5.9.01.03 hot patch to increase the allowed image size to support the upgrade.
- \*\*5.9.01.16 on GigaVUE-HC2:** When upgrading GigaVUE-HC2 to GigaVUE-OS 5.10.xx, add the 5.9.01.16 hot patch to increase the allowed image size to support the upgrade.

After 5.10.xx, the upgrade paths are the same across platforms.

- \*\*\*5.10.04 on GigaVUE-HC3:** When upgrading GigaVUE-HC3 to GigaVUE-OS 5.13.xx or 5.15.xx you must upgrade to 5.10.04 to increase the allowed image size to support the upgrade.

**NOTE:** If you are installing the SMT-HC1-S module in a GigaVUE-HC1 Chassis, use the recommended upgrade path specific to this module. Refer to [SMT-HC1-S \(Gen 3 GigaSMART Card\)](#), for details.

### GigaVUE-OS Legacy Upgrades

To upgrade GigaVUE TA Series, GigaVUE-HC1, GigaVUE-HC2, and GigaVUE-HC3 from older versions of GigaVUE-OS, prior to v5.6.xx, use the paths specified for the device in [Table 3: GigaVUE-OS Upgrade Summary](#).

Table 4: GigaVUE-OS Legacy Upgrades

To upgrade to 6.1.xx from...	Use the recommended upgrade path for the device...		
	GigaVUE-HC3, GigaVUE-TA Series, and G-TAP A Series 2	GigaVUE-HC1	GigaVUE-HC2
v5.5.xx	5.5.xx ► 5.7.xx ► 5.10.xx*** ► 5.13.xx or 5.15.xx ► 6.1.xx	5.5.xx ► 5.7.xx ► 5.9.01.03** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.5.xx ► 5.6.xx* ► 5.7.xx ► 5.9.01.16** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx

To upgrade to 6.1.xx from...	Use the recommended upgrade path for the device...		
	GigaVUE-HC3, GigaVUE-TA Series, and G-TAP A Series 2	GigaVUE-HC1	GigaVUE-HC2
v5.4.xx	5.4.xx ► 5.7.xx ► 5.10.xx*** ► 5.13.xx or 5.15.xx ► 6.1.xx	5.4.xx ► 5.7.xx ► 5.9.01.03** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.4.xx ► 5.6.xx* ► 5.7.xx ► 5.9.01.16** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx
v5.3.xx	5.3.xx ► 5.4.xx ► 5.7.xx ► 5.10.xx** ► 5.13.xx or 5.15.xx ► 6.1.xx	5.3.xx ► 5.4.xx ► 5.7.xx ► 5.9.01.03** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.3.xx ► 5.4.xx ► 5.6.xx* ► 5.7.xx ► 5.9.01.16** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx
v5.2.xx	5.2.xx ► 5.3.xx ► 5.4.xx ► 5.7.xx ► 5.10.xx*** ► 5.13.xx or 5.15.xx ► 6.1.xx	5.2.xx ► 5.3.xx ► 5.4.xx ► 5.7.xx ► 5.9.01.03** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.2.xx ► 5.3.xx ► 5.4.xx ► 5.6.xx* ► 5.7.xx ► 5.9.01.16** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx
v5.1.xx	5.1.xx ► 5.4.xx ► 5.7.xx ► 5.10.xx*** ► 5.13.xx or 5.15.xx ► 6.1.xx	5.1.xx ► 5.4.xx ► 5.7.xx ► 5.9.01.03** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	5.1.xx ► 5.4.xx ► 5.6.xx* ► 5.7.xx ► 5.9.01.16** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx
pre-5.1	pre-5.1 ► 5.1.xx ► 5.4.xx ► 5.7.xx ► 5.10.xx*** ► 5.13.xx or 5.15.xx ► 6.1.xx	pre-5.1 ► 5.1.xx ► 5.4.xx ► 5.7.xx ► 5.9.01.03** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx	pre-5.1 ► 5.1.xx ► 5.4.xx ► 5.6.xx* ► 5.7.xx ► 5.9.01.16** ► 5.10.xx ► 5.13.xx or 5.15.xx ► 6.1.xx



**VERSION NOTES**—The upgrade paths are mostly the same across platforms, with a few noted exceptions:

**\*5.6 on GigaVUE-HC2:** GigaVUE-HC2 requires upgrading to 5.6.xx prior to upgrading to 5.7.xx due to an increase in the memory requirements.

**\*\*5.9.01.03 on GigaVUE-HC1** When upgrading GigaVUE-HC1 to GigaVUE-OS 5.10.xx, add the 5.9.01.03 hot patch to increase the allowed image size to support the upgrade.

**\*\*5.9.01.16 on GigaVUE-HC2:** When upgrading GigaVUE-HC2 to GigaVUE-OS 5.10.xx, add the 5.9.01.16 hot patch to increase the allowed image size to support the upgrade.

**\*\*\*5.10.03 on GigaVUE-HC3:** When upgrading GigaVUE-HC3 to GigaVUE-OS 5.13.xx or 5.15.xx, upgrade to 5.10.04 to increase the allowed image size to support the upgrade.

## Upgrade Summary – Clustered Nodes

This section summarizes the upgrade procedure for nodes operating in a cluster.

The upgrade procedure for an individual node in a cluster is nearly identical to that for a standalone node. The only difference is that instead of reloading individual nodes as you upgrade them, you perform a single **cluster reload** after the leader has completed the image upgrade. For instructions about how to upgrade individual nodes, refer to [Upgrading GigaVUE-OS Nodes Using GigaVUE-OS CLI](#).

Note that a GigaVUE-OS TA Series can never be a leader in a cluster configuration. However since the GigaVUE-OS versions are shared amongst the GigaVUE-OS nodes, it is important to upgrade all nodes per instructions prior to using the **cluster reload** command.

## Licensing for Clustered Nodes in GigaVUE-OS

The license required for the clustering feature is Advanced Features License (AD\_Features).

- When upgrading to GigaVUE-OS v6.1.xx, if the node already has a Clustering License, it will automatically be updated to Advanced Features License (AD\_Features) upon upgrade.
- If a license has not been generated yet, or if an earlier version of the license has been generated but not yet installed, then you need to generate (or regenerate) a license from the Gigamon Community portal after upgrading to 6.1.xx. Install and activate the new license.

**NOTE:** The license requirement for clustering changed in GigaVUE-OS 5.4.00. If you are upgrading to 5.4.00 from a previous release, the name changed from “Clustering License” to “Advanced Features License”. However, the instructions remain the same.

## Upgrade Sequence

Gigamon recommends the following upgrade sequence for clusters:

1. Use the **write memory** command on each node in the cluster to preserve settings that are stored locally rather than globally (for example, AAA and hostname settings).
2. Use the **image delete <filename.img>** command to delete all the available image files.

**NOTE:** Use the **show images** command to verify if there are any images existing on the node.

3. On the individual nodes including the leader, fetch and install 6.1.xx software image and bootloader, and set the next boot.

**NOTE:** Do not reload the nodes as you upgrade them.

4. Use the **cluster reload** command from the leader to reestablish the cluster settings.

**NOTE:** The time it takes for the cluster to complete the cluster reload and re-establish packet distribution will vary depending on the number of nodes in the cluster and the complexity of the packet distribution to restore. An average cluster reload will interrupt traffic for five minutes. However, an eight-node cluster with complex packet distribution in place can take as long as 20 minutes to reload completely.

**NOTE:** After reloading the cluster, use the **show cluster global brief** command to determine the roles assigned to each node in the cluster.

5. After completing the upgrade, run the **show version** command on each node in the cluster to make sure they are all running a 6.1.xx build. If any node does not show the correct version number, upgrade it individually.

Figure 1Cluster Upgrade Summary summarizes the cluster upgrade sequence.

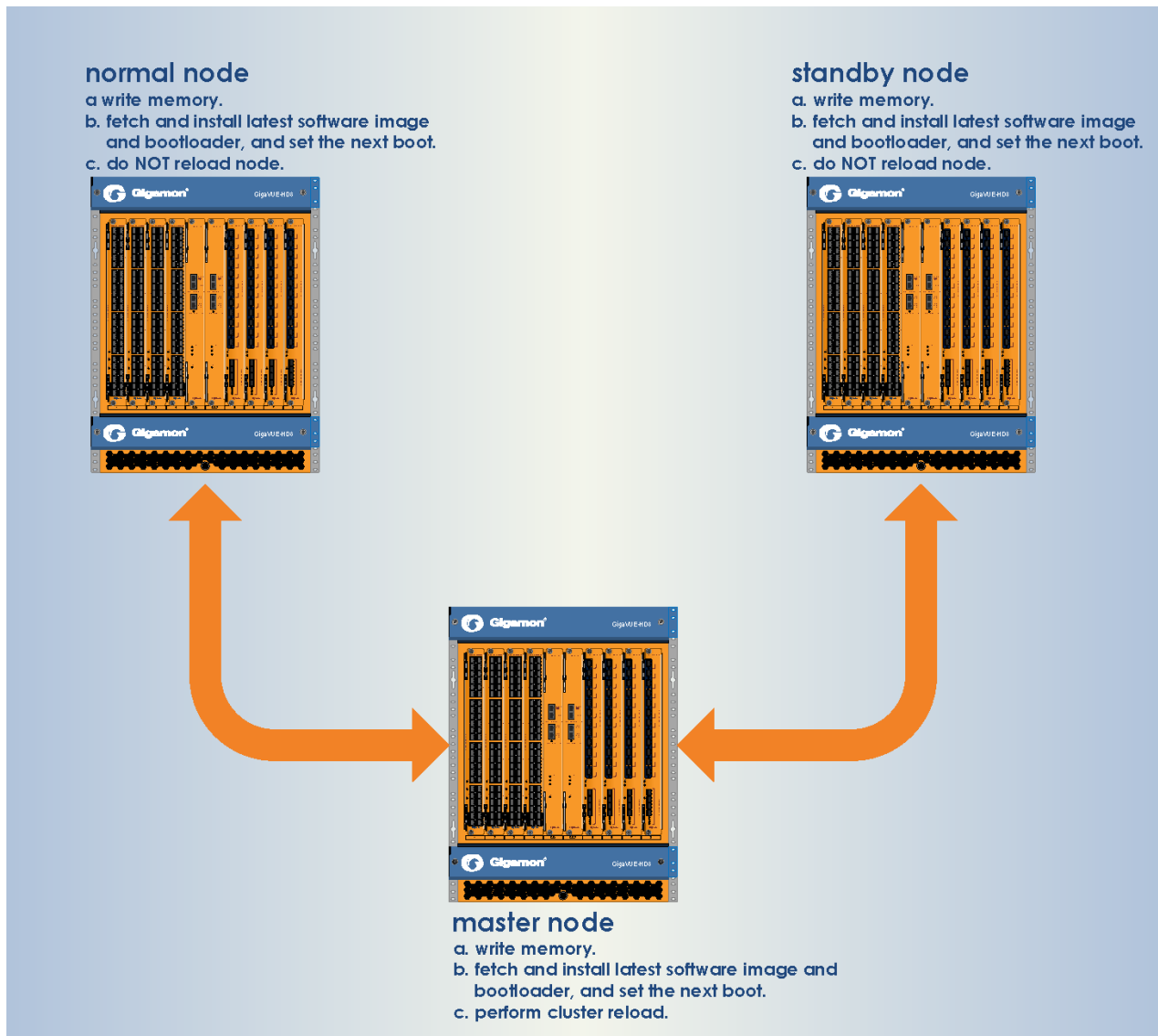


Figure 1 Cluster Upgrade Summary

### Adding a New Node to an Existing Cluster

Before adding a new node to a cluster, make sure that the node is upgraded to the same version as other nodes in the cluster.

**NOTE:** For a GigaVUE-OS TA Series nodes, ensure that the applicable licenses are activated.

## Bootloader Code by GigaVUE-OS Release

The following table summarizes the version of bootloader code associated with each GigaVUE-OS node type and software release. Use the **show version** command to check the currently installed bootloader and software image versions.

SW Version	Node Type	Software Image Filename	Bootloader Filename	Bootloader Version
6.1.00	GV-HC2	hc2_6100.img	hc2_5500.bin	2011.06.10
	GV-TA10	ta10_6100.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_6100.img	ta40_5500.bin	2014.01.01
6.0.00	GV-HC2	hc2_6000.img	hc2_5500.bin	2011.06.10
	GV-TA10	ta10_6000.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_6000.img	ta40_5500.bin	2014.01.01
5.16.00	GV-HC2	hc2_51600.img	hc2_5500.bin	2011.06.10
	GV-TA10	ta10_51600.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_51600.img	ta40_5500.bin	2014.01.01
5.15.00	GV-HC2	hc2_51500.img	hc2_5500.bin	2011.06.10
	GV-TA10	ta10_51500.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_51500.img	ta40_5500.bin	2014.01.01
5.14.00	GV-HC2	hc2_51400.img	hc2_5500.bin	2011.06.10
	GV-TA10	ta10_51400.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_51400.img	ta40_5500.bin	2014.01.01
5.13.00	GV-HC2	hc2_51300.img	hc2_5500.bin	2011.06.10
	GV-TA10	ta10_51300.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_51300.img	ta40_5500.bin	2014.01.01
5.12.00	GV-HC2	hc2_51200.img	hc2_5500.bin	2011.06.10
	GV-TA10	ta10_51200.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_51200.img	ta40_5500.bin	2014.01.01



SW Version	Node Type	Software Image Filename	Bootloader Filename	Bootloader Version
5.11.00	GV-HC2	hc2_51100.img	hc2_5500.bin	2011.06.10
	GV-TA10	ta10_51100.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_51100.img	ta40_5500.bin	2014.01.01
5.10.01	GV-HC2	hc2_51001.img	hc2_5500.bin	2011.06.10
	GV-TA10	ta10_51001.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_51001.img	ta40_5500.bin	2014.01.01
5.10.00	GV-HC2	hc2_51000.img	hc2_5500.bin	2011.06.10
	GV-TA10	ta10_51000.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_51000.img	ta40_5500.bin	2014.01.01
5.9.00	GV-HC2	hc2_5900.img	hc2_5500.bin	2011.06.9
	GV-TA10	ta10_5900.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_5900.img	ta40_5500.bin	2014.01.01

SW Version	Node Type	Software Image Filename	Bootloader Filename	Bootloader Version
5.8.00	GV-HC2	hc2_5800.img	hc2_5500.bin	2011.06.9
	GV-TA10	ta10_5800.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_5800.img	ta40_5500.bin	2014.01.01
5.7.00	GV-HC2	hc2_5700.img	hc2_5500.bin	2011.06.9
	HCCv2	hdd5700.img	hdd5500.bin	2011.06.20
	GV-TA10	ta10_5700.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_5700.img	ta40_5500.bin	2014.01.01
5.6.00	GV-HC2	hc2_5600.img	hc2_5500.bin	2011.06.9
	HCCv2	hdd5600.img	hdd5500.bin	2011.06.20
	GV-TA10	ta10_5600.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_5600.img	ta40_5500.bin	2014.01.01
5.5.00	GV-HC2	hc2_5500.img	hc2_5500.bin	2011.06.9
	HCCv2	hdd5500.img	hdd5500.bin	2011.06.20
	GV-TA1	ta1_5500.img	ta1_5500.bin	2010.06.16
	GV-TA10	ta10_5500.img	ta10_5500.bin	2014.01.01
	GV-TA40	ta40_5500.img	ta40_5500.bin	2014.01.01
5.4.00	GV-HB1	hb1_5400.img	hb1_5400.bin	2010.06.5
	GV-HC2	hc2_5400.img	hc2_5400.bin	2011.06.9
	HCCv2	hdd5400.img	hdd5400.bin	2011.06.20
	GV-TA1	ta1_5400.img	ta1_5400.bin	2010.06.16
	GV-TA10	ta10_5400.img	ta10_5400.bin	2014.01.01
	GV-TA40	ta40_5400.img	ta40_5400.bin	2014.01.01

SW Version	Node Type	Software Image Filename	Bootloader Filename	Bootloader Version
5.3.00	GV-HB1	hb1_5300.img	hb1_5300.bin	2010.06.5
	GV-HC2	hc2_5300.img	hc2_5300.bin	2011.06.9
	HCCv2	hdd5300.img	hdd5300.bin	2011.06.20
	GV-TA1	ta1_5300.img	ta1_5300.bin	2010.06.16
	GV-TA10	ta10_5300.img	ta10_5300.bin	2014.01.01
	GV-TA40	ta40_5300.img	ta40_5300.bin	2014.01.01
5.2.00	GV-HB1	hb1_5200.img	hb1_5200.bin	2010.06.5
	GV-HC2	hc2_5200.img	hc2_5200.bin	2011.06.9
	HCCv2	hdd5200.img	hdd5200.bin	2011.06.20
	GV-TA1	ta1_5200.img	ta1_5200.bin	2010.06.16
	GV-TA10	ta10_5200.img	ta10_5200.bin	2014.01.01
	GV-TA40	ta40_5200.img	ta40_5200.bin	2014.01.01
5.1.00	GV-HB1	hb1_5100.img	hb1_5100.bin	2010.06.5
	GV-HC2	hc2_5100.img	hc2_5100.bin	2011.06.8
	HCCv2	hdd5100.img	hdd5100.bin	2011.06.20
	GV-TA1	ta1_5100.img	ta1_5100.bin	2010.06.16
	GV-TA10	ta10_5100.img	ta10_5100.bin	2014.01.01
	GV-TA40	ta40_5100.img	ta40_5100.bin	2014.01.01

\* GigaVUE-HC1, GigaVUE-HC3, GigaVUE-OS-TA100, and GigaVUE-OS-TA100-CXP do not have U-boot. They are preloaded with coreboot. The following table summarizes the coreboot versions for GigaVUE-HC1, GigaVUE-HC3, GigaVUE-OS-TA100, and GigaVUE-OS-TA100-CXP:

SW Version	Node Type	Software Image Filename	Coreboot Version
6.1.00	GV-HC3	hc3_6100.img	1.0.4
	GV-HC1	hc1_6100.img	1.0.1
	GV-TA100	ta100_6100.img	0.2.5/1.0.0

SW Version	Node Type	Software Image Filename	Coreboot Version
	<b>GV-TA100-CXP</b>	tacx100_6100.img	1.0.0
<b>6.0.00</b>	<b>GV-HC3</b>	hc3_6000.img	1.0.4
	<b>GV-HC1</b>	hc1_6000.img	1.0.1
	<b>GV-TA100</b>	ta100_6000.img	0.2.5/1.0.0
	<b>GV-TA100-CXP</b>	tacx100_6000.img	1.0.0
<b>5.16.00</b>	<b>GV-HC3</b>	hc3_51600.img	1.0.4
	<b>GV-HC1</b>	hc1_51600.img	1.0.1
	<b>GV-TA100</b>	ta100_51600.img	0.2.5/1.0.0
	<b>GV-TA100-CXP</b>	tacx100_51600.img	1.0.0
<b>5.15.00</b>	<b>GV-HC3</b>	hc3_51500.img	1.0.4
	<b>GV-HC1</b>	hc1_51500.img	1.0.1
	<b>GV-TA100</b>	ta100_51500.img	0.2.5/1.0.0
	<b>GV-TA100-CXP</b>	tacx100_51500.img	1.0.0
<b>5.14.00</b>	<b>GV-HC3</b>	hc3_51400.img	1.0.4
	<b>GV-HC1</b>	hc1_51400.img	1.0.1
	<b>GV-TA100</b>	ta100_51400.img	0.2.5/1.0.0
	<b>GV-TA100-CXP</b>	tacx100_51400.img	1.0.0
<b>5.13.00</b>	<b>GV-HC3</b>	hc3_51300.img	1.0.4
	<b>GV-HC1</b>	hc1_51300.img	1.0.1
	<b>GV-TA100</b>	ta100_51300.img	0.2.5/1.0.0
	<b>GV-TA100-CXP</b>	tacx100_51300.img	1.0.0
<b>5.12.00</b>	<b>GV-HC3</b>	hc3_51200.img	1.0.4
	<b>GV-HC1</b>	hc1_51200.img	1.0.1
	<b>GV-TA100</b>	ta100_51200.img	0.2.5/1.0.0
	<b>GV-TA100-CXP</b>	tacx100_51200.img	1.0.0

SW Version	Node Type	Software Image Filename	Coreboot Version
<b>5.11.00</b>	<b>GV-HC3</b>	hc3_51100.img	1.0.4
	<b>GV-HC1</b>	hc1_51100.img	1.0.1
	<b>GV-TA100</b>	ta100_51100.img	0.2.5/1.0.0
	<b>GV-TA100-CXP</b>	tacx100_51100.img	1.0.0
<b>5.10.01</b>	<b>GV-HC3</b>	hc3_51001.img	1.0.4
	<b>GV-HC1</b>	hc1_51001.img	1.0.1
	<b>GV-TA100</b>	ta100_51001.img	0.2.5/1.0.0
	<b>GV-TA100-CXP</b>	tacx100_51001.img	1.0.0
<b>5.10.00</b>	<b>GV-HC3</b>	hc3_51000.img	1.0.4
	<b>GV-HC1</b>	hc1_51000.img	1.0.1
	<b>GV-TA100</b>	ta100_51000.img	0.2.5/1.0.0
	<b>GV-TA100-CXP</b>	tacx100_51000.img	1.0.0
<b>5.9.00</b>	<b>GV-HC3</b>	hc3_5900.img	1.0.4
	<b>GV-HC1</b>	hc1_5900.img	1.0.1
	<b>GV-TA100</b>	ta100_5900.img	0.2.5/1.0.0
	<b>GV-TA100-CXP</b>	tacx100_5900.img	1.0.0
<b>5.8.00</b>	<b>GV-HC3</b>	hc3_5800.img	1.0.4
	<b>GV-HC1</b>	hc1_5800.img	1.0.1
	<b>GV-TA100</b>	ta100_5800.img	0.2.5/1.0.0
	<b>GV-TA100-CXP</b>	tacx100_5800.img	1.0.0
<b>5.7.00</b>	<b>GV-HC3</b>	hc3_5700.img	1.0.4
	<b>GV-HC1</b>	hc1_5700.img	1.0.1
	<b>GV-TA100</b>	ta100_5700.img	0.2.5/1.0.0
	<b>GV-TA100-CXP</b>	tacx100_5700.img	1.0.0

SW Version	Node Type	Software Image Filename	Coreboot Version
5.6.00	GV-HC3	hc3_5600.img	1.0.4
	GV-HC1	hc1_5600.img	1.0.1
	GV-TA100	ta100_5600.img	0.2.5/1.0.0
	GV-TA100-CXP	tacx100_5600.img	1.0.0
5.5.00	GV-HC3	hc3_5500.img	1.0.4
	GV-HC1	hc1_5500.img	1.0.1
	GV-TA100	ta100_5500.img	0.2.5/1.0.0
	GV-TA100-CXP	tacx100_5500.img	1.0.0
5.4.00	GV-HC3	hc3_5400.img	1.0.3
	GV-HC1	hc1_5400.img	1.0.1
	GV-TA100	ta100_5400.img	0.2.5/1.0.0
	GV-TA100-CXP	tacx100_5400.img	1.0.0
5.3.00	GV-HC3	hc3_5300.img	1.0.3
	GV-HC1	hc1_5300.img	1.0.1
	GV-TA100	ta100_5300.img	0.2.5
	GV-TA100-CXP	tacx100_5300.img	1.0.0
5.2.00	GV-HC3	hc3_5200.img	1.0.3
	GV-HC1	hc1_5200.img	1.0.1
	GV-TA100	ta100_5200.img	0.2.5
	GV-TA100-CXP	tacx100_5200.img	1.0.0
5.1.00	GV-HC3	hc3_5100.img	1.0.3
	GV-HC1	hc1_5100.img	1.0.1
	GV-TA100	ta100_5100.img	0.2.5
	GV-TA100-CXP	tacx100_5100.img	1.0.0

\*\* GigaVUE-OS-TA200, GigaVUE-OS-TA200E, GigaVUE-OS-TA400, GigaVUE-OS-TA25, and GigaVUE-OS-TA25E do not have U-boot. They are preloaded with AMI BIOS. The following table summarizes the AMI BIOS versions for GigaVUE-OS-TA200, GigaVUE-OS-TA200E, GigaVUE-OS-TA400, GigaVUE-OS-TA25, and GigaVUE-OS-TA25E:

Table 5: AMI BIOS Version for GigaVUE-OS-TA200, GigaVUE-OS-TA200E, GigaVUE-OS-TA400, GigaVUE-OS-TA25, and GigaVUE-OS-TA25E

SW Version	Node Type	Software Image Filename	AMI BIOS Version
<b>6.1.00</b>	<b>GV-TA200</b>	ta200_6100.img	1.2.0
	<b>GV-TA25</b>	ta25_6100.img	2.0.2
	<b>GV-TA400</b>	ta400_6100.img	1.1.0
	<b>GV-TA200E</b>	ta200e_6100.img	v40.01.01.01
	<b>GV-TA25E</b>	ta25e_6100.img	v40.01.01.01
<b>6.0.98</b>	<b>GV-TA200E</b>	ta200e_6100.img	v40.01.01.01
	<b>GV-TA25E</b>	ta25e_6100.img	v40.01.01.00
<b>6.0.00</b>	<b>GV-TA200</b>	ta200_6000.img	1.2.0
	<b>GV-TA25</b>	ta25_6000.img	2.0.2
	<b>GV-TA400</b>	ta400_6000.img	1.1.0
<b>5.16.00</b>	<b>GV-TA200</b>	ta200_51600.img	1.2.0
	<b>GV-TA25</b>	ta25_51600.img	2.0.2
	<b>GV-TA400</b>	ta400_51600.img	1.1.0
<b>5.15.00</b>	<b>GV-TA200</b>	ta200_51500.img	1.2.0
	<b>GV-TA25</b>	ta25_51500.img	2.0.2
	<b>GV-TA400</b>	ta400_51500.img	1.1.0
<b>5.14.00</b>	<b>GV-TA200</b>	ta200_51400.img	1.2.0
	<b>GV-TA25</b>	ta25_51400.img	2.0.2
<b>5.13.00</b>	<b>GV-TA200</b>	ta200_51300.img	1.2.0
	<b>GV-TA25</b>	ta25_51300.img	2.0.2
<b>5.12.00</b>	<b>GV-TA200</b>	ta200_51200.img	1.2.0
	<b>GV-TA25</b>	ta25_51200.img	2.0.2
<b>5.12.00</b>	<b>GV-TA200</b>	ta200_51200.img	1.2.0
	<b>GV-TA25</b>	ta25_51200.img	2.0.2

SW Version	Node Type	Software Image Filename	AMI BIOS Version
5.11.00	GV-TA200	ta200_51100.img	1.1.2a
	GV-TA25	ta25_51100.img	1.2.0
5.10.04	GV-TA25	ta25_51004.img	2.0.2
5.10.01	GV-TA200	ta200_51001.img	1.1.2a
	GV-TA25	ta25_51001.img	1.2.0
5.10.00	GV-TA200	ta200_51000.img	1.1.2a
5.9.00	GV-TA200	ta200_5900.img	1.1.2a
5.8.00	GV-TA200	ta200_5800.img	1.1.2a
5.7.00	GV-TA200	ta200_5700.img	1.0.9
5.6.00	GV-TA200	ta200_5600.img	1.0.9
5.5.00	GV-TA200	ta200_5500.img	1.0.9
5.4.00	GV-TA200	ta200_5400.img	1.0.9
5.3.00	GV-TA200	ta200_5300.img	1.0.9

\*\* GigaVUE-HCI-Plus does not have U-boot. It is preloaded with Yantra BIOS. The following table summarizes the Yantra BIOS versions for GigaVUE-HCI-Plus:

Table 6: Yantra BIOS Version for GigaVUE-HCI-Plus

SW Version	Node Type	Software Image Filename	Yantra BIOS Version
6.1.00	GV-HC1P	hc1p_6100.img	Yantra.41.011p.0
6.0.00	GV-HC1P	hc1p_6000.img	Yantra.41.011p.0

\*\* G-TAP A Series 2 does not have U-boot. It is preloaded with Portwell BIOS. The following table summarizes the Portwell BIOS versions for G-TAP A Series 2:

Table 7: Portwell BIOS Version for G-TAP A Series 2

SW Version	Node Type	Software Image Filename	Portwell BIOS Version
6.1.00	G-TAP A Series 2	gtapa_6100.img	0.0.16



SW Version	Node Type	Software Image Filename	Portwell BIOS Version
6.0.00	G-TAP A Series 2	gtapa_6000.img	0.0.16
5.16.00	G-TAP A Series 2	gtapa_51600.img	0.0.16
5.15.00	G-TAP A Series 2	gtapa_51500.img	0.0.16
5.14.00	G-TAP A Series 2	gtapa_51400.img	0.0.16
5.13.00	G-TAP A Series 2	gtapa_51300.img	0.0.16
5.12.00	G-TAP A Series 2	gtapa_51200.img	0.0.16
5.11.00	G-TAP A Series 2	gtapa_51100.img	0.0.16
5.10.00	G-TAP A Series 2	gtapa_51000.img	0.0.16
5.9.00	G-TAP A Series 2	gtapa_5900.img	0.0.16

## Gateway Ports Converted to Tool Ports

During an upgrade to 4.7.xx or higher release (from a prior software version), gateway ports and gateway mirrors are automatically converted to tool ports and tool mirrors.

Refer to the following notes and considerations for GigaVUE-OS TA Series nodes starting in software version 4.7.00 (including GigaVUE-OS-TA10, GigaVUE-OS-TA40, GigaVUE-OS-TA100, and Certified Traffic Aggregation White Box):

- Gateway ports on GigaVUE-OS TA Series nodes are removed and converted to tool ports. In addition, gateway mirrors are removed and converted to tool mirrors.
- Tool ports on GigaVUE-OS TA Series nodes can continue to be used to aggregate traffic.
- Tool ports on GigaVUE-OS TA Series nodes can also be used to directly connect to tools, such as firewalls, Intrusion Prevention Systems, or Application Performance Monitors.
- GigaVUE-OS TA Series nodes support network, tool, stack, and hybrid port types.
- Hybrid ports are fully supported in both standalone and cluster mode on GigaVUE-OS TA Series nodes. When a GigaVUE-OS TA Series node is in a cluster, hybrid ports can be configured.
- GigaVUE-OS TA Series nodes can continue to be clustered with GigaVUE-OS H Series nodes. Tool ports are supported on GigaVUE-OS TA Series nodes in a cluster.
- When GigaVUE-OS TA Series nodes are in a cluster, bidirectional traffic flow is enabled on the stack links of GigaVUE-OS TA Series nodes.

## GigaVUE-OS TA Series Licenses

There are two types of licenses: Port Licenses and Advanced Features Licenses.

## Port Licenses

The GigaVUE-OS-TA10 can have either twenty-four (24) or forty-eight (48) 1Gb/10Gb ports enabled. The 24-port GigaVUE-OS-TA10 is called the GigaVUE-OS-TA10A. A port license is available to expand the GigaVUE-OS-TA10A to include all 48 1Gb/10Gb ports as well as the four (4) 40Gb ports. For details, refer to the *GigaVUE-TA10 Hardware Installation Guide*.

The GigaVUE-OS-TA25 can have either twenty-four (24) or forty-eight (48) 1Gb/10Gb ports enabled. A port license is available to expand the GigaVUE-OS-TA10A to include all 48 1Gb/10Gb ports as well as the eight (8) 40/100Gb ports. For details, refer to the *GigaVUE-TA25 Hardware Installation Guide*.

On the GigaVUE-OS-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 *GigaVUE-TA100 Hardware Installation Guide*.

On the GigaVUE-OS-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*.

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

## Advanced Features Licenses

GigaVUE-OS-TA10 and GigaVUE-OS-TA10A, GigaVUE-TA25, GigaVUE-OS-TA40, GigaVUE-OS-TA100, GigaVUE-OS-TA200 and GigaVUE-TA400 nodes require an Advanced Features License to be enabled when clustering with other Gigamon nodes. For details, refer to the respective hardware installation guides.

# Upgrading GigaVUE-OS Nodes

Use the procedures in this chapter to upgrade GigaVUE-OS H Series and GigaVUE-OS TA Series nodes to GigaVUE-OS 6.1.xx.

To begin, prepare the GigaVUE-OS nodes for upgrade by following the procedure in [Important: Back Up Your Configuration](#).

**NOTE:** If your nodes and GigaVUE-FM instance are running software version 5.6.xx or earlier, ensure that you add all the nodes to GigaVUE-FM, upgrade the GigaVUE-FM to 6.1.xx, and then upgrade the nodes to 6.1.xx. This is to ensure that the flexible inline maps added to the nodes before the upgrade are visible in the canvas in GigaVUE-FM. For the recommended upgrade path, refer to [Supported Upgrade Path—Standalone Nodes](#).

## Important: Back Up Your Configuration

1. Copy the 6.1.xx installation file to your file server.
2. Use the **write memory** command on each node in the cluster to preserve settings that are stored locally rather than globally (for example, AAA and hostname settings).

Back up the running configuration using either of the following methods:

<b>Back Up by Copying and Pasting</b>	<p><b>(config) # show running-config</b></p> <p>This command displays the commands necessary to recreate the node's running configuration on the terminal display. You can copy and paste the output from this command into a text file and save it on your client system. The file can later be pasted back into the CLI to restore the configuration.</p>
<b>Back up to FTP/TFTP/SCP/SFTP Server</b>	<p><b>(config) # configuration text generate active running upload &lt;upload URL&gt; &lt;filename&gt;</b></p> <p>This command uses FTP, TFTP, SCP, or SFTP to upload the running configuration to a text file on remote storage. The format for the <b>&lt;upload URL&gt;</b> is as follows:</p> <p><b>[protocol]://username[:password]@hostname/path/filename</b></p> <p>For example, the following command uploads a text configuration file based on the active running configuration and uploads it to an FTP server at 192.168.1.49 with the name <b>config.txt</b>:</p> <p><b>(config) # configuration text generate active running</b></p>

```
uploadftp://myuser:mypass@192.168.1.49/ftconfi
g.txt
```

---

3. Next, follow the procedure: [Upgrading GigaVUE-OS Nodes Using GigaVUE-OS CLI](#) to upgrade GigaVUE-OS H Series nodes.

## Upgrading GigaVUE-OS Nodes Using GigaVUE-OS CLI

Refer to the following sections to upgrade GigaVUE-OS H Series and GigaVUE-OS TA Series nodes:

- [Before You Begin](#)
- [Install the Software Image](#)
- [Install U-Boot \(If a Newer Version is Available\)](#)
- [Install Coreboot \(If a Newer Version is Available\)](#)
- [Verify Version Numbers](#)

### Before You Begin

Before you start installing the software image, perform the following checks:

- [Change Default admin Password](#)
- [Check Number of Images](#)
- [Check U-Boot Version](#)
- [Check Coreboot Version](#)

### Change Default admin Password

Check the password on the **admin** account. If you are using the default password on this account (admin123A!), the best practice is to change it to a non-default password before you upgrade. Refer to the [Password Policies](#) section in the *GigaVUE-OS CLI Reference Guide* for more details.

When the upgrade is complete and the node has rebooted, log in with your non-default password.

If you have not changed the default password before the upgrade, when the upgrade is complete and the node has rebooted, you will be prompted to enter a non-default password. The **jump-start** script will automatically launch and prompt the system administrator to change the password on the **admin** account.

## Check Number of Images

Check the number of images currently available for installation on the node with the following command:

```
(config) # show images
```

**The maximum number of images allowed on GigaVUE HC Series or GigaVUE TA Series nodes at any one time is three.**

If there is already the maximum number of images listed in the **Images available to be installed** section of the **show images** output, use the **image delete** command to remove at least one of the existing images before you fetch a new one.

The recommendation is to delete any unused images.

**NOTE:** Once an image is installed, you can delete the uploaded image.

## Check U-Boot Version

If you are upgrading from an older software version, check the U-Boot version using the following command:

```
(config) # show version
```

For example on a GigaVUE-HC2 node, the following output is displayed:

```
U-Boot version: 2011.06.8
```

Check that the U-Boot version matches the version listed in [Bootloader Code by GigaVUE-OS Release](#) in the Bootloader Version column.

If you do not have the same version, you will have to do a U-Boot installation, after the image installation. Refer to [Install U-Boot \(If a Newer Version is Available\)](#).

## Check Coreboot Version

If you are upgrading from an older software version, check the coreboot version using the following command:

```
(config) # show version
```

For example on a GigaVUE-OS-TA100 node, the following output is displayed:

```
1st flash version: coreboot-ta100-0.2.4 Wed Jan 20 15:19:09 CST 2016 **2nd flash version:  
coreboot-ta100-0.2.5 Fri Sep 25 19:54:15 CST 2015
```

Check that the coreboot version matches the version listed in [Bootloader Code by GigaVUE-OS Release](#) in the Coreboot Version column.

If you do not have the same version, you will have to do a coreboot installation, after the image installation. Refer to [Install Coreboot \(If a Newer Version is Available\)](#).

## Install the Software Image

1. Log in on the GigaVUE-OS node to be updated as an admin user and switch to Configure mode.
2. Use the **image fetch** command to retrieve the software image from your file server. For example, the following command uses SCP to retrieve the **hc16.1.00** image from the **builds** folder on 192.168.1.25:

```
(config) # image fetch scp://user:password@192.168.1.25/builds/hc16.1.00.img
```

The CLI shows you the progress of the image fetch with a series of hash marks, returning you to the system prompt when complete.

3. Use the **image install** command to install the downloaded image file. For example, to install the image downloaded in the previous step:

```
(config) # image install hc16.1.00.img
```

The GigaVUE-OS CLI presents a series of status messages as it verifies and uncompresses the image, creates file systems, and extracts the image, returning you to the system prompt when complete.

4. The next step is to tell the GigaVUE-OS node which node image to load at the next system boot. The GigaVUE-OS node has two partitions, each of which has a separate image installed. When you install a new image, it automatically installs on the “next” partition – the one you are not using now. The **image boot next** command tells the GigaVUE-OS node to boot from the next partition after the one currently booted – the one where you just installed the new image:

```
(config) # image boot next
```

**NOTE:** In order for sync to work properly following a reload, ensure that the installation file for the active configuration is present after the **image boot next** command in the previous step.

5. Save the current configuration with the following command:

```
(config) # write mem
```

6. Is this node part of a cluster?

- o **No** – Reboot with the following command.

```
(config) # reload
```

When the node comes back up, save the configuration with **write memory**.

- o **Yes** – Is this the last node in the cluster?
  - **No** - Do not the reload at this time. Proceed to upgrade the next node in the cluster.
  - **Yes** - If this the last node to be upgraded in the cluster (that is, it is the leader), reload the cluster using the following CLI command.

```
(config) # cluster reload
```

7. Save the current configuration with the following command:

```
(config) # write mem
```

## Bootloader Installation

GigaVUE-FM supports the installation of bootloader on GigaVUE HC Series and GigaVUE TA Series nodes during the GigaVUE-OS image upgrade, but it does not automatically activate it.

**NOTE:** Depending on your configuration, you may need to enable physical bypass mode before performing the GigaVUE-OS image upgrade, and then restore it after the upgrade is complete.

During the GigaVUE-OS image upgrade, GigaVUE-FM v5.6.xx (and above) first upgrades the GigaVUE-OS image and then reboots the system. After the GigaVUE HC Series or GigaVUE TA Series node has rebooted with the new GigaVUE-OS image, the bootloader installation will automatically initiate from GigaVUE-FM.

**NOTE:** The bootloader upgrade will only apply if there is a bootloader version change in the specific GigaVUE-OS software release.

When the process completes, a message about the bootloader installation will appear in the GigaVUE-FM Task Log Details, such as, "New bootloader version may have been staged based on device bootloader version. Any future reload of device will pick the new version." This means that the bootloader binary has been installed on the device and is ready to become active upon the next reload.

**Important:** The newer bootloader version only goes into effect after an additional manual reboot. You must explicitly reload the GigaVUE-OS H series or GigaVUE-OS TA series device to update the bootloader version. This additional reboot will cause the optical-protection switches of relevant the Bypass Modules to change states multiple times (close > open > close > open). (Table 1 provides the list of relevant modules.)

**Recommendation:** To avoid this state-change behavior, enable the physical bypass before performing the GigaVUE-OS image upgrade.

Refer to "Configure Inline Bypass Examples" section in the *GigaVUE-OS CLI Reference Guide* for instructions on how to enable the physical bypass.

## Install U-Boot (If a Newer Version is Available)

After checking the U-Boot version, if a newer version is available, you will have to do a U-Boot installation.

Install U-Boot after the image installation if it does not match the Bootloader Version column in [Bootloader Code by GigaVUE-OS Release](#). Use this procedure in particular when you are upgrading from an older software version.

After the image installation of 6.1.xx, use the following command (type **uboot** in full):

```
(config) # show uboot
```

If there is a newer U-Boot version available, the output of the **show uboot** command displays it. For example in the following output, the installed U-Boot is 2011.06.8, but 2011.06.9 is available for installation.

```
* Installed U-Boot binary: 2011.06.8 (Dec 06 2016 - 04:35:29)* U-Boot binary from  
active/booted image: 2011.06.9 (Feb 09 2017-02:16:26)
```

If there is a newer U-Boot version available, use the following command to install it:

```
(config) # uboot install
```

The binary bootloader code included with the installed image is installed.

**NOTE:** The newer U-Boot version only goes into effect after a reload.

## Install Coreboot (If a Newer Version is Available)

After checking the coreboot version, if a newer version is available, you will have to do a coreboot installation.

Install coreboot after the image installation if it does not match the Coreboot Version column in [Bootloader Code by GigaVUE-OS Release](#). Use this procedure in particular when you are upgrading from an older software version.

After the image installation of 6.1.xx, use the following command:

```
(config) # show version
```

If there is a newer coreboot version available, the output of the **show version** command displays it.

If there is a newer coreboot version available, use the following command to install it:

```
(config) # coreboot install
```

The binary bootloader code included with the installed image is installed.

**NOTE:** The newer coreboot version only goes into effect after a reload.



## Verify Version Numbers

After completing the upgrade to GigaVUE-OS 6.1.xx, run the **show version** command on all upgraded nodes to make sure they are all running a 6.1.xx build. If any node does not show the correct version number, upgrade it individually.

## Upgrade Software on a GigaVUE-OS Node or a Cluster from GigaVUE-FM

This section describes the steps to upgrade the software on GigaVUE-OS nodes and clusters using GigaVUE-FM. You can upgrade software by using an image that is located on an external image server, or you can use GigaVUE-FM as the image server for H Series and TA Series nodes.

**NOTE:** When using GigaVUE-FM to upgrade software on the nodes, it is imperative that the minimum version on the node be at version 4.3.xx. If the software is not updated to version 4.3.xx, use either the CLI or GigaVUE-FM at the node level to upgrade the node to the latest revision.

Refer to the following sections

- [Before You Begin](#)
- [Upgrade from an External Image Server](#)
- [Upgrade with GigaVUE-FM as the Image Server](#)

### Before You Begin

Before upgrading a node or a cluster, it is important to note the following:

- GigaVUE-FM can upgrade up to 32 nodes at a time. For example, if you select a cluster with 8 nodes and 28 standalone nodes, GigaVUE-FM will fail to upgrade as the total number of nodes exceeds the limit.
- Check if the device that you want to upgrade has enough disk space. The disk space is computed based on the last synchronized time. A newly added node may sometimes show low disk space. Wait for approximately 5 minutes for the configuration sync to complete or rediscover the device and then check the disk space.
- When the upgrade process is complete, a post-upgrade sanity check is performed. Physical inventory snapshot of nodes, cards, ports, maps, and GigaSMART operations are captured and the numbers from before and after the upgrade are compared. Sometimes, these numbers do not match immediately after the upgrade, as the device is still being configured. GigaVUE-FM checks every minute whether the nodes have joined the cluster. If the nodes joined do not increment in 30 minutes, then the sanity check will fail.

After the nodes join the cluster, GigaVUE-FM again checks every minute for other configuration objects to come up. If the configuration objects do not increment in 10 minutes, the sanity check will fail. When the sanity check fails, GigaVUE-FM provides an ability to view the configuration object that failed the sanity check.

- GigaVUE-FM v5.5.00 supports the installation of bootloader on GigaVUE HC Series and GigaVUE TA Series nodes during the GigaVUE-OS image upgrade, but it does not automatically activate it.

**NOTE:** Depending on your configuration, you may need to enable physical bypass mode before performing the GigaVUE-OS image upgrade, and then restore it after the upgrade is complete.

During the GigaVUE-OS image upgrade, GigaVUE-FM v5.5.00 first upgrades the GigaVUE-OS image and then reboots the system. After the GigaVUE HC Series or GigaVUE TA Series node has rebooted with the new GigaVUE-OS image, the bootloader installation will automatically initiate from GigaVUE-FM.

**NOTE:** The bootloader upgrade will apply only if there is a bootloader version change in the specific GigaVUE-OS software release.

When the installation process completes, a message about the bootloader installation will appear in the GigaVUE-FM Task Log Details.

**IMPORTANT:** The newer bootloader version only goes into effect after an additional manual reboot. You must explicitly reload the GigaVUE-OS H series or GigaVUE-OS TA series device to update the bootloader version. This additional reboot will cause the optical-protection switches of the relevant Bypass Modules to change states multiple times.

**RECOMMENDATION:** To avoid this state-change behavior, enable the physical bypass before performing the GigaVUE-OS image upgrade. Refer to “Configuring Inline Bypass Examples: Protected Inline Bypass Using Bypass Combo Modules” in the *GigaVUE-OS CLI Reference Guide* for instructions on how to enable the physical bypass.

**NOTE:** Starting in GigaVUE-OS software version 4.7, the default password admin123A! for the admin user is no longer valid when logging in to the node. When upgrading from the CLI, the configuration jump-start script requires the user to change the default password for the admin user. However, if the node is upgraded to software version 4.7 or later using GigaVUE-FM, the admin password on the node is not changed.

## Upgrade from an External Image Server

This section provides the steps for upgrading the GigaVUE-OS nodes and clusters from an image stored on an external server. The image can be transferred from the server to the node using either SCP or TFTP file protocols.

In a cluster configuration, to upgrade the software on the GigaVUE-OS nodes, all the relevant images must be available to GigaVUE-FM. All nodes should be updated to the same version of software.

To upgrade a node or a cluster from an image stored on an external image server, do the following:

1. Upload the image to the external image server to make it available to GigaVUE-FM.  
To obtain software images, register on the [Gigamon Customer Portal](#) and download the software. You must provide the serial number for each node you want to update.  
To view the chassis serial number, login to GigaVUE-FM and select **Chassis** from the navigation pane. Click **List View**.
2. Click **Physical** on the top navigation link.
3. On the Physical Nodes page, select one or more nodes or clusters to upgrade.
4. Select **Actions > Image Upgrade**.
5. Enter the following information:

Table 8: Image Upgrade

Menu	Description
Task Name	The name of the upgrade task.
Image Server	<p>The location from where the image can be uploaded.</p> <p>Do the following:</p> <ol style="list-style-type: none"> <li>1. For Image Server, choose <b>External Server</b>.</li> <li>1. From the drop-down list, select the external image server added to GigaVUE-FM in <a href="#">Step 1</a>.</li> <li>2. If the external image server is not available, click <b>Add External Server</b>. In the Add External Server quick view, enter the following:               <ol style="list-style-type: none"> <li>a. In the <b>Alias</b> field, enter the name of the external server.</li> <li>b. In the <b>Server Address</b> field, enter the host IP address of the server.</li> <li>c. In the Type drop-down list, select SCP or TFTP as the file transfer protocol.</li> <li>d. If you select SCP, enter the username and password of the server in the <b>Username</b> and <b>Password</b> fields respectively.</li> <li>e. Click <b>Add</b>.</li> </ol> </li> <li>6. In the text box, enter the image path and the image name.</li> </ol> <p><b>NOTE:</b> For a cluster, the images can reside on different paths. However, the image server</p>

Menu	Description
	and the protocol for file transfer should be the same for all the nodes.
Backup Config Before Upgrade	The check box to back up the configuration changes prior to performing the upgrade.
Reboot After Upgrade	The check box to reboot the server after performing the upgrade.
Time	The time for performing the upgrade. There are two options: <ul style="list-style-type: none"> <li>● Immediate—The upgrade is performed immediately.</li> <li>● Scheduled—The upgrade is performed at a scheduled time. Select the date and time.</li> </ul>

**NOTE:** If the disk space of a physical node or a node in a cluster is low, a message is displayed indicating that the node will not be upgraded due to low disk space.

2. Click **Upgrade**.

## Upgrade with GigaVUE-FM as the Image Server

This section provides the steps for upgrading the GigaVUE-OS nodes and clusters when GigaVUE-FM is used as the file server instead of an external server.

**NOTE:** Only H Series and TA Series devices can be upgraded using GigaVUE-FM as the image server. To upgrade G Series devices with GigaVUE-FM, you must use an external server.

To upgrade a node or a cluster using internal image files, do the following:

1. Download the images from the Gigamon website and place them where they can be available for uploading to GigaVUE-FM.  
To obtain software images, register on the [Gigamon Customer Portal](#) and download the software. You must provide the serial number for each node you want to update.  
To view the chassis serial number, login to GigaVUE-OS and select **Chassis** from the navigation pane. Click **List View**.
2. Click **Physical** on the top navigation link.
3. On the Physical Nodes page, select one or more nodes or clusters to upgrade.
4. Select **Actions > Image Upgrade**. Under Selected Nodes, the disk space, software version, and hardware type of all the nodes are displayed. When you upgrade a GigaSMART card, under Selected Nodes, additional details like the GigaSMART Build Number, Related GigaSMART Group, GigaSMART Version, GigaSMART Build Date, and GigaSMART Build Release of all the nodes are also displayed. If a device has multiple engine ports then, the GigaSMART card details for all the ports will be displayed.

**NOTE:** If the disk space of the selected node or a node in the cluster is low, a message will be displayed indicating that the node will not be upgraded due to low disk space. Delete the unused internal image files to free up the disk space.

5. Enter the following information:

Table 9: Image Upgrade

Menu	Description
<b>Task Name</b>	The name of the upgrade task.
<b>Image Server</b>	<p>The location from where the image can be uploaded.</p> <p>Do the following:</p> <ol style="list-style-type: none"> <li>1. Choose Internal Server.</li> <li>2. From the Version drop-down list, select the version to which you want to upgrade.</li> <li>3. Click <b>Add Image Files</b>.</li> <li>4. In the Add Image File quick view, click <b>Choose Files</b> and select the image files that you downloaded in <a href="#">Step 1</a>. Click <b>Add</b>.</li> </ol> <p><b>NOTE:</b> If there is an image file missing in a cluster configuration, the Image file missing error is displayed.</p>
<b>Backup Config Before Upgrade</b>	The check box to back up the configuration changes prior to performing the upgrade.
<b>Reboot After Upgrade</b>	<p>The check box to reboot the server after performing the upgrade.</p> <p>If you do not select <b>Reboot After Upgrade</b>, you must reload the node manually. To reload the node manually, select the node on the Physical Nodes page and click <b>Actions &gt; Reboot</b>.</p>
<b>Time</b>	<p>The time for performing the upgrade.</p> <p>There are two options:</p> <ul style="list-style-type: none"> <li>● Immediate—The upgrade is performed immediately.</li> <li>● Scheduled—The upgrade is performed at a scheduled time. Select the date and time.</li> </ul>

6. Click **Upgrade**.

**NOTE:** When you change the IP address of the GigaVUE-FM instance using the jump-start configuration, the internal database and the in-memory caches of the GigaVUE-FM instance are not updated. The Database continues to have the IP address of the old GigaVUE-FM, and the image upgrade using the internal server option does not work. To fix this, you must restart the GigaVUE-FM instance after upgrade.

# Credentials for Admin Account on New GigaVUE-OS Systems

All GigaVUE HC Series and TA Series devices shipped have the following default login credentials:

- Username: admin
- Password: admin123A!

# Additional Sources of Information

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

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

## Documentation

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

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

Table 1: Documentation Set for Gigamon Products

GigaVUE-OS 6.1 Hardware and Software Guides
<p><b>DID YOU KNOW?</b> If you keep all PDFs for a release in common folder, you can easily search across the doc set by opening one of the files in Acrobat and choosing <b>Edit &gt; Advanced Search</b> from the menu. This opens an interface that allows you to select a directory and search across all PDFs in a folder.</p>
<p><b>Hardware</b></p> <p>how to unpack, assemble, rack-mount, connect, and initially configure ports the respective GigaVUE-OS devices; reference information and specifications for the respective GigaVUE-OS devices</p>
<b>GigaVUE-HC1 Hardware Installation Guide</b>
<b>GigaVUE-HC2 Hardware Installation Guide</b>
<b>GigaVUE-HC3 Hardware Installation Guide</b>
<b>GigaVUE-HC1-Plus Hardware Installation Guide</b>
<b>*GigaVUE-TA25E Hardware Installation Guide</b>
<b>*GigaVUE-TA200E Hardware Installation Guide</b>
<b>GigaVUE-TA25 Hardware Installation Guide</b>
<b>GigaVUE-TA200 Hardware Installation Guide</b>

<b>GigaVUE-OS 6.1 Hardware and Software Guides</b>	
<b>GigaVUE-TA400 Hardware Installation Guide</b>	
<b>GigaVUE-TA10 Hardware Installation Guide</b>	
<b>GigaVUE-TA40 Hardware Installation Guide</b>	
<b>GigaVUE-TA100 Hardware Installation Guide</b>	
<b>GigaVUE-TA100-CXP Hardware Installation Guide</b>	
<b>GigaVUE-OS Installation Guide for DELL S4112F-ON</b>	
<b>G-TAP A Series 2 Installation Guide</b>	
<b>GigaVUE M Series Hardware Installation Guide</b>	
<b>GigaVUE-FM Hardware Appliance Guide for GFM-HW1-FM010 and and GFM-HW1-FM001-HW</b>	
<b>Software Installation and Upgrade Guides</b>	
<b>GigaVUE-FM Installation, Migration, and Upgrade Guide</b>	
<b>GigaVUE-OS Upgrade Guide</b>	
<b>GigaVUE V Series Migration Guide</b>	
<b>Fabric Management and Administration Guides</b>	
<b>GigaVUE Administration Guide</b>	covers both GigaVUE-OS and GigaVUE-FM
<b>GigaVUE Fabric Management Guide</b>	how to install, deploy, and operate GigaVUE-FM; how to configure GigaSMART operations; covers both GigaVUE-FM and GigaVUE-OS features
<b>Cloud Guides</b>	
how to configure the GigaVUE Cloud Suite components and set up traffic monitoring sessions for the cloud platforms	
<b>GigaVUE V Series Quick Start Guide</b>	
<b>GigaVUE Cloud Suite for AWS–GigaVUE V Series 2 Guide</b>	
<b>GigaVUE Cloud Suite for Azure–GigaVUE V Series 2 Guide</b>	
<b>GigaVUE Cloud Suite for OpenStack–GigaVUE V Series 2 Guide</b>	
<b>GigaVUE Cloud Suite for VMware–GigaVUE V Series Guide</b>	
<b>GigaVUE Cloud Suite for Nutanix Guide—GigaVUE V Series 2 Guide</b>	
<b>GigaVUE Cloud Suite for AnyCloud Guide</b>	
<b>Universal Container Tap Guide</b>	



## GigaVUE-OS 6.1 Hardware and Software Guides

### Gigamon Containerized Broker Guide

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

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

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

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

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

## Reference Guides

### GigaVUE-OS CLI Reference Guide

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

### GigaVUE-OS Security Hardening Guide

### GigaVUE-OS Cabling Quick Reference Guide

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

### GigaVUE-OS Compatibility and Interoperability Matrix

compatibility information and interoperability requirements for Gigamon devices

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

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

## Release Notes

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

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

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

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

## In-Product Help

### GigaVUE-FM Online Help

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

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

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

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

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

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

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

## Documentation Feedback

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

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

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

Documentation Feedback Form		
<b>About You</b>	<b>Your Name</b>	
	<b>Your Role</b>	
	<b>Your Company</b>	

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

## Contact Technical Support

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

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

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

## Contact Sales

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

**Telephone:** +1.408.831.4025

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

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

## Premium Support

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

## The Gigamon Community

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

Visit the Gigamon Community site to:

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

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

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

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

# Glossary

## D

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### decrypt list

need to decrypt (formerly blacklist)

### decryptlist

need to decrypt - CLI Command (formerly blacklist)

### drop list

selective forwarding - drop (formerly blacklist)

## F

---

### 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)