

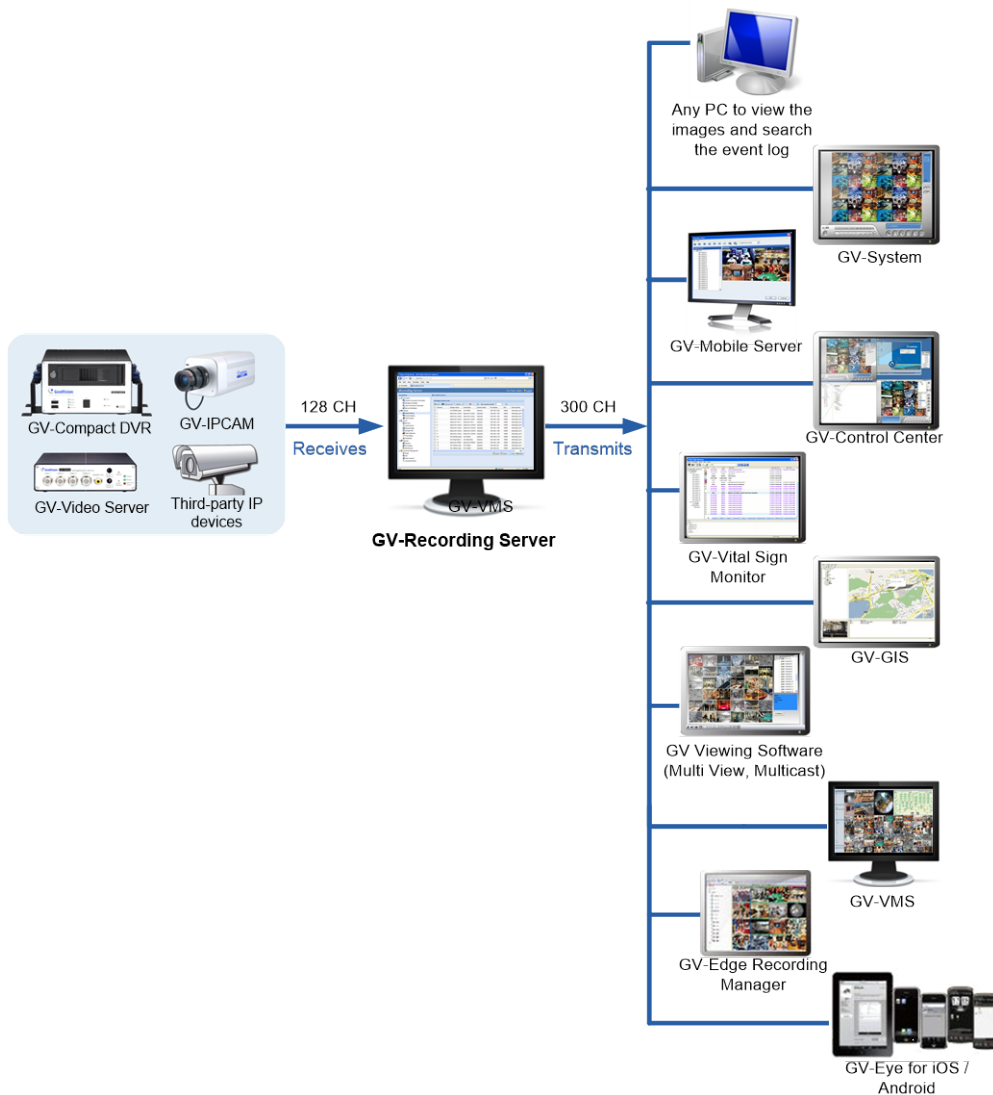
GV-Hot Swap Recording Server System V5 (Rev. C) – 4U, 20-Bay



INTRODUCTION

The GV-Hot Swap Recording Server System is a video streaming server supported by a powerful data storage capacity and designed for large-scale video surveillance deployments. It comes with a selection of 4U (20-bay) or 3U (16-bay) and hot-swappable SATA mobile racks. Depending on the HDD size, the GV-Hot Swap Recording Server System can store up to 120 terabytes of recorded data.

In addition, it can simultaneously distribute up to 300 channels to its clients which include GV-System (DVR/NVR system), GV-GIS (geographic information system), GV-Mobile Server, GV-Control Center (central monitoring system), Multi View (viewing software) and GV-VMS. GV-Recording Server can also send text notifications to one GV-VSM (Vital Sign Monitor) when alert conditions occur. Using the GV-Recording Server, the desired frame rates can be reached while the CPU loading and the bandwidth usage of IP video devices are significantly reduced.



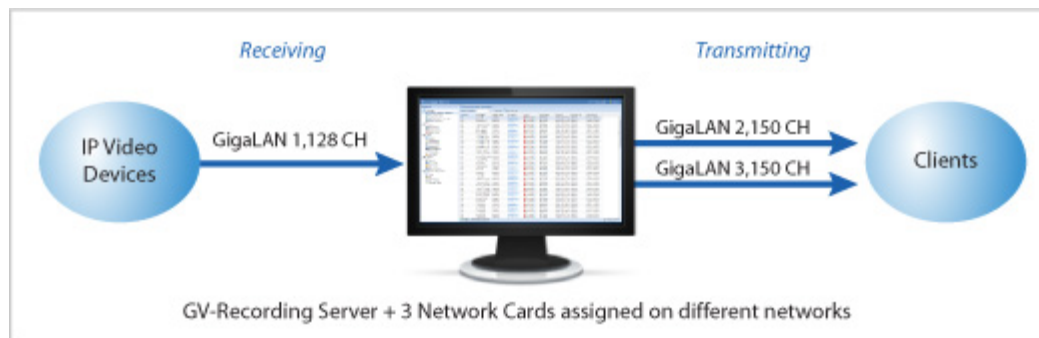
Note: The arrows in the diagram indicate the direction of the connections.

In some areas or countries, you may like to install 3G wireless Internet module (e.g. GPRS/UMTS) on the GV-Video Server or GV-Compact DVR but have the problem to obtain a public IP address from ISP. The **Passive** connection method of GV-Recording Server can solve the public IP issue by accepting the connection request from the GV-Video Server or GV-Compact DVR, and then distribute the video streaming to clients.

The GV-Recording Server provides you with a secure and affordable remote backup solution with the GV-Backup Center, GV-Failover Server and GV-Redundant Server.

NETWORK DEPLOYMENT

- The GV-Hot Swap Recording Server System, equipped with 3 network interface cards, has the capacity of receiving 128 channels and transmitting 300 channels to clients. It is recommended to set one network interface card for receiving video and two network interface cards for transmitting to clients.



Packing List

- GV-Hot Swap Recording Server System x 1
- AC Power Cord x 1
- Self-Stick Rubber Pad x 4
- Documents Download Guide
- Warranty Card

Features

- Windows Embedded 7 64-bit (x64)
- Powered by Intel Core i7 Processor
- 20 hot-swappable SATA drive bays for data storage
- Maximum storage capacity up to 120 TB (4U 20-Bay) / 96 TB (3U 16-Bay)
- Simultaneous receiving and recording up to 128 IP channels
- Distributing up to 300 IP channels of video to clients
- Three Gigabit LAN ports
- Two USB 2.0 ports and four USB 3.0 ports
- Pre-installed SSD for recovery
- Web interface to remotely configure and monitor GV-Recording Server
- Two-way audio communication (only for GV-IP devices through active connection)
- Support for third-party IP video devices (Sony, Axis, VIVOTEK, Panasonic, HikVision, Arecont Vision)
- Support for ONVIF, PSIA and RTSP protocols
- Support for 31 languages
- RAID 0 / 1 / 5 / 6 / 00 / 10 / 50 / 60 data protection (optional)



Specifications

System		
CPU	Intel Core i7 Processor	
RAM	16 GB Dual Channels	
OS	64-bit Microsoft Windows 7 Embedded	
DirectX	11	
No. of HDD	20 (3.5" HDD)	
Internal Storage	64 GB SSD	
Connector	Ethernet	RJ-45, 10 / 100 / 1000 Mbps x 3
	Video Output	3 displays: VGA, DVI-D, and HDMI
	USB 2.0	Rear: 2 ports
	USB 3.0	Front: 2 ports, Rear: 2 ports
Fan	12 cm (4 3/4")	3 units
	8 cm (3 1/8")	2 units
Power	Output: 1000 W Input: 100-240 V, 47-63 Hz	
Backup Type ¹	DVD+R (DL) / DVD-R (DL) / DVD+R / DVD+RW / DVD-R / DVD-RW / CD-R / CD-RW	
System Monitoring and Recovery		
Power Restoration	Automatic restart after power outage	
Monitoring	Two independent Watchdogs (Hardware Watchdog + Software Watchdog)	
Recovery	Automatic system rebuild from internal hard disk	
Environment		
Operating Temp.	0 ~ 45 °C (32 ~113 °F)	
Humidity	0 ~ 80% RH (non-condensing)	
Physical		
LED Indicator	Yes (Fan, Power, HDD)	
Color	Black	
Dimensions (W x H x D)	483 x 178 x 660.4 (mm) / 19 x 7 x 26 (in)	
Net Weight	23.5 kg / 51.8 lb (± 1 kg / 2.2 lb)	
Software Specifications		
Number of IP Video Device Connections	128 channels	
Number of Remote Client Connections	300 channels	
Active Connections	Yes	
Passive Connections	Yes (only for GV IP devices)	
3rd Party IP Cameras Support	Yes	
Live Viewing	Single live view, multi-channel live view	
Recording	Yes (up to 128 channels)	
Remote Playback	Yes (with GV-Backup Center, GV-Failover Server and GV-Redundant Server)	
Protocol	HTTP, HTTPS, TCP, UDP, SMTP, UPnP, DynDNS, RTSP, PSIA, ONVIF	
E-Mail Notification	Yes (for Active connection lost, passive connection lost, USB protection key removed, recycling of recorded video, start keep days operation, motion detection, disk full, disk error, I/O trigger, disk removed, recording failure)	
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 36 channels)	
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	

Software License	
Free License	N/A
Maximum License	128 channels
Increment for Each License	1. GV-IP video devices only: 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108, 112, 116, 120, 124, 128 IP channels. 2. Third-party IP devices (Includes GV-IP video devices): 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108, 112, 116, 120, 124, 128 IP channels.
Optional Combinations	N/A
Dongle Type	Internal

Note:

1. For backup function, you need to connect an external USB DVD/CD burner.
2. All specifications are subject to change without notice.

HDD Capacity

The amount of time GV-Hot Swap Recording Server System can record before recycling begins is listed below.

Resolution	Frame rate	Bit rate	HDD capacity required for recording 128ch	HDD Capacity for each model		Amount of time each model can record before recycling begins	
				Model	Capacity	Model	Time
1.3 MP	30 fps	3.7 Mbps	5.3 TB per 24 hr	16-bay (96 TB)	96 TB / 5.3 TB =	16-bay (96 TB)	18 days
				20-bay (120 TB)	120 TB / 5.3 TB =	20-bay (120 TB)	22 days
2 MP	30 fps	6.7 Mbps	9.3 TB per 24 hr	16-bay (96 TB)	96 TB / 9.3 TB =	16-bay (96 TB)	10 days
				20-bay (120 TB)	120 TB / 9.3 TB =	20-bay (120 TB)	12 days
3 MP	20 fps	5.7 Mbps	7.9 TB per 24 hr	16-bay (96 TB)	96 TB / 7.9 TB =	16-bay (96 TB)	12 days
				20-bay (120 TB)	120 TB / 7.9 TB =	20-bay (120 TB)	15 days
4 MP	15 fps	11.75 Mbps	15.6 TB per 24 hr	16-bay (96TB)	96 TB / 15.6 TB =	16-bay (96TB)	6 days
				20-bay (120TB)	120 TB / 15.6 TB =	20-bay (120TB)	7 days
5 MP	10 fps	16.53 Mbps	22 TB per 24 hr	16-bay (96TB)	96 TB / 22 TB =	16-bay (96TB)	4 days
				20-bay (120TB)	120 TB / 22 TB =	20-bay (120TB)	5 days
8 MP	25 fps	13.73 Mbps	18.2 TB per 24 hr	16-bay (96TB)	96 TB / 18.2 TB =	16-bay (96TB)	5 days
				20-bay (120TB)	120 TB / 18.2 TB =	20-bay (120TB)	6 days
12 MP	15 fps	13.73 Mbps	18.4 TB per 24 hr	16-bay (96TB)	96 TB / 18.4 TB =	16-bay (96TB)	5 days
				20-bay (120TB)	120 TB / 18.4 TB =	20-bay (120TB)	6 days

Note:

1. To see the number of channels supported by each hard disk, refer to 3.6 *Setting Up the Video Storage Location, GV-Hot Swap Surveillance System V5 (Rev. C) User's Manual* for details.
2. Specifications are subject to change without notice.

IP Camera Support List

The following camera brands and models have been tested for compatibility with GV-Recording Server.

Arecont Vision	AXIS	GeoVision	HikVision
Panasonic	Sony	VIVOTEK	Panasonic

Note: GV-Recording Server 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	
-------	------	------	--

Options

<p>Redundant Power Supply</p>	<p>The Redundant Power Supply comes with 2 hot-swap modules for 3U models and 3 hot-swap modules for 4U models. When 1 module is down, the remaining module(s) can still supply full power to the system.</p> <p>- 3U models: 600 W 1+1 mode; 100 ~ 240 V, 47-63 Hz - 4U models: 1000 W N+1 mode; 100 ~ 240 V, 47-63 Hz</p>
<p>RAID Card</p>	<p>The RAID Card supports a maximum of 20 SATA hard drives and enhances data protection. The supported RAID types include RAID 0, RAID 1, RAID 5, RAID 6, RAID 00, RAID 10, RAID 50 and RAID 60.</p>

Note:

1. The optional accessories will be built in the GV-Hot Swap Surveillance System V5 (Rev. C) and tested before shipment. Opening the case and installing the accessories yourself will void the warranty.
2. The optional accessories are only supported in GV-Hot Swap Surveillance System V5 (Rev. C) or later.
3. Please contact our sales representatives for more information when combining optional cards for your system.

Overview

Front View



Rear View

