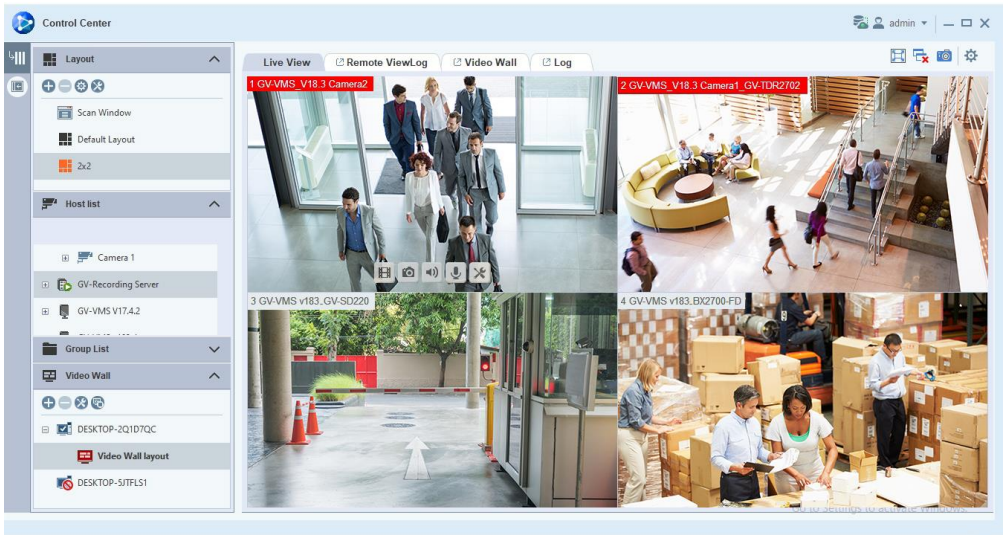
GV-Control Center



Introduction

GV-Control Center, the integrated security management system, is a unified security platform that blends IP cameras and surveillance systems in a single management interface to simplify your operation. With features ranging from real-time monitoring, video playback, I/O management, E-Map, to video analytics, access control, and LPR events monitoring, GV-Control Center empowers your organization through situational awareness and unified command and control.

Key Features

- **Live View: Remotely monitor videos from 900 camera channels**

The Live View is a single display that can show videos from up to 100 cameras, such as groups of cameras in office areas, exits or on the street. Depending on surveillance needs, the operator can open up to 9 Live Views, each with 100 camera channels, on 9 monitors. Each Live View supports both live monitoring and video playback.

- **Remote Desktop: Remotely access to client GV-NVR / VMS's desktop**

GV-Control Center can access the desktop of client GV-NVR / VMS systems and have full control over the surveillance system and Windows operating system of the client.

- **I/O Central Panel: Group and manage I/O devices from different hosts**

GV-Control Center provides an I/O Central Panel for remote management of I/O devices from various GeoVision surveillance systems and IP devices. For ease of control, the operator can group function-related I/O devices, such as groups of IR sensors, alarms, and fire exits. In the event of a building fire, for example, GV-Control Center can simultaneously trigger all alarms in the networked GV-NVR / VMS systems and force open all fire exits or water spray systems.

- **Remote Playback**

The Remote ViewLog player enables playback of recordings from different hosts. The operator can utilize the player to save video clips for later retrieval as event evidence.

- **Video Wall (optional)**

GV-Video Wall, also known as a TV wall, is an arrangement of multiple monitors on a server. The operator can create a layout with a variety of displays, including desired camera channels, zoom windows, scan windows, web pages, video playback, and live views popped up from E-Map. A megapixel camera channel can even be placed across monitors.

- Event popup display
- Storyline recording
- Audio broadcast
- 3D E-Map
- **Face Recognition Watch** to monitor FR events from GV-AI FR, GV-FR Panel V2, GV-TNVR1620-P, and FR cameras of GV-VMS
- **AI Watch** to monitor AI events from GV-VMS, GV/UA-SNVRs, and GV/UA-HD DVRs
- **ASManager View** to monitor access control and LPR events from GV-ASManager
- **Search Log** to filter AI and PVD events by cameras, time range, facial recognition, event types, person attributes, and vehicle attributes
- **GV-Decoder Box** supported for dynamic alerts via E-Map and VMD motion detection
- **GV-IP Speaker** supported for AI event-triggered, motion-triggered, and scheduled audio playback
- **GV-Live Streaming app** supported for streaming from Android / iOS mobile device cameras

Specifications

Features	Control Center
Host	
GV-AI FR	Unlimited
GV-AI Guard GV-ASManager GV-Authentication Server	
GV-Compact DVR	
GV-Live Streaming account GV-NVR / VMS GV-Recording Server / GV-Video Gateway IP Cameras	
GV-Cloud Bridge Pro GV-FR Panel V2 GV-HD DVRs GV-SNVRs GV-Video Servers UA-HD DVRs UA-SNVRs	
I/O devices (only for GV-IP Devices)	Unlimited - One host supports up to 9 sets of 16-in and 16-out I/O modules.
Feature	
Live View / Channel	9 Live View windows / 100 channels per live view
VMD Group / Channel (Only for GV-IP Devices)	1 group / 1200 channels - GV-NVR / VMS: 1000 channels - GV-Video Server + GV-Compact DVR + GV-IP Camera: 200 channels
Remote DVR	Unlimited host
Remote Desktop	Unlimited host
Remote ViewLog	1 player
Remote E-Map / Host	Unlimited map / 500 hosts
FR (Face Recognition) Watch / Host	4 viewing windows / unlimited host
AI Watch / Host	4 viewing windows / unlimited host
ASManager View / Host	4 viewing windows / unlimited host

GV-Live Streaming account	1 viewing window
Video Wall (optional)	1 to 200 licenses
Language	Arabic, Bulgarian, Chinese Simplified, Chinese Traditional, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hebrew, Hungarian, Indonesian, Italian, Japanese, Lithuanian, Norwegian, Persian, Polish, Portuguese, Romanian, Russian, Serbian, Slovakian, Slovenian, Spanish, Swedish, Thai, Turkish
Codec	
Video Codec	MJPEG, H.264, H.265

Note: Make sure to meet the remote connection criteria of the following hosts before building the connection:

- **GV-VMS / NVR:** The maximum remote connection is subject to the CPU specification and usage, and the available bandwidth.
- **GV-Recording Server:** A maximum of 600 channels of remote connection is supported. See the *GV-Recording Server datasheet* for details.
- **GV-SNVR0412/0812/1600/1611/1612:** The maximum remote connection varies for different models. See the *Remote Monitoring* section in *GV-SNVR Comparison Chart* for details.
- **GV-SNVR3203/6403, GV-RNVR Series, GV-TNVR1620-P:** The maximum remote connection is subject to the total output bandwidth. See the *Max. Bandwidth* spec in *GV-SNVR Comparison Chart* for details.
- **GV-TXVL1610:** The maximum remote connection is subject to the total output bandwidth. See the *Max. Output Bandwidth* spec in the *datasheet* for details.
- **UA-SNVR/HD DVR:** The maximum remote connection is subject to the total output bandwidth. See the columns of *Max. Output Bandwidth* in *UA-SNVR Comparison Table* and *UA-HD DVR Comparison Table* for details.

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, GV-Recording Server, and IP cameras.

Minimum System Requirements

OS	64-bit	Windows 10 / Windows 11 / Server 2016 / Server 2019 / Server 2022
CPU	Core i7 2600K, 3.4 GHz	
RAM	16 GB Dual Channels	
Hard Disk	500 GB	
Processor Graphics	Please see *GPU Decoding Specifications* below.	
Direct X	9.0c	
LAN Card	Gigabit Ethernet x 2	

Note:

1. It is not recommended to install GV-Center V2 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.
2. To display a megapixel IP channel across monitors, make sure the external graphics cards on a server are of the same brand, model, and driver version. The capacity of the graphics 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 CPU threads and memory or decrease the number of connected cameras to improve the system performance.
4. For GV-Control Center to support up to 9 Live Views, with 100 camera channels for each Live View, higher PC specifications are required than the minimum requirements.

License

Free License	N/A
Maximum License	Unlimited number of hosts
Increment for Each License	N/A
Optional Combinations	1. Control Center 2. Control Center + Video Wall (1 to 200 licenses) 3. Control Center + Vital Sign Monitor 4. Control Center + Vital Sign Monitor + Video Wall (1 to 200 licenses) *No. 3 ~ No. 4 are **not** supported by *software licensing*.
License Type	GV-USB dongle or software license

Note:

1. To upgrade to V4.0.0 or later, a purchased initial license is required to start GV-Control Center software.
2. The licensing comes in two forms: *GV-USB dongle* and *software license*. The two are incompatible. Before using software licensing, make sure to remove the GV-USB dongle if inserted on the PC.
3. GV-USB dongle has two types: Internal and External. Internal dongle is recommended for the Hardware Watchdog function, which restarts the PC when Windows crashes or freezes.
4. Software licensing:
   - Does not support the following software currently: GV-NVR
   - Supports the following products: GV-AI FR V1.2 or later, GV-AI Guard V2.1.0 or later, GV-ASManager V6.0.1 or later, GV-VMS V17.4.2 / V18.3.0 / V20.0.0 or later, GV-Recording Server V2.0 or later, GV-Cloud Bridge Pro V1.20 or later, GV-FR Panel V2 V1.10 or later, GV-HD DVRs, GV-SNVRs, UA-HD DVRs, UA-SNVRs, IP devices

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 CPUs:

For **H.264** Video Compression

- 2nd ~ 8th Generation Intel Core i3 / i5 / i7 Desktop Processors
- 9th ~ 14th Generation Intel Core i3 / i5 / i7 / i9 Desktop Processors
- Intel Core Ultra 5 / Ultra 7 / Ultra 9 Desktop Processors (Series 2)

For **H.265** Video Compression

- 6th ~ 8th Generation Intel Core i3 / i5 / i7 Desktop Processors
- 9th ~ 14th Generation Intel Core i3 / i5 / i7 / i9 Desktop Processors
- Intel Core Ultra 5 / Ultra 7 / Ultra 9 Desktop Processors (Series 2)

External GPU: GPU decoding is only supported when using:

- NVIDIA graphics cards with a compute capability of 3.0 or above and a memory of 2 GB or above. To look up the compute capability of the NVIDIA graphics cards, refer to: https://developer.nvidia.com/cuda-gpus

Note: Only one external NVIDIA graphics card is supported for GPU decoding, with up to 8 MP resolution.

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. For NVIDIA graphics cards, CUDA compute capability 5.0 or higher is required to ensure optimal performance.

Options

Optional Devices	Description
GV-IO Box Series	GV-IO Box series provides 4 / 8 / 16 inputs and relay outputs, and supports both DC and AC output voltages, with optional support for Ethernet module and 4E additionally supporting PoE connection.
GV-IP Speaker	GV-IP Speaker plays audio received over the network, supporting both live speech to deter intruders and prerecorded messages for alerts and announcements.
GV-Joystick V2	GV-Joystick V2 facilitates PTZ camera control. It is compatible not only with GeoVision software, but also with any third-party software that supports the HID standard.
GV-Joystick V3	GV-Joystick V3 facilitates PTZ camera control. It is compatible not only with GeoVision software, but also with any third-party software that supports the HID standard.

Compatible GeoVision & USAVision Products

Software

- GV-NVR: V8.5 or later
- GV-VMS: V14.1 or later
- GV-ASManager: V4.3 or later
- GV-Recording Server: V1.4 or later
- GV-AI FR: V1.2 or later
- GV-AI Guard: V1.1 or later

Mobile App

- GV-Live Streaming app: V1.0.2

Bridging Device

- GV-Cloud Bridge Pro: V1.20 or later

Reader

- GV-FR Panel V2: V1.10 or later

SNVR

- GV-SNVR0400F / SNVR1600: FW V1.1 or later, GV-SNVR0411: FW V2.0 or later, GV-SNVR0412: FW V1.13 or later, GV-SNVR0811: FW V2.73 or later, GV-SNVR0812: FW V1.03 or later, GV-SNVR1611: FW V3.03 or later, GV-SNVR1612: FW V1.01 or later, GV-SNVR3203 / SNVR6403
- GV-RNVRL810-P / RNVR3240-N / RNVR256G0-N
- GV-TNVR1620-P

HD DVR

- GV-TXVL1610

HD Video Encoder

- GV-VS11 / VS12 / VS14 / VS2400 / VS2420 / VS2800 / VS2820: FW V1.01 or later
- GV-VS2401 / VS21600

USAVision Products

- UA-HD DVR series: UA-XVL810 / XVL1610 / XVR810: FW V1.02 or later, UA-XVL1611 / XVR1620
- UA-SNVR series: UA-SNVRL810-P / SNVR1620-P: FW V1.01 or later, UA-SNVR3240-N