



GV-VPN

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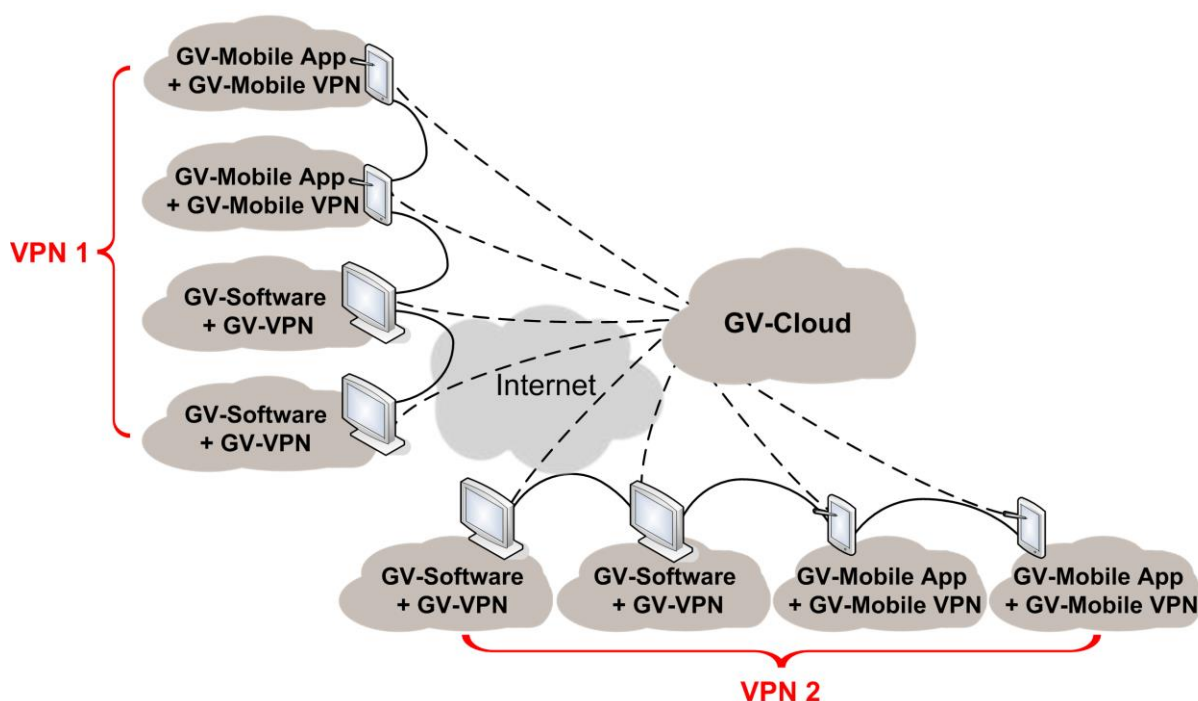
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GV-VPN

The **GV-VPN desktop utility**, together with the cloud-based platform GV-Cloud, enables GeoVision desktop software on separate PCs to connect to a virtual private network (VPN). You can **create multiple VPNs** on the **GV-Cloud platform**, allowing flexible deployment across different teams or locations.

Mobile devices can also join the same VPN by installing the **GV-Mobile VPN mobile app**, allowing GeoVision mobile apps to connect. By linking PCs and mobile devices through a unified VPN, GV-VPN and GV-Mobile VPN eliminate the need for complicated router configurations.



Terminology

- **GV-Mobile Apps:** GeoVision mobile applications such as **GV-Eye**, **GV-Face**, etc.
- **GV-Software:** GeoVision desktop software including **GV-VMS**, **GV-Recording Server**, and related applications.

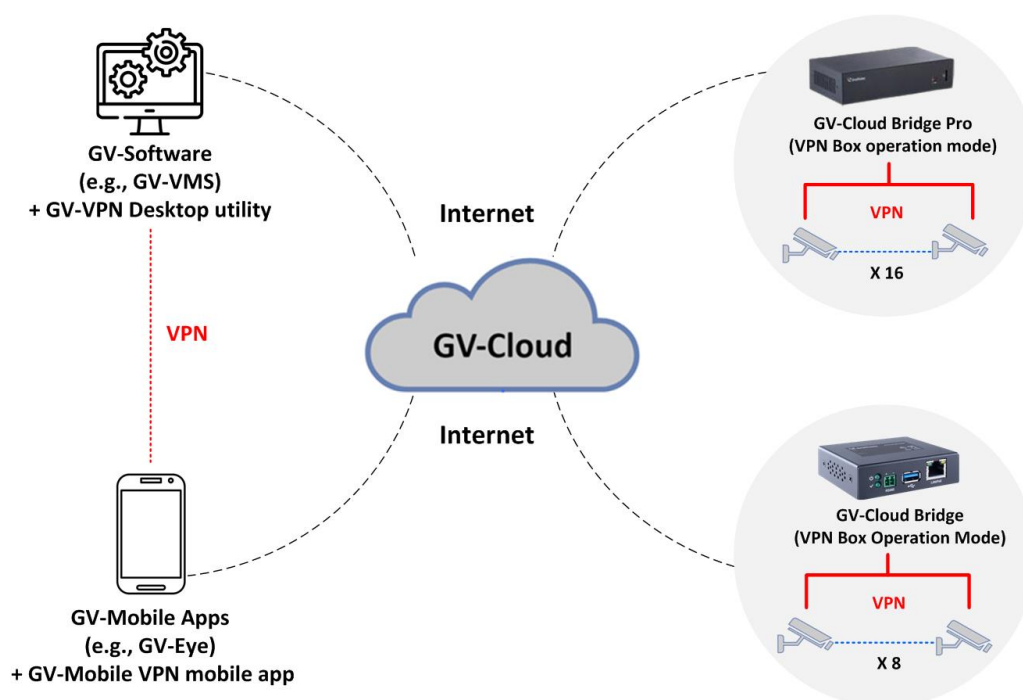
Note:

1. The GV-VPN desktop utility supports all GV-Software.
 2. The GV-VPN desktop utility does not support symmetric or UDP broadcast-disabled networks.
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VPN Hardware Options: GV-Cloud Bridge Series

Advanced users can purchase GV-Cloud Bridge Pro or GV-Cloud Bridge, both of which include built-in VPN functionality. The two devices can increase the utility of VPN by enabling GV-Software and GV-Mobile Apps to connect to IP cameras in VPN environments.



Note: For details on GV-Cloud Bridge Pro and GV-Cloud Bridge, see [GV-Cloud Bridge Pro Installation Guide](#) and [GV-Cloud Bridge Installation Guide](#), respectively. To enable GV-Software to connect to IP cameras via GV-Cloud Bridge Pro or GV-Cloud Bridge, use the same VPN ID and password created on GV-Cloud.



Supported OS

- Windows 10 / 11 / Server 2022

License

Free License	10 hosts
License Option	128 hosts, 256 hosts

Note:

1. For over 256 hosts, the increment for each license is 128 hosts.
2. Contact our sales representatives directly to purchase the license.
3. You will receive e-mail reminders 15 days before the license expires. If the license is not renewed, partial hosts will be disabled.

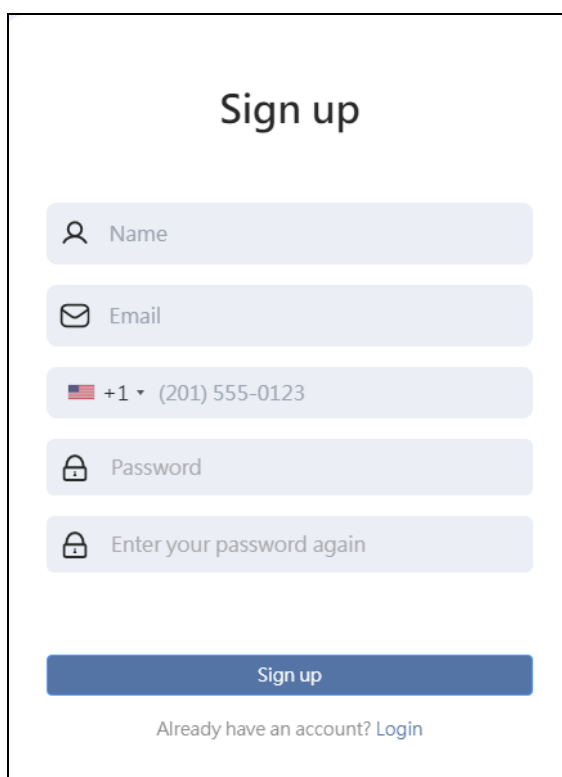


Getting Started

1. Signing up on GV-Cloud

It is required to create a VPN on GV-Cloud first for the configurations on the GV-VPN desktop utility later. To create a VPN on GV-Cloud, follow the instructions below to sign up on GV-Cloud first.

1. On the Web browser, visit the GV-Cloud webpage at <https://www.gvaicloud.com/>.
2. Click **Sign Up**. This page appears.



The screenshot shows a 'Sign up' form with the following fields and elements:

- Sign up** (Title)
- Name** (Text input field with a person icon)
- Email** (Text input field with an envelope icon)
- Phone Number** (Text input field with a dropdown menu showing '+1' and a text field containing '(201) 555-0123')
- Password** (Text input field with a lock icon)
- Enter your password again** (Text input field with a lock icon)
- Sign up** (Blue button)
- Already have an account? Login** (Text link)

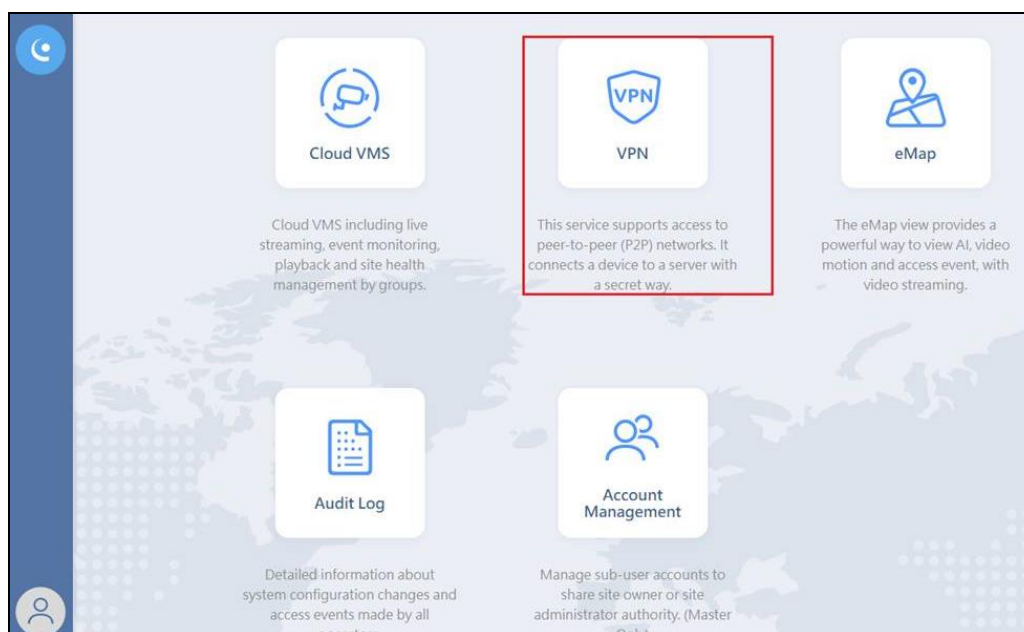
3. Type the user's Name, E-mail, Password, type the password again, and click **Sign up**. You will receive a confirmation e-mail.
4. To confirm the e-mail account, click the activation link in the confirmation e-mail. You will receive an additional e-mail confirming the success of GV-Cloud registration, along with an account ID number. Keep the information for logging in GV-Cloud later.



2. Creating a VPN on GV-Cloud

After successfully signing up on GV-Cloud, follow the instructions below to log into GV-Cloud and create a VPN.

1. On the Web browser, visit the GV-Cloud webpage at <https://www.gvaicloud.com/>.
2. Fill in the ID, E-mail, and password created at *Step 3, 1. Signing up on GV-Cloud*.
3. This page appears. Select **VPN** to access the VPN setup page.



4. On the VPN setup page, click the **Add**  icon on the upper right corner to create a VPN.



5. Type the ID, Password, Confirmation Password, optionally the Note for the VPN, and verify the VPN ID in case it's already in use. Keep the information for the configurations on the GV-VPN desktop utility later.

Add VPN

ID

The ID must be 5-30 characters long. It can contain the following three character classes: lowercase letters (a-z), numbers (0-9), and hyphens (-, not at the beginning and end.).

Verify

Password

Confirmation

Enter your password again

Note

Cancel

Send

6. Click **Send**.

The VPNs created will be displayed on the home page as shown below.

VPN				
Console / VPN				
ID	Quantity	Created Date	Expired Date	Note
GV-Test1	10	05-04-2023 18:23	N/A	LAN1
GV-Test2	10	05-05-2023 16:54	N/A	LAN2

Name	Description
ID	The VPN ID created at <i>Step 5</i> .
Quantity	The available number of hosts for the connection.
Created Date	The date the specified VPN is created.
Expired Date	The expiration date for the license.
Note	The note added at <i>Step 5</i> .

Note:

1. You can optionally click the VPN on the list to modify its note and password.
2. For details on the license options, see the *License* section.



3. Installing and Configuring the GV-VPN Desktop Utility

After creating VPNs on GV-Cloud, download the GV-VPN desktop utility from the GeoVision Website and install it on the same PC where GV-Software is installed. Once the installation is complete, run **GV-VPN.exe**. On the GV-VPN setup page, fill in the information created and acquired in the previous steps.

The screenshot shows the GV-VPN configuration window. On the left, there are eight numbered callouts (1-8) pointing to the following fields: 1. ID, 2. Host Name (eg. VMS-1), 3. Password, 4. LAN IP, 5. Network Interface Card, 6. Status, 7. Note, and 8. NAT Type. The right side of the window contains the corresponding input fields: a text box for ID, a text box for Host Name, a password field for Password, an IP address field for LAN IP (showing 198.18.0.), a dropdown menu for Network Interface Card (set to Auto Detect), a button for Status (Disconnect), a text box for Note, and a dropdown menu for NAT Type (set to Unknown). At the bottom, there is a 'Register' link and 'Connect' and 'Save' buttons.

No.	Name	Description
1	LAN ID	The VPN ID created on GV-Cloud at <i>Step 5, 2. Creating a VPN on GV-Cloud.</i>
2	Host Name	The desired host name for your GV-Software.
3	Password	The VPN password created on GV-Cloud at <i>Step 5, 2. Creating a VPN on GV-Cloud.</i>
4	LAN IP	The desired IP address (198.18.x.x) for your GV-Software. 198.18.0.1 ~ 198.18.255.254 is available.
5	Network Interface Card	Auto Detect is enabled by default, or optionally select the desired network card when multiple cards are inserted.

Note:

1. Make sure your GV-Software is running when setting up the connection on GV-VPN.
2. After a network card is inserted into the PC or when the PC is connected to the network during GV-VPN operation, restart GV-VPN for it to take effect.



After filling in the information above, click **Connect**. The following information will be displayed for No. 6 ~ No. 8.

No.	Name	Description
6	Status	One of the following word strings will be displayed for different connection statuses: ■ Disconnect: The connection is not yet set up. ■ Connecting: The connection is in process. ■ Connected: The connection is set up. ■ Login failed: You typed the incorrect LAN ID / Password. ■ IP address is already in use: The IP address is already occupied. Change the last two digits of LAN IP and try again. ■ Temporarily locked out: After three attempts of incorrect password key-in, the system will be automatically locked out for 5 minutes.
7	Note	The message "No GV Software Running" appears when no GV-Software is detected running in the background.
8	NAT Type	One of the following word strings will be displayed for different connection NAT types: ■ Moderate: The network environment is applicable for running GV-VPN. ■ Restrict: The network environment is not applicable for running GV-VPN and may lead to an unstable connection. ■ Exceed limit: The number of hosts exceeds the system threshold. ■ Unknown: The connection is undetectable. Make sure to click Connect or check if the network environment is detectable.



Note:

1. Different NAT types across separate PCs may affect the connection. See the table below:

NAT Type Client \ Server	Restrict (Symmetric)	Moderate (Asymmetric)
Restrict (Symmetric)	Not Support	Possible
Moderate (Asymmetric)	Possible	Pass

2. When encountering connection issues, check the router settings first.
-



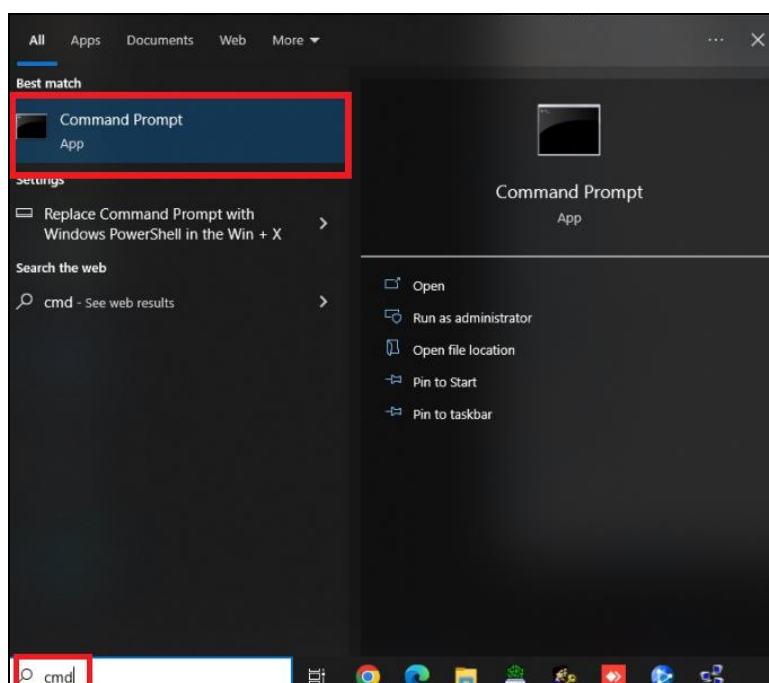
4. Testing the Connection Between Two PCs

When the **GV-VPN desktop utility** is configured and running on different PCs for different GV-Software, verify if GV-Software can connect to each other through the VPN created on GV-Cloud.

You can test the connection using Command Prompt or a Web browser to check if another GV-Software is accessible within the VPN.

[Command Port]

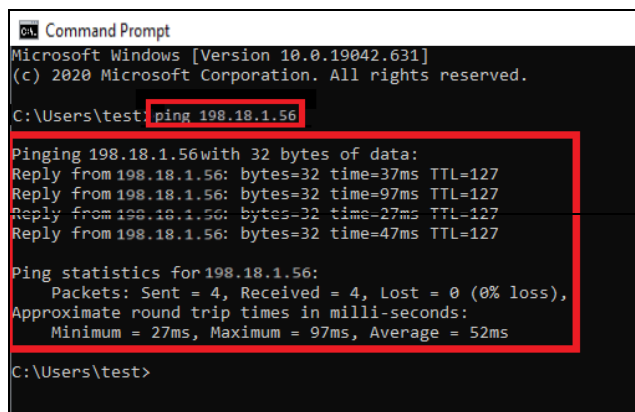
1. On the PC, type **cmd** in the search bar, and run the **Command Prompt** application.



2. Use one of the following 2 methods for the testing:
 - **LAN IP:** In Command Prompt, type “ping <LAN IP>” using the IP address set for GV-Software on the GV-VPN running on another PC and press **Enter**.
 - **Host Name:** In Command Prompt, type “ping <Host Name>” using the Host Name set for GV-Software on the GV-VPN running on another PC, and press **Enter**.



If the connection to the other PC is successful, ping results will appear below the command.



```
C:\ Command Prompt
Microsoft Windows [Version 10.0.19042.631]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\test>ping 198.18.1.56

Pinging 198.18.1.56 with 32 bytes of data:
Reply from 198.18.1.56: bytes=32 time=37ms TTL=127
Reply from 198.18.1.56: bytes=32 time=97ms TTL=127
Reply from 198.18.1.56: bytes=32 time=27ms TTL=127
Reply from 198.18.1.56: bytes=32 time=47ms TTL=127

Ping statistics for 198.18.1.56:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 27ms, Maximum = 97ms, Average = 52ms

C:\Users\test>
```

[Web Browser]

1. On the PC, open a Web browser.
2. In the address bar, type the LAN IP assigned to the GV-Software on the other PC. For details, see No. 4, 3. *Installing and Configuring the GV-VPN Desktop Utility*.

If the connection to the other PC is successful, the GV-Software login page will appear.



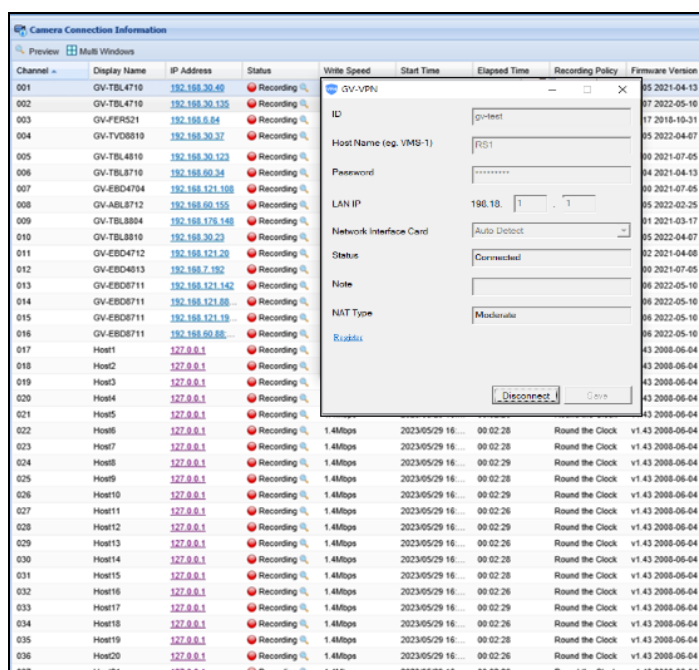
How to Connect GV-Edge Recording Manager to GV-Recording Server Using GV-VPN

To better demonstrate how to connect one GV-Software to another using the **GV-VPN desktop utility**, the following steps illustrate detailed information involved in the setup process. Before proceeding, make sure you have signed up for GV-Cloud and created a VPN on it. For details, see 1. *Signing up on GV-Cloud* and 2. *Creating a VPN on GV-Cloud*.

1. On the **GV-VPN desktop utility** installed on the PC that runs GV-Recording Server, fill in the following information:

LAN ID	<i>gv-test</i> (VPN ID created on GV-Cloud)
Host Name	<i>RS1</i> (customizable host name for GV-Recording Server)
Password	<i>[Password]</i> (VPN password created on GV-Cloud)
LAN IP	<i>198.18.1.1</i> (desired IP address (198.18.x.x) for your GV-Software)

2. Click **Save**. After a successful connection, the **Status** field changes to **Connected**.



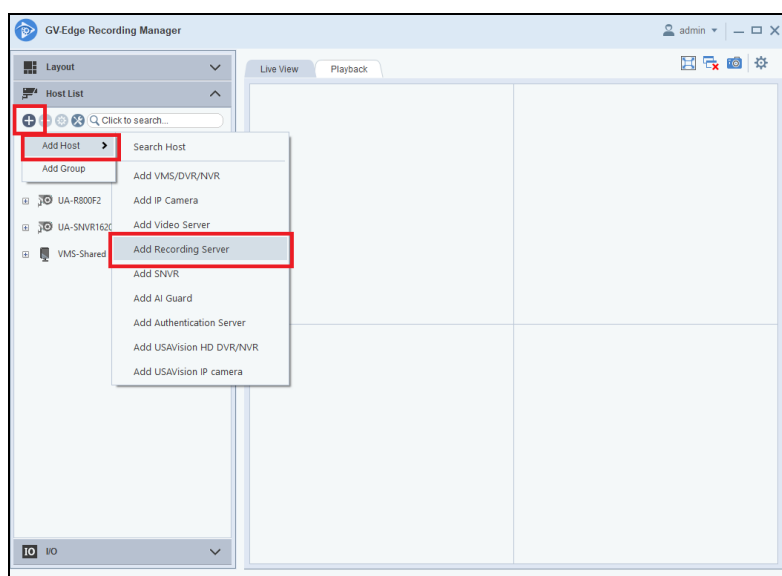


- On the **GV-VPN desktop utility** installed on the PC that runs GV-Edge Recording Manager, fill in the following information:

LAN ID	<i>gv-test</i> (VPN ID created on GV-Cloud)
Host Name	<i>ERM</i> (customizable host name for GV-Edge Recording Manager)
Password	<i>[Password]</i> (VPN password created on GV-Cloud)
LAN IP	<i>198.18.1.2</i> (desired IP address (198.18.x.x) for your GV-Software)

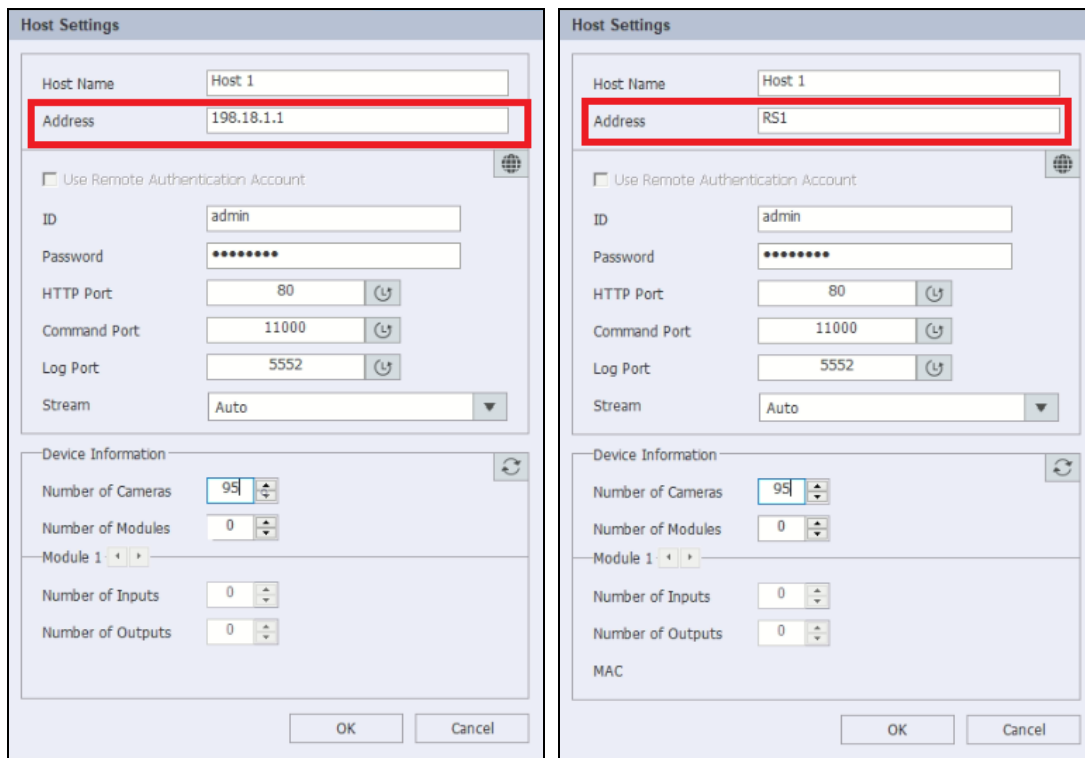
- Click **Save**. After a successful connection, the **Status** field changes to **Connected**.

- On GV-Edge Recording Manager, click **Add** > **Add Host** > **Add Recording Server** to add GV-Recording Server to the host list.





6. In the **Host Settings** dialog box, fill in the LAN IP / Host Name set for GV-Recording Server (198.18.1.1 / RS1) at *Step 1* in the **Address** field.



The image displays two side-by-side screenshots of the 'Host Settings' dialog box. In both, the 'Host Name' is 'Host 1', 'Use Remote Authentication Account' is unchecked, 'ID' is 'admin', 'Password' is masked, 'HTTP Port' is 80, 'Command Port' is 11000, 'Log Port' is 5552, and 'Stream' is set to 'Auto'. The 'Device Information' section shows 'Number of Cameras' as 95, 'Number of Modules' as 0, 'Module 1' selected, 'Number of Inputs' as 0, and 'Number of Outputs' as 0. The 'MAC' field is empty. The left screenshot has the 'Address' field set to '198.18.1.1', while the right screenshot has it set to 'RS1'. Both 'Address' fields are highlighted with a red rectangle.

7. Click **OK**.

If the connection to GV-Recording Server is successful, the live view images of GV-Recording Server will appear on GV-Edge Recording Manager.