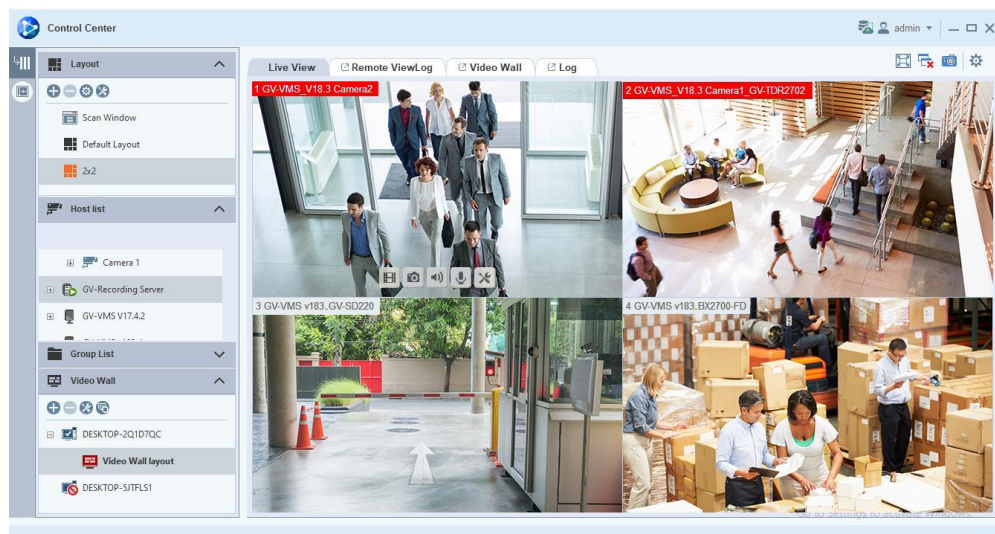# GV-Control Center

Introduction

GV-Control Center, the integrated security management system, is a unified security platform that blends IP cameras and surveillance systems within 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 in which videos from a group of maximum 100 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 9 Live Views, with 100 camera channels for each Live View, on 9 monitors simultaneously. Each Live View supports live monitoring and video playback altogether.

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

GV-Control Center can access the desktop of client GV-DVR / NVR / VMS and have full control of the client's monitoring system and Windows operation system.

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

GV-Control Center provides a useful I/O Central Panel for the operator to remotely manage I/O devices from various GV-IP devices. The operator 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, GV-Control Center can simultaneously trigger all alarms in 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 recordings from different hosts. The operator can utilize the service to save video clips for later retrieval as event evidence.

- **Video Wall (optional)**

GV-Video wall, TV wall, is an establishment 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 view popped up from E-Map. A megapixel camera channel can even be placed across monitors.

- Event popup display
- Face Recognition Watch to monitor FR events from GV-AI FR and FR cameras of GV-VMS
- ASManager View to monitor access control and LPR events from GV-ASManager
- Storyline recording
- Audio broadcast
- 3D E-Map
- Support for GV-Decoder Box for additional monitor display
- Support for GV-Live Streaming app for streaming from Android / iOS mobile device cameras

Specifications

Features	Control Center
Host	
GV-ASManager GV-Authentication Server GV-AI FR GV-Compact DVR GV-DVR / NVR / VMS GV-Live Streaming account GV-Recording Server / GV-Video Gateway GV-SNVR System GV-Video Server IP Camera	Unlimited
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-DVR / 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
Panorama View / Channel	4 Panorama Views / 32 channels per view
FR (Face Recognition) 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, 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 GV-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.

Minimum System Requirements

OS	64-bit	Windows 10 / Windows 11 / Server 2016 / Server 2019
CPU	Core i7 2600K, 3.4 GHz	
RAM	16 GB Dual Channels	
Hard Disk	1 GB for software installation	
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 (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.

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 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 license) 3. Control Center + Vital Sign Monitor 4. Control Center + Vital Sign Monitor + Video Wall (1 to 200 license) *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:

   - Not support the following software currently: GV-AI Guard and GV-DVR / NVR.
   - Support the following products: GV-AI FR V1.2 or later, GV-ASManager V6.0.1 or later, GV-Recording Server V2.0 or later, GV-SNVR series, GV-VMS V17.4.2 / V18.3.0 or later, UA-HD DVR series, UA-SNVR series, 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 chipsets:

For **H.264** Video Compression

- 2nd~ 8thGeneration Intel Core i3 / i5 / i7 Desktop Processors
- 9th~ 11thGeneration Intel Core i3 / i5 / i7 / i9 Desktop Processors

For **H.265** Video Compression

- 6th~ 8thGeneration Intel Core i3 / i5 / i7 Desktop Processors
- 9th~ 11thGeneration Intel Core i3 / i5 / i7 / i9 Desktop Processors

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 commute 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 activating H.264 / H.265 GPU decoding.
2. CUDA compute capability 5.0 or higher is required to ensure optimal performance.

Compatible GeoVision & USAVision Products

- GV-DVR / 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
- GV-Live Streaming app: V1.0.2
- GV-SNVR0400F / 1600: FW V1.1 or later; GV-SNVR0411: FW V2.0 or later; GV-SNVR0412: FW V1.13 or late; 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-VS11 / 12 / 14 / 2400 / 2420 / 2800 / 2820: FW V1.01 or later
- GV-VS2401 / VS21600: FW V1.00 or later
- UA-HD DVR series: UA-XVL810: FW V1.02 or later, UA-XVL1610: FW V1.02 or later, UA-XVR810: FW V1.02 or later
- UA-SNVR series: UA-SNVRL810-P: FW V1.01 or later, UA-SNVR1620-P: FW V1.01 or later

Options

Optional Devices	Description
GV-Joystick V2	GV-Joystick V2 facilitates PTZ camera control. It can be either plugged into the GeoVision surveillance system for independent use or connected to GV-Keyboard to empower the operation.
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.