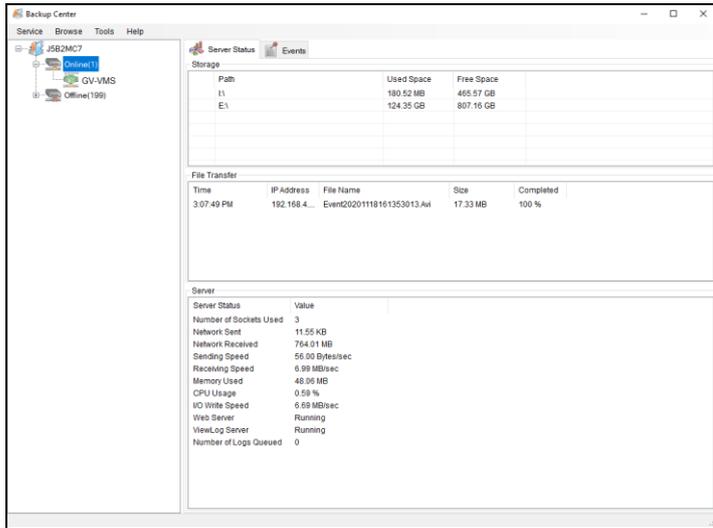
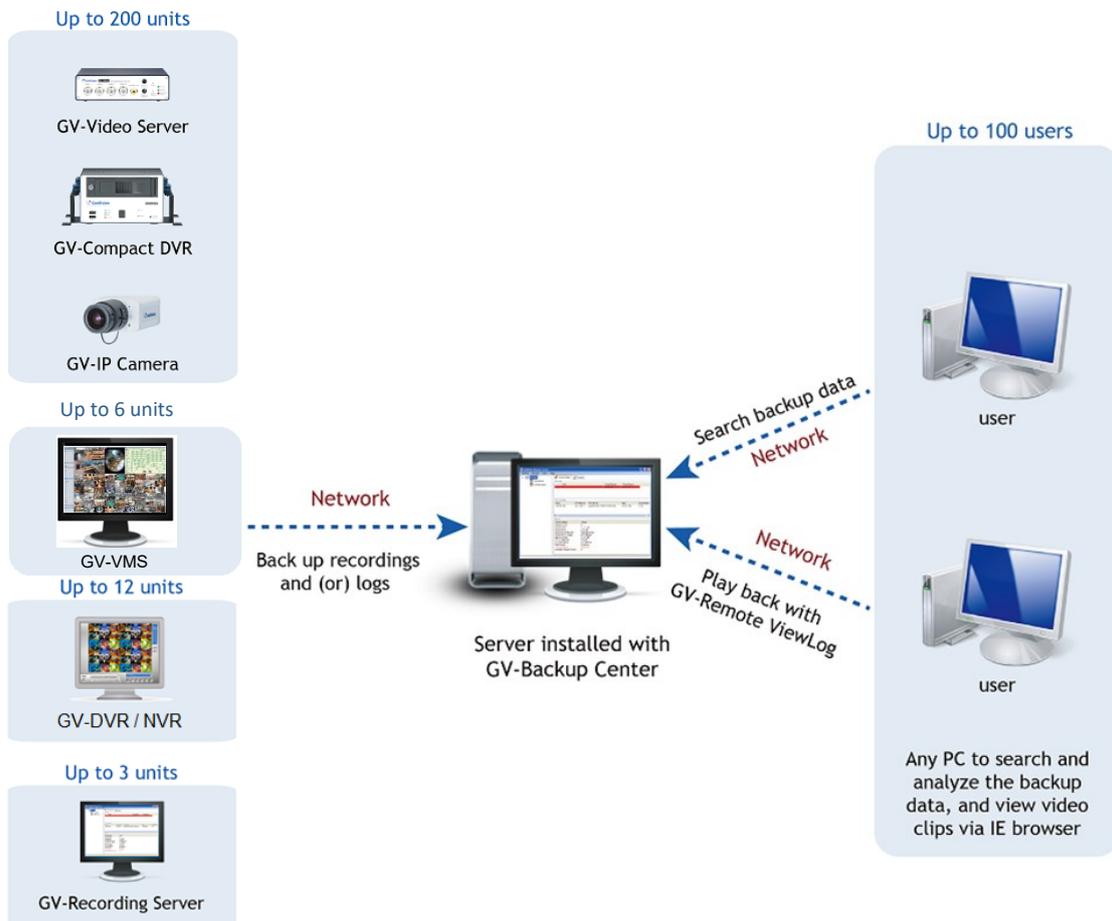


GV-Backup Center



INTRODUCTION

GV-Backup Center provides you with a secure and affordable remote backup solution for GV-DVR / NVR, GV-VMS, GV-Recording Server, and GV-IP Devices. GV-Backup Center automatically stores a copy of recordings and logs to an offsite location. If data are lost at the servers and devices, the recording data remain safe in a different location.



Note: GV-Backup Center supports one **GV-VMS V20** unit with up to 256 channels, provided that **Patch V1.2.1.5** is installed.

Features

- **Remote Backup:** Securely back up data from remote locations
- **GV-IP Device Support:** Up to 200 units
- **GV-DVR / NVR Support:** Up to 12 units (32 ch per unit)
- **GV-VMS Support:** Up to 6 units (64 ch per unit), or a single GV-VMS V20 unit (256 ch, Patch V1.2.1.5 required)
- **GV-Recording Server Support:** Up to 3 units (128 ch per unit)
- **Flexible Backup Rules:** Up to 10 backup rules for working and non-working days independently for GV-DVR / NVR, GV-VMS, and GV-IP Devices
- **E-mail Alerts:** Instant notifications for low disk space, disconnections, and file transfer failures
- **Online Data Analysis:** Analyze data by event count, file size, and time
- **Failover Support:** Ensures continuous operation and data integrity

Minimum System Requirements

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

OS	64-bit Windows 11 / 10 / Server 2016
CPU	Core 2 Duo, E6600, 2.4 GHz
Memory	2 X 2 GB Dual Channels
Hard Disk	1 GB
Directx	9.0c
Software	.Net Framework 3.5
Browser	Internet Explorer 7.X Mozilla Firefox 4.0 or above Google Chrome 4.0 or above
Hardware	Internal or External GV-USB Dongle

License

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

Note: GV-USB dongle comes in internal and external forms. Internal dongle is recommended for the Hardware Watchdog function, which restarts the PC when Windows crashes or freezes.

Specifications

Feature	Device
Number of hosts	<ul style="list-style-type: none"> • GV-IP Device: Up to 200 units • GV-DVR / NVR: Up to 12 units (32 ch per unit) • GV-VMS: Up to 6 units (64 ch per unit), or a single GV-VMS V20 unit (256 ch, Patch V1.2.1.5 required) • GV-Recording Server: Up to 3 units (128 ch per unit)
Number of user accounts	100 in total including Supervisors and Users
Backup schedule	Yes, for GV-DVR / NVR, GV-VMS, and GV-IP Devices
Backup rules	10 rules for working and non-working days independently for GV-DVR / NVR, GV-VMS and GV-IP Devices
E-mail alert	Low disk space, disconnection, file transfer failure
Disk space recycles	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
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.

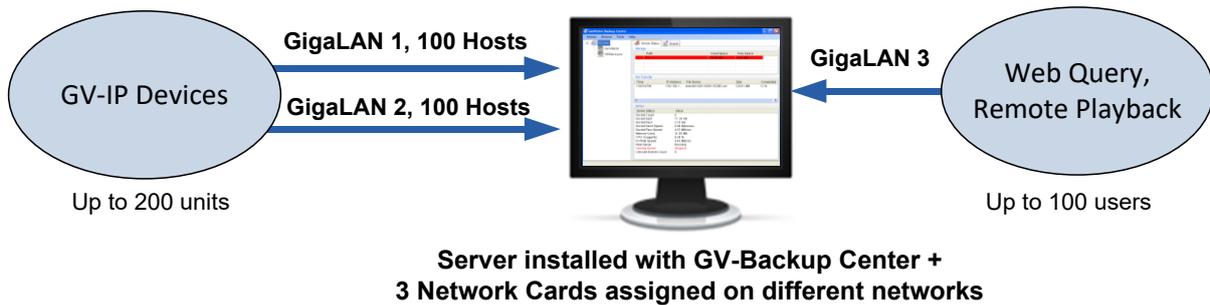
Network and Hard Disk Requirements for GV-IP Devices

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.

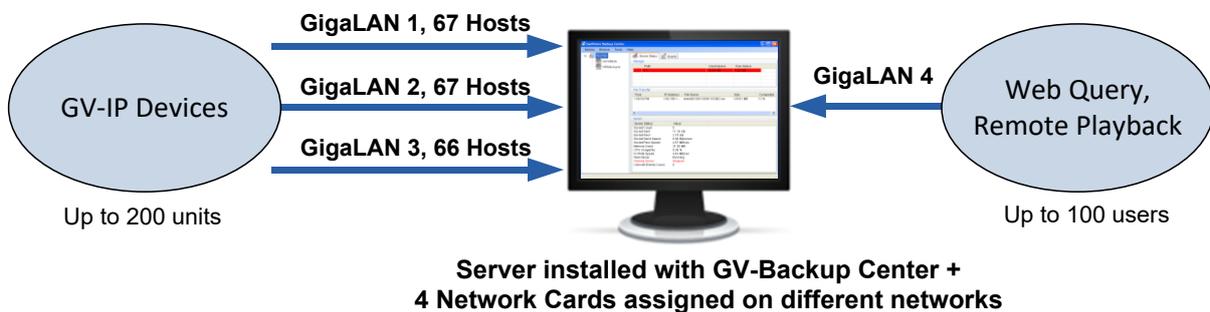
Also note the maximum number of hosts supported by a single hard disk to calculate the number of hard disks required.

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



2 MP / 4 MP / 5MP Source Video



Recommended Network and Hard Disk Requirements for GV-Recording Server Connection

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 number of hard disks in the GV-Backup Center, in addition to the 1 hard disk used for installing GV-Backup Center.

Number of GV-Recording Server	Data Size / Ch	Total Size	HDD requirements in GV-Backup Center	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:

- The results were obtained using SATA3 hard disks with an average write speed of 100 MB/s.
- 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 in the GV-Recording Server.

Res.	Codec	Clip Time	Bit Rate / Ch	Round-the-Clock and Motion Detection	
				Max. Ch per HDD in GV-Recording Server	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 in GV-Recording Server.

Res.	Codec	Clip Time	FPS	Total Ch	Round-the-Clock and Motion Detection	
					Max. Ch per HDD in GV-Recording Server	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)

Recommended Network and Hard Disk Requirements for GV-VMS Connection

When GV-Backup Center connects with GV-VMS, it will back up the recordings of all the channels connected to the GV-VMS. Each GV-Backup Center supports up to 6 units of GV-VMS, with each GV-VMS being connected under an independent LAN.

Maximum Bit Rate & Channels supported by GV-VMS (Based on 64 ch)

Bit rate affects the data size. The higher the bit rate is, the bigger the data size will be; thus, the time required to transfer files to GV-Backup Center will also be longer. The chart below shows the maximum number of channels that can be assigned to one HDD in GV-VMS in order to transfer all files to GV-Backup Center within 5 minutes.

Res.	Clip Time	FPS	Bit Rate / Ch	Data Size / Ch	Total Size	Round-the-Clock and Motion Detection		Time required to transfer all files
						Max. Ch per HDD in GV-VMS	HDD requirements	
1.3 MP	5 min	30	5.17 Mbps	199 MB	12736 MB	22 Ch	1 TB 7200RPM HDD x 3 (SATA3)	02:30 min
2.0 MP	5 min	30	6.94 Mbps	261 MB	16704 MB	22 Ch	1 TB 7200RPM HDD x 3 (SATA3)	03:10 min
3.0 MP	5 min	20	9.14 Mbps	350 MB	22400 MB	13 Ch	1 TB 7200RPM HDD x 5 (SATA3)	03:58 min
4.0 MP	5 min	15	11.74 Mbps	443 MB	28352 MB	7 Ch	1 TB 7200RPM HDD x 9 (SATA3)	04:26 min
5.0 MP	5 min	10	11.81 Mbps	443 MB	28352 MB	7 Ch	1 TB 7200RPM HDD x 9 (SATA3)	04:30 min
8.0 MP	5 min	25	12.98 Mbps	487 MB	31168 MB	7 Ch	1 TB 7200RPM HDD x 9 (SATA3)	04:52 min
12.0 MP	5 min	15	13.06 Mbps	490 MB	31360 MB	7 Ch	1 TB 7200RPM HDD x 9 (SATA3)	04:49 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.

Compatible GeoVision Software

Product	Software Version
GV-DVR / NVR	8.5.5 or later
GV-Recording Server	1.2.4 or later
GV-VMS	16.10.3 or later

Non-Compatible IP Devices

Except the following non-compatible IP Devices, the above mentioned GeoVision software, GeoVision IP cameras, Video Servers and Compact DVR all support GV-Backup Center.

Product	
GV-Box IP Camera	GV-BX2600
GV-Target Mini Fixed Dome	GV-EFD1100 Series
	GV-EFD2100 Series
	GV-EFD4700 Series
	GV-EFD2101
	GV-EFD3101
	GV-EFD5101
GV-Target Mini Fixed Rugged Dome	GV-EDR1100 Series
	GV-EDR2100 Series
	GV-EDR4700 Series
GV-Mini Fixed Rugged Dome	GV-ADR Series / GV-TDR Series
GV-Target Box Camera	GV-EBX1100 Series
	GV-EBX2100 Series
GV-Eyeball Dome	GV-EBD Series
GV-Target Vandal Proof IP Dome	GV-EVD2100
	GV-EVD3100
	GV-EVD5100
GV-Vandal Proof IP Dome	GV-AVD Series / GV-TVD Series
	GV-VD8700
GV-Target Bullet Camera	GV-EBL2101
	GV-EBL2111
	GV-EBL3101
GV-Speed IP Dome	GV-SD2322-IR
	GV-SD2722-IR
	GV-SD3732-IR
	GV-SD200-S
GV-Thermal IP Camera	GV-TM0100
GV-Virtual Reality IP Camera	GV-VR360