

# GV-Control Center

Handy Tool  
For Security  
Control Center  
Operations



## Introduction

The GV-Control Center is 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 and I/O devices. 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 playback from 1000 hosts**

The Matrix View is a single display in which videos from a group of maximum 96 cameras will be displayed, e.g. groups of cameras at office areas, exits or on the streets. Depending on surveillance needs, the center 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.

- **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 administrators 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 trigger all alarms on the networked GV-DVR/NVR/VMS and force opening all the fire exits or water spray systems at the same time.

- **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 for 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, playback videos 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
<b>Video Wall</b> (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 allowed depends on the performance of Control Center server.

## Minimum System Requirements

OS	64-bit Windows 7 / 8 / 8.1 / 10 / Server 2008 R2 / Server 2012 R2
CPU	Core i7 2600K, 3.4 GHz
RAM	16 GB Dual Channels
Hard Disk	1 GB
Graphic Card	Please see the <b>GPU Decoding Specifications</b> below.
Direct X	9.0c
LAN Card	Gigabit Ethernet x 2
Hardware	Internal or External GV-USB Dongle

### Note:

1. We do not recommend installing GV-Center V2 (Pro) and GV-Control Center modules on the same PC. **Running GV-Center V2 (Pro) and GV-Control Center on the same PC may result in CPU overload or system failure.**
2. 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.
3. When you find CPU usage is high or live view is unsmooth (dropping frames), you may need to increase the CPU thread and memory or decrease the number of connected cameras to improve the system performance.
4. For the 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"> <li>1. Control Center</li> <li>2. Control Center + Video Wall (1 to 200 license)</li> <li>3. Control Center + Vital Sign Monitor</li> <li>4. Control Center + Vital Sign Monitor + Video Wall (1 to 200 license)</li> </ol>
Dongle Type	Internal or external

### Note:

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

## GPU Decoding Specifications

A higher total frame rate can be achieved if your CPU or external VGA supports GPU decoding.

**On-board VGA:** GPU decoding is only supported when using the following Intel chipsets:

For **H.264** Video Compression

- 2<sup>nd</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Sandy Bridge) - only support 1 MP to 2 MP videos
- 3<sup>rd</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Ivy Bridge)
- 4<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Haswell / Haswell Refresh)
- 6<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Skylake)
- 7<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Kaby lake)

For **H.265** Video Compression

- 6<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Skylake)
- 7<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Kaby lake)

**External VGA:** 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:** NVIDIA graphic cards do not support H.265 GPU decoding.

**On-board VGA + external VGA:** To have both the on-board VGA and external VGA perform GPU decoding, the VGAs must follow their respective specifications listed above.

**Note:**

1. If you have both on-board and external VGAs installed, the on-board VGA must be connected to a monitor for H.264 / H.265 GPU decoding.
2. You can install multiple external graphics cards if needed.
3. 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](#) firmware V1.1 or later; [GV-SNVR0411](#) firmware V2.0 or later
- [GV-VS11 / 12 / 14 / 2400 / 2420 / 2800 / 2820](#) firmware V1.01 or later
- [GV-VS2401 / VS21600](#) firmware V1.00 or later

### Options

Optional Devices	Description
Internal USB Dongle	The USB dongle can provide the Hardware Watchdog function to the GV-Control Center by restarting the computer when Windows crashes. You need to connect the dongle internally on the motherboard.
<a href="#">GV-IO Box 4E</a>	GV-IO Box 4E provides 4 inputs and 4 relay outputs, and supports both DC and AC output voltages.
<a href="#">GV-IO Box (8 Ports)</a>	GV-IO Box 8 Ports provides 8 inputs and 8 relay outputs, and supports both DC and AC output voltages. You can connect through network by using its Ethernet module.
<a href="#">GV-IO Box (16 Ports)</a>	GV-IO Box 16 Ports provides 16 inputs and 16 relay outputs, and supports both DC and AC output voltages. You can connect through network by using its Ethernet module.
<a href="#">GV-Joystick V2</a>	GV-Joystick V2 allows you to easily control PTZ cameras. It can be either plugged into the GV-Control Center for independent use or connected to GV-Keyboard.
<a href="#">GV-Keyboard V3 for GV-Control Center</a>	GV-Keyboard V3 is used to program and operate GV-Control Center and PTZ cameras. Through RS-485 configuration, it can control up to 36 GV-Control Center. In addition, you can connect PTZ cameras directly to the keyboard for PTZ control.