

GV-Control Center

Handy Tool
For Security
Control Center
Operations



Introduction

GV-Control Center is an integrated security management software that provides a handy tool to maintain central monitoring station. GV-Control Center is a comprehensive solution for central operators to efficiently control GV-DVR/NVR/VMS, GV-Recording Server, I/O devices and IP cameras. With GV-Control Center, multiple GeoVision surveillance and video management systems can be managed and maintained efficiently to enhance their monitoring performance and ensure smooth operation.



Key Features

- **Remote DVR: Full control of local DVR/NVR settings**

The Remote DVR facilitates the administrator to remotely configure local GV-DVR/NVR settings from one single workstation. The feature reduces the trips to each DVR/NVR individually.

- **Remote Desktop: Remote access to local DVR/NVR/VMS desktop**

When the Remote Desktop is enabled, the Control Center will receive the same desktop view of local DVR/NVR/VMS. The administrator can remotely control the operation of local GV-DVR/NVR/VMS and even configure its Windows operation system at low bandwidth.

- **Matrix View: Remotely monitor, record and play back from 1000 hosts**

The Matrix View is a single display in which videos from a group of maximum 96 cameras can be shown, e.g. groups of cameras at office areas, exits or on the streets. Depending on surveillance needs, the operator can open up to 8 Matrix Views with 768 cameras on 8 monitors simultaneously. Each Matrix View supports live monitoring, recording and video playback altogether.

- **I/O Central Panel: Group, manage and remotely configure I/O devices**

The Control Center provides a useful I/O Central Panel for the administrator to remotely manage all I/O devices connected with GV-DVR/NVR/VMS. The administrator can group function-related I/O devices together for ease of control, e.g. groups of IR sensors, alarms, or fire exits. In case of building fire, for example, the Control Center can simultaneously trigger all alarms on the networked GV-DVR/NVR/VMS and force opening all the fire exits or water spray systems.

- **Remote Playback**

The Remote ViewLog service enables playback of video archives from GV-DVR/NVR/VMS. The administrator can utilize this service to save video clips for event retrieval or video evidence.

- **Authentication Center**

Authentication Center is an account and access rights management system providing centralized control over multiple Control Centers. The hosts in the Authentication Center can be grouped by different locations and purposes. The administrator can configure the user accounts to have specific access rights for every host group. When a Control Center is connected through the Authentication Center, the users will only be able to see the hosts they have been granted access to.

- **Video Wall (optional)**

A video wall or TV wall is an establishment of multiple monitors on a server. The administrator can create a layout with a variety of displays including desired camera channels, zoom windows, scan windows, web pages, video playback and live view popped up from E-Map. A megapixel camera channel can even be placed across monitors.

Specifications

Features	Control Center
GV-VMS / DVR / NVR Host	Unlimited *
IP Camera Host	
GV-Video Server Host	
GV-Compact DVR Host	
GV-Recording Server / GV-Video Gateway Host	
GV-SNVR System Host	
GV-ASManager Host	
I/O Hosts (only for GV-IP Devices)	Unlimited * - One host supports up to 9 sets of 16-in and 16-out I/O modules.
Remote DVR	Unlimited *
Remote Desktop	Unlimited *
Remote ViewLog	8
Video Wall (optional)	1 to 200 licenses
Remote E-Map Host / Map	500 / Unlimited
Live View	Single View: 1 Window Multiple View: 36 Divisions each Window
Matrix View / Group / Channel	8 Matrix Views / Unlimited / 768 Channels in total (For 1920 x 1200, 1920 x 1080 resolution)
VMD Groups / Channels (Only for GV-IP Devices)	1 Group / 1200 CH - DVR: 1000 Channels - GV-Video Server + GV-Compact DVR + GV-IP Camera: 200 Channels
Panorama Views / Channels	4 Panorama Views / 32 Channels per view
Matrix Resolutions / Channels	1024 x 768 / 64 Channels (Total: 512 Channels on 8 Matrix)
	1280 x 1024 / 64 Channels (Total: 512 Channels on 8 Matrix)
	1680 x 1050 / 80 Channels (Total: 640 Channels on 8 Matrix)
	1600 x 1200 / 64 Channels (Total: 512 Channels on 8 Matrix)
	1920 x 1200 / 96 Channels (Total: 768 Channels on 8 Matrix)
	1920 x 1080 / 96 Channels (Total: 768 Channels on 8 Matrix)
	1280 x 800 / 48 Channels (Total: 384 Channels on 8 Matrix)
1440 x 900 / 48 Channels (Total: 384 Channels on 8 Matrix)	
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

Note: The maximum number of hosts and channels supported depends on the PC performance of Control Center.

Total Frame Rate and Number of Channels Supported

Refer to the [technical notice](#) to see the total frame rate and number of channels supported by GV-Control Center when connected to GV-VMS / NVR / Recording Server / IP cameras.

Minimum System Requirements

OS	64-bit	Windows 8 / 8.1 / 10 / Server 2012 R2
CPU	Core i7 2600K, 3.4 GHz	
RAM	16 GB Dual Channels	
Hard Disk	1 GB	
Processor Graphics	Please see the GPU Decoding Specifications below.	
Direct X	9.0c	
LAN Card	Gigabit Ethernet x 2	
Hardware	Internal or External GV-USB Dongle	

Note:

- It is not recommended to install GV-Center V2 (Pro) and GV-Control Center on the same PC. **Running the two software together on the same PC may result in CPU overload or system failure.**
- To display a megapixel IP channel across monitors, make sure the external graphic cards on a server are of the same brand, model and driver version. The capacity of graphic cards must be equivalent to NVIDIA GTS 450 or higher to ensure maximum efficiency.
- When you find CPU usage is high or live view is unsmooth (dropping frames), you may need to increase CPU threads and memory or decrease the number of connected cameras to improve the system performance.
- For GV-Control Center to support up to 8 Matrix views with 768 cameras, the minimum CPU and memory requirements are Core i7-3770 and 16 GB dual channels respectively.

Software License

Free License	N/A
Maximum License	Unlimited number of hosts
Increment for Each License	N/A
Optional Combinations	<ol style="list-style-type: none"> Control Center Control Center + Video Wall (1 to 200 license) Control Center + Vital Sign Monitor Control Center + Vital Sign Monitor + Video Wall (1 to 200 license)
Dongle Type	Internal or external

Note:

- It is recommended to use the internal GV-USB Dongle to have Hardware Watchdog which restarts the PC when Windows crashes or freezes.
- The Maximum License is a paid service.

GPU Decoding Specifications

A higher total frame rate can be achieved if your CPU comes with onboard GPU or is connected to external GPU for GPU decoding.

Onboard GPU: GPU decoding is only supported when using the following Intel chipsets:

For **H.264** Video Compression

- 2nd Gen Intel Core i3 / i5 / i7 Desktop Processors (Sandy Bridge) - only support 1 MP to 2 MP videos
- 3rd Gen Intel Core i3 / i5 / i7 Desktop Processors (Ivy Bridge)
- 4th Gen Intel Core i3 / i5 / i7 Desktop Processors (Haswell / Haswell Refresh)
- 6th Gen Intel Core i3 / i5 / i7 Desktop Processors (Skylake)
- 7th Gen Intel Core i3 / i5 / i7 Desktop Processors (Kaby Lake)
- 8th Gen Intel Core i3 / i5 / i7 Desktop Processors (Coffee Lake)
- 9th Gen Intel Core i3 / i5 / i7 Desktop Processors (Coffee Lake / Coffee Lake Refresh)
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For **H.265** Video Compression

- 6th Gen Intel Core i3 / i5 / i7 Desktop Processors (Skylake)
- 7th Gen Intel Core i3 / i5 / i7 Desktop Processors (Kaby Lake)
- 8th Gen Intel Core i3 / i5 / i7 Desktop Processors (Coffee Lake)
- 9th Gen Intel Core i3 / i5 / i7 Desktop Processors (Coffee Lake / Coffee Lake Refresh)

External GPU: GPU decoding is only supported when using NVIDIA graphics cards with compute capability 3.0 or above and memory 2 GB or above. To look up the compute capability of the NVIDIA graphics cards, refer to: <https://developer.nvidia.com/cuda-gpus>

Note:

1. Only one external NVIDIA graphic card can be supported by GV-Control Center to perform GPU decoding for free of charge.
2. GeForce GTX1060 is not supported.

Onboard GPU + External GPU: To have both the onboard and external GPU to perform GPU decoding, the GPUs must follow their respective specifications listed above.

Note:

1. If you have both onboard and external GPUs installed, the onboard GPU must be connected to a monitor for H.264 / H.265 GPU decoding.
2. CUDA compute capability 5.0 or higher is required to ensure optimal performance.

Supported GeoVision IP Devices and Software

- GV-DVR / NVR (V8.5 or later)
- GV-VMS (V14.1 or later)
- GV-ASManager (V4.3 or later)
- GV-SNVR0400F / 1600 (FW V1.1 or later); GV-SNVR0411 (FW V2.0 or later); GV-SNVR0812 (FW V1.03 or later); GV-SNVR1611 (FW V3.03 or later); GV-SNVR0412
- GV-VS11 / 12 / 14 / 2400 / 2420 / 2800 / 2820 (FW V1.01 or later)
- GV-VS2401 / VS21600

Options

Optional Devices	Description
GV-Keyboard V3 for GV-Control Center	GV-Keyboard V3 can be used to operate PTZ camera, Matrix View, ViewLog and Video Wall.
GV-Joystick V2	GV-Joystick can be used in conjunction with GV-Keyboard V3 to control PTZ channels from GV-Control Centers.
GV-IO Box Series	GV-IO Box series (4E / 4 Ports / 8 Ports / 16 Ports) provide 4 / 8 / 16 inputs and relay outputs and support both DC and AC output voltages, with optional support for Ethernet module and 4E additionally supporting PoE, TCP/IP and RS-485 connection.
Internal USB Dongle	Internal GV-USB Dongle provides the hardware watchdog function to restart the PC when Windows crashes.