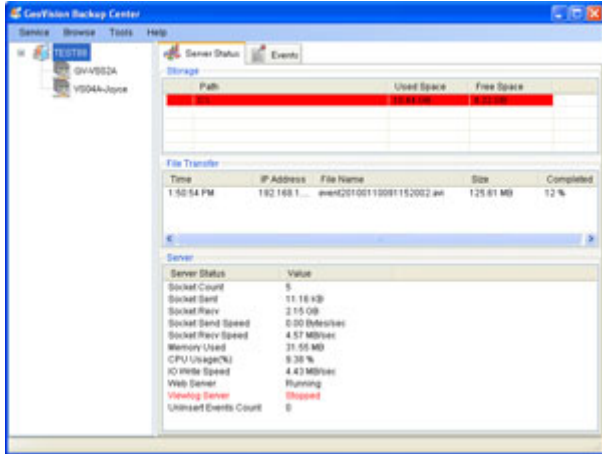# GV-Backup Center

INTRODUCTION

The GV-Backup Center program provides you with a secure and affordable remote backup solution for the GV-System, GV-Recording Server and GV-IP Devices. The GV-Backup Center can automatically store a copy of recordings and logs to the offsite location. If a disaster strikes where the GV-System, GV-Recording Server or GV-IP Devices is located, the recording data remain safe in a different location.
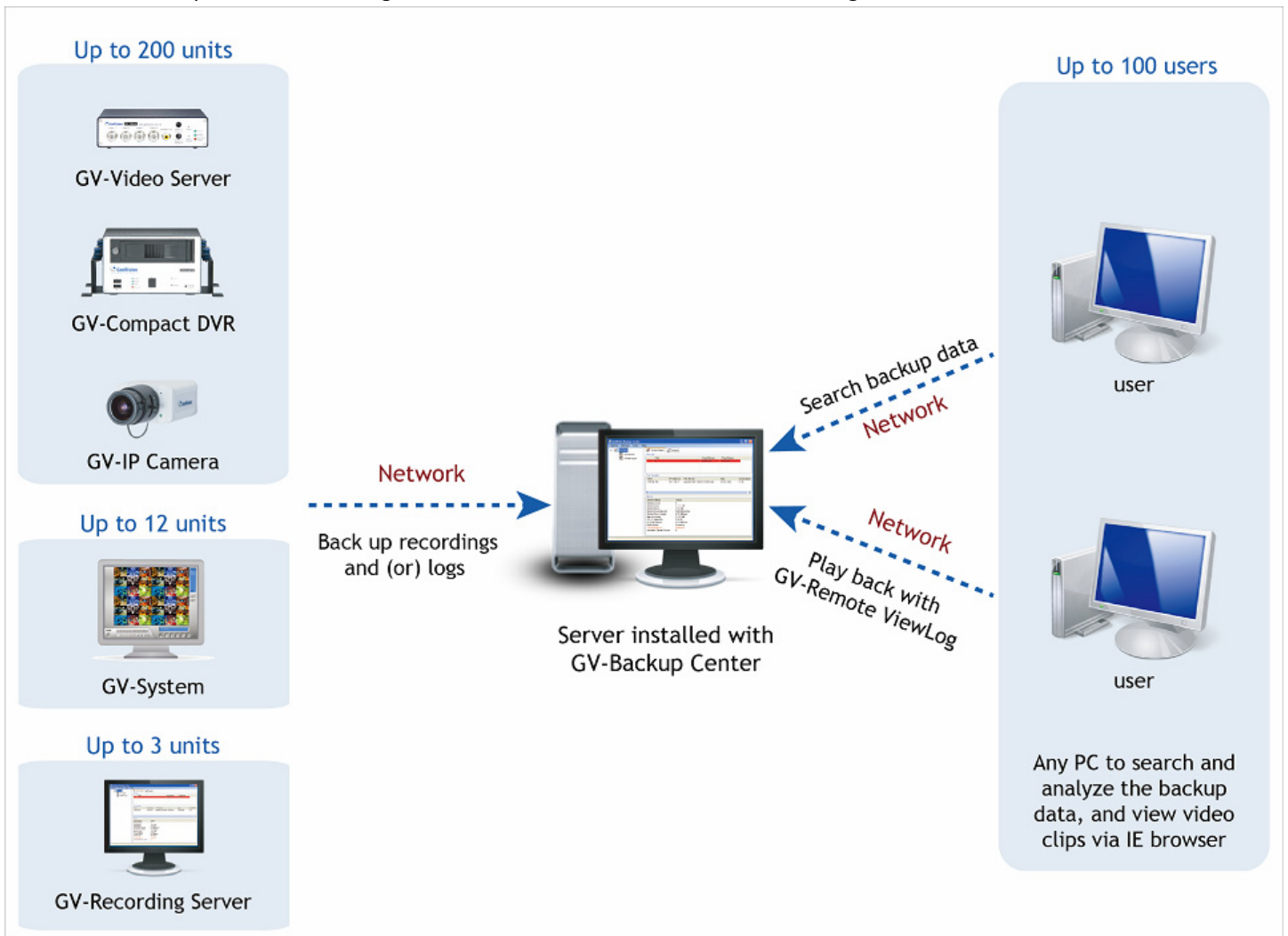
Features

- Remote backup
- Up to 200 units of GV-IP Devices supported
- Up to 12 units of GV-System supported (32 ch per unit)
- Up to 3 units of GV-Recording Server supported (128 ch per unit)
- Up to 10 backup rules for working and non-working days independently for GV-System and GV-IP Devices
- Support for backing up GV-System recordings according to event types (all types, motion or I/O trigger)
- E-Mail alerts for low disk space, disconnection and file transfer failure
- Online data analysis by Event Count, File Size and Time
- Failover support (GV-IP Devices only)

Minimum System Requirements

The following is minimum system requirements for the server to run the GV-Backup Center.

OS	32bit	Windows XP / Vista / 7 / 8 / Server 2008
	64bit	Windows 7 / 8 / Server 2008 / Server 2012
CPU		Core 2 Duo, E6600, 2.4 GHz
Memory		2 X 2 GB Dual Channels
Hard Disk		1 GB.
Software		.Net Framework 3.5
Browser		Internet Explorer 7.X
Hardware		Internal or External GV-USB Dongle

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.

Software License

Free License	N/A
Maximum License	200 hosts
Increment for Each License	N/A
Optional Combinations	N/A
Dongle Type	Internal or external

Specifications

Feature	Device
Number of hosts	200 units of GV-IP Devices; OR 12 units of GV-System (32 ch per unit); OR 3 units of GV-Recording Server (128 ch per unit)
Number of user accounts	100 in total including Supervisors and Users
Backup schedule	Yes for GV-System and GV-IP Devices
Backup rules	10 rules for working and non-working days independently for GV-System and GV-IP Devices
E-mail alert	Low disk space, disconnection, file transfer failure
Disk space recycle	Yes
Keep Day	Definable and unlimited in number
System Log query	Web-based query pages
Video playback	Available through web-based query pages, or Remote ViewLog Playback program additionally installed from Software DVD
Language	Danish, English, French, German, Hebrew, Hungarian, Italian, Japanese, Polish, Portuguese, Russian, Serbian, Simplified Chinese, Spanish, Traditional Chinese, Turkish

Note: All specifications are subject to change without notice.

Options

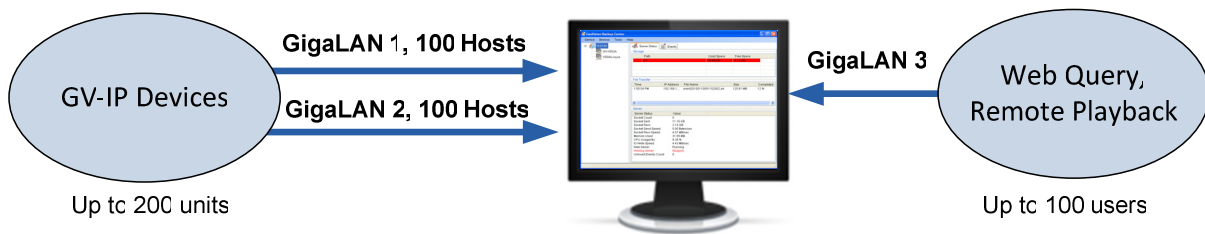| Optional Devices	Description
Internal USB Dongle	The USB dongle can provide the Hardware Watchdog function to the GV-Backup Center by restarting the computer when Windows crashes. You need to connect the dongle internally on the motherboard.

Network and Hard Disk Requirements for GV-IP Devices

The server's backup speed and transmitting capacity vary depending on the number of Gigabit connections. The number of Gigabit network cards required to receive 200 GV-IP Devices and to support remote access of backed up data are listed below according to the resolution of the source video.

Also note the maximum number of hosts supported by a single hard disk to calculate the number of hard disks required.

Resolution	FPS	Codec	Gigabit Network Cards Required		Max. hosts per HDD
			Receiving 200 GV-IP Devices	For Playback / Web Query access	
1.3 MP	30 fps	H.264	Gigabit network card x 2 (up to 100 hosts per card)	Gigabit Network Card x 1	32 hosts
2.0 MP	30 fps	H.264	Gigabit Network Card x 3 (up to 67 hosts per card)	Gigabit Network Card x 1	21 hosts
3.0 MP	20 fps	H.264	Gigabit network card x 2 (up to 100 hosts per card)	Gigabit Network Card x 1	32 hosts
4.0 MP	15 fps	H.264	Gigabit Network Card x 3 (up to 67 hosts per card)	Gigabit Network Card x 1	24 hosts
5.0 MP	10 fps	H.264	Gigabit Network Card x 3 (up to 67 hosts per card)	Gigabit Network Card x 1	24 hosts

1 MP / 3 MP Source Video

GV-IP Devices — GigaLAN 1, 100 Hosts / GigaLAN 2, 100 Hosts → Server

Up to 200 units

GigaLAN 3 ← Web Query, Remote Playback

Up to 100 users

Server installed with GV-Backup Center + 3 Network Cards assigned on different networks

2 MP / 4 MP / 5MP Source Video

GV-IP Devices — GigaLAN 1, 67 Hosts / GigaLAN 2, 67 Hosts / GigaLAN 3, 66 Hosts → Server

Up to 200 units

GigaLAN 4 ← Web Query, Remote Playback

Up to 100 users

Server installed with GV-Backup Center + 4 Network Cards assigned on different networks

Recommended Network and Hard Disk Requirements for Connecting to GV-Recording Server

When GV-Backup Center connects with GV-Recording Server, it will back up the recordings of all the channels connected to the GV-Recording Server. Each GV-Backup Center supports up to 3 units of GV-Recording Server, with each GV-Recording Server being connected under an independent LAN.

Hard Disk Requirements for Receiving Data from GV-Recording Server

To back up all 128 channels of recordings from GV-Recording Server, it is recommended to install the following numbers of hard disks in the server of GV-Backup Center, in addition to the 1 hard disk used for installing GV-Backup Center.

Number of GV-Recording Server	Data Size per Ch	Total Size	Recommended HDD requirements	Time required to transfer all files
1 unit (128 ch)	162 MB	20736 MB	1 TB 7200RPM HDD x 2 (SATA3)	03:10 min
2 units (256 ch)	162 MB	41472 MB	1 TB 7200RPM HDD x 3 (SATA3)	03:37 min
3 units (384 ch)	162 MB	62208 MB	1 TB 7200RPM HDD x 5 (SATA3)	04:18 min

Note:

1. The results were obtained using SATA3 hard disks with an average write speed of 100 MB/s.
2. The results were obtained with video clip time set to 5 minutes. If the time required to transfer all files exceeds the clip time, file transferring to GV-Backup Center may not be able to keep up with recording.

Maximum Bit Rate Supported by GV-Recording Server (based on 128 Ch)

To back up the recordings of 128 channels, it is required to meet the maximum bit rate supported by the GV-Recording Server and the maximum number of channels assigned to a single hard disk.

Res.	Codec	Clip Time	Bit Rate / Ch	Round-the-Clock and Motion Detection	
				Max. Ch per HDD	Recommended HDD requirements
1.3 MP	H.264	1 min	5.39 Mbps	7 Ch	1 TB 7200RPM HDD x 19 (SATA3)
		5 min	5.82 Mbps	7 Ch	1 TB 7200RPM HDD x 19 (SATA3)
2.0 MP	H.264	1 min	5.33 Mbps	7 Ch	1 TB 7200RPM HDD x 19 (SATA3)
		5 min	5.96 Mbps	7 Ch	1 TB 7200RPM HDD x 19 (SATA3)
3.0 MP	H.264	1 min	5.4 Mbps	7 Ch	1 TB 7200RPM HDD x 19 (SATA3)
		5 min	5.9 Mbps	7 Ch	1 TB 7200RPM HDD x 19 (SATA3)

Maximum Channels Supported by GV-Recording Server (based on 30 fps)

To back up the recordings with full 30 fps, it is required to meet the maximum number of channels supported by the GV-Recording Server and the maximum number of channels assigned to a single hard disk.

Res.	Codec	Clip Time	FPS	Total Ch	Round-the-Clock and Motion Detection	
					Max. Ch per HDD	Recommended HDD requirements
1.3 MP	H.264	1 min	30	108	6 Ch	1 TB 7200RPM HDD x 18 (SATA3)
		5 min	30	113	6 Ch	1 TB 7200RPM HDD x 19 (SATA3)
2.0 MP	H.264	1 min	30	56	3 Ch	1 TB 7200RPM HDD x 19 (SATA3)
		5 min	30	59	3 Ch	1 TB 7200RPM HDD x 20 (SATA3)
3.0 MP	H.264	1 min	30	78	4 Ch	1 TB 7200RPM HDD x 20 (SATA3)
		5 min	30	80	4 Ch	1 TB 7200RPM HDD x 20 (SATA3)

Compatible GeoVision Software and IP Devices

Product		Firmware / Software Version
GV-Software		
GV-System		8.5.5 or later
GV-Recording Server		1.2.4 or later
GV-IP Device		
GV-Video Server	GV-VS02A	1.03 or later
	GV-VS04A	1.02 or later
	GV-VS04H	1.04 or later
	GV-VS11	1.03 or later
	GV-VS12	1.03 or later
	GV-VS14	1.00 or later
GV-Compact DVR	GV-Compact DVR V2	1.04 or later
	GV-Compact DVR V3	1.00 or later
GV-Arctic Box IP Camera	GV-BX120D-E GV-BX220D-E GV-BX320D-E GV-BX520D-E	1.03 or later
GV-Box IP Camera	GV-BX120D GV-BX140DW GV-BX130D GV-BX220D GV-BX320D GV-BX520D GV-BX2400 Series GV-BX3400 Series	1.03 or later
	GV-BX1500Series	2.08 or later
	GV-BX2500Series	2.11 or later
	GV-BX1300Series GV-BX5300Series	2.07 or later

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GV-Bullet IP Camera	GV-BL120D GV-BL130D GV-BL220D GV-BL320D	1.03 or later
	GV-BL1200 GV-BL1300	2.03 or later
	GV-BL1500	2.08 or later
	GV-BL1210 GV-BL2400 GV-BL2410 GV-BL3400 GV-BL3410 GV-BL5310	2.04 or later
	GV-BL2500 GV-BL2510	2.11 or later
GV-Cube Camera	GV-CA120 GV-CA220 GV-CAW120 GV-CAW220 GV-CB120 GV-CB 220 GV-CBW120 GV-CBW220	1.03 or later
GV-Fisheye Camera	GV-FE420 GV-FE421 GV-FE520 GV-FE521 GV-FER521	1.03 or later
	GV-FE110 GV-FE111	1.07 or later
	GV-FE2301 GV-FE4301	2.03 or later
GV-Fixed IP Dome	GV-FD120D GV-FD220D GV-FD320D	1.03 or later
	GV-FD1200 GV-FD1210 GV-FD2400 GV-FD2410 GV-FD3400 GV-FD3410 GV-FD5300	2.06 or later
	GV-FD1500 GV-FD1510	2.09 or later
	GV-FD2500 GV-FD2510	2.11 or later

GV-Mini Fixed IP Dome	GV-MFD120 GV-MFD130 GV-MFD220 GV-MFD320 GV-MFD520	1.03 or later
	GV-MFD110	1.07 or later
	GV-MFD1501 Series	2.08 or later
	GV-MFD2401 Series GV-MFD3401 Series GV-MFD5301 Series	2.09 or later
	GV-MFD2501 Series	2.11 or later
GV-Mini Fixed Rugged IP Dome	GV-MDR120 GV-MDR220 GV-MDR320 GV-MDR520	1.03 or later
GV-PT / PTZ Camera	GV-PT110D GV-PTZ010D	1.09 or later
	GV-PT130D GV-PT220D GV-PT320D	2.06 or later
GV-Speed IP Dome	GV-SD010 Series	1.01 or later
	GV-SD220 GV-SD220-S	1.03 or later
GV-Ultra Box IP Camera	GV-UBX1301 Series GV-UBX2301 Series GV-UBX3301 Series	2.04 or later
GV-Ultra Bullet IP Camera	GV-UBL1511	2.09 or later
	GV-UBL2511	2.11 or later
	GV-UBL1211 GV-UBL2411 GV-UBL3411 GV-UBL1301 Series GV-UBL2401 Series GV-UBL3401 Series	2.05 or later

GV-Vandal Proof IP Dome	GV-VD120D GV-VD220D GV-VD320D	1.03 or later
	GV-VD2400 GV-VD3400	2.09 or later
	GV-VD1530 GV-VD1540 GV-VD1540-E GV-VD2430 GV-VD2440 GV-VD2440-E GV-VD2500 GV-VD2530 GV-VD2540 GV-VD2540-E GV-VD3430 GV-VD3440 GV-VD3440-E GV-VD5340 GV-VD5340-E	2.11 or later
	GV-VD1500	2.09 or later