# **GV-Video Gateway**

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#### INTRODUCTION

GV-Video Gateway is a video streaming server for large-scale surveillance deployments. It has the ability to receive up to 256 channels from various IP video sources. It can also distribute up to 600 channels to a variety of GeoVision software at the same time. When using GV-Video Gateway, the desired frame rates can be achieved while the CPU load and the bandwidth usage of IP video devices are greatly reduced.



You may want to install a 3G wireless Internet module (e.g. GPRS/UMTS) on GV-Video Server or GV-Compact DVR in some places or countries, but you are experiencing trouble getting a public IP address from your ISP. The GV-Video Gateway's Passive connection technique solves the public IP issue by accepting connection requests from these devices and then distributing video streaming to clients.

#### **Features**

- Up to 256 IP channels receiving and up to 600 IP channels distributing
- Video gateway between IP devices and receiving clients (GV-VMS, GV-NVR, GV-Control Center, GV-Edge Recording Manager, GV-Eye and others)
- Support for third-party IP video devices (Sony, Axis, VIVOTEK, Panasonic, HikVision, Arecont Vision), and ONVIF, PSIA and RTSP
  protocols

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- Video playback using Remote ViewLog
- Web interface to remotely configure and monitor GV-Video Gateway using Internet Explorer, Firefox, Google Chrome and Safari
- Passive and active connection methods with IP video devices (Passive connection only for up to 128 channels and only supported by GV-IP devices)
- Solution for Mobile DVR (GV-Video Server, GV-Compact DVR) to obtain a public IP address
- Bandwidth monitoring
- Video playback using Remote ViewLog
- Two-way audio communication (only for GV-IP devices through active connection)
- Remote event monitoring through GV-Vital Sign Monitor
- Smart streaming
- Support for live streaming of GV-IP cameras on YouTube
- Support for 31 languages

## **Minimum System Requirements**

OS	64-bit	Windows 7 / 8 / 8.1 / 10 / Server 2008 R2 / Sever 2012 R2
CPU		Core i7 8700, 3.2 GHz
Memory		6 GB Dual Channels
Hard Disk	Installation	1 GB
Haru Disk	OS	32 GB
Browser		<ul> <li>Internet Explorer 8 to 11</li> <li>Mozilla Firefox 26.0</li> <li>Google Chrome 31.0.1650.63</li> <li>Safari 5.1.7</li> </ul>
LAN		Gigabit Ethernet X 1~6
Software		.Net Framework 3.5
Hardware		Internal or External GV-USB Dongle
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**Note:** It is recommended to use the internal GV-USB Dongle to have the Hardware Watchdog function which restarts the PC when Windows crashes or freezes.

## **Compatible GV-Software**

- GV-Backup Center: version 1.1.2 or later
- GV-Cloud Center: version 1.0 or later
- GV-Control Center: version 3.7.0 or later (V3.6.0 or earlier only support 128 CH)
- GV-DVR / NVR, Multi View, Multicast: version 8.5.6 or later (for 64 CH)
- GV-Edge Recording Manager for Windows: version 2.0 (V1.0.0 or earlier only support 128 CH)
- GV-Edge Recording Manager for Mac: version 1.2.0 (V1.0.0 or earlier only support 128 CH)
- GV-Eye: version 2.7.4 or later (V2.7.3 or earlier only support 128 CH)
- GV-GIS: version 3.1.1 or later
- **GV-Mobile Server:** version 1.3 or later (for 64 CH)
- GV-Redundant Server & Failover Server: version 2.0 [coming soon] (V1.1.0.0 or earlier only support 128 CH)
- GV-Vital Sign Monitor: version 8.5.9 or later (for 128 CH)
- GV-VMS: version 14.10 or later (for 64 CH)

#### **Software License**

Free License	N/A
Maximum License	256 channels
Increment for Each License	Third-party IP devices (Includes GV-IP video devices): 128, 256 IP channels
Optional Combinations	N/A
Dongle Type	Internal or external

#### **Recommended Network Requirements**

The server's transmitting capacity varies depending on the number of Gigabit connections. The number of Gigabit network cards required to receive 256 channels and transmit 600 channels are listed below according to the resolution of the source video.

Resolution	Bitrate	Frame	Codec –	Gigabit Network	k Cards Required
Resolution	Dillale	rate	Couec	Receiving 256 CH	Transmitting 600 CH
1.3 MP	0.83 Mbps				Gigabit network card x 1 (up to 600 CH per card)
2 MP	1.6 Mbps	-		Gigabit network card x 1	
3 MP	2 Mbps	- 30 fps	H.265	(up to 256 CH per card)	Gigabit network card x 2 (up to 300 CH per card)
4 MP	2.21 Mbps	_			
5 MP	2.41 Mbps	_	_	Gigabit network card x 2	Gigabit network card x 3
8 MP	3.5 Mbps	20 fps	-	(up to 128 CH per card)	(up to 200 CH per card)

The deployment of Gigabit connections for transmitting and receiving is suggested as illustrated below. Ensure to run every Gigabit connection on a different network in order to reduce the lag on any network connection.

#### 2/3/4 MP Source Video



GV-Recording Server + 5 Network Cards assigned on different networks

# Specifications

Feature	Device
Number of IP Video Device Connections	256 channels
Number of Remote Client Connections	600 channels
Active Connections	Up to 256 channels
Passive Connections	Up to 128 channels (only for GV IP devices)
3rd Party IP Cameras Support	Yes
Live Viewing	Single Live View, multi-channel live view
Recording	No
Live Streaming on YouTube	Yes (up to 16 channels using H.264 codec)
Protocol	DynDNS, HTTP, HTTPS, ONVIF, PSIA, RTSP, SMTP, TCP, UDP, UPnP
E-Mail Notification	Yes (for Active connection lost, passive connection lost, USB protection key removed)
SMS Notification	No
2-Way Audio	Yes (only for GV-IP devices through active connection)
GPS support	Yes (only for GV-IP cameras)
Number of Accounts	Up to 1000 accounts
Mobile Phone Support	Yes (With GV-Eye)
Bandwidth Control	No
IE Live View	Yes (up to 16 channels per page)
IE Event Query	Yes
IE I/O Control	No
Language	Arabic / Bulgarian / Czech / Danish / Dutch / English / Finnish / French / German / Greek / Hebrew / Hungarian / Indonesian / Italian /Japanese / Lithuanian / Norwegian / Persian / Polish / Portuguese / Romanian / Russian / Serbian / Simplified Chinese / Slovakian / Slovenian / Spanish / Swedish / Thai / Traditional Chinese / Turkish

#### **IP Camera Support List**

The following camera brands and models have been tested for compatibility with GV-Video Gateway.

GeoVision	Arecont Vision	AXIS	HikVision
Panasonic	Sony	VIVOTEK	

**Note:** GV-Video Gateway V1.2.5 only supports IP devices with V8.5.9 or earlier versions listed.

#### **Compatible Standard and Protocol**

GV-Recording Server also allows for integration with all other IP video devices compatible with ONVIF, PSIA standards, or RTSP protocol.

ONVIF PSIA RTSP
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