GV-Cloud Bridge

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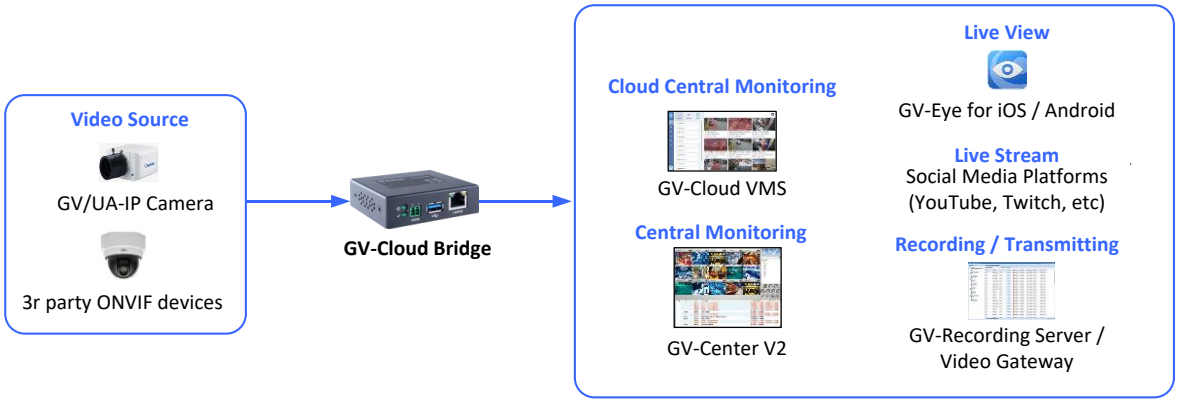
GV-Cloud Bridge

GV-Cloud Bridge is an encoder that connects any ONVIF or GV-IP camera to the GeoVision software and mobile app for integrated monitoring and administration. Using GV-Cloud Bridge, you can link the cameras to GV-Cloud VMS / GV-Center V2 for central monitoring and to GV-Recording Server / Video Gateway for recording and streaming management. With a simple QR code scan, you can also link GV-Cloud Bridge to the GV-Eye mobile app for live monitoring anytime, anywhere. Additionally, you can use GV-Cloud Bridge to stream the cameras to social media platforms like YouTube, Twitch and others to meet your live broadcasting demands.



1.1 Compatible Products

- **Camera:** GV-IP cameras and ONVIF cameras
- **Cloud Controller:** GV-AS Bridge
- **Software:** GV-Center V2 V18.2 or later, GV-Recording Server / Video Gateway V2.1.0 or later, GV-Dispatch Server V18.2.0A or later, GV-Cloud VMS, GV-VPN V1.1.0 or later
- **Mobile App:** GV-Eye

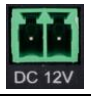
Note:

1. To connect GV-IP Cameras without GV-Center V2 settings, you can use GV-Cloud Bridge to connect them to GV-Center V2.
2. To access 3rd party IP cameras using the GV-Eye app, use GV-Cloud Bridge.
3. GV-Cloud Bridge allows 3rd party IP cameras to establish passive connections to GV-Recording Server / Video Gateway without port forwarding.

1.2 Packing List

- GV-Cloud Bridge
- Terminal Block
- Download Guide

1.3 Overview

1.		This LED indicates the power is supplied.
2.		This LED indicates GV-Cloud Bridge is ready for connection.
3.		Not functional.
4.		Connects a USB flash drive (FAT32 / exFAT) to store event recordings.
5.		Connects to either the network or a PoE adapter.
6.		Connects to power using the supplied terminal block.

7.		This resets all configurations to factory settings. See *1.11.5 Loading Default*.
8.		This reboots GV-Cloud Bridge, and keeps all current configurations. See *1.11.5 Loading Default* .

Note:

1. Industrial-grade USB flash drives are suggested to avoid event recording writing failure.
2. For optimal performance, it is suggested to use USB flash drive (FAT32). Once the USB flash drive (exFAT) is formatted, it will be converted into FAT32.
3. External hard disk drives are not supported.

1.4 GV-Cloud VMS Premium License

As you integrate GV-Cloud Bridge and GV-Cloud VMS, several GV-Cloud VMS premium licenses are available based on the resolution of recordings to be uploaded to GV-Cloud VMS (SD, 720p, 2M, 2M / 30F, 4M, 4M / 30F) and each license specifies the frame rate and bitrate limit. The maximum number of channels supported differs by the applied license and the camera resolution. See the table below for the specifications:

Camera Resolution	GV-Cloud VMS Premium License[Note1]					
	SD (640*480)	720p	2M	2M / 30F	4M	4M / 30F
	30 FPS + 512 Kbps	30 FPS + 1 Mbps	15 FPS + 1 Mbps	30 FPS + 2 Mbps	15 FPS + 2 Mbps	30 FPS + 3 Mbps
	Maximum Channels Supported					
8 MP	1 CH	1 CH	1 CH	1 CH		
5 / 4 MP	2 CH	2 CH			2 CH	1 CH
2 MP	2 CH	2 CH	3 CH	1 CH		
1 MP	2 CH	2 CH				

For example, with an 8 MP camera, license options include **SD**, **720p**, **2M,** and **2M / 30F**, with each license supporting a maximum of one channel. Depending on our requirements, choose the appropriate license for the recordings to be uploaded to GV-Cloud VMS in resolutions of 640 x 480 / 1280 x 720 / 1920 x 1080.

Frame Rate and Bitrate

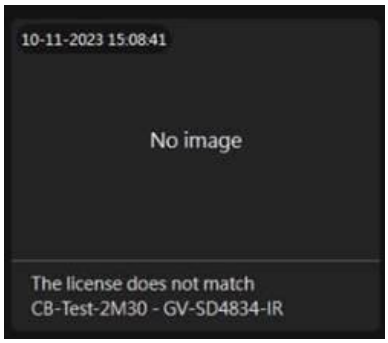
Once connected to GV-Cloud VMS, the system constantly monitors the camera's frame rate and bitrate and automatically makes adjustments when they exceed the limits of the applied licenses.

Resolution

When the camera's main stream / sub stream resolution does not match the applied GV-Cloud VMS license, the following conditions will occur:

1. **When the main stream or sub stream resolution is lower than the applied license:** (1) The recordings will be uploaded to GV-Cloud VMS using the closest resolution; (2) The **Resolution does not match** event will be included in GV-Cloud VMS event log; (3) An alert message will be sent via e-mail.
2. **When both main stream and sub stream resolution exceeds the applied license:** (1) The recordings will only be saved in the USB flash drive inserted in GV-Cloud Bridge based on the main stream resolution; (2) The **License does not match** event will be included in GV-Cloud VMS event log; (3) An alert message will be sent via e-mail.

GV-Cloud VMS event logs of License not matched and Resolution not matched



Note:

1. The premium licenses are only available for GV-Cloud VMS V1.10 or later.
2. To prevent system overload and support maximum channels, consider the following: (a) Do not enable any other services such as GV-Center V2, GV-Recording Server, GV-Eye, or live streaming. (b) Do not connect to additional IP cameras when reaching the maximum number of cameras.

1.5 Connecting to PC

There are two options for powering and connecting GV-Cloud Bridge to the PC. Only one of the two ways can be utilized at once.

1. Connect **GV-PA191 PoE Adapter** (optional purchase) to the PC via the LAN port (see No. 7, *1.3 Overview*).
2. Connect a **power adapter** to the DC 12V port (No. 3, *1.3 Overview*) using the supplied terminal block. Connect to network via the LAN port (No. 7, *1.3 Overview*).

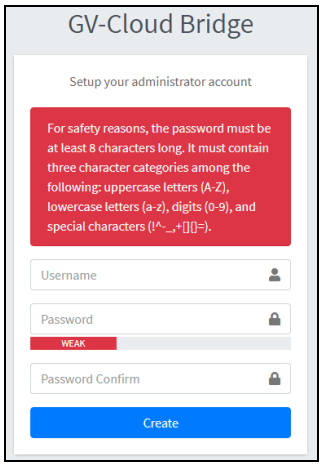
1.6 Accessing GV-Cloud Bridge

When GV-Cloud Bridge connects to a network with a DHCP server, it is allocated a dynamic IP address. To access your GV-Cloud Bridge, follow the steps below.

Note:

1. The PC used to access the Web interface must be on the same LAN as the GV-Cloud Bridge.
2. If the network does not have a DHCP server or is disabled, GV-Cloud Bridge can be reached using its default IP address 192.168.0.10, see *1.6.1 Assigning a Static IP Address*.

1. Download and install the GV-IP Device Utility program.
2. Locate your GV-Cloud Bridge on the GV-IP Device Utility window, click its IP address, and select **Web Page**. This webpage appears.

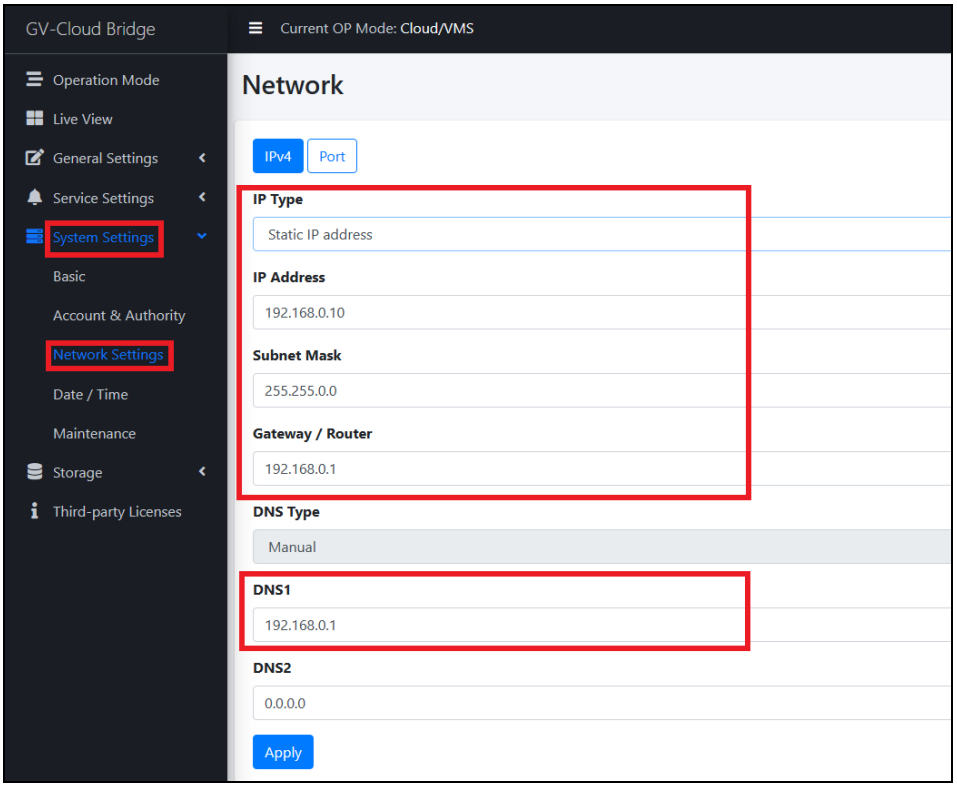


3. Type the necessary information to create a user account and click **Create**.

1.6.1 Assigning a Static IP Address

When GV-Cloud Bridge connects to LAN without a DHCP server, it is assigned a static IP address of **192.168.0.10**. To avoid IP conflicts with other GeoVision devices, follow the steps below to assign a new IP address.

1. Open your Web browser, and type the default IP address **192.168.0.10**.
2. Type your username and password. Click **Login**.
3. In the left menu, click **System Settings** > **Network Settings**.



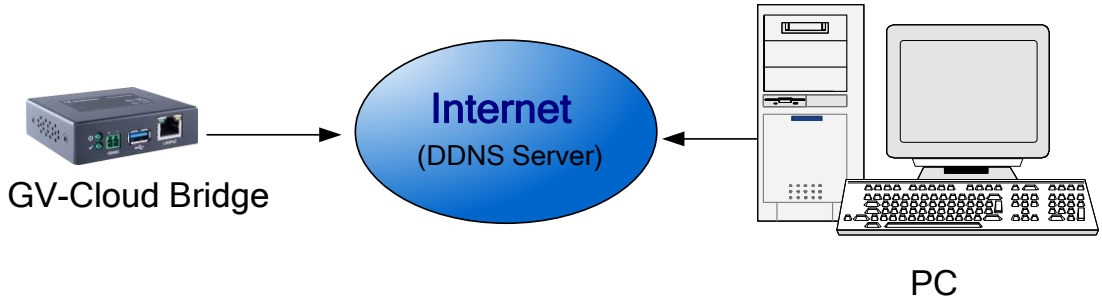
4. Select **Static IP address** as **IP Type**. Type the static IP address information, including IP Address, Subnet Mask, Default Gateway and Domain Name Server.
5. Click **Apply**. The GV-Cloud Bridge can now be reached using the static IP address configured.

Note: The Network Settings page is unavailable under the **VPN Box** mode. For details on different operation modes, see *1.7 Operation Mode.*

1.6.2 Configuring the DDNS Domain Name

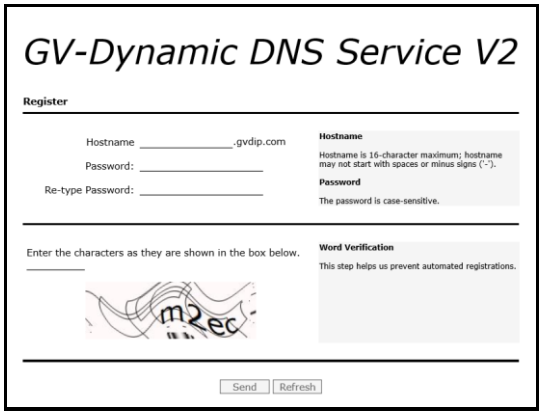
DDNS (Dynamic Domain Name System) provides another way of accessing GV-Cloud Bridge when using a dynamic IP from a DHCP server. DDNS assigns a domain name to GV-Cloud Bridge so that it can always be accessed using the domain name.

Follow the steps below to apply for a domain name from **GeoVision DDNS Server** and enable the DDNS function.

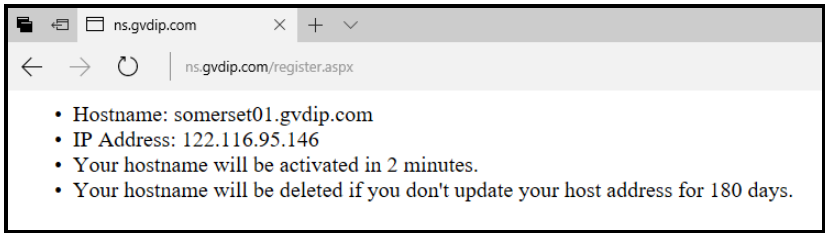


1. In the left menu, select **Service Settings** > **DDNS**.
2. Enable the connection, and click **Register**. You are directed to GV-Dynamic DNS Service V2.

3. Type a **Hostname** of up to 16 characters, including "a ~ z", "0 ~ 9", and "-". A space or "-" cannot be used as the first character.



4. Type a **Password** that is case-sensitive and at least 6 characters long. Type the password again in the Re-type Password field to confirm.
5. Type the characters or numbers displayed in the **Word Verification** box. In this example, type *m2ec*. Word Verification is not case-sensitive.
6. Click **Send**. This page shows after the registration process is complete. The **Hostname** displayed is the domain name, consisting of the registered username and “gvdip.com”, e.g. somerset01.gvdip.com.



Note: The registered username expires after three months of inactivity.

7. Return to the GV-Cloud Bridge Web interface and type the **Hostname** and **Password** registered on the DDNS Server.
8. Click **Apply**. The GV-Cloud Bridge can now be accessed using the domain name.

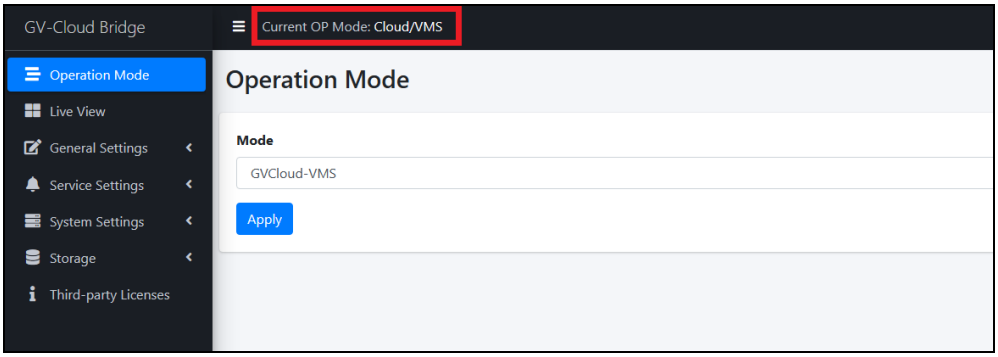
1.7 Operation Mode

Once logged in, select **Operation Mode** from the left menu. You can connect to GeoVision software or services using the following modes:

- **GV-Cloud VMS**: Connect to GV-Cloud VMS.
- **CV2 / Video Gateway / RTMP:** Connect to GV-Center V2, GV-Dispatch Server, GV-Recording Server, GV-Eye, or live stream on YouTube and Twitch.
- **VPN Box:** Allow users to create a virtual private network for devices on the same LAN as GV-Cloud Bridge. See *1.13 VPN Box Operation Mode*.

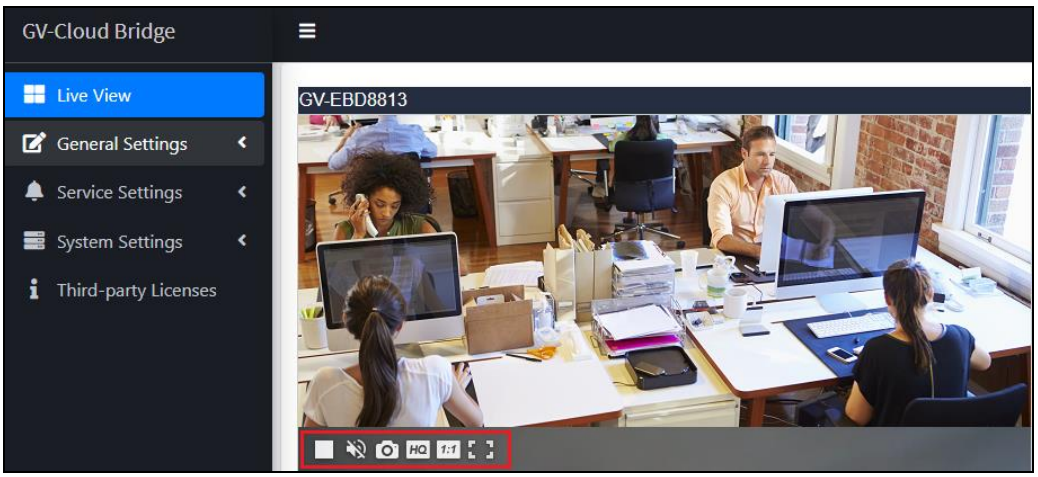
After switching to the desired mode, GV-Cloud Bridge will reboot for the change to take effect. You can only use one mode at a time.

The current operation mode is shown on the top of the Web interface.



1.8 Live View

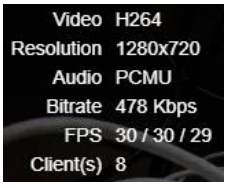
Once a camera is connected to GV-Cloud Bridge, you can see its live view and use the following functions for monitoring. For how to connect a camera, see *1.9.1 Connecting to IP Cameras.*



The controls on the channel:

	The live view is enabled by default. Click to disable the live view.
	The audio is disabled by default. Click to enable the audio.
	Click to take a snapshot. The snapshot is saved immediately to your PC's Downloads folder in .png format.
	The video resolution is set to sub stream by default. Click to set the video resolution to main stream of high quality.
	Picture-in-Picture (PIP) is disabled by default. Click to enable.
	Screen is disabled by default. Click to view in full screen.

Additionally, you can right-click the live view image, and select **Stats** to see the current **Video** (codec), **Resolution**, **Audio** (codec), **Bitrate**, **FPS**, and **Client** (the number of current connections to the camera) in use.



1.9 General Settings

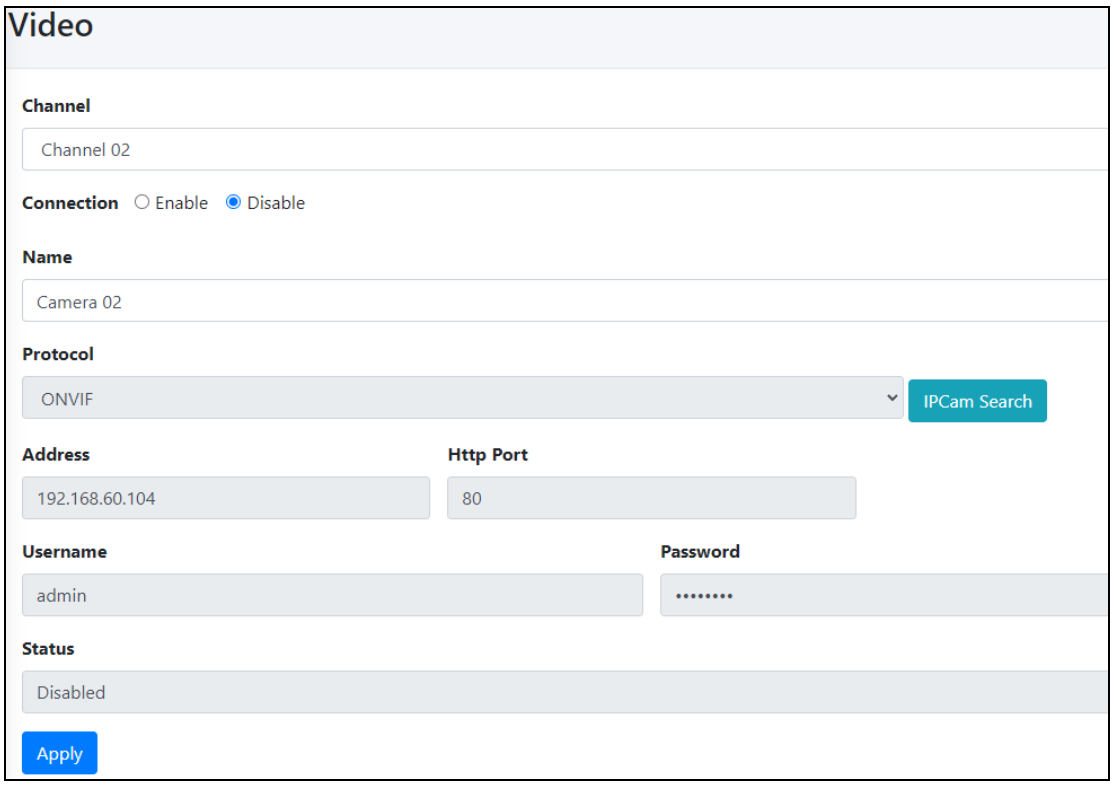
The following options are available under General Settings of the left menu. Procedures are detailed in the following sections:

- **Video Settings**: See *1.9.1 Connecting to IP Cameras*.
- **IO Settings**: See *1.9.2 Configuring Input / Output Settings.*
- **IO Box Settings:** See *1.9.3 Connecting to I/O Box*.

1.9.1 Connecting to IP Cameras

To set up connections to cameras and the supported GeoVision software or mobile app, follow the steps below.

1. In the left menu, select **General Settings** > **Video Setting**.
2. For **Channel**, select one from Channel 01 to Channel 04 and enable the connection.



3. Type the necessary information of the camera to be added. Optionally, click **IPCam Search** by Protocol to detect cameras on the same LAN, and then select a camera to automatically import its connection information to this Video page.
4. Click **Apply**. Once connected, the Status will display “Connected”.

1.9.2 Configuring Input / Output Settings

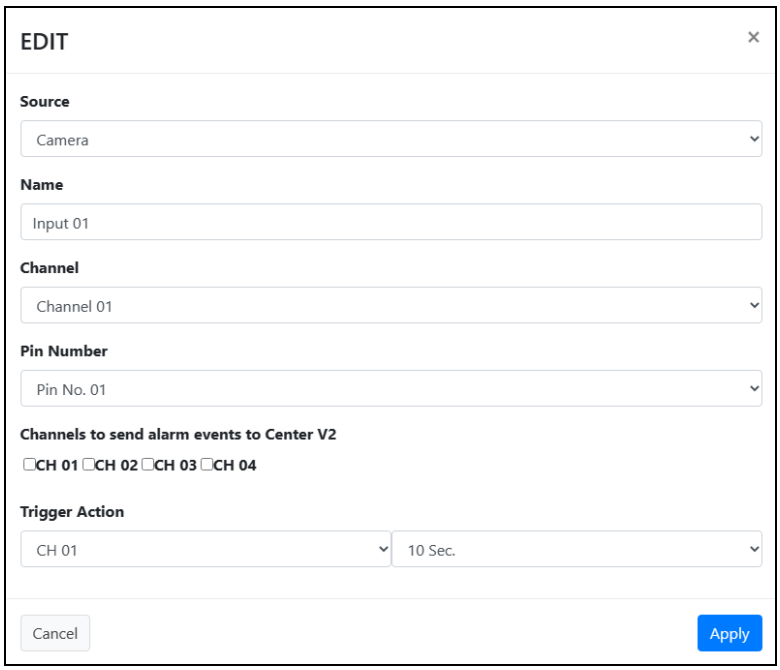
GV-Cloud Bridge can configure and manage up to eight input and eight output devices from cameras and GV-IO Boxes. To configure I/O devices from the GV-IO Box, see *1.9.3 Connecting to I/O Box* to set up GV-IO Box in advance.

1.9.2.1 Input Settings

To configure an input device, follow the steps below.

1. In the left menu, select **General Settings** > **IO Settings**. This page appears.

2. To configure an input device, click **Edit**.
3. Select **Camera** or **IO Box** for **Source**. The edit page appears based on the selected source.



- **Name:** Type a desired name for the input settings.
- **Channel / IO Box:** Specify the camera channel or IO Box number based on the selected source.
- **Pin Number / IO Box Pin Number:** Select the desired pin number for the input device from the camera / IO Box.
- **Channels to send alarm events to Center V2:** To send event recordings to central monitoring software GV-Center V2 upon the input trigger, select the desired camera(s).
- **Trigger Action:** To send event recordings to GV-Cloud VMS / GV-Center V2 upon input triggers, specify the recording channel and duration from the dropdown lists respectively.

4. Click **Apply**.

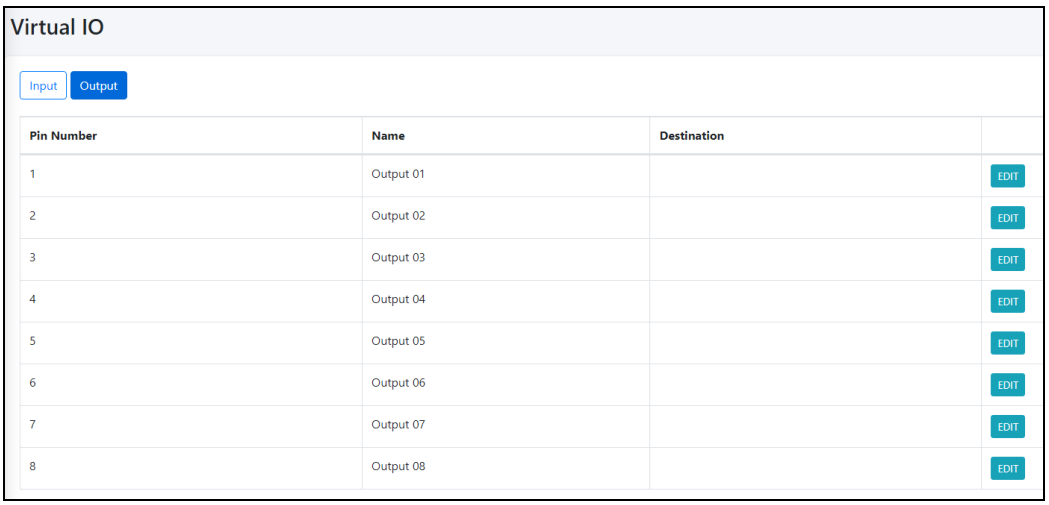
Note:

1. To store recordings on GV-Cloud Bridge and send them to GV-Cloud VMS upon input triggers, ensure to connect to GV-Cloud VMS. See *1.10.1 Connecting to GV-Cloud VMS* for details.
2. To have GV-Center V2 monitoring, ensure to enable **Attachment Mode** under **Subscriber Settings** on GV-Center V2. See *1.4.2 Subscriber Settings* of *GV-Center V2 User's Manual* for details.

1.9.2.2 Output Settings

To configure an output device, follow the steps below.

1. Select **Output** on the Virtual IO page. This page appears.



2. To configure an output device, click **Edit**.
3. Follow Steps 3 ~ 4 in *1.9.2.1 Input Settings*.

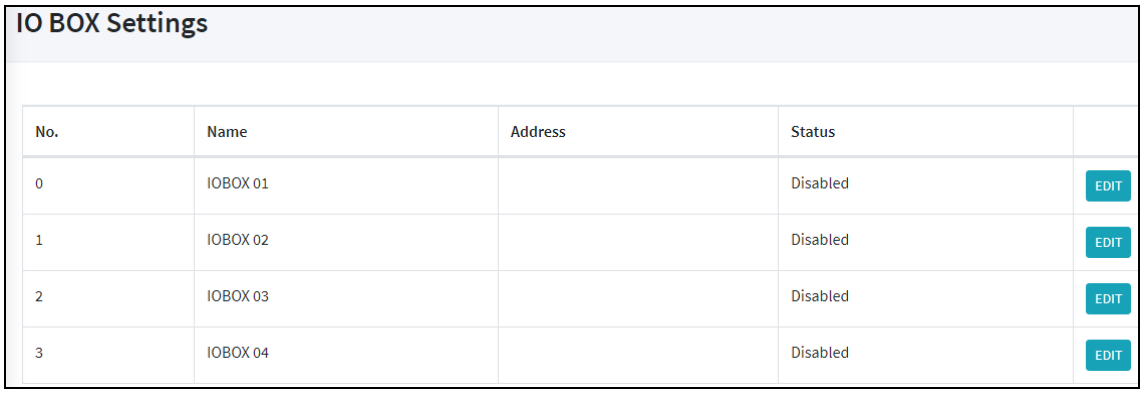
Note:

1. To send event alerts and recordings to GV-Cloud VMS upon output triggers, ensure to connect to GV-Cloud VMS. See *1.10.1 Connecting to GV-Cloud VMS* for details.
2. You can manually trigger the camera output using the GV-Eye app. See *8. Live View* in *GV-Eye Installation Guide*.

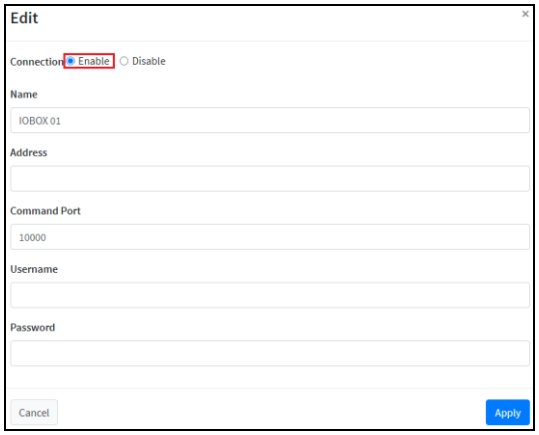
1.9.3 Connecting to I/O Box

GV-Cloud Bridge can connect up to four pieces of GV-I/O Box. To connect to a GV-I/O Box, follow the steps below.

1. In the left menu, click **General Settings** > **IO BOX Settings**. This page appears.



2. To configure a GV-I/O Box, click **Edit**.
3. Enable the connection and type the necessary information to connect the GV-I/O Box.



4. Click **Apply**.
5. To configure the input / output devices connected to the GV-I/O Box, see *1.9.2 Configuring Input / Output Settings.*

1.10 Service Settings

The following options are available under Service Settings of the left menu. Procedures are detailed in the following sections:

- **GV-Cloud VMS:** See *1.10.1 Connecting to GV-Cloud VMS*.
- **GV-Center V2:** See *1.10.2 Connecting to GV-Center V2 / Dispatch Server.*
- **GV-Video Gateway:** See *1.10.3 Connecting to GV-Recording Server / Video Gateway*.
- **GV-Relay:** See *1.10.4 Connecting to GV-Eye.*
- **Live Broadcast / RTMP:** See *1.10.5 Live Broadcasting*.
- **DDNS:** See *1.6.2 Configuring the DDNS Domain Name*.

1.10.1 Connecting to GV-Cloud VMS

Cameras connected via GV-Cloud Bridge can connect to GV-Cloud VMS, allowing for cloud-based monitoring.

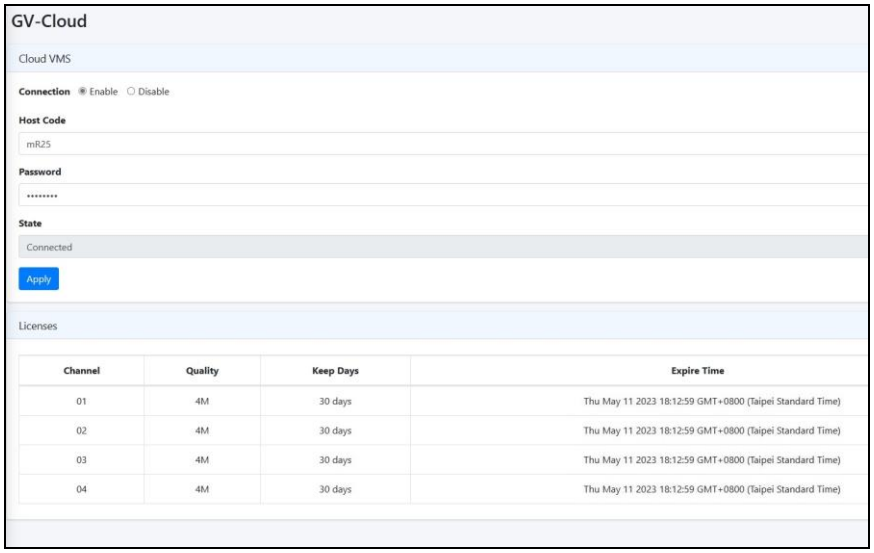
On GV-Cloud VMS

1. Add your GV-Cloud Bridge to the host list on GV-Cloud VMS first. For details, see *2.3 Creating Hosts* in *GV-Cloud VMS User's Manual*.

On GV-Cloud Bridge

2. In the left menu, select **Operation Mode** > **GV-Cloud VMS**.
3. Click **Apply.** When the device is rebooted, the mode will be applied.
4. In the left menu, click **Service Settings** > **GV-Cloud**.

5. Enable the connection and type the Host Code and the Password created on GV-Cloud VMS (Step 1).



6. Click **Apply.** Once connected, the State field will display “Connected”.

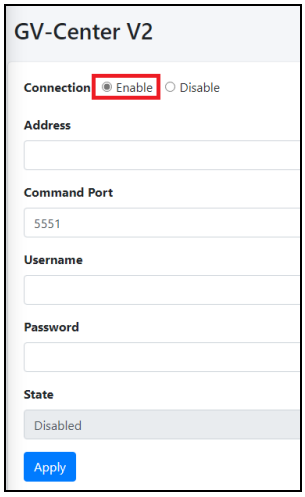
Note:

1. When motion occurs, GV-Cloud Bridge can send snapshots and video attachments (up to 30 seconds, set to sub stream by default) to GV-Cloud VMS, as well as the following AI events from AI-capable GV/UA-IP cameras: Intrusion / PVD Motion / Cross Line / Enter Area / Leave Area.
2. Insert a USB flash drive to your GV-Cloud Bridge to send video attachments to GV-Cloud VMS. To ensure the USB flash drive is working properly, select **Storage** > **Disk** in the left menu and check if the Status displays OK.
3. When video playback lags, GV-Cloud VMS (Event Query) will display a “System Overload” warning message. To resolve the issue, do one of the following measures:
   i. Lower camera bitrate.
   ii. Disable specific functions on part of connected cameras: **GV/UA-IP and ONVIF cameras** (Motion detection); **AI-capable GV/UA-IP cameras** (AI functions: Intrusion/PVD Motion/Cross Line/Enter Area/Leave Area)
4. When connecting to GV-Cloud VMS, make sure to enable ICMP Protocol from the router for external communication.

1.10.2 Connecting to GV-Center V2 / Dispatch Server

Cameras connected via GV-Cloud Bridge can connect to GV-Center V2 or GV-Dispatch Server, allowing for centralized monitoring.

1. In the left menu, select **Operation Mode** > **CV2 / Video Gateway / RTMP**.
2. Click **Apply**. When the device is rebooted, the mode will be applied.
3. In the left menu, click **Service Settings** > **GV-Center V2**.
4. Enable the connection and type the necessary information for GV-Center V2 / Dispatch Server to connect.



7. Click **Apply**. Once connected, the State field will display “Connected”.

Note:

1. GV-Cloud Bridge sends alerts and video attachments to GV-Center V2 upon motion, input trigger, output trigger, video lost, video resumed, and tampering alarm events.
2. GV-Cloud Bridge sends alerts and video attachments to GV-Center V2 (V18.3 or later) upon Scene Change, Defocus, and AI events from AI-capable GV-IP cameras (Crossing Line / Intrusion / Entering Area / Leaving Area) and AI-capable UA-IP cameras (Cross Counting / Perimeter Intrusion Detection).
3. Insert a USB flash drive to GV-Cloud Bridge to send video attachments to GV-Center V2.
4. Enable **Attachment Mode** under **Subscriber Settings** on GV-Center V2 to activate the video attachment function. See *1.4.2 Subscriber Settings* of *GV-Center V2 User’s Manual* for details.

1.10.3 Connecting to GV-Recording Server / Video Gateway

Cameras connected via GV-Cloud Bridge can make a passive connection to the GV-Recording Server / Video Gateway, allowing for centralized monitoring and recording.

Note:

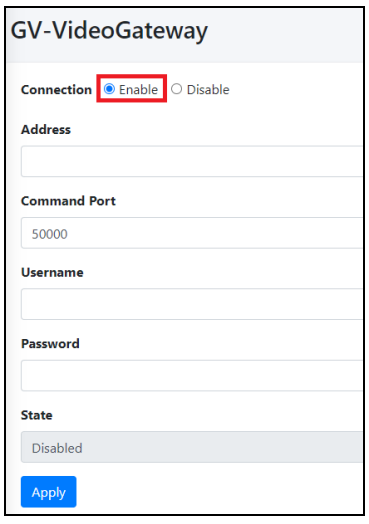
1. The passive connection only applies to GV-Cloud Bridge V1.01 or later and GV-Recording Server / Video Gateway V2.1.0 or later.
2. GV-Cloud Bridge allows 3rd party IP cameras to establish passive connections to GV-Recording Server / Video Gateway without port forwarding.

On GV-Recording Server

1. To create passive connection, first follow the instructions in *4.2 Passive Connection* of *GV-Recording Server User's Manual*.

On GV-Cloud Bridge

2. In the left menu, select **Operation Mode** > **CV2 / Video Gateway / RTMP**.
3. Click **Apply**. When the device is rebooted, the mode will be applied.
4. In the left menu, click **Service Settings** > **GV-Video Gateway**.
5. Enable the connection and type the necessary information for GV-Recording Server / Video Gateway to connect.



6. Click **Apply**. Once connected, the State field will display "Connected".

1.10.4 Connecting to GV-Eye

Cameras connected via GV-Cloud Bridge can be monitored using the GV-Eye mobile app. Follow the steps below to enable the connection to GV-Eye.

GV-Relay QR code service allows you to connect the GV-Eye mobile app by scanning the QR code displayed on GV-Cloud Bridge.

Note: Connecting GV-Eye by GV-Relay QR code is a paid service. Each GV-Relay account receive 10 GB of free data every month, with more data available for purchase using the GV-Eye mobile app. For details, refer to Chapter *5. GV-Relay QR Code* in *GV-Eye Installation Guide*.

On GV-Cloud Bridge

1. In the left menu, select **Operation Mode** > **CV2 / Video Gateway / RTMP**.
2. Click **Apply**. When the device is rebooted, the mode will be applied.
3. In the left menu, click **Service Settings** > **GV-Relay**.
4. Select **On** to enable the service.

On GV-Eye

1. Tap **Add** + on the Camera / Group List page of GV-Eye to access the **Add Device** page.
2. Tap **QR-code scan**, and hold your mobile device over the QR code on the GV-Relay page.
3. Once the scanning is complete, type the name and login credentials of your GV-Cloud Bridge.

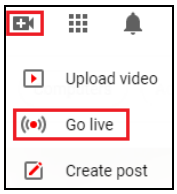
4. Click **Get Information**. All cameras from your GV-Cloud Bridge are displayed.
5. Select the cameras you want to view on GV-Eye and click **Save**. The selected cameras are added to GV-Eye under a Host Group.

1.10.5 Live Broadcasting

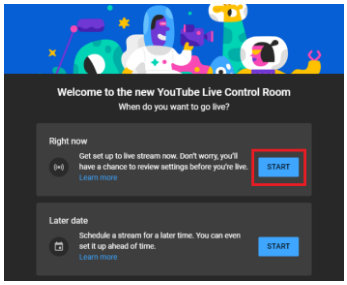
Cameras connected via GV-Cloud Bridge can connect to YouTube or Twitch for live broadcasting. The user interfaces vary per platform. Locate the options specific to your platform. In the following procedures, we use YouTube as an example.

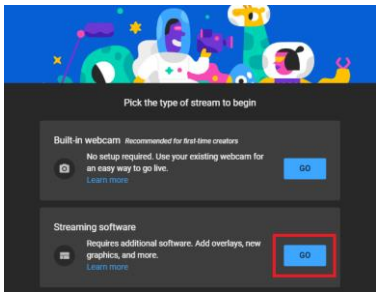
On YouTube

1. Log in to your YouTube account, click the **Create** icon and select **Go live**.

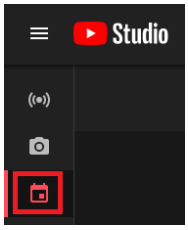


2. On the welcome page to Live control room, select **Start** for **Right now**, and then **GO** for **Streaming software**.

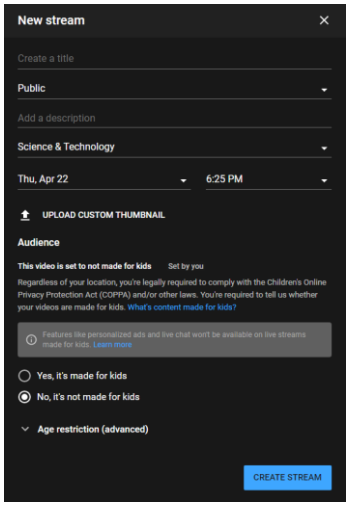




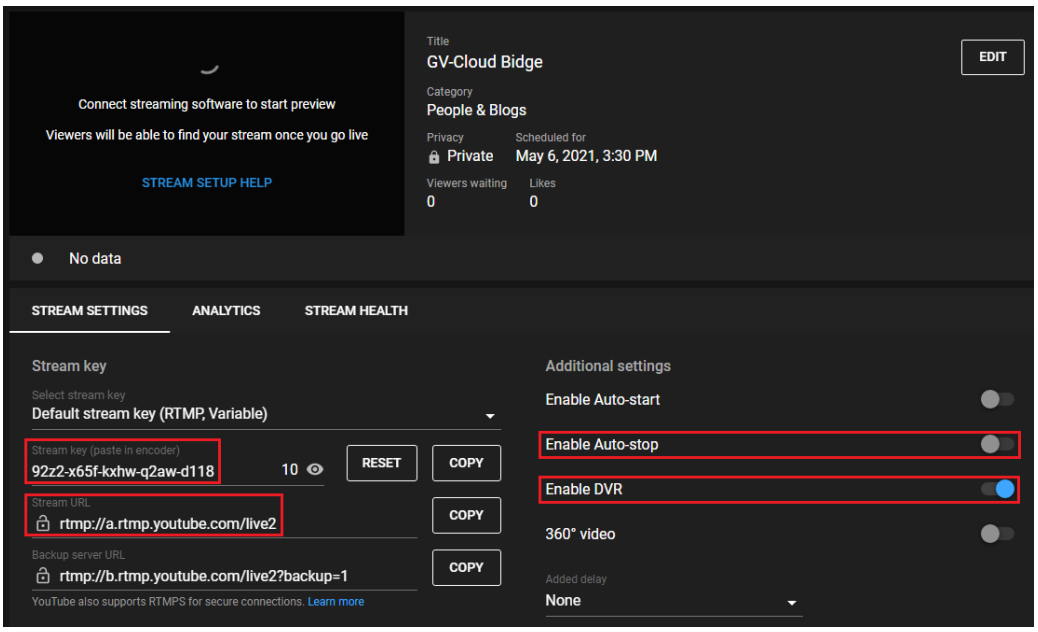
3. Select the **Manage** icon, and then **SCHEDULE STREAM**.



4. Specify the necessary information for your new stream. Click **CREATE STREAM**.



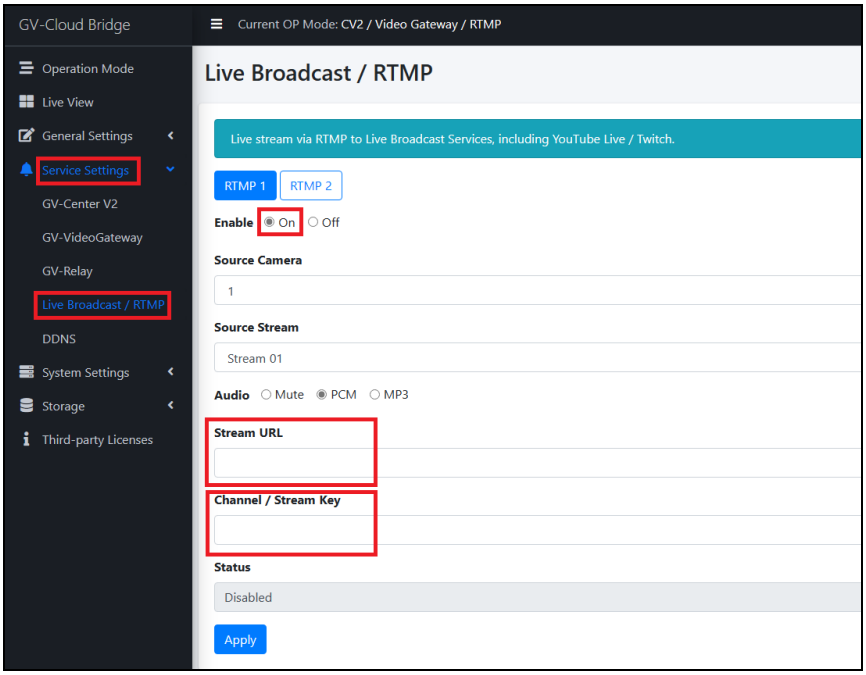
5. Make sure to disable **Enable Auto-stop**, and enable **Enable DVR**. The Stream Key and Stream URL are now available.



On GV-Cloud Bridge

6. In the left menu, select **Operation Mode** > **CV2 / Video Gateway / RTMP**.
7. Click **Apply**. When the device is rebooted, the mode will be applied.
8. Click **Service Settings** > **Live Broadcast / RTMP**.

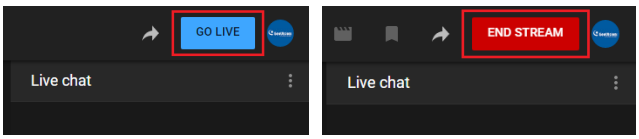
9. Enable the connection, and copy and paste the **Stream Key** and **Stream URL** from YouTube to the setting page.



10. Select **PCM** or **MP3** for Audio, or select **Mute** for no sound.
11. Click **Apply**. You can now view the live view broadcast from GV-Cloud Bridge in the YouTube preview window.

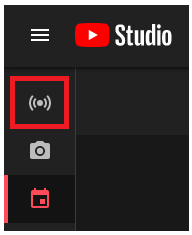
On YouTube

12. Click **GO LIVE** to begin streaming, and **END STREAM** to end streaming.

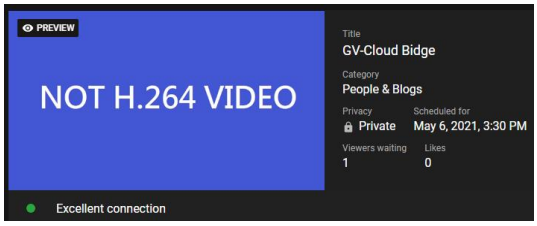


IMPORTANT:

1. At Step 3, do not select the **Stream** icon to configure the live broadcast. This will enable **Enable Auto-stop** by default, and disconnect from the live broadcast when the Internet connection is unstable.



2. Make sure to set your camera's video compression to **H.264**. If not, the live broadcast will appear as follow:

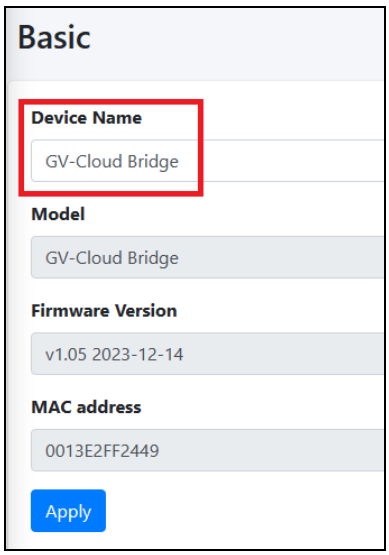


1.11 System Settings

1.11.1 Setting Device Name

To change the device name of your GV-Cloud Bridge, follow the steps below.

1. In the left menu, click **System Settings** > **Basic**.
2. Type a desired **Device Name**. Click **Apply**.



1.11.2 Creating User Accounts

GV-Cloud Bridge supports up to 32 user accounts. To manage user accounts, follow the steps below.

Note: The ROOT account is created by default and cannot be removed. The account has full access to all functions.

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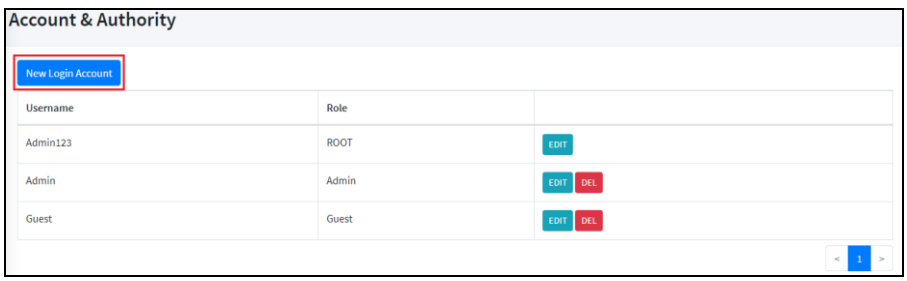
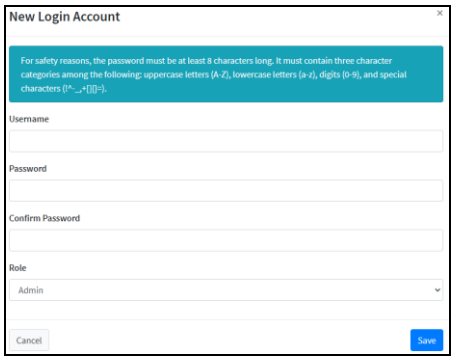
1. In the left menu, click **System Settings** > **Account & Authority**.
2. To add a new account, click **New Login Account**.



3. Type the necessary information and select a role as **Admin** or **Guest**. Click **Save**.



- **Admin:** This role can be added or deleted. The Admin account has full access to all functions.
- **Guest:** This role can be added or deleted. The Guest account can only access the live view.

4. To modify the password or role of an account, click **Edit** for the account and make your changes. Click **Save**.

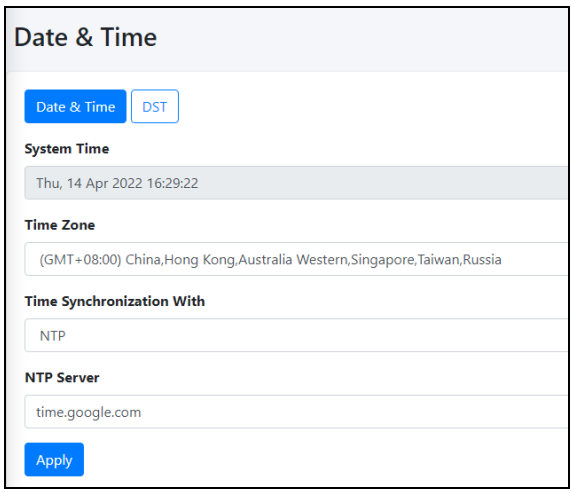
1.11.3 Setting Network

See *1.6.1 Assigning a Static IP Address* or *1.6.2 Configuring the DDNS Domain Name*.

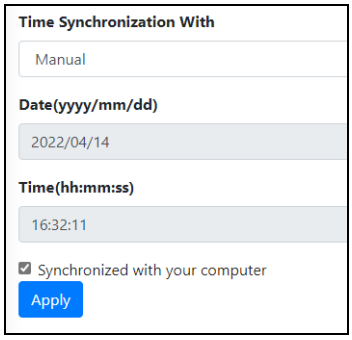
1.11.4 Setting Date and Time

To configure the date and time of your GV-Cloud Bridge, follow the steps below.

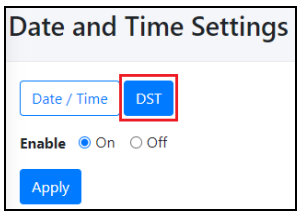
1. In the left menu, click **System Settings** > **Date / Time**. This page appears.



2. Select a desired **Time Zone**.
3. The **Time Synchronization With** is set to **NTP** by default. You can change the NTP server in use by typing another server under **NTP Server**.
4. To manually set the date and time for your device, select **Manual** under **Time Synchronization With**, and type the desired date and time. Or enable **Synchronized with your computer** to sync the device's date and time with those of the local computer.



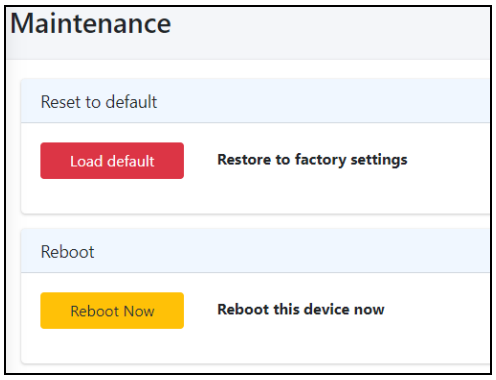
5. If necessary, you can also enable or disable Daylight Saving Time in the **DST** setting.



1.11.5 Loading Default

If for any reason the GV-Cloud Bridge is not responding correctly, you can reboot it or reset it to factory default settings.

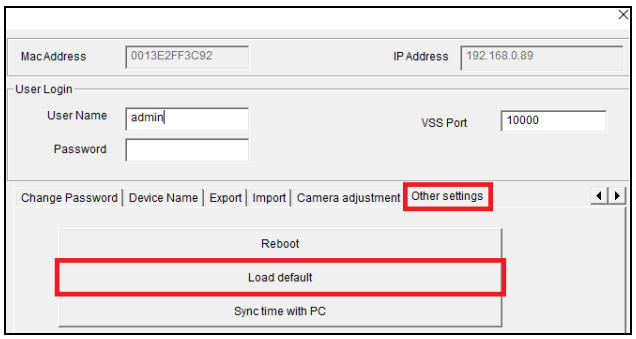
1. In the left menu, click **System Settings** > **Maintenance**.
2. Select **Load Default** or **Reboot Now**.



- For **ROOT** account only, click **Load default** to restore to factory settings or **Reboot Now** to restart.
- For **Admin** or **Guest** accounts, click **Reboot Now** to restart.

You can also use the following two methods to reboot or load default settings for GV-Cloud Bridge:

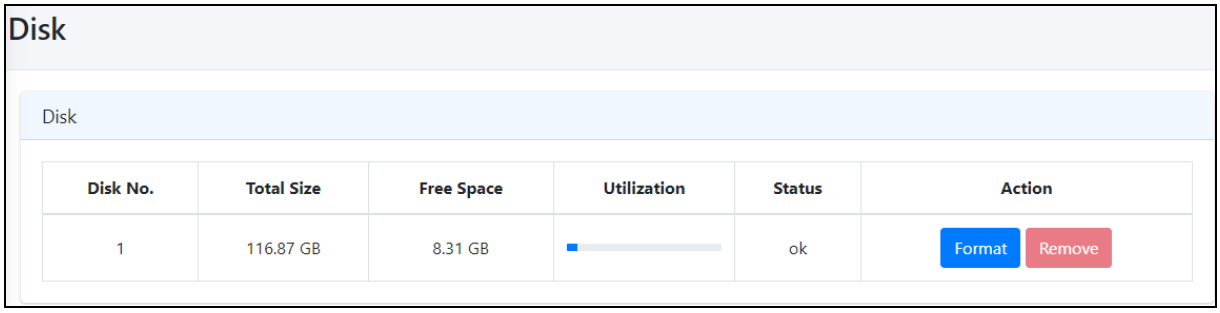
1. **On the device:** Press and hold the **Reset** button (No. 8, *1.3 Overview*) to reboot, or the **Default** button (No. 7, *1.3 Overview*) to load default.
2. **GV-IP Device Utility:** Using the utility to locate your GV-Cloud Bridge, click its IP address, and select **Configure**. On the popup dialog box, click the **Other settings** tab, type the User Name and Password of the GV-Cloud Bridge, and then click **Load default**.



1.12 Storage

When you insert a USB flash drive into GV-Cloud Bridge, utilize the Disk page to format it. The page also displays the current storage space status.

To access the page, in the left menu, click **Storage** > **Disk**.



1.13 VPN Box Operation Mode

The **VPN Box** Operation Mode of GV-Cloud Bridge allows users to create a virtual private network environment for devices on the same LAN, eliminating the need for port forwarding.

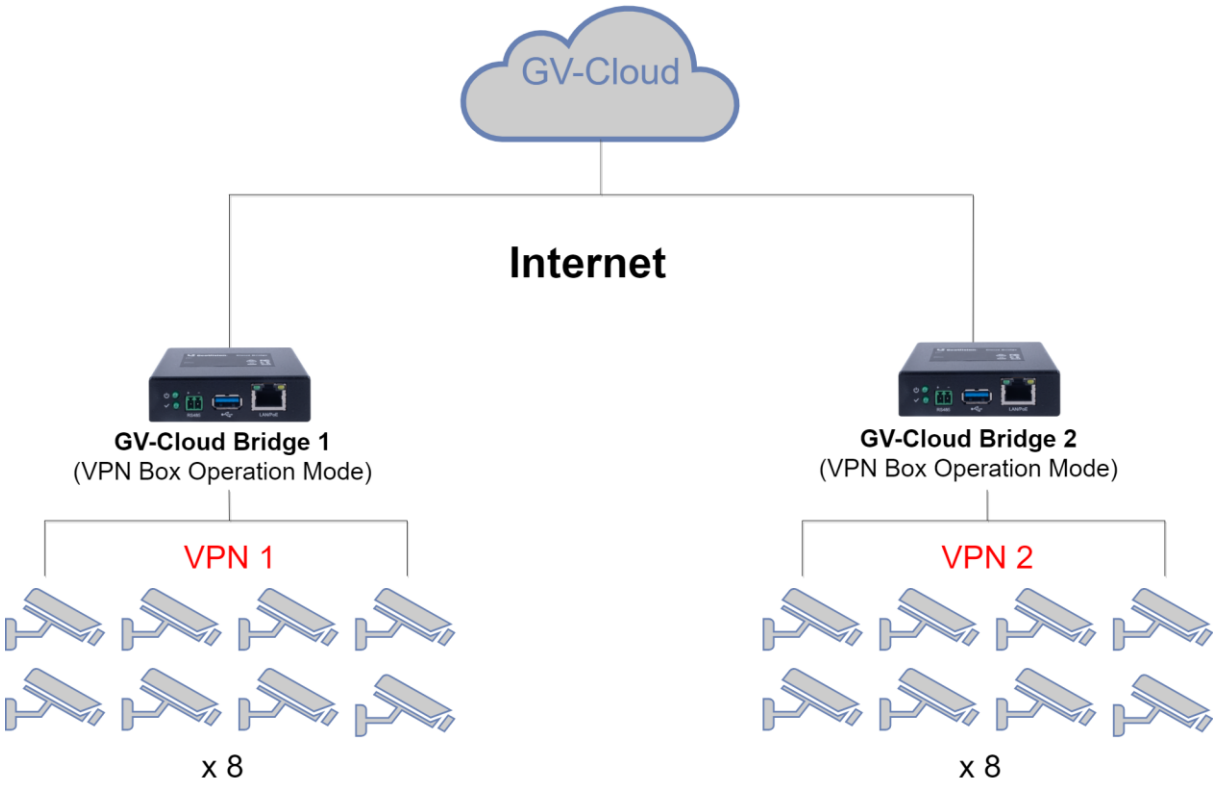
The following sections introduce the VPN setup methods for enabling the built-in VPN function in GV-Cloud Bridge:

Step 1. Sign up on GV-Cloud

Step 2. Create a VPN account on GV-Cloud

Step 3. Connect GV-Cloud Bridge to the VPN account on GV-Cloud

Step 4. Map the IP addresses of up to 8 devices, on the same LAN as GV-Cloud Bridge, to VPN IP addresses

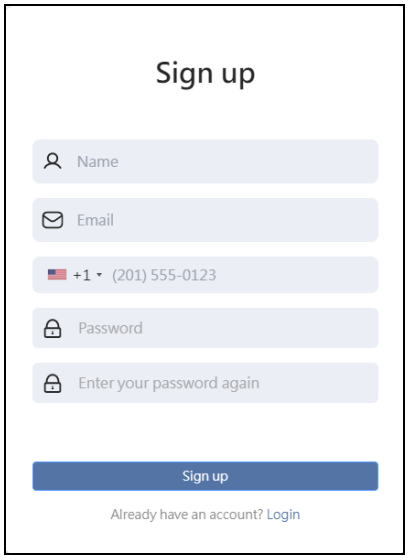


Note:

1. This VPN mode is not limited to IP cameras. Any networked devices (up to 8) can connect.
2. To maintain a steady connection, make sure the total bandwidth of all connected devices (up to 8) does not exceed 15 Mbps.

Step 1. Sign up on GV-Cloud

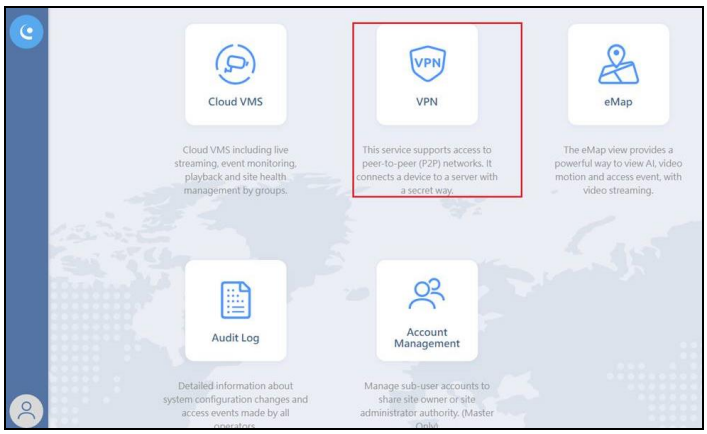
1. Visit GV-Cloud at https://www.gvaicloud.com/ and click **Sign up**.
2. Type the necessary information and complete the sign-up procedure.



3. Confirm the account by clicking the activation link sent via e-mail. Keep the attached registration information for logging in GV-Cloud later. For details, see *Chapter 1* in *GV-VPN Guide*.

Step 2. Create a VPN account on GV-Cloud

4. Log in GV-Cloud at https://www.gvaicloud.com/ using the information created at *Step 3.*
5. Select **VPN**.



6. On the VPN setup page, click the **Add** button and type the necessary information to create a VPN account.

Step 3. Connect GV-Cloud Bridge to the VPN account on GV-Cloud

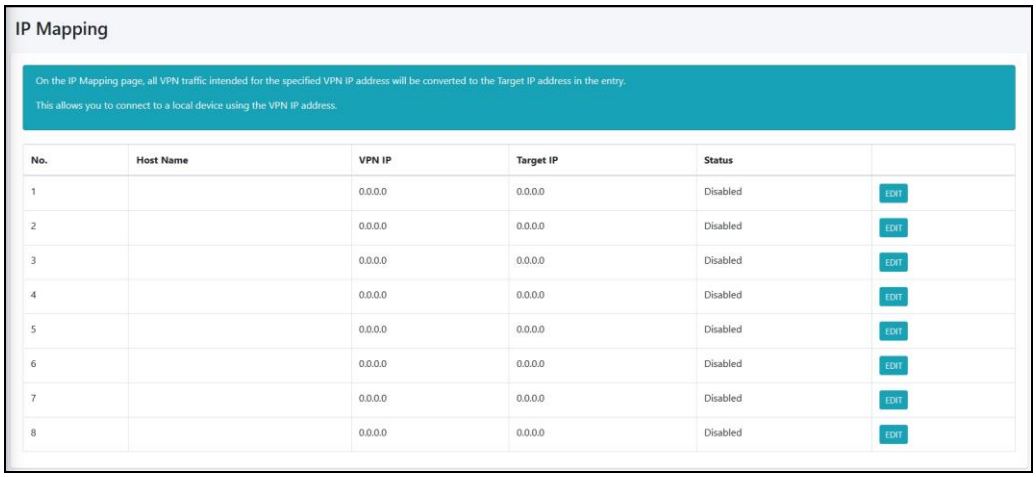
7. On the GV-Cloud Bridge Web interface, go to **Operation Mode > VPN Box**.
8. Click **Apply**. The mode will be successfully switched after rebooting the device.
9. In the left menu, click **GV-VPN** > **Basic**.

10. Enable the connection and give a **Host Name** to the setting.
11. To connect to the VPN account on GV-Cloud, type the ID and Password created at *Step 6*
12. To configure a VPN IP for your GV-Cloud Bridge, type a VPN IP ranging from 198.18.0.1 to 198.18.255.254.
13. Click **Apply**. Once connected, the Status will display “Connected”.

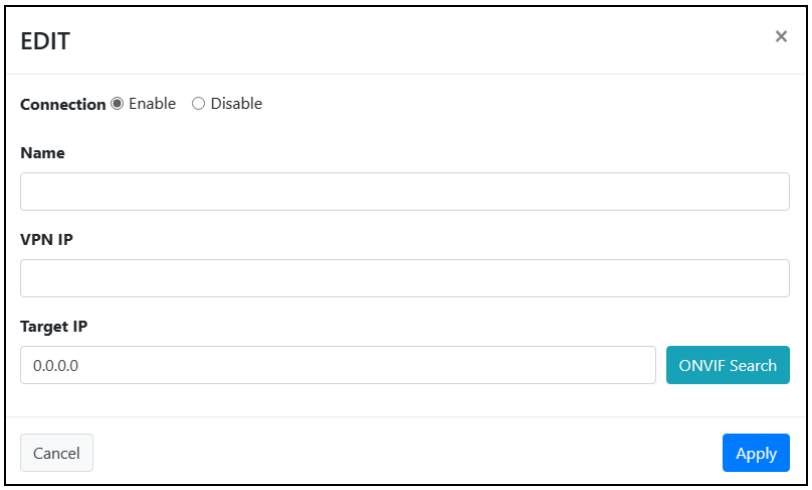
Note: Depending on your network setup, you will see the following NAT types: **Moderate** / **Restrict** / **Exceed limit** / **Unknown**. For more details, see No.8, *3. Configuring GV-VPN* on *GV-VPN Guide*.

Step 4. Map the IP addresses of up to 8 devices, on the same LAN as GV-Cloud Bridge, to VPN IP addresses

14. In the left menu, select **GV-VPN** > **IP Mapping**.



15. To map a VPN IP to a device, click **Edit**. The Edit page appears.



16. Enable the connection and give a **Name** to the setting.
17. To configure a VPN IP for the device, type a VPN IP ranging from 198.18.0.1 to 198.18.255.254 and the device's IP (Target IP).
18. For the device's IP, optionally click **ONVIF Search** to search for the device, and click **Import** to automatically fill in the device's IP on the Edit page.
19. Click **Apply**.

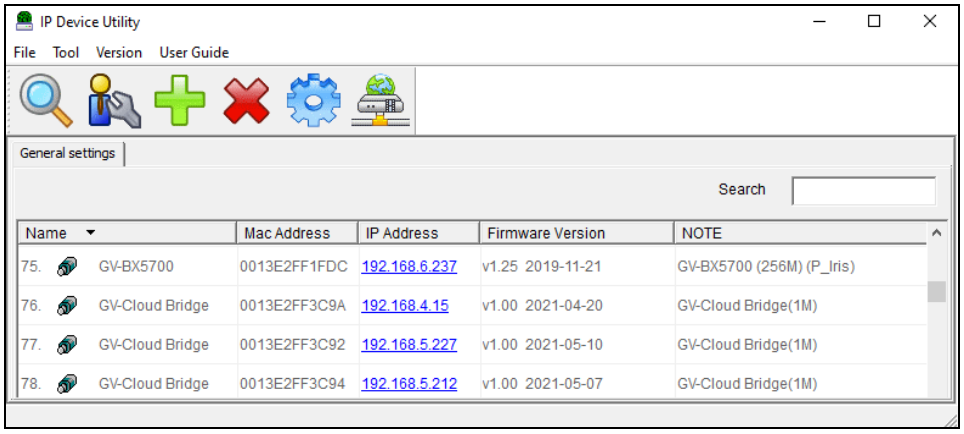
The Host Name, VPN IP, and Target IP are displayed on each device entry. Once connected, the Status will display "Connected".

Note: Make sure the VPN IP set for different devices do not repeat.

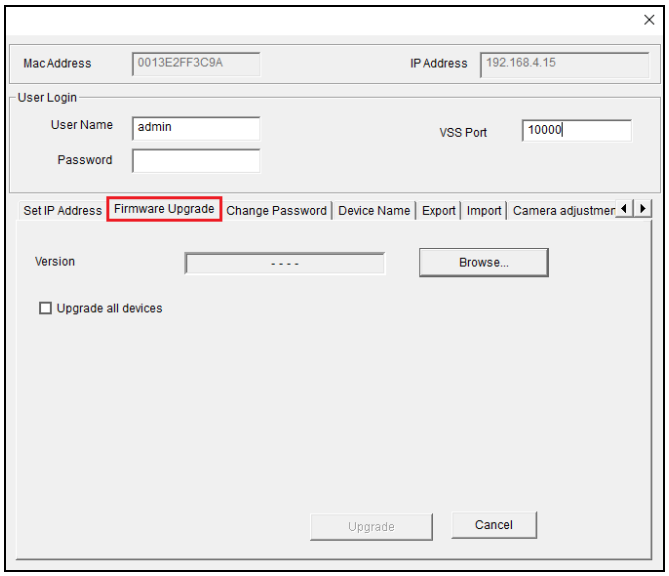
1.14 Firmware Upgrade

The GV-Cloud Bridge firmware can only be updated using GV-IP Device Utility. To update the firmware, follow the steps below.

1. Download and install the GV-IP Device Utility.
2. Locate your GV-Cloud Bridge on GV-IP Device Utility window, click its IP address, and select **Configure**.



3. On the popup dialog box, click the **Firmware Upgrade** tab, and click **Browse** to locate the firmware file (.img) saved at your local computer.



4. Type the **User Name** and **Password** of the ROOT or Admin account. Click **Upgrade**.

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