GV-Hot Swap Backup Center System (Rev. B) – 3U, 16 / 8-Bay

16-Bay Model   8-Bay Model
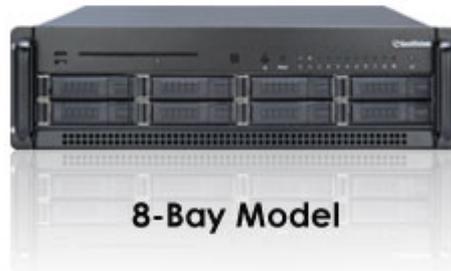
Introduction

The GV-Hot Swap Backup Center System, designed for large-scale video surveillance deployments, provides a secure remote backup solution with a powerful data storage capacity for the GV-System and GV-IP Devices. It comes with a selection of 4U (20-bay) or 3U (16 / 8-bay) hot-swappable SATA mobile racks. Depending on the HDD size, the GV-Hot Swap Backup Center System can store up to 120 terabytes of recorded data.

The built-in GV-Backup Center can automatically store a copy of recordings and logs to the offsite location. Using the GV-Backup Center, the recording data remain safe in a different location if the GV-System, GV-IP Devices and GV-Recording Server are damaged.
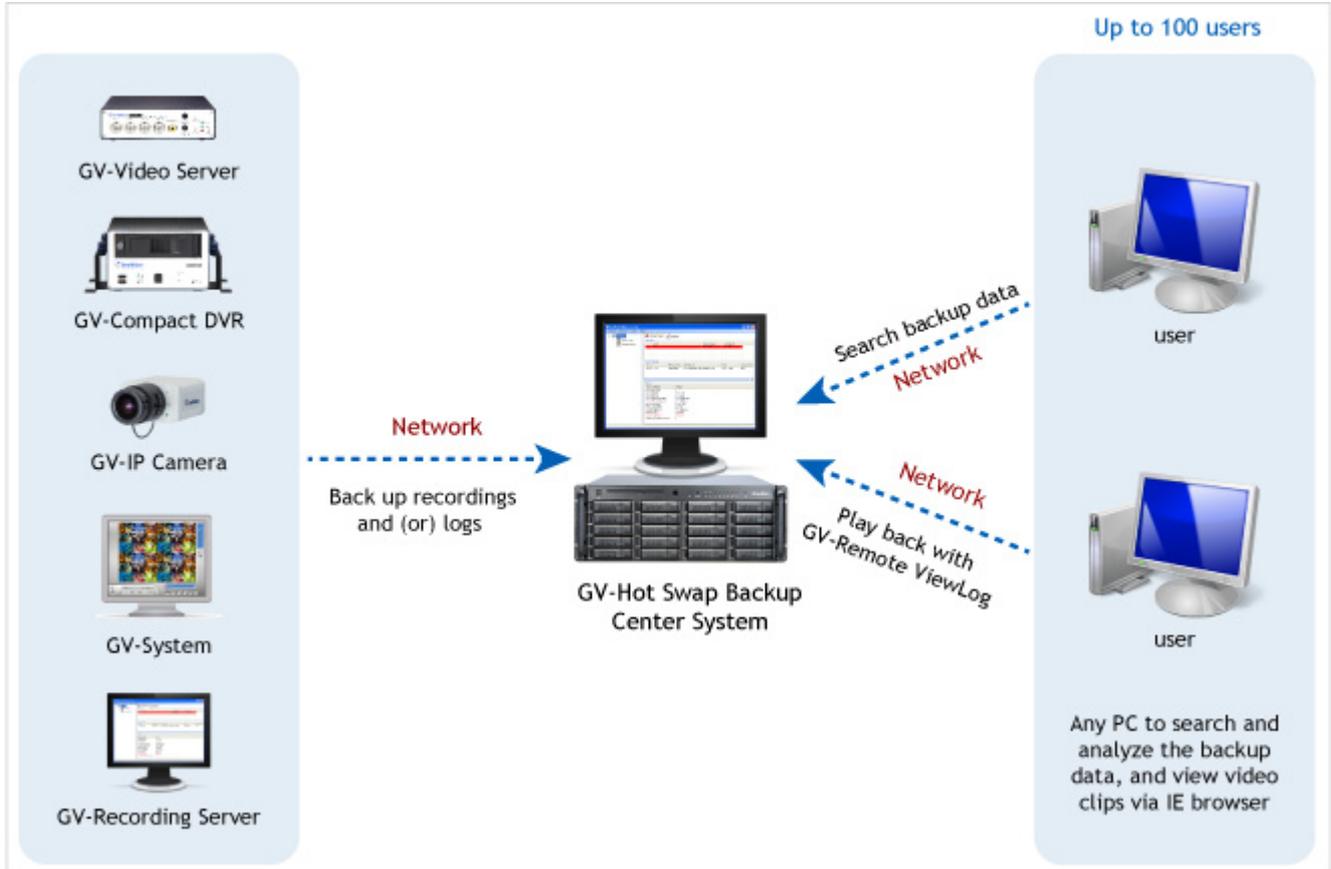
Features

- Windows Embedded 7 64-bit (x64)
- Powered by Intel Core i7 Processor
- Maximum storage capacity up to 120 TB (4U 20-Bay) / 96 TB (3U 16-Bay) / 48 TB (3U 8-Bay)
- 20 (4U), 16 / 8 (3U) hot-swappable SATA drive bays
- Four Gigabit LAN ports
- Four USB 2.0 ports and four USB 3.0 ports
- Recovery from internal hard disk
- Remote backup
- Up to 200 units of GV-System and GV-IP Devices supported
- Up to 10 backup rules for working and non-working days independently
- Support for backing up GV-System recordings according to event types (all types, motion or I/O trigger)
- E-Mail alerts for low disk space, disconnection and file transfer failure
- Online data analysis by Event Count, File Size and Time
- Failover support (GV-IP Devices only)
- Web interface for event query
- Support for 16 languages
- RAID 0 / 1 / 5 / 6 / 00 / 10 / 50 / 60 data protection (optional)

Specifications

System			
Model		**16-bay**	**8-bay**
CPU		Intel Core i7 Processor	
RAM		4 GB Dual Channels	
OS		64-bit Microsoft Windows 7 Embedded	
DirectX		11	
No. of HDD		16 (3.5" HDD)	8 (3.5" HDD)
Internal Storage		500 GB (2.5" HDD)	500 GB (3.5" HDD)
Connector	Ethernet	RJ-45, 10 / 100 / 1000 Mbps x 4	
	Video Output	3 displays with outputs VGA, DVI-D (DVI-D signal Only) and HDMI	
	USB 2.0	Front : 2 ports, Rear : 2 ports	
	USB 3.0	Rear: 4 ports	
DVD (±) RW	Slim	8X	
Fan	12 cm (4 3/4")	-	
	8 cm (3 1/8")	4 units	
Power		Output: 550 W Input: 100-240 V, 47-63 Hz	Output: 400 W Input: 100-240 V, 47-63 Hz
Backup Type		DVD+R (DL) / DVD-R (DL) / DVD+R / DVD+RW / DVD-R / DVD-RW / CD-R / CD-RW	
System Monitoring and Recovery			
Power Restoration		Automatic restart after power outage	
Monitoring		Two independent Watchdogs (Hardware Watchdog + Software Watchdog)	
Recovery		Automatic system rebuild from internal hard disk	
Environment			
Operating Temp.		0 ~ 45 °C / 32 ~113 °F	
Humidity		0 ~ 80% RH (non-condensing)	
Physical			
LED Indicator		Yes (Fan, Power, HDD)	
Color		Black	
Dimensions (W x H x D)		483 x 132.5 x 650 mm / 19 x 5.2 x 25.5 in	483 x 132.5 x 580 mm / 19 x 5.2 x 22.8 in
Weight		18.5 Kg / 40.7 lb (± 1 kg / 2.2 lb)	17.5 Kg / 38.5 lb (± 1 kg / 2.2 lb)
Software Specifications			
Number of hosts		200 units of GV-System and GV-IP Devices; 3 units of GV-Recording Server	
Number of user accounts		100 in total including Supervisors and Users	
Backup schedule		Yes (for GV-System and GV-IP Devices)	
Backup rules		10 rules for working and non-working days independently for GV-System and GV-IP Devices	

Software Specifications	
Resuming backup after losing connection to hosts	Yes
E-mail alert	Low disk space, disconnection, file transfer failure
Disk space recycle	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

Network Deployment

The GV-Hot Swap Backup Center System, equipped with 4 network interface cards, has the capacity of receiving 200 hosts for GV-System and GV-IP Devices. It can also receive up to 100 users for Web query or remote playback. It is recommended to set three network interface cards for receiving video and one network interface card for Web query or remote playback.
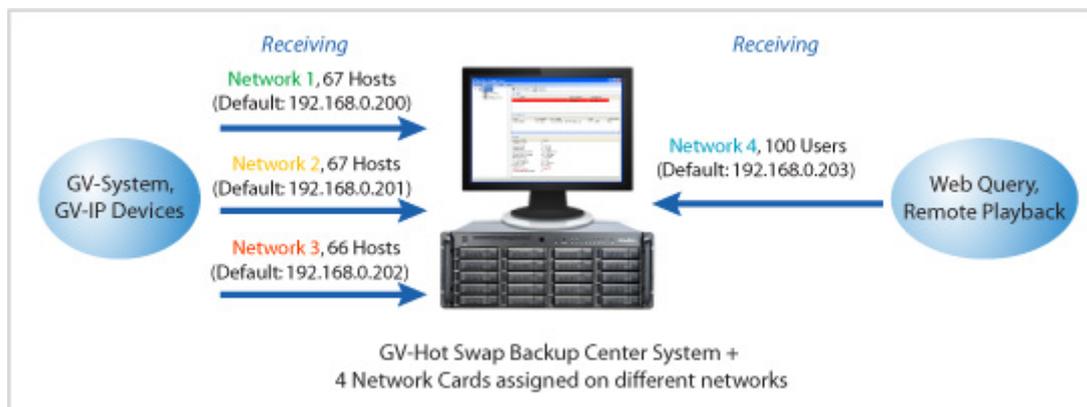
Recommended Network and Hard Disk Requirements

The system's backup speed and transmitting capacity depends on the number of Gigabit connections. The numbers of Gigabit network cards required to receive 200 hosts 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. For example, at least 7 hard disks are required for up to 200 hosts supported with 1.3 / 3 M resolution.

Resolution	FPS	Codec	Gigabit Network Cards Required		Max. hosts per HDD
			Receiving 200 hosts	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 MP	30 fps	H.264	Gigabit Network Card x 3 (up to 67 hosts per card)	Gigabit Network Card x 1	21 hosts
3 MP	20 fps	H.264	Gigabit network card x 2 (up to 100 hosts per card)	Gigabit Network Card x 1	32 hosts
4 MP	15 fps	H.264	Gigabit Network Card x 3 (up to 67 hosts per card)	Gigabit Network Card x 1	24 hosts
5 MP	10 fps	H.264	Gigabit Network Card x 3 (up to 67 hosts per card)	Gigabit Network Card x 1	24 hosts

Overview

Front View - 16-Bay Model

Front View - 8-Bay Model

Rear View

Packing List

- GV-Hot Swap Backup Center System
- AC Power Cord
- Self-Stick Rubber Pad x 4
- Quick Start Guide

Options

Graphic Card	The Graphic Card comes with HDMI, DVI-D, and VGA ports to support additional displays. The number of monitors supported varies based on models and combination of optional cards. Up to 5-7 monitors can be supported. ** Currently, only GV-Hot Swap Backup Center System 3U (8-bay) models can support optional Graphic Cards
Gigabit Network Card	The Gigabit Network Card can support 2 gigabit ports. The number of gigabit ports supported varies based on models and combination of optional cards. Up to 5 gigabit ports can be supported. ** By replacing 1 built-in single network card with 1 optional dual network cards, the GV-Hot Swap Backup Center System 3U (16-bay) and 4U (20-bay) can support up to 5 gigabit ports.
Redundant Power Supply	The Redundant Power Supply comes with 2 hot-swap modules for 3U models and 3 hot-swap modules for 4U models. When 1 module is down, the remaining module(s) can still supply full power to the system. - 3U models: 600 W 1+1 mode; 100 ~ 240 V, 47-63 Hz - 4U models: 1000 W N+1 mode; 100 ~ 240 V, 47-63 Hz
RAID Card	The RAID Card supports a maximum of 20 SATA hard drives and enhances data protection. The supported RAID types include RAID 0, RAID 1, RAID 5, RAID 6, RAID 00, RAID 10, RAID 50 and RAID 60.

Note:

1. The optional accessories will be built in the GV-Hot Swap Surveillance System V5 (Rev. B) and tested before shipment. Opening the case and installing the accessories yourself will void the warranty.
2. The optional accessories are only supported in GV-Hot Swap Surveillance System V5 (Rev. B) or later.
3. Please contact our sales representatives for more information when combining optional cards for your system.