GeoVision inc
The Vision of Security

GV-Cloud VMS

User's Manual

CLOUDVMS150-UM-A

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August 2025

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[Warranty]

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Naming and Definition

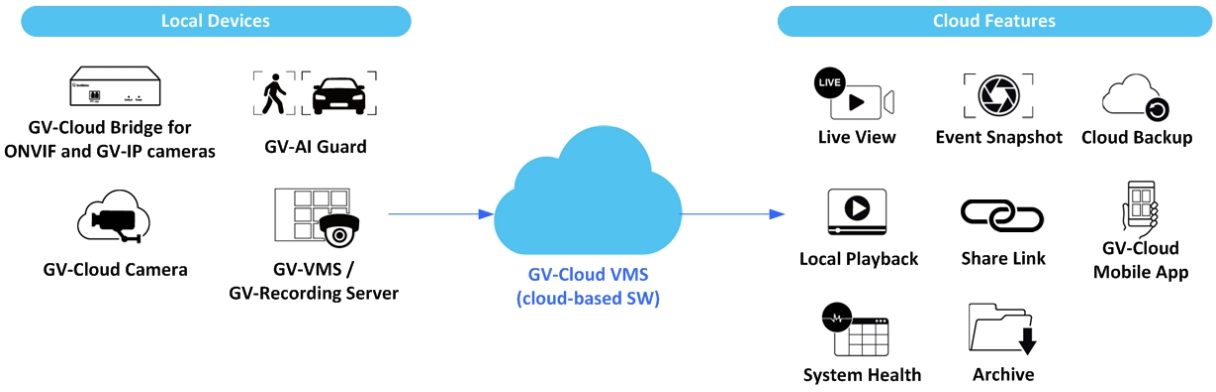
Understanding the following naming may help you read through the manual.

GV-Cloud	GV-Cloud is a cloud-based software platform that offers a variety of services including GV-Cloud VMS for video surveillance and data storage, GV-Cloud Access Control for access control management and monitoring, GV-VPN for establishing a virtual private network for GeoVision software, and so on. Different licenses are required to access these services.

Chapter 1 Introduction

GV-Cloud VMS is a cloud-based video surveillance and data center solution. Thousands of on-site cameras, alarm devices, motion triggers, and AI events can be efficiently monitored from a single cloud-powered platform. With GV-Cloud VMS, you can effortlessly access live streams, review playbacks, and query events from anywhere using a web browser.

GV-Cloud VMS is suitable for businesses of all sizes. The cloud solution is easily scalable to meet the increasing need for more cameras and storage capacity. User and camera permissions can be grouped to align with the structure of a corporation. Overall, the cloud solution can streamline video surveillance while increasing infrastructure flexibility and scalability.



1.1 Key Features

- Cloud-based centralized monitoring of cameras and surveillance systems
- Video recordings stored in the cloud
- Direct-to-cloud camera integration (No NVR / VMS required)
- ONVIF camera support via GV-Cloud Bridge and GV-Cloud Bridge Pro
- Instant status of the host storage, I/O, and cameras
- Event search and playback
- Region-specific user and camera permission settings
- Easy video sharing and archiving
- E-map to visualize and display camera locations during events
- GV-Cloud mobile app for instant alerts and remote viewing
- AI Search for AI event search by AI event type or people / vehicle attribute

1.2 Compatible Browsers

The following browsers are compatible with GV-Cloud VMS.

- Chrome
- Firefox
- Safari
- Microsoft Edge

Note: The WS player is not supported by Safari.

1.3 Compatible GeoVision Products

- **GV-VMS** (surveillance software)**:** V18.3.2 + Patch or later; V17.4.7 + Patch or later
- **GV-AI Guard** (surveillance software)**:** V2.1 or later
- **GV-Recording Server**: V2.1.1 with Patch or later (only Basic Plan supported currently)
- **GV-Cloud Bridge** (bridging device)**:** firmware V1.03 or later
- **GV-Cloud Bridge Pro** (bridging device): firmware V1.00 or later
- **GV-Cloud Camera:** GV-GBL4900, GBL4911, GDR4900, GEB4900, GEBF4911, GFER6900, GVD4910
- **GV-SNVR** (standalone system): to support in the future

1.4 Licenses

GV-Cloud VMS has the following types of licenses. For details, please contact our sales representatives.

Plan			Basic	Standard	Premium
Price			Free	Licensing by channel	Licensing by channel
Details			Log only – 30 Days	Event Snapshot – 30 Days	Cloud Backup – 3 / 7 / 15 / 30 Days
Features	**Live View**		V	V	V
	Local Playback		V	V	V
	System Health		V	V	V
	Event Snapshot		–	V	V
	Share Link		–	V	V
	Archive		–	–	V
	Cloud Backup		–	–	By resolution: SD / 720p / 2 MP / 4 MP
	Video Event	**Motion Event**	–	V	V
	AI Search	**AI Event**	–	V	V
		People & Vehicle Attributes	–	–	V

Note:

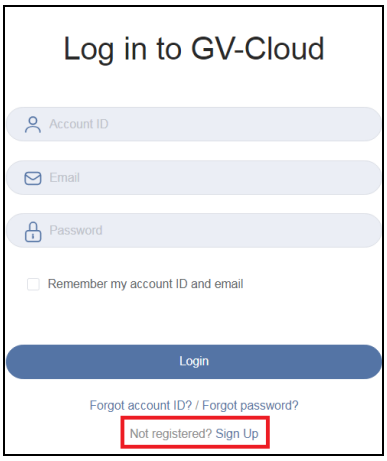
1. The Standard and Premium plans are priced based on the required number of camera channels.
2. The SD resolution is 640 x 480 or below.
3. System Health is the storage, I/O, and camera status of the host.
4. You will receive email reminders 15 days before your license expires. Renew your license to continue receiving event snapshots and cloud backup. The archived recordings will not be limited to a 30-day retention period unless you manually remove them.
5. If you remove an existing host with event snapshots and cloud backup, its data will be removed from GV-Cloud VMS.
6. Upon the initial connection of GV-Cloud Cameras to GV-Cloud VMS, the **Standard Plan** will be granted for 180 days for free.
7. **GV-AI Guard / GV-VMS / GV-Cloud Bridge / GV-Cloud Bridge Pro / GV-Cloud Camera (GV-GBL4900 / GBL4911 / GDR4900 / GEB4900 / GEBF4911 / GFER6900 / GVD4910)** hosts have the following limits when uploading events onto GV-Cloud:
   - Up to 2 events are supported for each channel per minute.
   - Up to 7,680 events are supported for 64 channels per hour.
   - Up to 184,320 events are supported for 64 channels per day.
8. Local Playback only supports motion-triggered events, not round-the-clock events.
9. GV-Cloud offers data processing and storage across multiple regional data centers, including those in the United States and the European Union (EU), for all image and video data. When a device connects to GV-Cloud, the system automatically detects its IP location and stores the data in the nearest appropriate data center.

Chapter 2 Getting Started

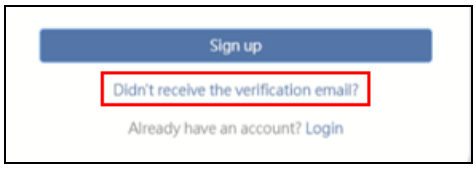
To get started, you must acquire a *GV-Cloud VMS license* and a *series number* from GeoVision.

2.1 Logging In

1. Log into the GV-Cloud portal: https://www.gvaicloud.com/
2. Click **Sign up**.



3. On the Sign Up page, type the GV-Cloud user's Name, Email, mobile phone number (optional), and Password. Type the password again.
4. Click **Agree** to accept the Terms of Use, Privacy Policy, and GDPR, and click **Sign Up**. You will receive a confirmation email.
5. If you didn't receive a confirmation email, click the **Didn't receive the verification email?** button at the bottom of the Sign Up page.



6. To confirm the email account, click the activation link in the confirmation email. You will receive an additional email confirming the success of GV-Cloud registration, along with an account ID number.
7. Log into GV-Cloud using the registered email address and the account ID number.

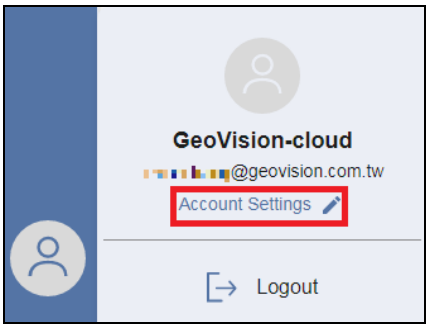
IMPORTANT: Keep your account ID number, which is required each time you log into GV-Cloud.

Note: The mobile phone number can be used for the two-factor authentication if needed. See *5.1.3 Enabling Two-Factor Authentication*.

2.2 Adding Licenses

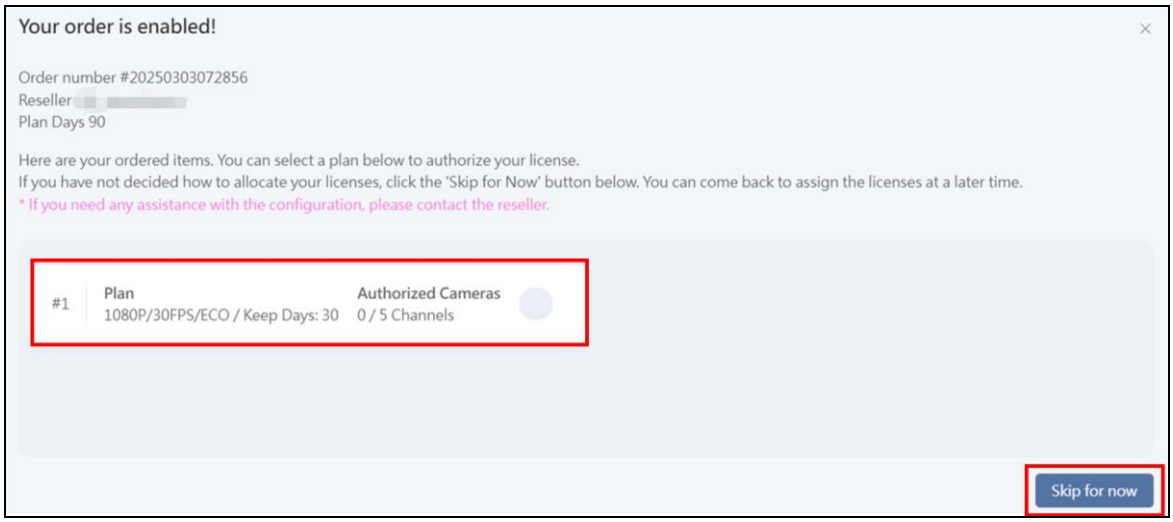
For first-time users, you need to add a license to start the services.

1. Click the **Account** icon > **Account Settings**.



2. Select the **Subscription** icon in the left menu to open the page. Type your serial number, and click **Verify**.

3. After verifying, you can click **your plan** to allocate licenses to cameras immediately, or click **Skip for Now** to assign them later. After assigning licenses, click **Save** to apply the settings.



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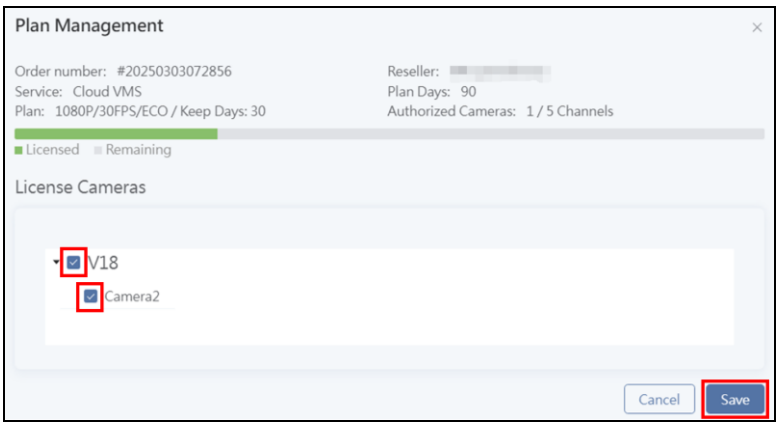
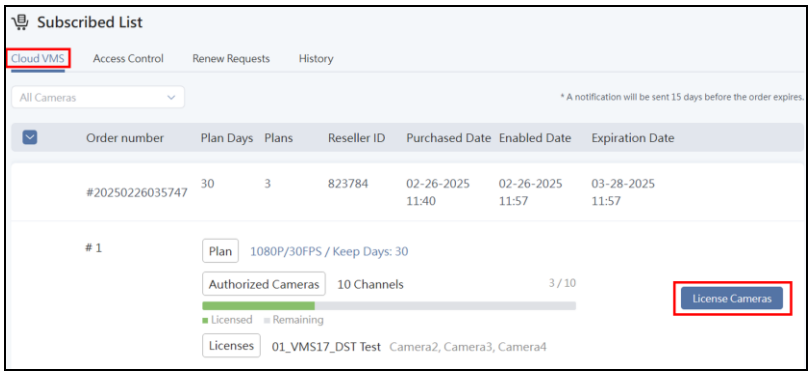
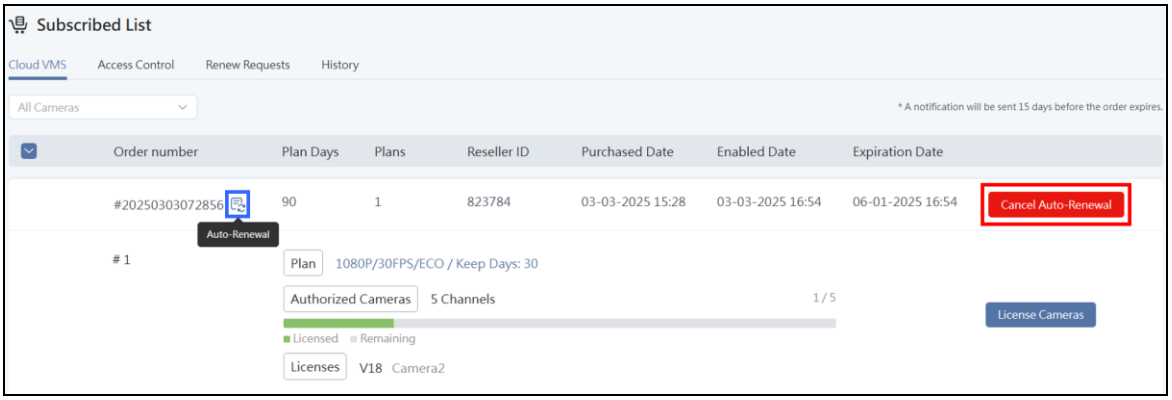


4. Click **Cloud VMS** under Subscribed List to view your orders.
5. Click **an order** to expand and view plan details.
6. After adding hosts to GV-Cloud VMS, you can return to **Cloud VMS** under Subscribed List on the Subscription Management page, and enable or disable any cameras using the **License Cameras** option of each Plan.



IMPORTANT: All subscriptions are set to auto-renew by default, as indicated by the Auto-Renewal icon next to the order number. To cancel auto-renewal, click **Cancel Auto-Renewal** in the expanded view. Once canceled, the Auto-Renewal icon will be removed.



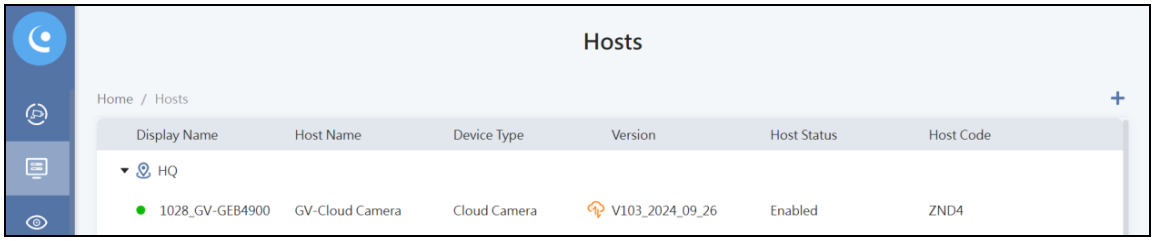
Note: Active subscriptions are listed under **Cloud VMS**, renewed subscriptions (including expired ones) under **Renew Requests**, and expired subscriptions under **History**.

2.3 Creating Hosts

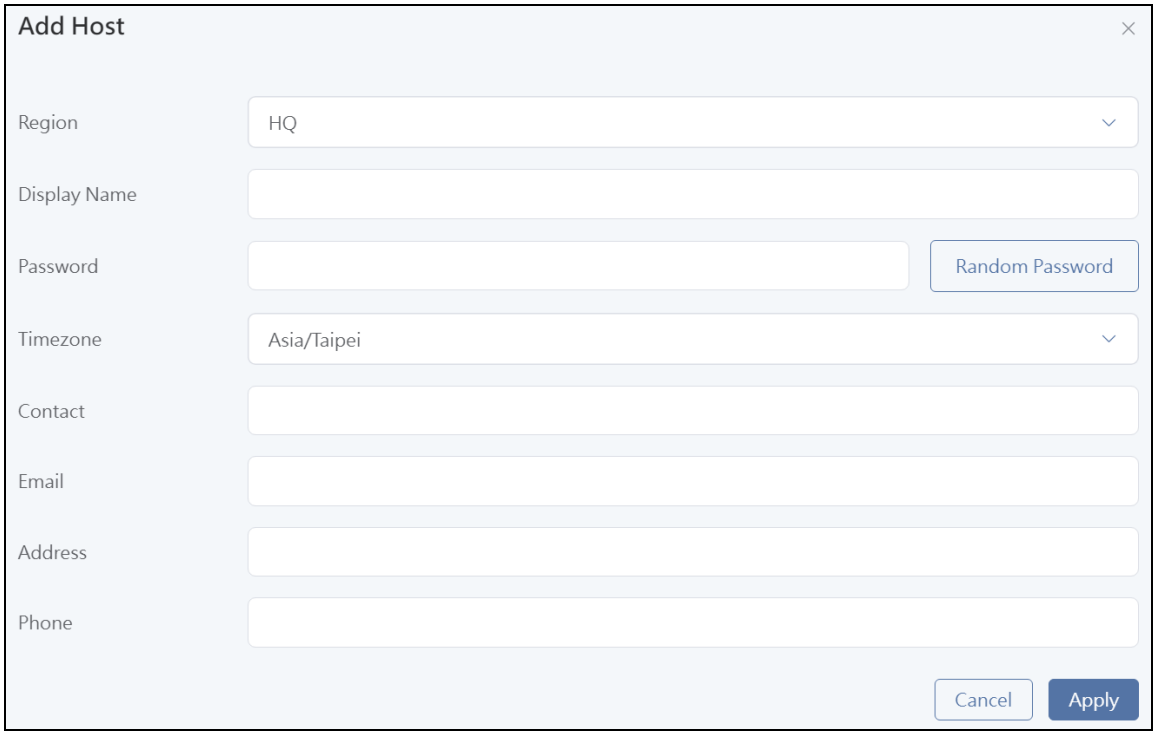
You must create a host on *GV-Cloud VMS* for each GV-Cloud Camera, GV-VMS, GV-AI Guard, GV-Cloud Bridge, or GV-Cloud Bridge Pro that you want to connect to.

To create a host:

1. Click the **GV-Cloud Apps** icon at the top of the left menu, select **Cloud VMS**, and select the **Hosts** icon in the left menu to open the page.



2. Click the + icon. This dialog box appears.



3. Select a region from the Region dropdown list to categorize the host. See *5.2.1 Adding Regions* for instructions on how to create regions.

Note:

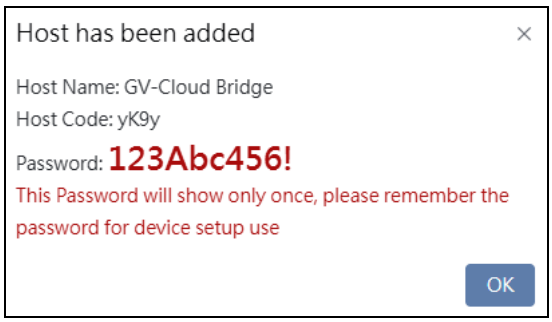
1. Upon first login, a default region is automatically created, and any new hosts are grouped into this region.
2. Each host can only be assigned to a single region.

4. Type **Display Name** and **Password** (to be the host's GV-Cloud VMS login password). Alternatively, users can generate a random password by clicking **Random Password**. Select **Time Zone** for the host. The rest of the information is optional.

Note:

1. The display name must be at least 2 characters.
2. The password must be at least 8 characters long. It must contain three character categories among the following: uppercase letters (A-Z), lowercase letters (a-z), digits (0-9), and special characters (!^-,+[]=).

5. Click **Apply**. The message "Host has been added" is displayed. Keep the **Host Code** and **Password** for configuring the connection to GV-Cloud on the host.



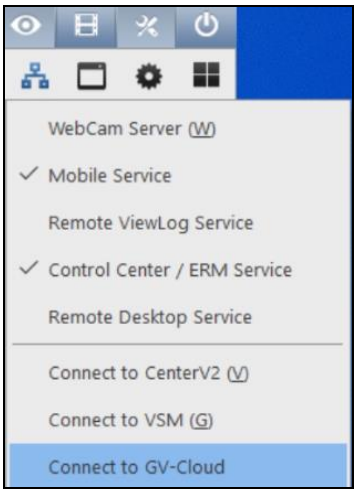
Note: To reset the password or change other host info, select a host in the Hosts list, and then click the **Edit Info** icon next to the **Info** tab. For details, see [Info], *4.1 Hosts*.

2.4 Connecting GV-VMS or GV-AI Guard

Follow the steps below to connect GV-VMS or GV-AI Guard to *GV-Cloud VMS* for cloud central monitoring.

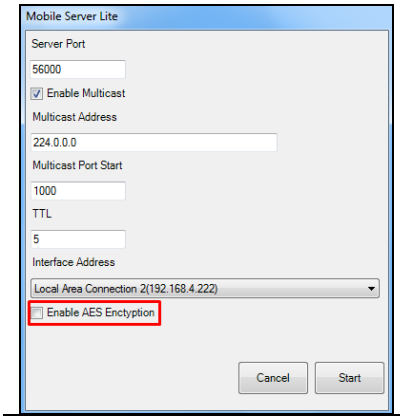
In GV-VMS / GV-AI Guard:

1. Click **Home** > **Toolbar** > **Network** > **Connect to GV-Cloud**. A dialog box appears.



2. Type a **Host Code** and **Password** created on GV-Cloud VMS. For details, see *2.3 Creating Hosts*.
3. Click **Connect**.

Note: Communication between GV-Cloud and GV-VMS or GV-AI Guard uses HTTPS encryption. Do not enable AES encryption for live images on GV-VMS or GV-AI Guard (Home > Toolbar > Network > Mobile Service), as enabling it will prevent live images from being displayed on GV-Cloud.



In GV-Cloud VMS:

When the GV-Cloud VMS connection is established, the host will be displayed, with a yellow icon or a green icon, on the GV-Cloud VMS Home page.

Without a license, you can view live streaming from the host.

1. In the left menu, click the **Live Streaming** icon.
2. Expand the host in the host list.
3. Click a camera to see its live view.

By adding a license, you can receive snapshots or back up videos to GV-Cloud VMS. For details, see *2.2 Adding Licenses*.

Note:

1. If the GV-Cloud VMS connection fails in GV-VMS / GV-AI Guard, check to see if **WebCam Server** and **Mobile Service** are enabled alongside **Connect to GV-Cloud**.
2. The yellow icon indicates that some of the host's cameras are disconnected, while the green icon indicates that all of the host's cameras are connected.
3. For camera events, only motion and video lost will be sent to GV-Cloud VMS by default. To send additional camera event types to GV-Cloud VMS, see *2.4.1 Configuring Advanced Settings*.

2.4.1 Configuring Advanced Settings

To specify which events should be sent to GV-Cloud VMS, click the **Configure** button on the Connect to GV-Cloud dialog box. Three types of settings are available: **General**, **Camera**, and **I/O Device**.

Note: Events supported by GV-VMS and GV-AI Guard vary. The following instructions are exemplified by GV-VMS V18.

[General]

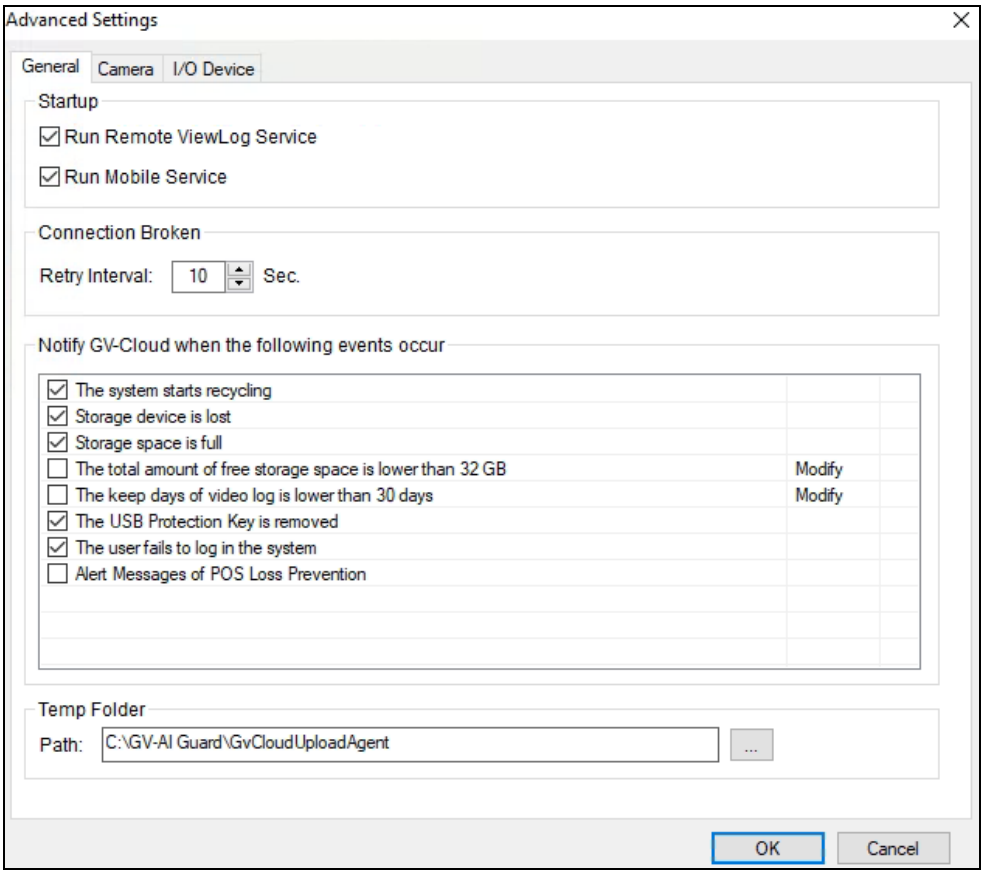


Figure 2-6

[Startup]

- **Run Remote ViewLog Service:** Run Remote ViewLog Service automatically once the connection to GV-Cloud VMS is enabled. The service is required to play back recordings from GV-VMS / GV-AI Guard.
- **Run Mobile Service:** Run Mobile Service automatically once the connection to GV-Cloud VMS is enabled. The service is required to access live view from GV-VMS / GV-AI Guard.

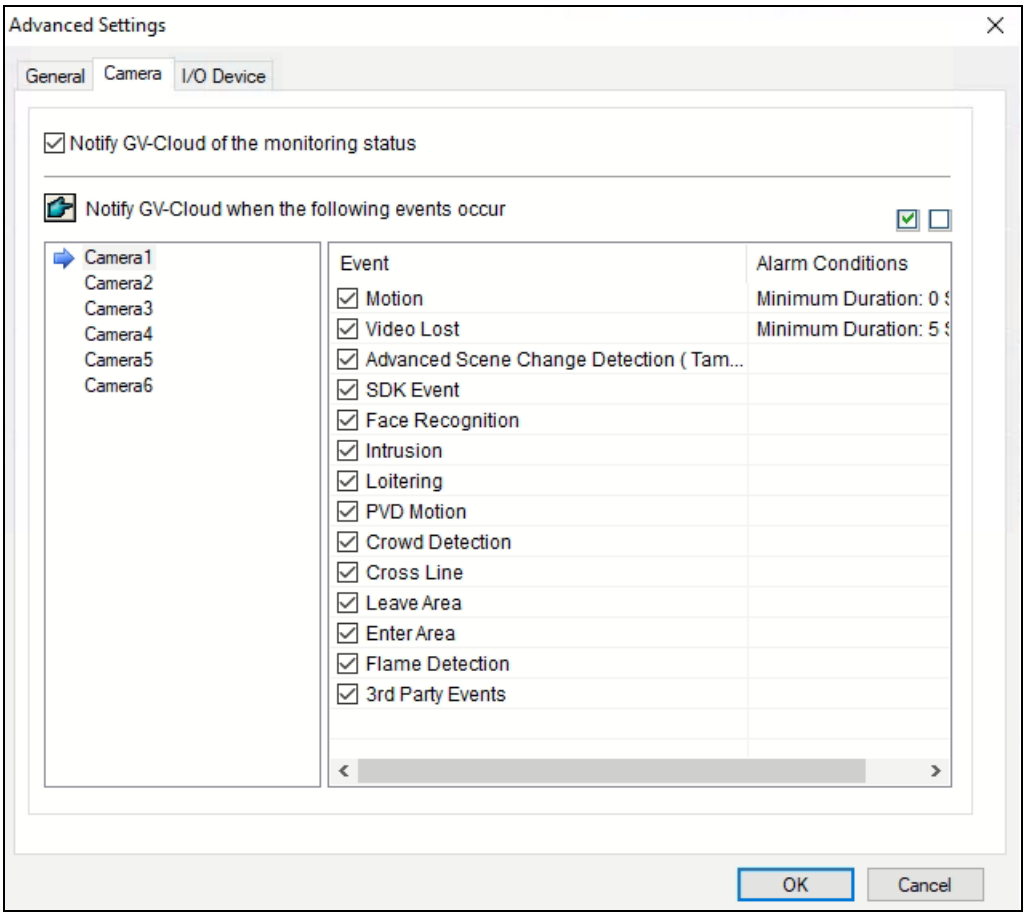
[Connection Broken]

- **Retry Interval:** Set a time interval to reconnect GV-Cloud VMS to GV-VMS / GV-AI Guard if it loses connection.

[Notify GV-Cloud when the following events occur] Select which events to notify GV-Cloud VMS about. Click **Modify** to adjust the threshold for sending notifications when the free storage space or keep days falls below the threshold.

[Temp Folder] The path to store logs and recordings to be sent to GV-Cloud VMS.

[Camera]



[Notify GV-Cloud of the monitoring status] Notify GV-Cloud VMS whenever camera monitoring is enabled or disabled.

[Notify GV-Cloud when the following events occur] Select a camera from the list, and then select the type of event or data to be sent to GV-Cloud VMS. By double-clicking the fields for the following settings, you can specify the alarm conditions for specific events.

- **Minimum Duration:** Specify the minimum duration of motion or video lost before an alert is generated. For video lost, you can also specify a minimum **Interval** between alerts to avoid sending them too frequently.

Tip: To apply the same settings to all cameras in the list, click the **Apply All** button .

[I/O Device]

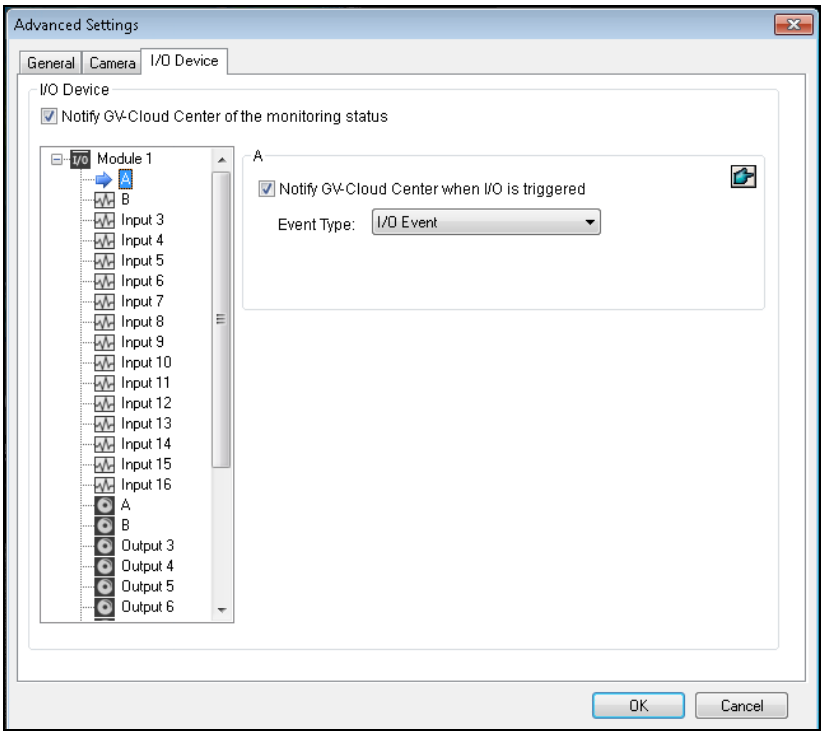


Figure 2-8

[Notify GV-Cloud of the monitoring status] Notify GV-Cloud VMS whenever I/O monitoring is enabled or disabled.

[Input] Select an Input device from the list.

- **Notify GV-Cloud when I/O is triggered:** Select to send a notification to GV-Cloud VMS when the selected input is triggered. Select an **Event Type** that best describes the input.

[Output] Select an output device from the list.

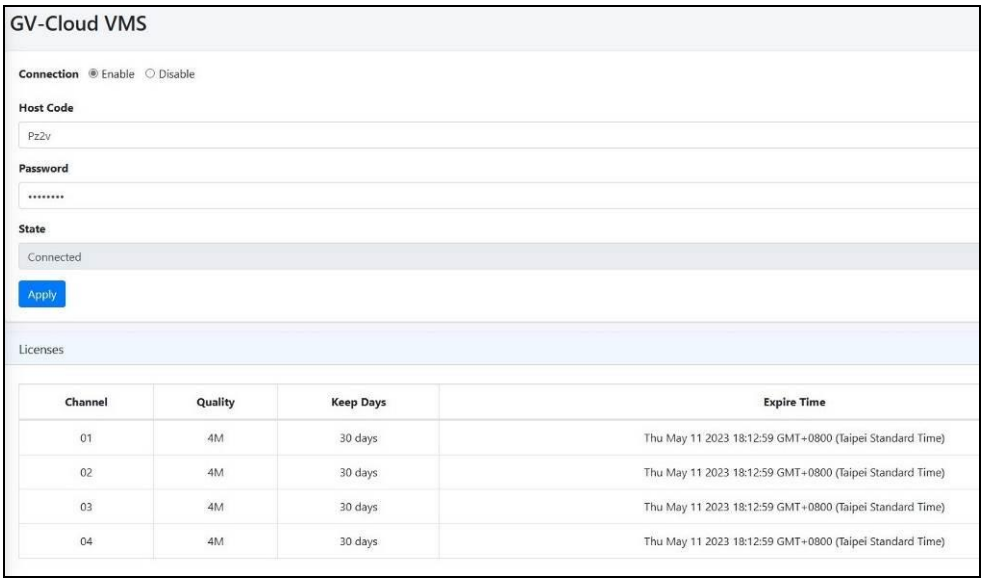
- **Notify GV-Cloud when I/O is triggered:** Select to send a notification to GV-Cloud VMS when the selected output is triggered.

2.5 Connecting GV-Cloud Bridge or GV-Cloud Bridge Pro

You can connect up to four ONVIF cameras, through GV-Cloud Bridge or GV-Cloud Bridge Pro, to *GV-Cloud VMS* for cloud central monitoring.

In GV-Cloud Bridge or GV-Cloud Bridge Pro:

1. In the left menu, select **Service Settings** > **GV-Cloud VMS**. This page appears.



2. Enable **Connection**, and type a **Host Code** and **Password** created on GV-Cloud VMS. For details, see *2.3 Creating Hosts*.
3. Click **Apply**. Once it is successfully connected, the State field will display “Connected”.

In GV-Cloud VMS:

When the GV-Cloud VMS connection is established, the host will be displayed, with a yellow icon or a green icon . on the GV-Cloud VMS Home page.

Without a license, you can view live streaming from the host.

1. In the left menu, click the **Live Streaming** icon .
2. Expand the host in the host list.
3. Click a camera to see its live view.

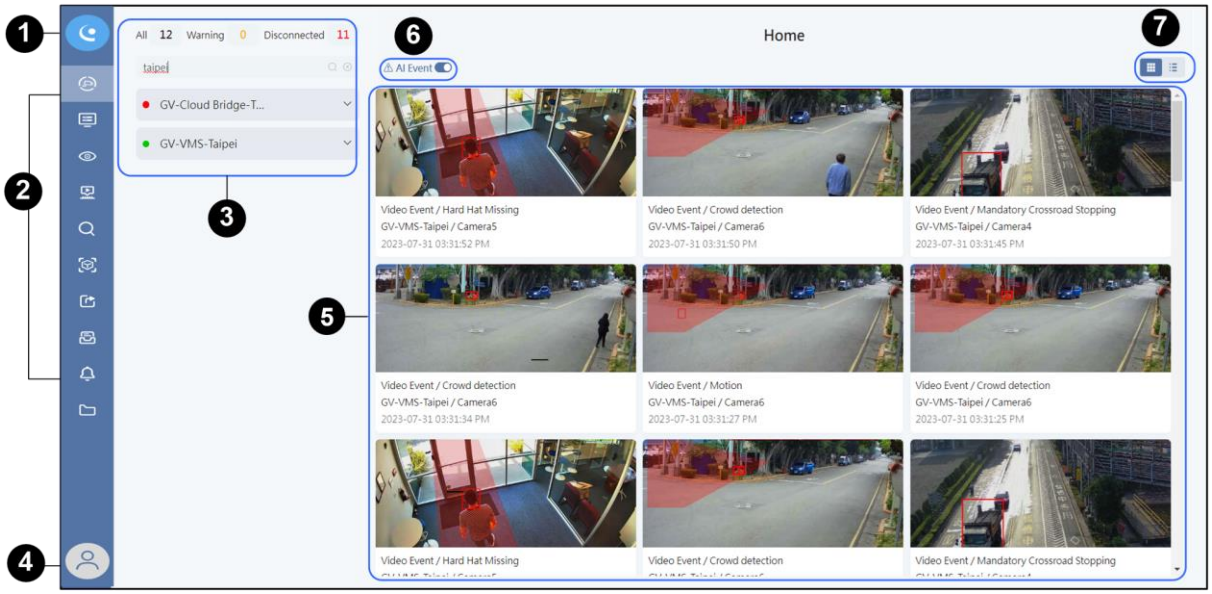
By adding a license, you can receive snapshots or back up videos to GV-Cloud VMS. For details, see *2.2 Adding Licenses*.

Note:

1. To ensure a smooth playback on GV-Cloud VMS, it is suggested to connect a maximum of 2 cameras for the 4 MP license plan, 3 cameras for the 2 MP license plan, and 2 cameras for the 720p and SD license plan. For details, see *Maximum Number of Channels / Frame Rate and Bitrate Supported by GV-Cloud VMS Premium Licenses* in the *GV-Cloud Bridge datasheet* and *GV-Cloud Bridge Pro datasheet*.
2. The yellow icon indicates that some of the host's cameras are disconnected, while the green icon indicates that all of the host's cameras are connected.

Chapter 3 Home Page

The Home page offers centralized access to key features and status information in GV-Cloud VMS. This chapter provides an overview of its layout and functions.

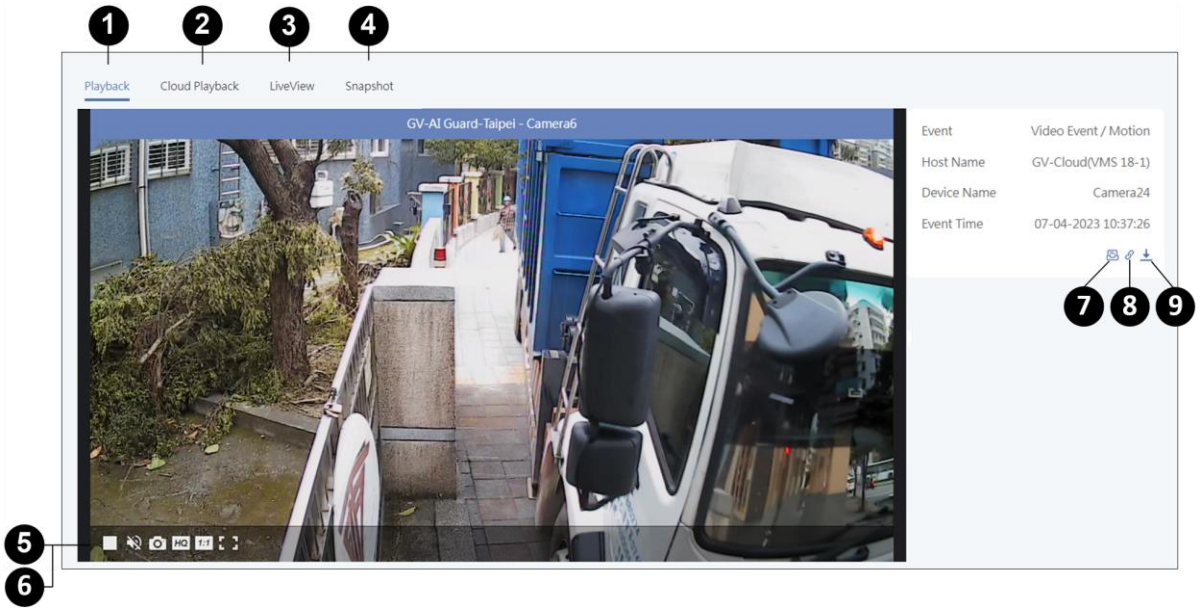


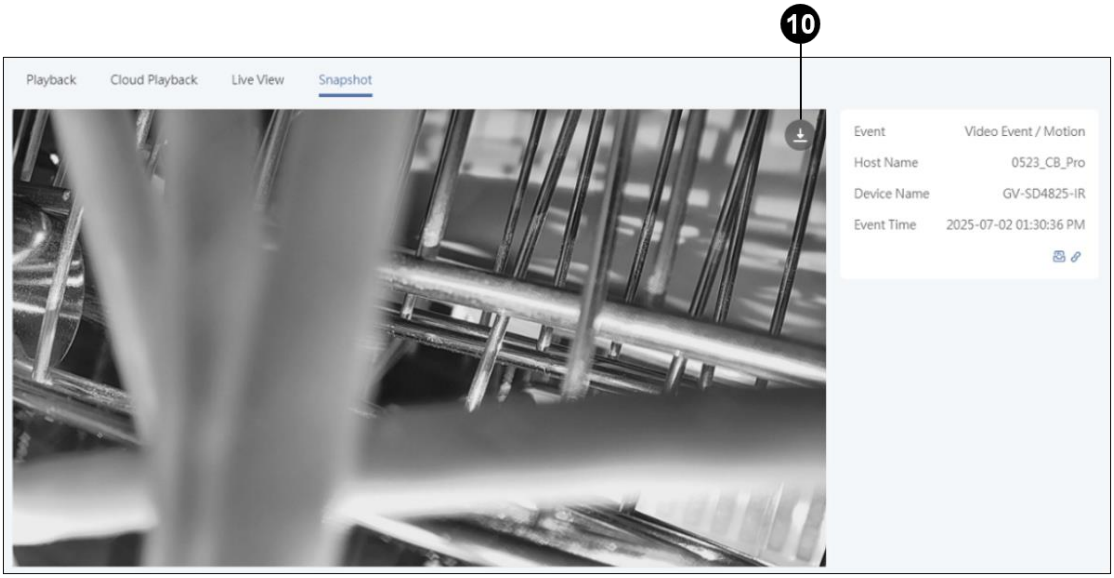
No.	Name	Function
1	GV-Cloud Apps	Click the GV-Cloud Apps icon to access **Cloud VMS, VPN, eMap, Audit Log**, and **Account Management**. ● For VPN, see the user's guide. ● For eMap, see *Chapter 7 E-Map*. ● For Audit Log, see *Chapter 6 Audit Log.* ● For Account Management, see *Chapter 5 Account Management.*
2	Left Menu	Accesses these functions: **Home**, **Hosts**, **Live Streaming**, **Playback, Query Events, AI Search, Share Links, Archives, Alert,** and **Operator Privileges**. See *Chapter 4 Cloud VMS Settings*.
3	Host List	Displays hosts along with their connection status. ●: The host is disconnected. ●: All the host's cameras are connected. ●: Some cameras of the host are disconnected.

		Note: A photo icon appears next to the cameras for the **Standard license plan** and a cloud icon appears for the **Premium license plan**.
4	Cloud Account	Accesses these functions: ● **Logout:** Log out the GV-Cloud account. ● **Account Settings:** This option allows you to change the GV-Cloud account's profile **(Profile)**, password **(Security)**, language setting / UI theme / time format **(Appearances)**, as well as check and add subscriptions **(Subscription)**.
5	Event Monitor	Displays detected motion. ● Use the **Filter** above the Host List to display the events of specific hosts. ● Click an event to open the video window and view its snapshot, live view, and playback. See *3.1 Video Window*.
6	AI Event Switch	Filters to display only AI events when enabled, while the default setting shows all detected events, including motion and AI.
7	View Display	Displays motion and AI events in Photo View or List View.

3.1 Video Window

By clicking an event snapshot on the Home page, you can access the event playback, live view, or snapshot, depending on the licenses you purchased.





No.	Name	Function
1	Playback	Play video from a host directly. Right-click the image and select **States** to view the video information: codec, resolution, audio, bitrate, and frame rate.
2	Cloud Playback	Play the video saved to GV-Cloud. Right-click the image and select **States** to view the video information: codec, resolution, audio, bitrate, and frame rate.

3	Live View	Stream live video from the camera. Right-click the image and select **States** to see the video information: codec, resolution, audio, bitrate, frame rate, and the number of connected clients.
4	Snapshot	View the snapshot taken when the event occurs.
5	Control Panel (for Playback)	: Play / Pause video : Previous Frame / Next Frame **Click the Real-Time and Frame-by-Frame icons shown below to switch modes:** : Play back video in real time. : Play back video frame by frame without audio. : Enable / Disable audio. : Take a snapshot. : Enable PIP (Picture-in-Picture) View on the top of the video. By dragging the square in the PIP View to get a close-up view of the image. : Switch the live view to full screen.
6	Control Panel (for Live View)	: Play / Pause live view : Enable / Disable audio. : Take a snapshot. HD: Improve the image quality : Enable PIP (Picture-in-Picture) View on top of the video. By dragging a square in the PIP View to get a close-up view of the image. : Switch the live view to full screen.
7	Archive	To archive a cloud-based recording, click the **Archive** button. To view a list of archived recordings created, select **Archives** in the left menu. See *4.7 Archives*. **Note:** If you skip the note for an archive, you cannot add a note to the archive later.
8	Share Link	To share a recording/snapshot, click the **Share Link** icon and specify an expiration time, a note, and a password (optional) to access the recording/snapshot.

		The link will be emailed to the specified address(es). You can also view the recording/snapshot by simply copying the Share Link. To view a list of shared links created, select the **Share Links** icon in the left menu. See *4.6 Share Links*. **Note:** If you skip the note for a shared link, you cannot add a note to the shared link later.
9	Event Playback Download	To download the video playback (.mp4 file) of the selected event, click the **Playback Download** icon. **Note:** The maximum download duration is 60 seconds.
10	Event Snapshot Download	To download the snapshot (.jpg file) of the selected event, click the **Snapshot Download** icon.

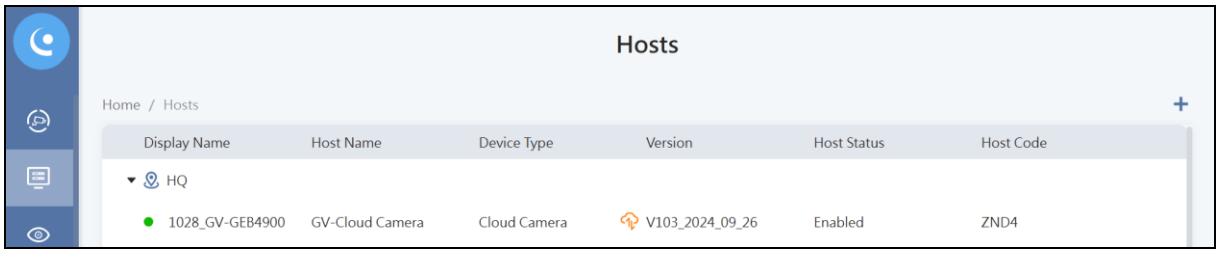
Note: If you click **Playback** and no video is displayed, the video clip may not have been created yet. You may need to wait at least 5 minutes after the event begins before you can view or download the video playback.

Chapter 4 Cloud VMS Settings

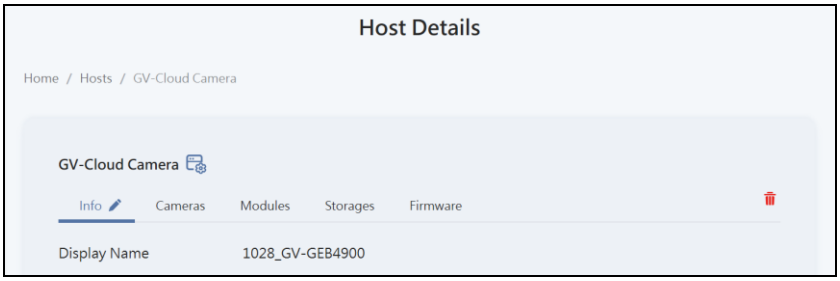
Cloud VMS Settings allows users to manage key features of GV-Cloud VMS, including Hosts, Live Streaming, Playback, Query Events, AI Search, Share Links, Archives, Alerts, and Operator Privileges. This chapter provides an overview and instructions for these settings.

4.1 Hosts

On the **Hosts** page, accessed through the icon in the left menu, you can manage host accounts, group hosts by region, check the statuses of host cameras, I/O devices, storage, and firmware versions, and upgrade firmware.



Click any host in the Hosts list to access the host details.



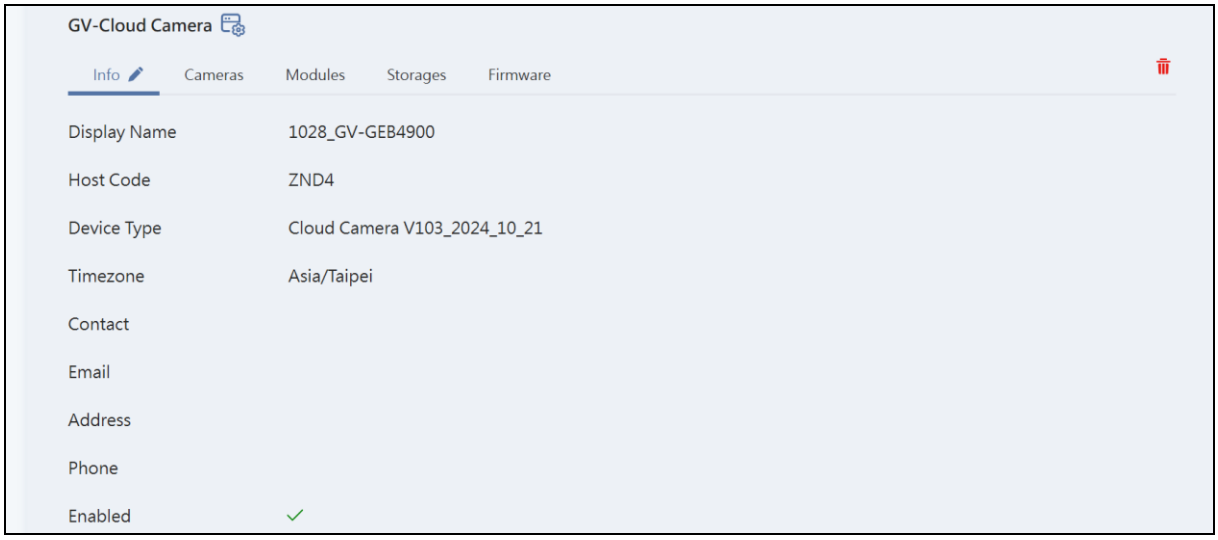
[Open Device Portal]

Click the icon beside the host name to launch the Web interface of the host in a new browser tab, where advanced settings can be configured.

Note: The **Open Device Portal** feature is only available for **GV-Cloud Cameras**, **GV-Cloud Bridge,** and **GV-Cloud Bridge Pro**. For the full list of compatible GV-Cloud Cameras and the supported firmware versions for GV-Cloud Bridge and GV-Cloud Bridge Pro, see *1.3 Compatible GeoVision Products*.

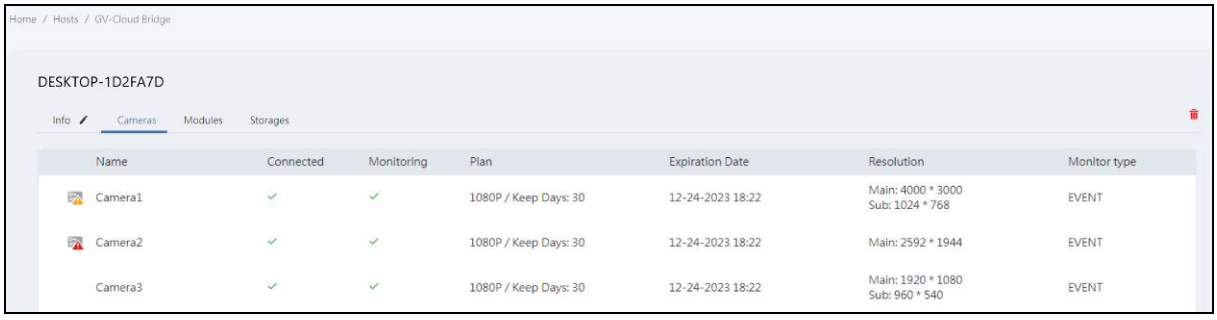
[Info]

The **Info** tab allows you to edit the information of a host. Click ✎ next to **Info** to start editing. You can also reset the host's login password from this page.



[Cameras]

The **Cameras** tab allows you to view the camera's connection, monitoring status, applied license plan, plan expiration date, camera resolution, and monitoring type.

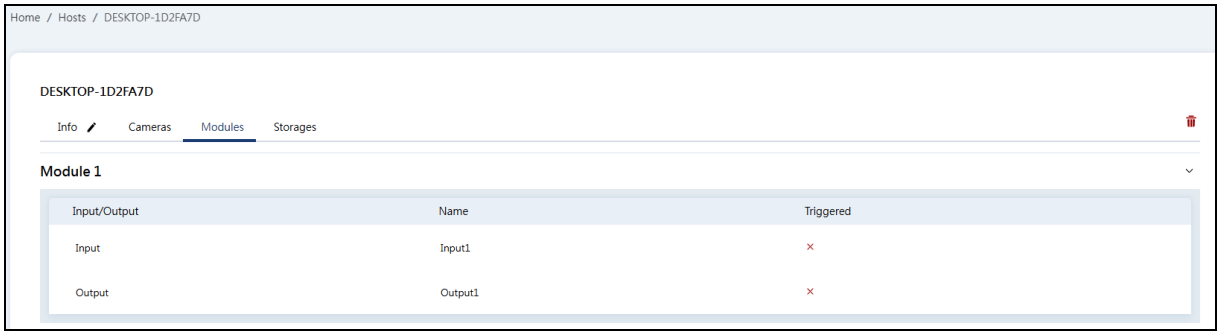


Note: When the camera's resolution does not match the applied license plan, the following 2 icons appear:

1. The yellow exclamation mark icon : Move your cursor to the icon and a tooltip of **The resolution does not match** appears. This means the camera's main or sub stream resolution is lower than the applied license plan, and the following will occur: (1) The recordings will be uploaded onto GV-Cloud VMS using the closest resolution; (2) The "Resolution does not match" event will be included in GV-Cloud VMS event log.
2. The red exclamation mark icon : Move your cursor to the icon and a tooltip of **The license does not match** appears. This means both the camera's main and sub stream resolution exceeds the applied license plan, and the following will occur: (1) The recordings will only be saved in the USB flash drive inserted in the host based on the main stream resolution; (2) The "License does not match" event will be included in GV-Cloud VMS event log.

[Modules]

The **Modules** tab displays which inputs and outputs on the host are being triggered.

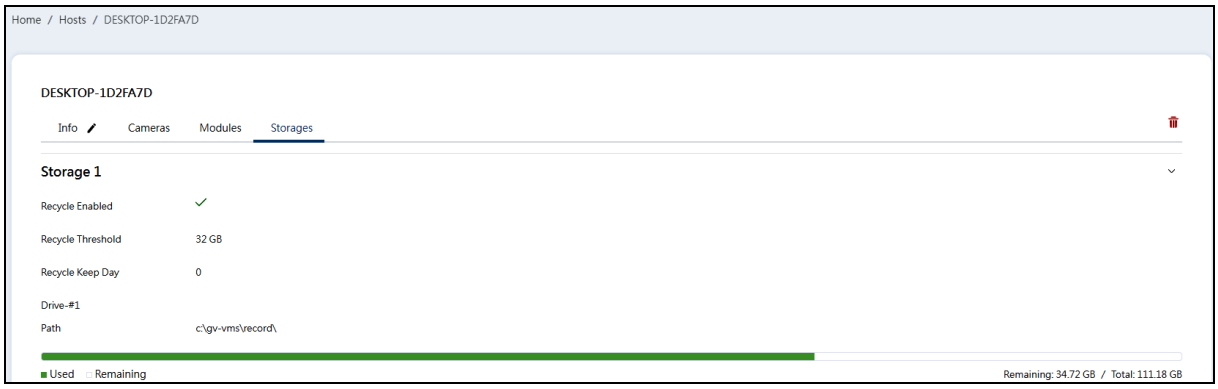


Note: To display the Modules tab in GV-Cloud VMS:

1. For **GV-VMS** or **GV-AI Guard**: Ensure that I/O devices are properly set up in GV-VMS and GV-AI Guard. See *6.1 Setting up I/O Devices* in GV-VMS User's Manual V18 / GV-VMS User's Manual V17 / GV-AI Guard User's Manual.
2. For **GV-Cloud Cameras**: Connect GV-Cloud Cameras with Digital I/O functionality. Verify compatibility in their datasheets.

[Storage]

On the **Storages** tab, you can view the host's storage information such as the recycle threshold, Keep Day, storage path, and remaining storage space.



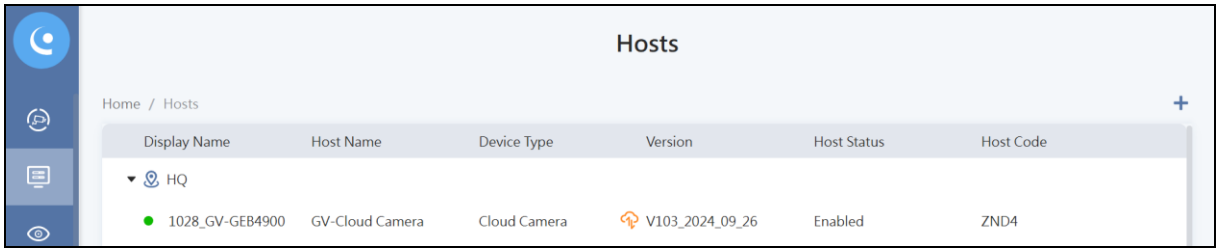
[Firmware]

On the **Firmware** tab, you can check the current firmware version, compare it with the latest version shown as the **Cloud Version**, and perform an upgrade if needed. See *4.1.1 Upgrading Firmware* for details.

Note: The Firmware page is only available for **GV-Cloud Cameras**. For the full list of compatible GV-Cloud Cameras, see *1.3 Compatible GeoVision Products*.

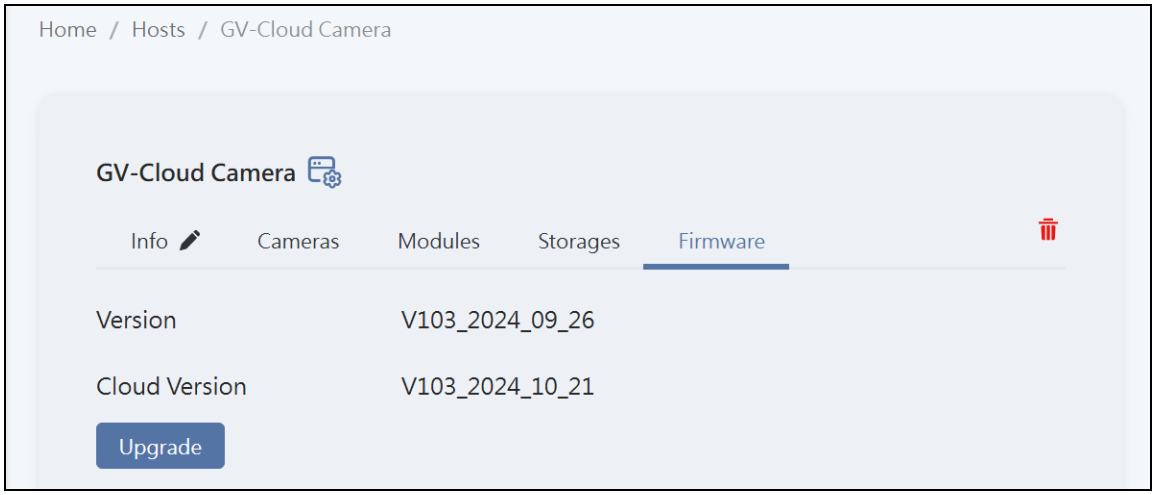
4.1.1 Upgrading Firmware

In the Hosts list, if the icon is shown to the left of the version number, the host requires an upgrade to the latest version.

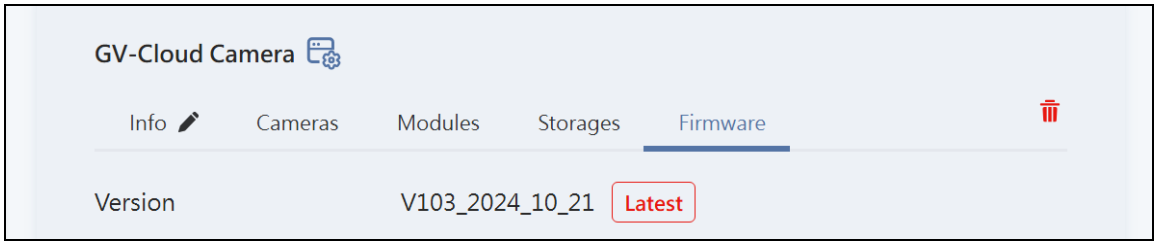


To upgrade the firmware:

1. Click the **Upgrade** button.

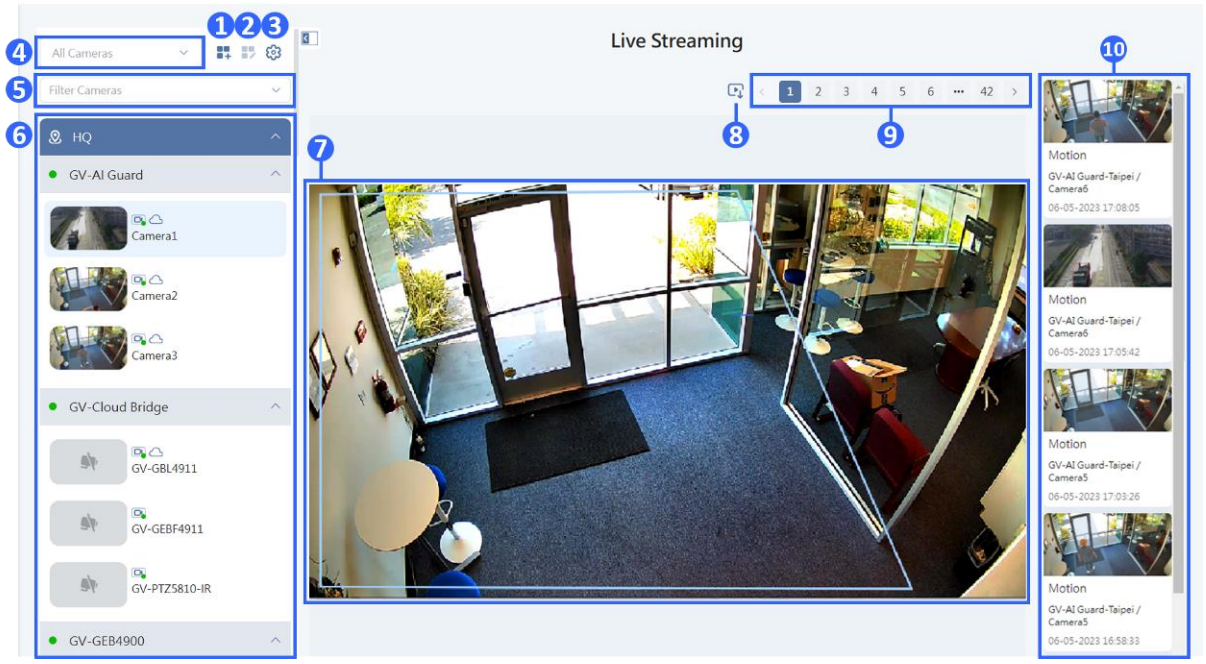


2. Upon update completion, the **Latest** icon appears next to the version number, indicating that the firmware is up to date.



4.2 Live Streaming

On the **Live Streaming** page, accessed through the icon in the left menu, you can view the camera's live stream.



No.	Name	Function
1	Add View	Allows users to create view layouts. See *4.2.1 Creating View Layouts*.
2	Edit View	Allows users to modify an existing view. See *4.2.1 Creating View Layouts*.
3	View Settings	Allows users to customize live streaming preferences. ● **P2P Preferred:** Enabled by default for faster network connections when using the WS player; can be disabled if experiencing issues with the live stream connection. This option does not affect the connection speed when using the default player. ● **Auto Channel Scan:** Scanning set to **Off** by default; configurable to scanning intervals of **10s**, **20s**, or **30s**. ● **View Layout:** Screen division set to **1x1** by default; configurable to **2x2**, **3x3**, or **4x4**.

4	View Selector	Allows users to select a view to show its cameras. See *4.2.1 Creating View Layouts* for details on creating views.
5	Camera Filter	Allows users to select one or more cameras, hosts, or regions to view in the host list, with cameras organized by hosts and hosts by regions.
6	Host List	Displays hosts and connection status. : The host is disconnected. : All the host's cameras are connected. : Some cameras of the host are disconnected. **Note:** A photo icon appears next to the cameras for the **Standard license plan** and a cloud icon appears for the **Premium license plan**.
7	Live View Window	Displays live video feeds from the cameras.
8	Player Download	Allows users to download the WS Player for a better live view and playback experience.
9	Page Selector	Allows users to switch between pages to view different camera channels.
10	Event Snapshot	Displays snapshots of motion or AI events. Allows users to click to view live or playback footage. See *3.1 Video Window* for details.

Note:

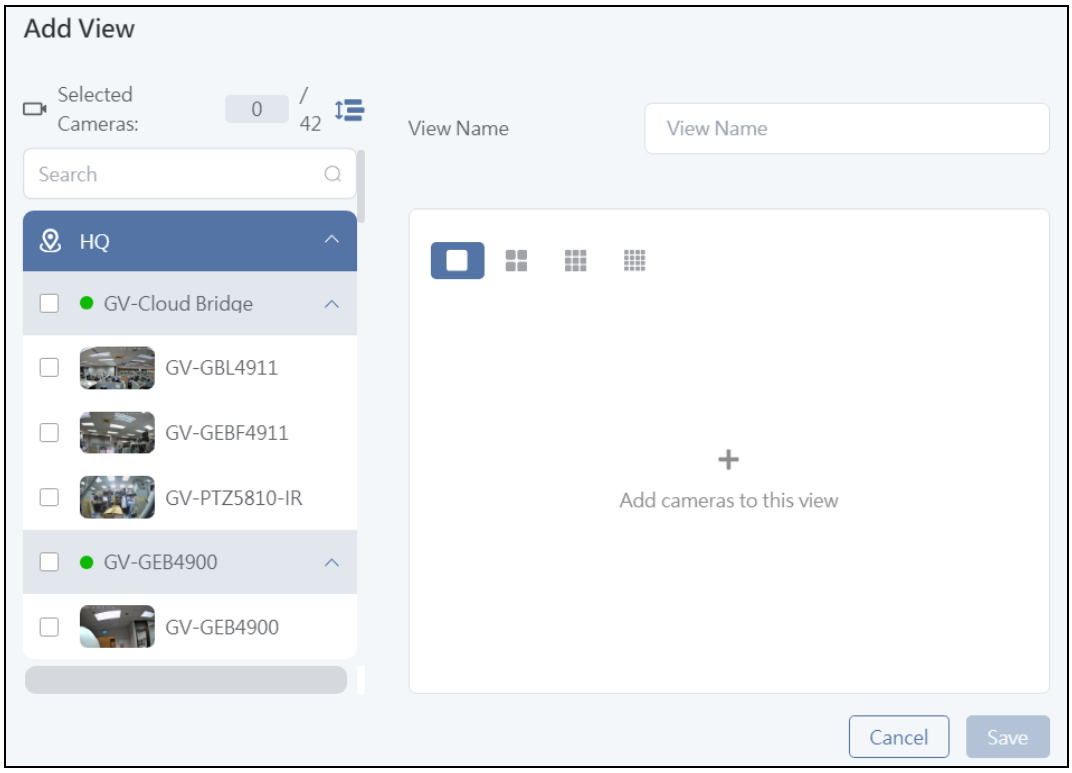
1. You can install the WS player from the GeoVision download page or the download icon at the top right of the Live Streaming / Playback pages for a better live view and playback experience. The smoothness of videos played with the WS player depends on the capabilities of your computer.
2. PTZ control functions are supported for GV-Cloud Bridge hosts (firmware V1.05 or later) and GV-Cloud Bridge Pro hosts (firmware V1.00 or later) using the WS Player.
3. Fisheye dewarping is only available for video resolution of 1280 x 720 or higher when using the WS player.

4.2.1 Creating View Layouts

You can create and customize layouts to organize the display of camera streams in the live view window.

To create a view layout:

1. Click the **Add View** icon at the top left of the **Live Streaming** page to open the dialog box below.



2. Type a name for the view and choose a screen division from **1x1**, **2x2**, **3x3**, or **4x4**.
3. Select the cameras to display in this view. You can mix cameras from different hosts and regions in a single view.
4. To arrange cameras across screen divisions, click the icon to switch to the **Sort Cameras** panel, where all selected cameras are listed. Drag cameras up and down the list to rearrange their order. Click the icon to switch back to the **Select Cameras** panel.
5. Click **Save** to finish.

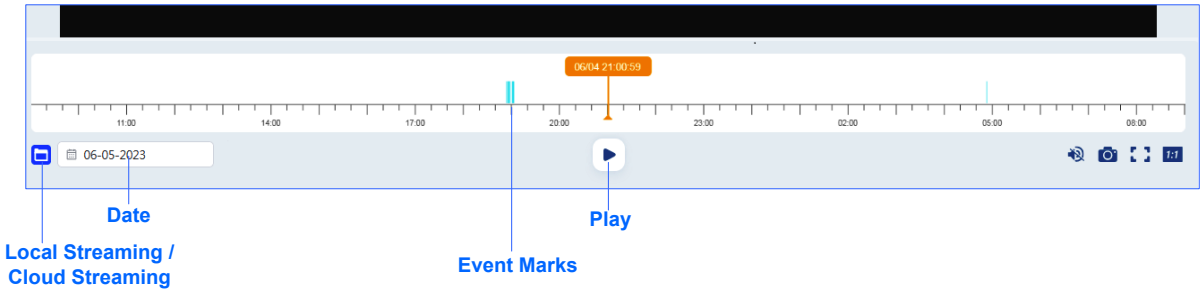
To edit an existing view layout:

6. Select an existing view layout from the first dropdown list at the top left, and click the **Edit View** icon .
7. Follow Steps 2 to 5 to make your changes.

4.3 Playback

On the **Playback** page, accessed through the icon in the left menu, you can play back events directly from a host (Local Streaming), or from GV-Cloud (Cloud Streaming).

1. Select a camera in the Host list.
2. Select **Local Streaming** or **Cloud Streaming**.
3. Select a date to play back. You can also drag the timeline to find the desired events to play them back.
4. Click **Play**.



Note:

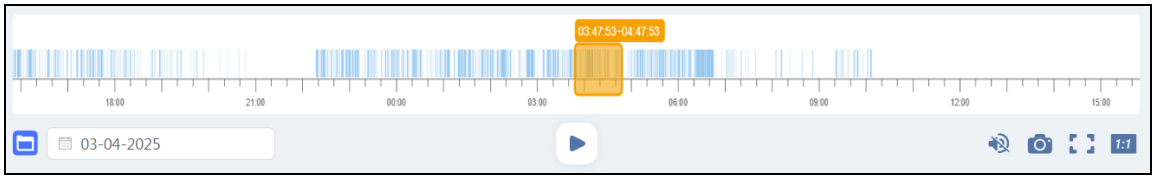
1. You can install the WS player from the GeoVision download page or the download icon at the top right of the Live Streaming / Playback pages for a better live view and playback experience. The smoothness of videos played with the WS player depends on the capabilities of your computer.
2. The WS player is not supported by Safari.
3. For **GV-Cloud Cameras**: To access Local Streaming from GV-Cloud VMS, ensure an SD card is inserted in the GV-Cloud Cameras.
4. **Local Streaming** only supports motion-triggered events, not round-the-clock events.
5. **Cloud Streaming** does not support colors in the timeline to differentiate between event types.

Tip: The icon at the bottom left indicates the current streaming mode. If the Local Streaming icon is displayed, Local Streaming is active; if the Cloud Streaming icon is displayed, Cloud Streaming is active. You can click the icon to switch modes.

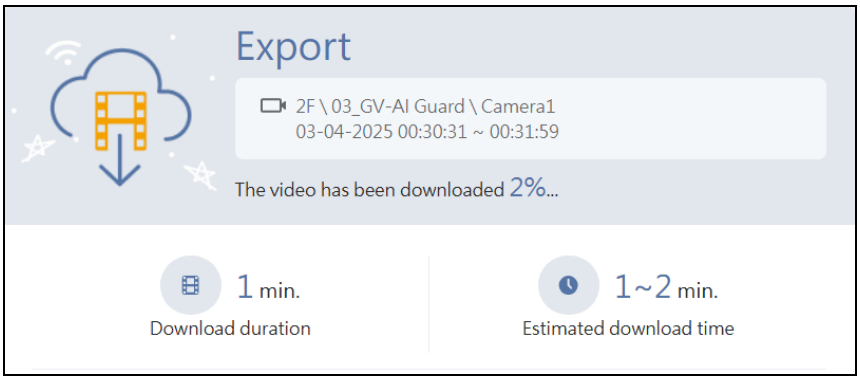
4.3.1 Exporting Videos using JS Player

To export videos using the default JS Player, follow the steps below.

1. Press and hold the right mouse button on the timeline, drag to select a time period, and then release the button after selection. Confirm to start the download.



2. Wait while the video is being downloaded.



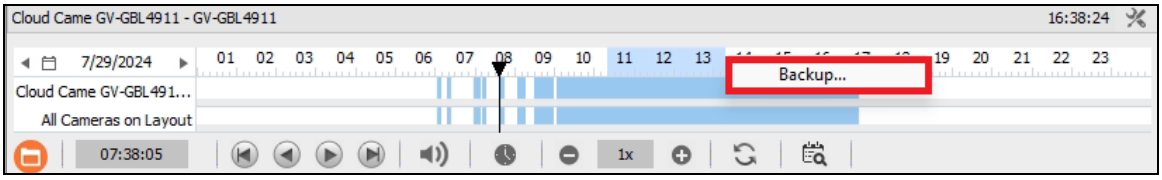
Note:

1. The maximum download duration is 1 hour.
2. To avoid interruptions, keep the browser open, and disable sleep or hibernation mode on your computer.

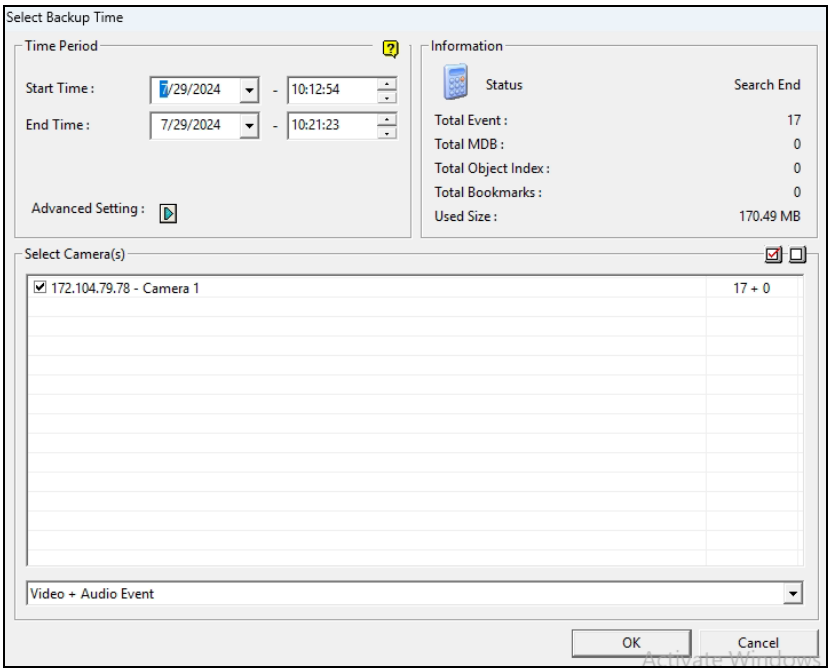
4.3.2 Exporting Videos using WS Player

To export videos using the WS player, follow the steps below.

1. Select a time period from the timeline by right-clicking and holding the mouse. The **Backup** option appears.



2. Select **Backup**.
3. Modify the time period or event type if necessary. Click **OK**.



Note:

1. The maximum download duration is 24 hours. However, since file size affects download speed, it is recommended to download large files in 1-hour increments.
2. To avoid interruptions, keep the browser open, and disable sleep or hibernation mode on your computer.

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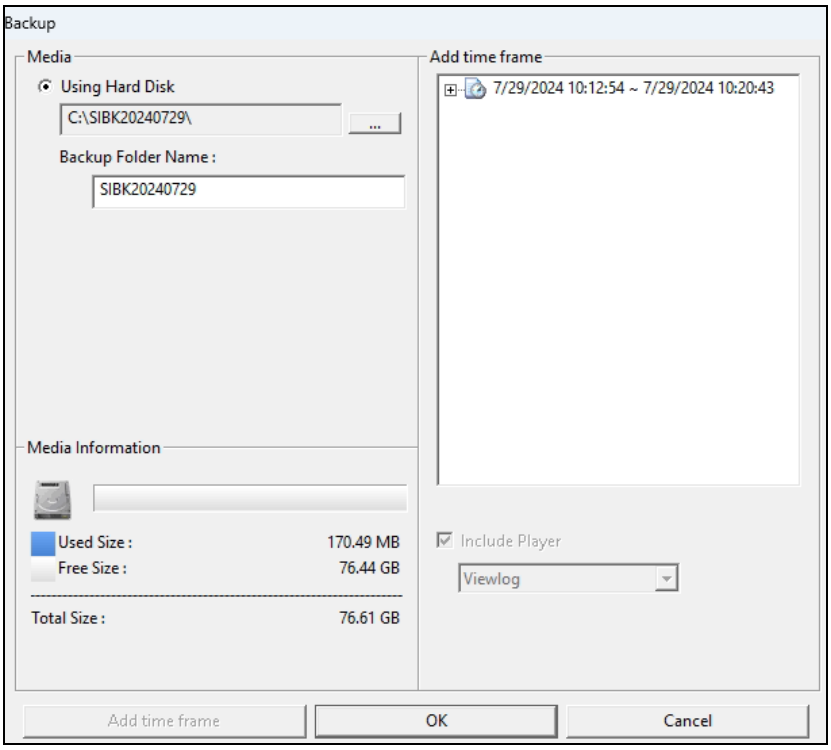
4. Select a storage location, and click **OK**. The video files are backed up.

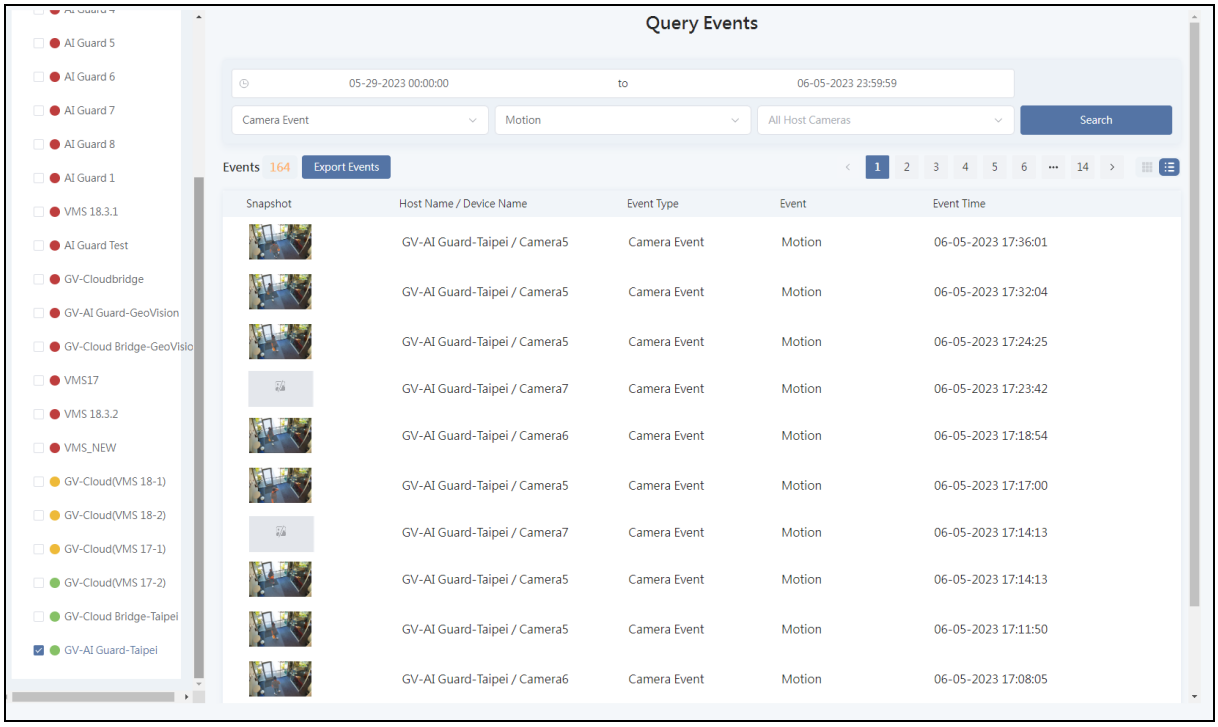


5. To view the backup status, click **Show Backup Task Schedule** from the Windows system tray.

4.4 Query Events

On the **Query Events** page, accessed through the icon in the left menu, you can search for events by category, including I/O Event, System Abnormal, Camera Event, I/O Alert, System Status, Connection, Access Control, and Storage.

1. Use the camera selector at the top right to filter cameras by selecting one or more cameras, hosts, or regions.
2. Define a time range.
3. Select an Event Category and an Event Type.
4. Click **Search**. The found events are displayed.
5. To export the found events in Excel format, click **Export Events**.



By clicking an event snapshot, you can view the live view or play it back. For details, see *3.1 Video Window*.

Note: The Query Events page can display up to 10,000 results, but only up to 500 results can be exported at a time.

4.5 AI Search

On the **AI Search** page, accessed through the icon in the left menu, you can enable post-event AI search by AI event types or people/vehicle attributes. The corresponding AI functions must be configured and enabled on the IP cameras, IP devices, or GV-Software.

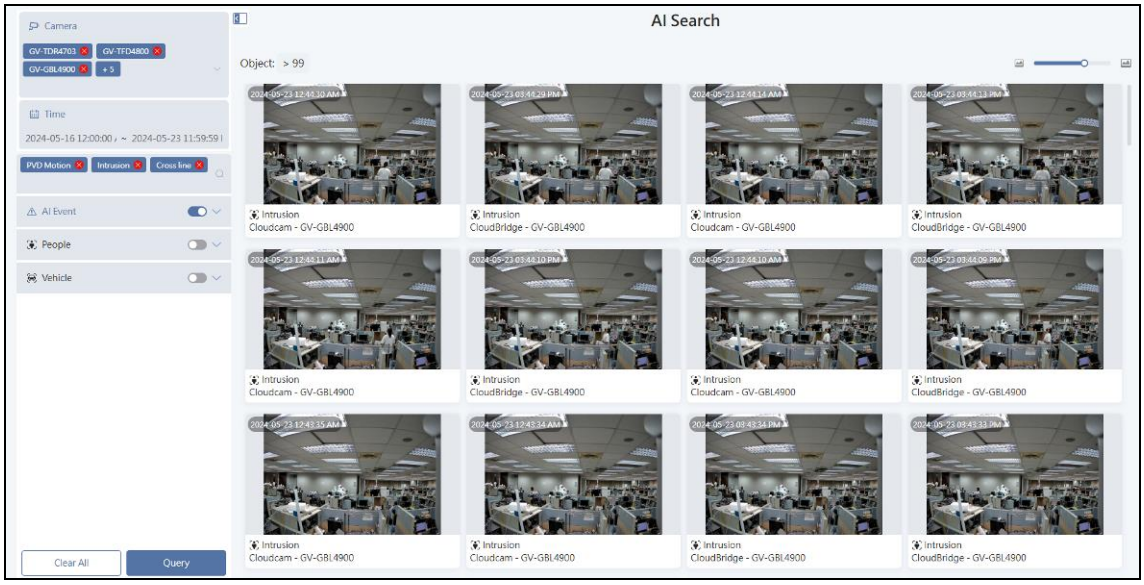
Note: For compatible devices and software for GV-Cloud VMS AI Search, see the document.

To enable AI search, follow the steps below.

1. Use the camera dropdown list at the top left to filter cameras by selecting one or more cameras, hosts, or regions.
2. Define a time range.

Searching by event types

3. Enable **AI Event** and specify the AI events you wish to query.
4. Click **Query**. The found events are displayed.



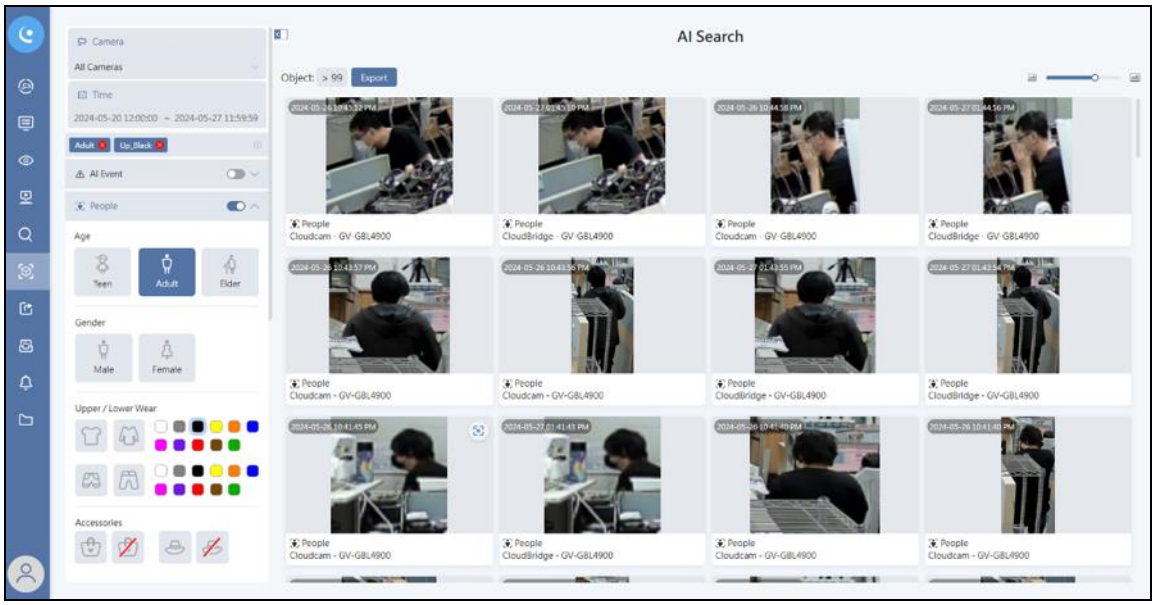
By clicking an event snapshot, you can view the live view or play it back. For details, see *3.1 Video Window*.

Searching by people/vehicle attributes

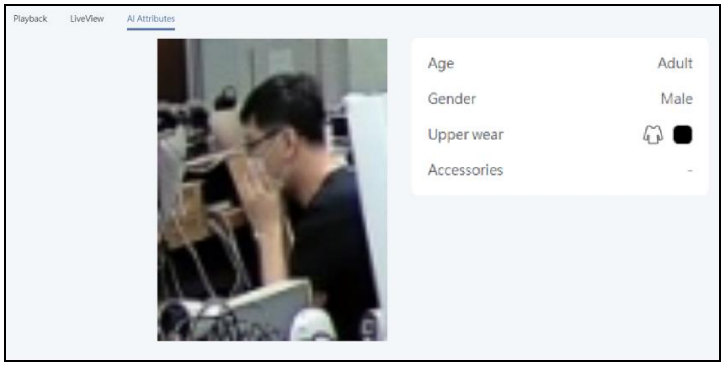
3. To search for AI events with specified attributes, enable and select the desired **People** or **Vehicle** attributes, including age, gender, vehicle type, brand, etc.

Tip: The **Dwell Time (sec)** under **People** and **Vehicle** attributes refers to the duration a person or vehicle remains in the area. AI Query currently only supports searching Dwell Time for Loitering events.

4. Click **Query**. The found events are displayed.



By clicking an event snapshot, you can view the playback, live view, or the snapshot and details of the specified attribute.



Tip: To save the query results as an Excel file, click **Export** beside the object count.

Note:

1. Currently, AI events can only be searched by event types or people/vehicle attributes separately.
2. The AI attribute snapshot is only available when the **AI Search – Premium** license is applied.

3. The following non-attribute events are supported by GV-AI Guard V2.1: Crowd Detection, Personal Protective Equipment Detection, Smoke/Flame Detection, Face Mask Detection, Social Distancing Detection, Mandatory Crossroad Stopping, Wrong-Way Detection, Speeding, and Intrusion Triggered by Sensor.

4.6 Share Links

On the **Share Links** page, accessed through the icon in the left menu, you can see a list of shared links you created through the video window. To create a shared link, see No. 7 in *3.1 Video Window*.

Note: The note for a shared recording is editable. However, once a note is deleted, it cannot be added back to the recording.

4.7 Archives

On the **Archives** page, accessed through the icon in the left menu, you can see a list of archived recordings you created through the video window. To archive a recording, see No. 8 in *3.1 Video Window*.

Double-click an archived recording to play it back.

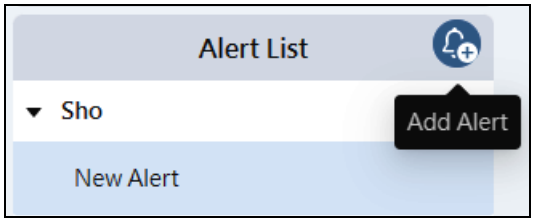
Note:

1. The archived recordings will not be limited to a 30-day detention period unless you manually remove them.
2. The note for an archived recording is editable. However, once a note is deleted, it cannot be added back to the archive.
3. Up to 100 archives are supported. If you require additional archives, please contact our sales representatives.

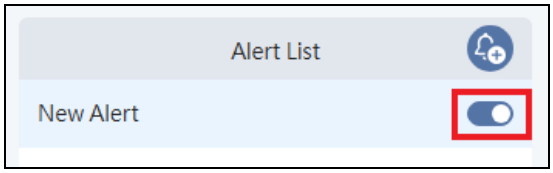
4.8 Alert

On the **Alert** page, accessed through the icon in the left menu, you can be alerted via push notifications on your mobile device when an event occurs.

1. In the Alert list, click the **Add Alert** button.



2. Name the Alert.
3. Define **Triggered Time** and **Trigger Schedule** for the push notifications to be sent according to the set time and day.
4. Specify the **Triggered Alert** for push notifications to be sent upon the set events.
5. You can optionally enable / disable the alerts using the switch.



6. Click **Save**.

4.9 Operator Privileges

On the **Operator Privileges** page, accessed through the icon in the left menu, master users can assign camera, host, or region access to account users and specify whether they can use features such as Live View, Playback, or PTZ. The operator levels are as follows.

Operator Levels:

Under the Operator List, you can find the following types of users.

1. ★ **Master User:** Has unrestricted access to all hosts.
2. **Non-Master User:** Does not have access to any hosts initially.
   a. ☆ **Region Manager:** Gains complete access to all hosts within the specified regions upon assignment.
   b. **Normal User:** Gains access to specific cameras and features through individual assignments.

IMPORTANT: Only the cameras assigned to the account user will be displayed when the user logs in.

Note:

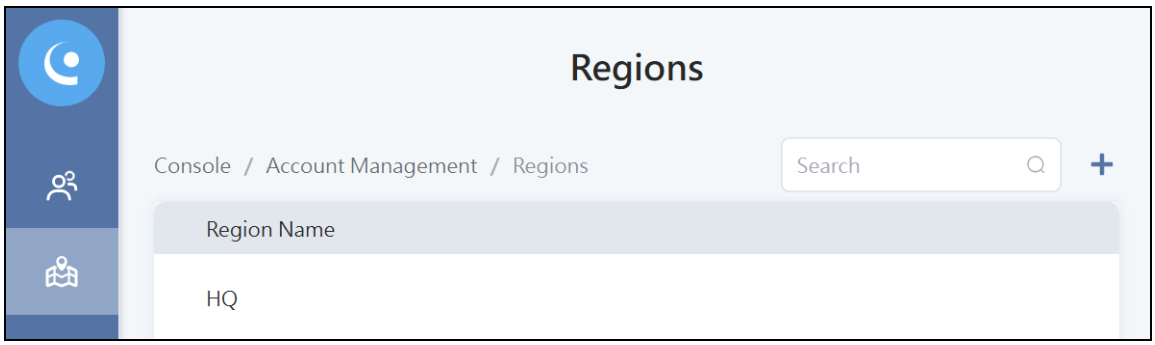
1. A Region Manager has full access to all hosts within their assigned regions. They can also be granted access to specific cameras and features outside their regions through individual assignments.
2. Users have full access to the PTZ feature on GV-Cloud Mobile, regardless of the access settings configured on GV-Cloud VMS.
3. Playback access on GV-Cloud Mobile requires Live View access. Enable Live View access on GV-Cloud VMS to grant Playback access on GV-Cloud Mobile. See *4.9.2 Assigning Camera and Feature Access* for detailed instructions.

4.9.1 Assigning Region Managers

Region managers have full access to all cameras in their assigned regions. Before assigning a region manager, ensure regions are set up, hosts are created, and hosts are assigned to regions. See *5.2.1 Adding Regions*, *2.3 Creating Hosts*, and *5.2.2 Moving Hosts Between Regions* for details.

Step 1: Create a region

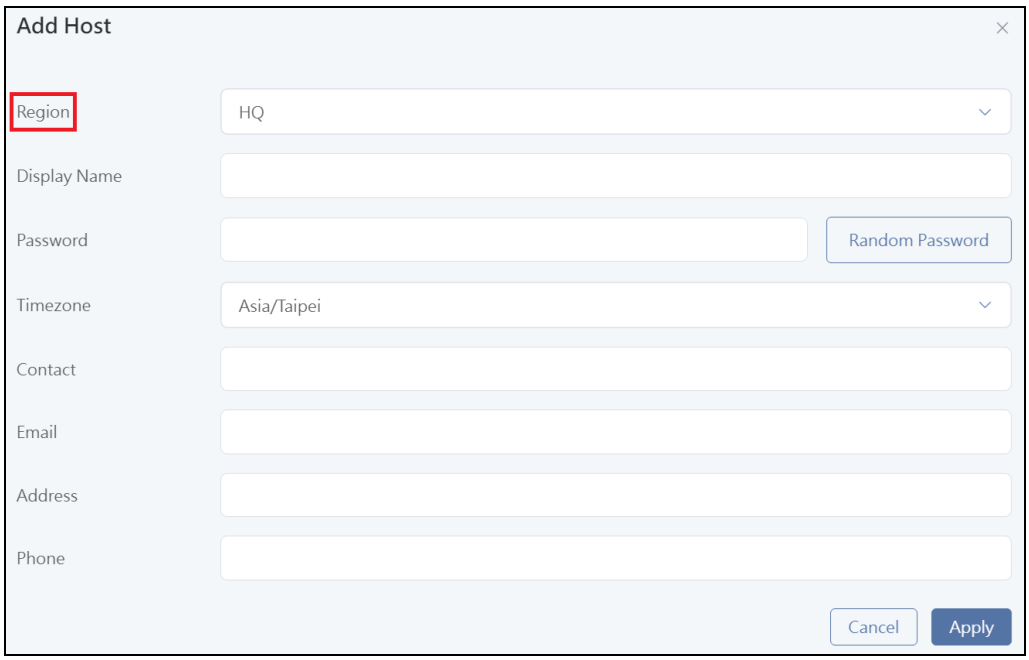
Click the **GV-Cloud Apps** icon at the top of the left menu and select **Account Management > Regions**. See *5.2.1 Adding Regions* for details.



Step 2: Assign a host to a region

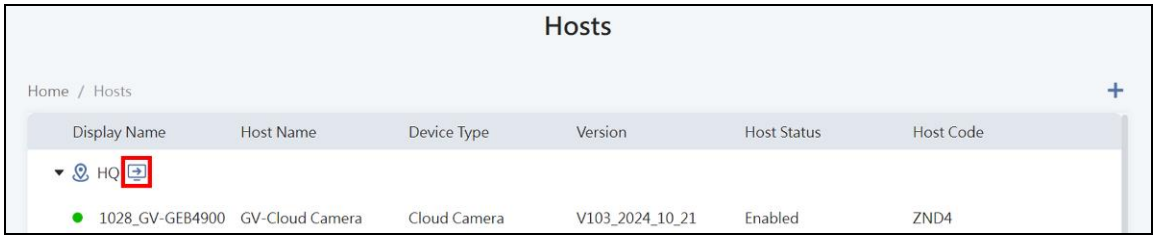
You can assign a host to a region using either of the following two methods.

1. **Create a Host and Assign It to a Region**
   Specify a region when creating a host. See *2.3 Creating Hosts* for details.



2. **Reassign an Existing Host**

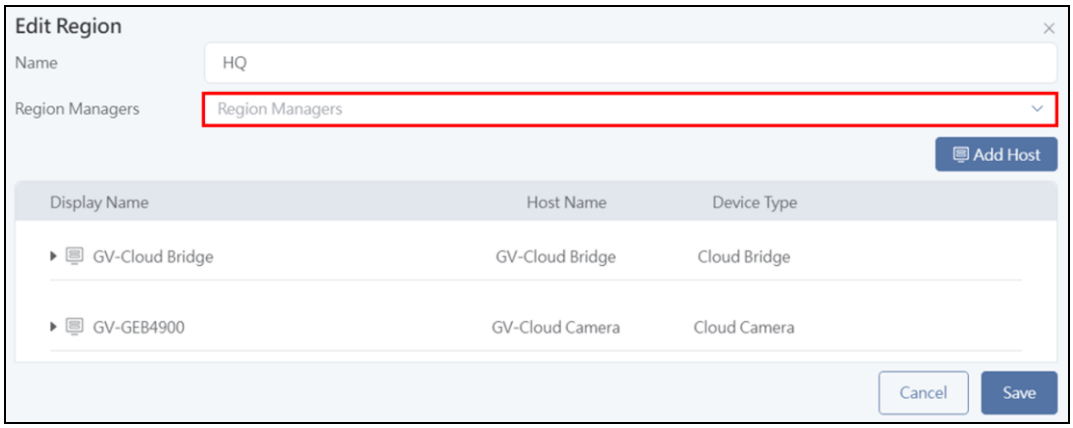
   Move an existing host to a different region. See *5.2.2 Moving Hosts Between Regions* for details.



Step 3: Assign a region manager

1. Click the **GV-Cloud Apps** icon at the top of the left menu and select **Cloud VMS** > **Operator Privileges**. Select an account user from the Operator List on the left of the page.
2. Hover over a region, click the icon that appears next to the name, and the **Edit Region** dialog box appears.

3. Select an account user from the Region Managers dropdown list.

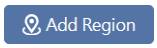


4. To assign multiple regions to the account user, repeat Step 2 and 3.
5. Click **Save**. The account user is assigned as the region manager.

When the region manager logs in GV-Cloud VMS, he/she can only see the assigned regions and hosts inside them.

Note: A region manager can add, edit or delete hosts in his assigned regions. Once logged in, click **Cloud VMS** > **Hosts**. To add a host, click the Add button + in the upper-right corner. Or select a host to edit or delete it.

Tip:

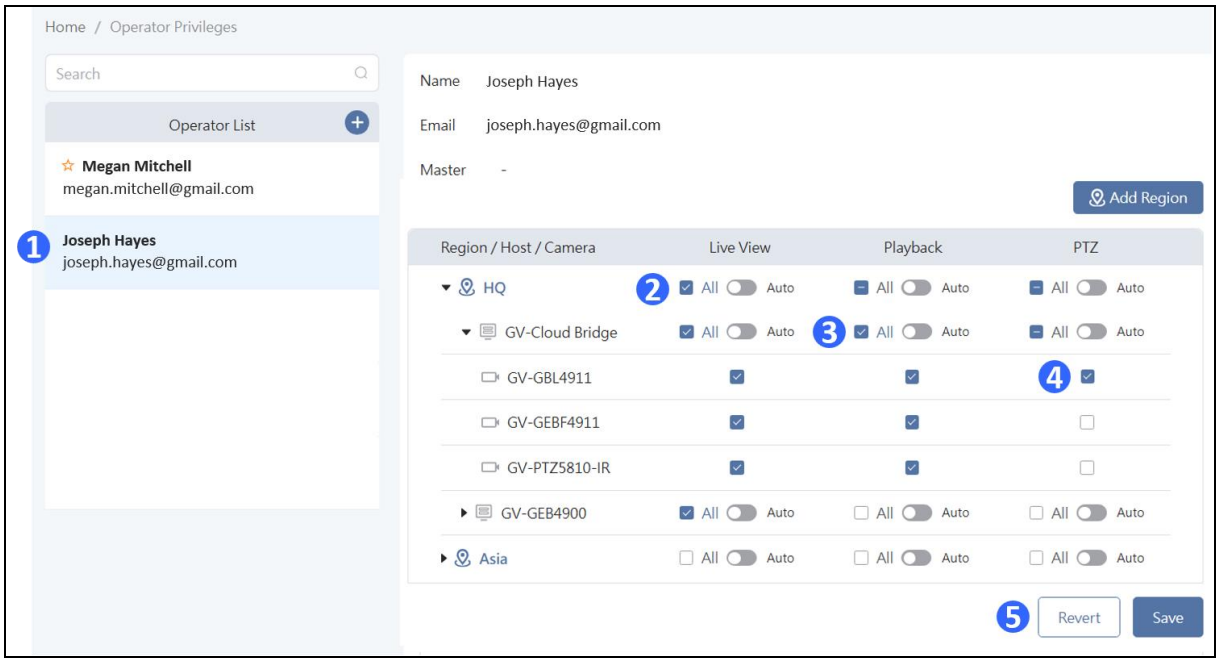
1. On the **Operator Privileges** page, click the 

icon on the right of the page to be redirected to the **Account Management > Regions** page, where users can create regions. See *5.2 Regions* for more details.
2. In the **Edit Region** dialog box, click the

icon on the right to be redirected to the **Cloud VMS > Hosts** page, where users can add hosts. See *2.3 Creating Hosts* and *4.1 Hosts* for more details.

4.9.2 Assigning Camera and Feature Access

For non-master users, manual assignment is required to gain individual camera and feature access.



1. Select a non-master user from the Operator List. If needed, type the account user name into the search bar to narrow the search.
2. For each region, select **All** in the **Live View**, **Playback**, or **PTZ** columns to grant full access to all cameras in the region. Select **Auto** to include new cameras automatically.
3. Expand the region to assign access at the host level. Select **All** in the columns to grant access to all cameras on the host. Select **Auto** to include new cameras automatically.
4. Expand further to assign access at the camera level. Check the boxes beside individual cameras to grant specific access.
5. Click **Save** to apply the changes.

Note:

1. Users have full access to the PTZ feature on GV-Cloud Mobile, regardless of the access settings configured on GV-Cloud VMS.
2. Playback access on GV-Cloud Mobile requires Live View access. Enable Live View access on GV-Cloud VMS to grant Playback access on GV-Cloud Mobile.

Chapter 5 Account Management

Account Management allows users to handle essential administrative tasks, including adding account users, changing user types, enabling two-factor authentication, adding regions, and assigning hosts to regions. This chapter provides an overview and instructions for these features.

5.1 Users

5.1.1 Adding Account Users

You can add account users to monitor different hosts on GV-Cloud VMS. GV-Cloud VMS supports two types of account users:

- **Master:** The account user has access to all functions and settings.
- **Non-Master:** The account user cannot create hosts, edit operator privileges, or access subscription services. In addition, the user has no access to VPN, Audit Log and Account Management functions.

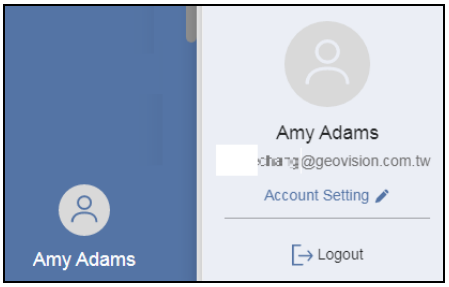
To add an account user:

1. Click the **GV-Cloud Apps** icon at the top of the left menu and select **Account Management** to open the page.
2. Click + at the top right. This dialog box appears.

3. Type the user's name, email address, and mobile phone number (optional).
4. Click **Send**. A confirmation email is sent to the account user.

After clicking the activation link to confirm the email account, the account user will receive another email confirming the success of GV-Cloud registration, along with a temporary login password.

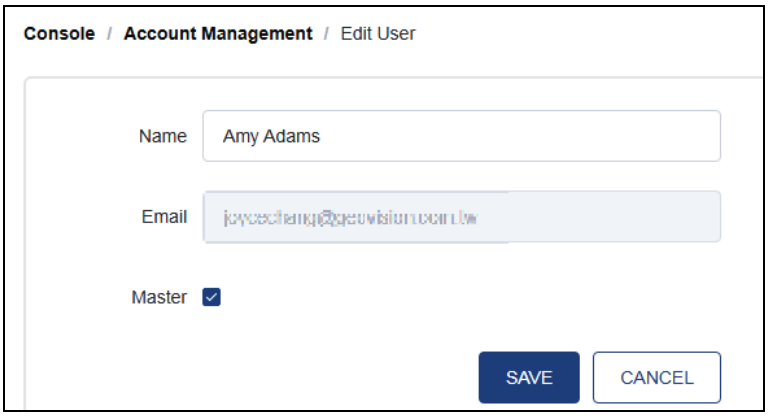
The account user can now log into GV-Cloud using the registered email address and the temporary login password. To change the login password, click the **Account** icon at the bottom of the left menu and select **Account Settings**.



5.1.2 Changing User Types

To change a non-master user to a master user, follow the steps below:

1. At the top of the left menu, click the **GV-Cloud Apps** icon > **Account Management**.
2. Click a user account in the list.
3. Select **Master**.



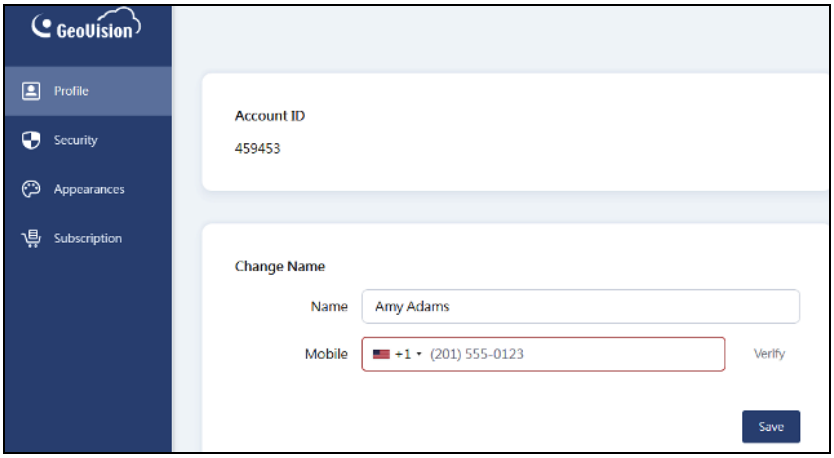
5.1.3 Enabling Two-Factor Authentication

By default, GV-Cloud accounts log in using their email and password. 2-Factor Authentication (2FA) adds an extra layer of security to your account by requiring you to retrieve a code via SMS or email in order to login.

To enable 2FA on the GV-Cloud account:

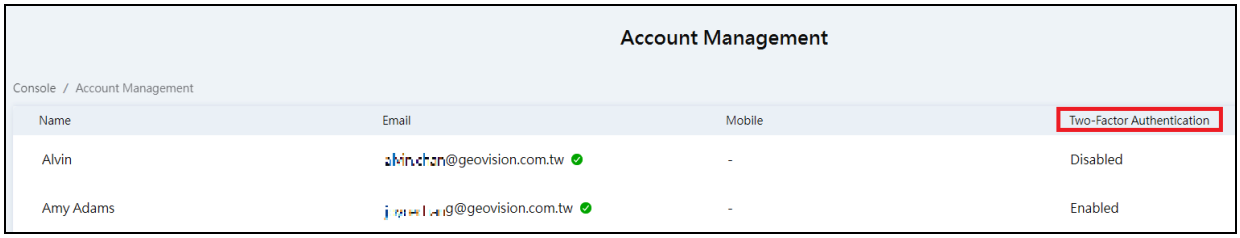
1. At the bottom of the left menu, click the **Account** icon > **Account Settings**.
2. Click the **Security** icon.
3. Toggle the **Enable 2FA** option.
4. Select which way to retrieve a code for login: **SMS** or **Email**.

   - If you select SMS, a mobile phone number must be associated with the GV-Cloud account. To add a mobile phone number, click **Profile**. Type your phone number in the Mobile field, and click **Verify**.



   - If you select Email, the code will be sent to the email address you used to log in the GV-Cloud account.

Note: If multiple users are created under the same GV-Cloud account, each user must log in to configure their own two-factor authentication.



5.2 Regions

5.2.1 Adding Regions

You can create regions in GV-Cloud VMS to group hosts based on their location.

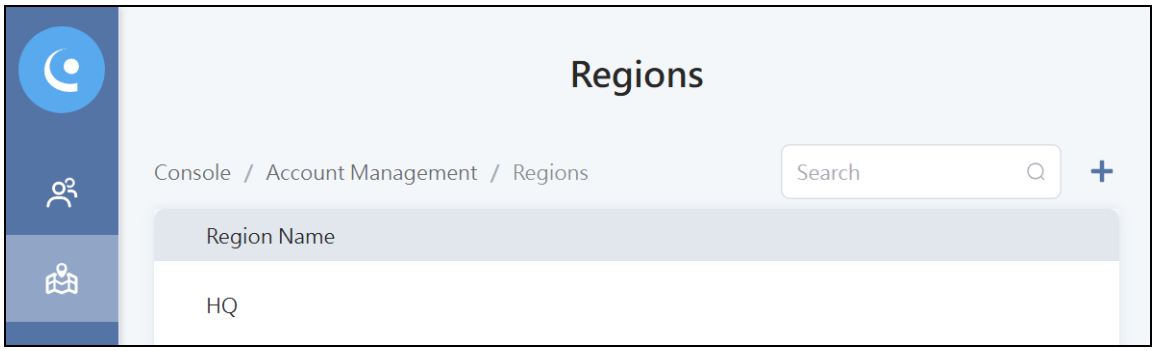
Once a region is created, it becomes available for assignment when generating a new host. Alternatively, you can reassign existing hosts to a newly created region.

Note:

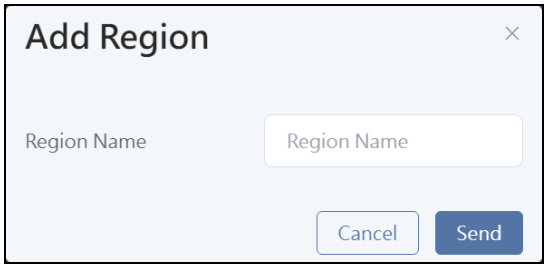
1. Upon first login, a default region is automatically created, and any new hosts are grouped into this region.
2. Each host can only be assigned to a single region.

To add a region, follow the steps below.

1. Click the **GV-Cloud Apps** icon at the top of the left menu, select **Account Management**, and select the **Regions** icon in the left menu to open the page.



2. Click the + icon. This dialog box appears.



3. Type the region name and click **Send**. The new region is added to the list.
4. To rename a region, select it in the list and enter a new name.

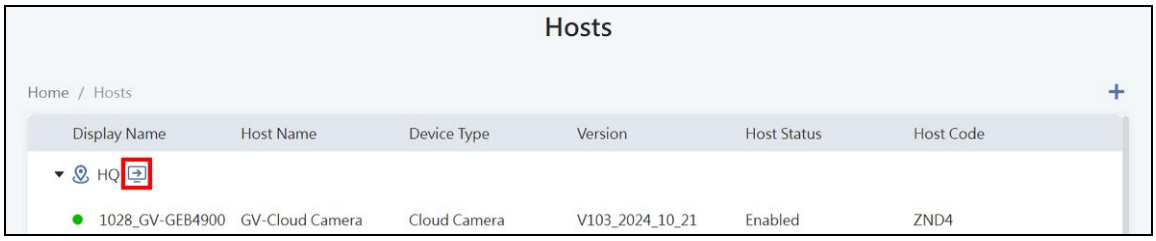
Note:

1. The region cannot be deleted if it contains hosts. Move all hosts out of the region before attempting to delete it. See *5.2.2 Moving Hosts Between Regions* for details.
2. The default region cannot be deleted.

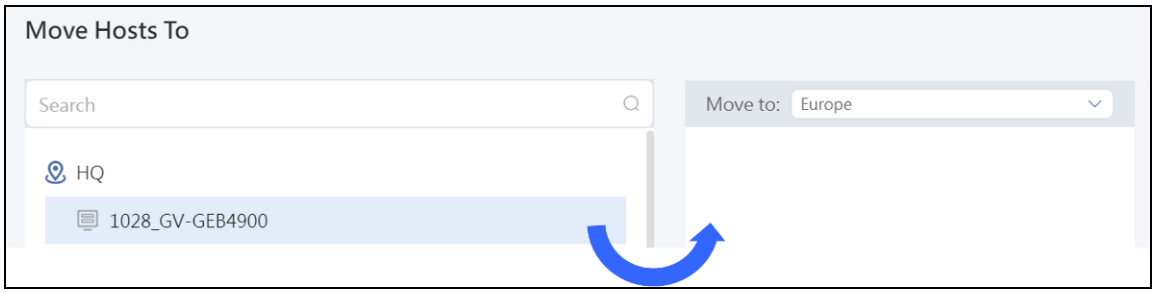
5.2.2 Moving Hosts Between Regions

To reassign an existing host to a different region, follow the steps below.

1. Click the **GV-Cloud Apps** icon at the top of the left menu, select **Cloud VMS > Hosts**.
2. In the Hosts list, hover your cursor over a region. Click the icon that appears next to the region name to open the **Move Hosts To** dialog box.



3. Select a region from the Move To dropdown list on the right. Drag a host from the list on the left to the region you selected. Click **Save**.



Tip:

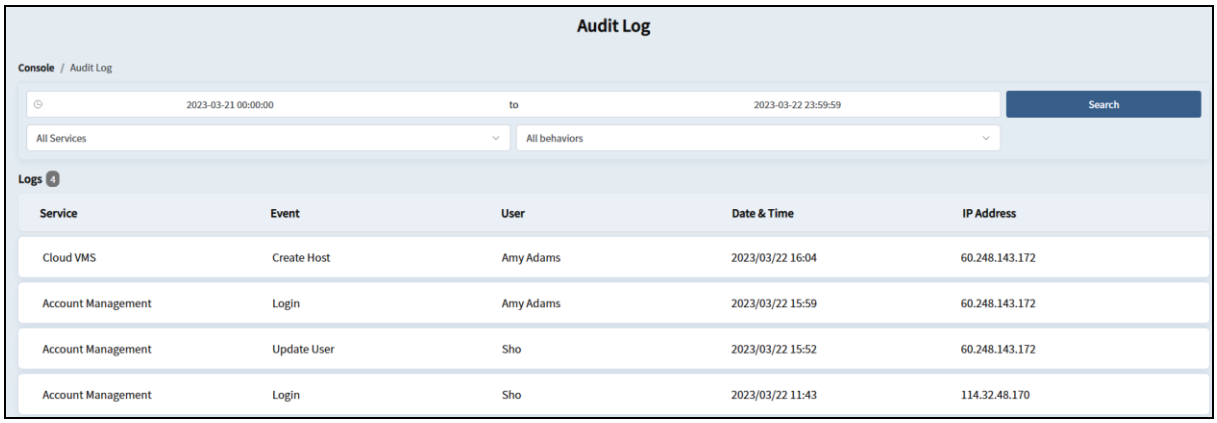
1. If the host list is extensive, narrow the search by typing the host name into the search bar.
2. Users can select multiple hosts in a row to move them all at once.
3. To undo the move, hover over the host in the right panel, and click the button.

Chapter 6 Audit Log

Audit logs are records of events and changes made by your GV-Cloud accounts that provide a complete record of account activities. Therefore, audit logs are a valuable resource for administrators investigating suspicious network activities and diagnosing problems.

You can conduct a log search by specifying a time range, service, and user behavior. The Audit Log will return the following information:

- **Service:** Cloud VMS, Account Management
- **Event:** The activity was performed, e.g. Login, Logout, or Change Password.
- **User:** The account user who performed an activity.
- **Date & Time**
- **IP Address**



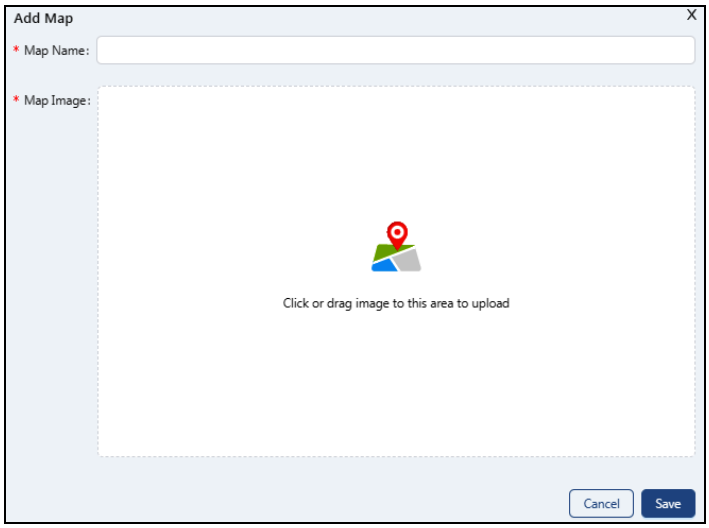
Note: The Audit Log can store 60-day data, and overwrite it with new data on a daily basis.

Chapter 7 E-Map

You can place the icons of connected cameras on Google Maps or on a map you uploaded to GV-Cloud. The map will help you quickly pinpoint the location of an event or the devices you have installed.

7.1 Adding Maps

1. Click the **GV-Cloud Apps** icon at the top of the left menu and select **eMap**. Google Maps will load, displaying the created hosts in the left menu.
2. On Google Maps, zoom in on the location of the monitored building or area. Or skip to Step 3 to upload your own map.
3. To upload a map, click **Add Map** at the top of the left menu. This dialog box appears.



   A. Name the map, and locate a map file or drag an image to the dialog box.
   B. Click **Save.** A Pin is placed on Google Maps.

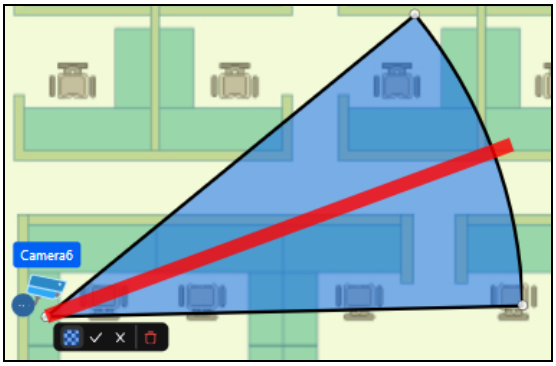
4. Click the Pin to open the map.
5. Click **Edit** at the top of the map

6. Drag cameras from the left menu onto the map according to their locations.

7. Optionally set up a view zone for illustrating the monitoring area of a camera:

   A. Click a blue circle under the camera icon, and select **Set Area**. A fan-shaped view zone appears.

   B. Click on the view zone. Its setting buttons and a red line appear.



   C. Click and drag the red line to move the direction of the view zone.

   D. To resize the view zone, click and drag two corners of it.

   E. Change the color of the view zone if desired.

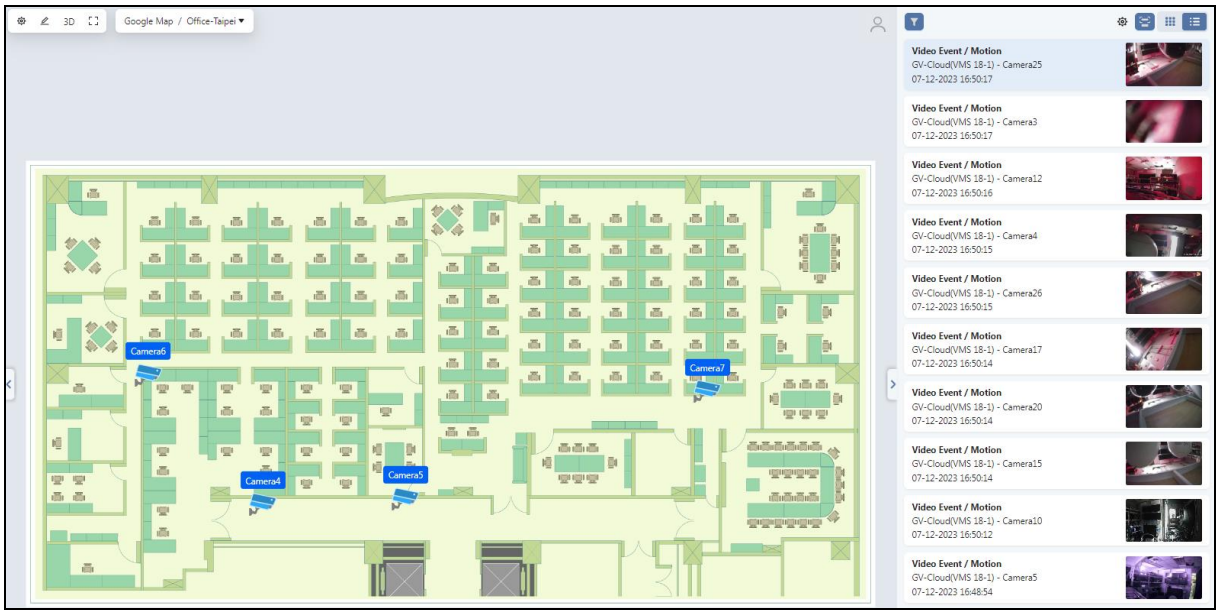
   F. To complete the settings, click the Tick button.

8. Click **Edit** at the top of the map again when you are finished.

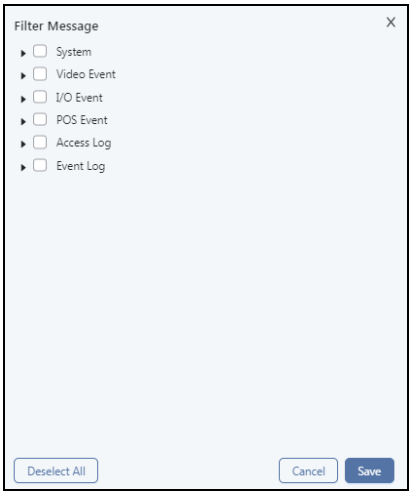
Tip: By clicking the 3D button, the created map can be displayed in 3D view, which you can zoom in and out of a map with the mouse wheel, and rotate it as desired.

7.2 Setting up the Event List and Popup Map

You can enable the Event List on the right side of the map to display real-time events, and select which events should appear on the list. When an event occurs, the corresponding map with a flashing icon of a triggered camera will also pop up on the screen.



1. To specify which events should appear on the Event List, click **Filter** at the top right, select the desired event messages, and click **Save**.



2. To enable the map popup function, select the **Auto Select Newest Event** icon at the top right. When the specified events occur, the relevant map with the flashing camera icon will pop up.
3. To view the live view of a triggered camera, click its icon.

Appendix

Basic Network Settings

In most cases, no network configuration is required to access the GV-Cloud services. Only when your firewall or ISP restricts outbound connections do you need to open the following default ports for remote connections.

Service	Connection Port
Live Stream	80, 3443, 56000
Playback	3443, 5552
Data Transmission	443, 56000
WS Player	9100

The GV-Cloud services also use the IP addresses listed below. If outbound connections are restricted, add the three IP addresses to the whitelist of your network for remote access.
*.gvaicloud.com
*.ccrelay.mygvcloud.com
relay.vsm.mygvcloud.com