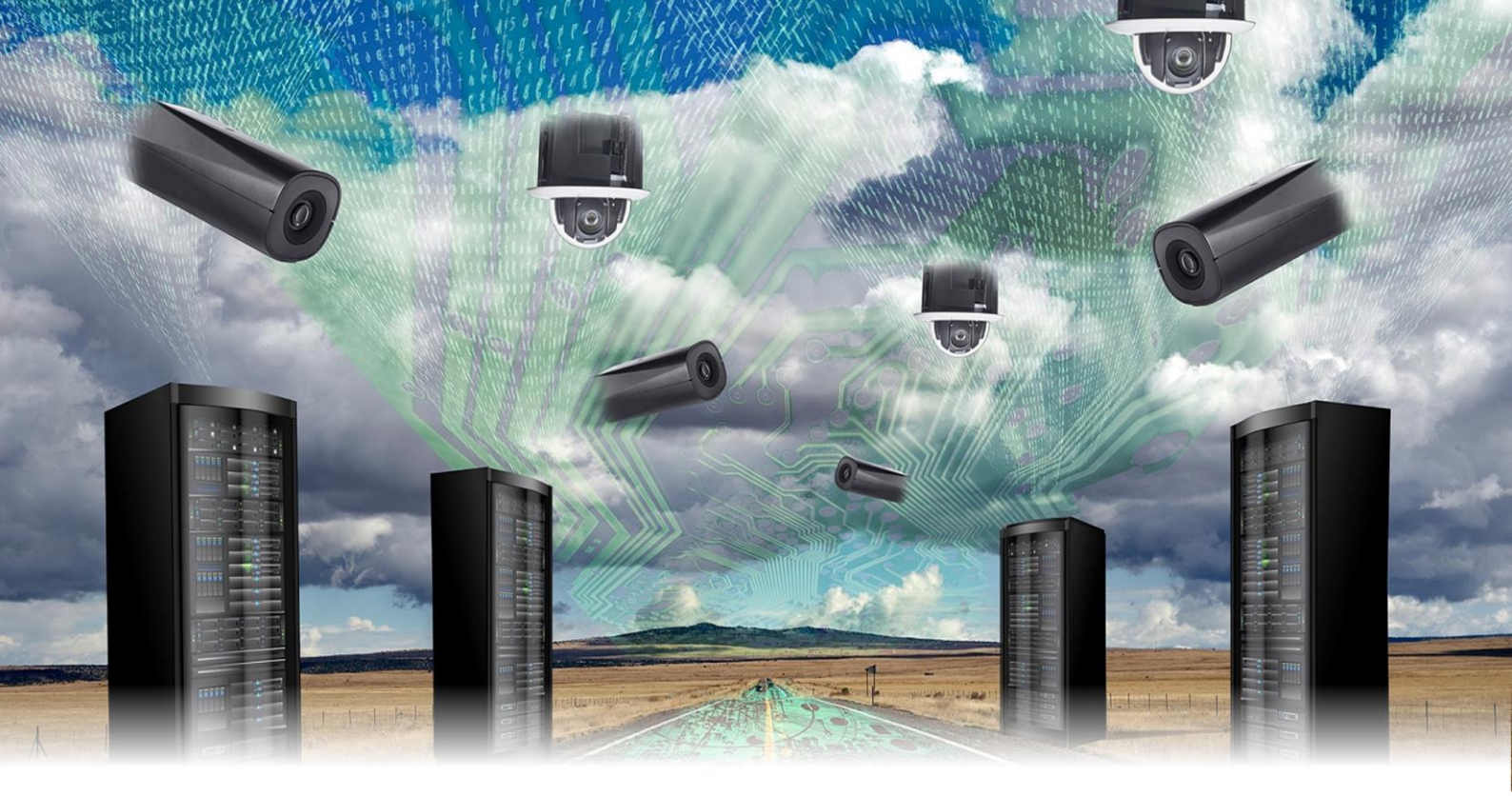


Rackmount Server for your protection

M6 True Enterprise NVRs

M6024-Dual Eng, M6024, M6016, M6012, M6108, & Extended Storage Servers S6044 & S6024

The True Enterprise is GVD's server-grade NVRs designed for enterprise high-capacity applications. Five models, M6024-Dual Eng, M6024, M6016, M6012 & M6108, are the heavyweights with redundant hardware (dual power units and dual LAN ports) to allow the extra robustness for enterprise activities, while the other one, M6108, is lighter but equally capable.

For video read/write, the most capable model can 24x7 process video on 168 channels, with a recording rate of up to 588 Mbps, while the lightest one is able to process more channels ever.

- 32, 48, 64, 96, 128, or 168 channels on option
- 24, 16, 12, or 8 HDD trays on NVR
- Extended Storage servers S6024 (24 HDD) & S6044 (44 HDD) on option
- RAID 0,1,5,6,10, 50, 60 to protect video data
- Redundant hardware for excellent reliability
- 24x7 video recording at max. 588 Mbps

For storage, True Enterprise can get a boost up to mega storage by opting for an external storage server. Also on option is an Archive Server to back up video data also a Failover Server for fault-tolerance.

The whole True Enterprise lineup is designed to expand to GVD's VMS 4.0 Suite, an AI integrated video system to control up to 100,000 channels.

If you are looking for a robust NVR for high-capacity and highly available service, look no further than GVD's True Enterprise NVRs.

Product Highlights

Total Solution with VMS 4.0

GVD M6 Enterprise NVR Servers are parts of the solution of VMS platform, seamlessly working with other key IP surveillance systems by stacking up your projects: X5 Failover Server, X6 Archive Server, E Series Workstations, D Series VideoWall, Smart phone Apps, cross-platforms Browsers etc.

Industrial Server with Auto- Maintenance

The True Enterprise with dual LAN and power redundancy and RAID storage with hot-swappable to tolerate any faults and prevent data loss. M6 also supports VMS ToolSet kits for your important configuration and systems periodically restart automatically. VMS Toolset will show all of important messages from OS and your NVR for any necessary NVR maintenance steps.

Time Sector Engine (TSE)

Unlike conventional NVRs with a centralized database, GVD NVR adopts an exclusive TSE (Time Sector Engine) to handle high bandwidth throughput and to deter latency for massive HD video processing, so that it gets superb video display, whether live or playback. The NVR has a max. recording rate of 512Mbps, handles up to 256 IP cameras, and processes video at high speed with 150ms~190ms latency for a D1 resolution with full frame rate display, and the NVR gives you the best real-time PTZ control by this exclusive TSE.

Dual-Eng NVR Value-Driven Pricing

A powerful NVR recording engine that can handle more IP camera streams on a single NVR machine, no need for Virtual Machine support. Increases total IP cams I/O bitrate by 70% ~ 100%, supports 70% ~ 90% more IP cameras on a single NVR

It helps customers save massive costs on surveillance system installation — perfect for Cloud projects and large enterprises.

Open Protocols for Integration

The NVR supports Modbus, JSON, TCP Text, REST popular open protocols widely-used in various systems and industrial electronic devices. They are pre-built in with NVR, users don't need to invest extra effort and cost to integrate a 3rd-party system. The NVR also features powerful alarm management that is capable of sending TCP messages to alert security operators. These advantages make the NVR highly eligible for many promising solutions such as SmartCity, Green Building, Traffic Control, Automation Production etc.

Ai Plug-in Solution

The NVR is designed to support quick Ai cameras and Ai Server plug-in solution by ONVIF Generic or GVD Ai Agent connectivity.

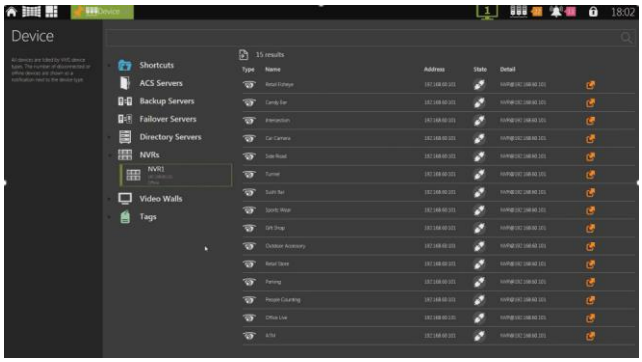
ONVIF Generic is to allow any ONVIF supported-compliant cameras but without Ai good proper interface to be integrated. Using existing ONVIF interface to integrate cams' Ai functions, saving a lot of your engineering effort.

GVD ready-to-go Ai Agent is JSON-based solution. Easy to implement their own Ai integration by simply modifying GVD JSON sample scripts. That it is done.

VMS Features

100,000 IP cameras support

GVD E4200 can team up with a variety of NVR models featured by GVD to handle 64~100,000 channels with unique “Device Management” & “Tag Management” functions.



Ai Meta Data Search

The GVD’s new AI Smart Search offers powerful integration through a simple, standard JSON-based interface, can easily connect any AI cameras to GVD VMS platform.

The GVD VMS 4.0 AI Data Search GUI features an intuitive, user-friendly design that allows users to get hands-on quickly and efficiently.

Videowall synchronous display

An operator sitting at the management console (E4200) of VMS platform can freely change what to output on the videowall, by using Drag-and-drop to view live-video, play recorded video, change video pattern, start/stop video touring, etc.

iGlance Dashboard

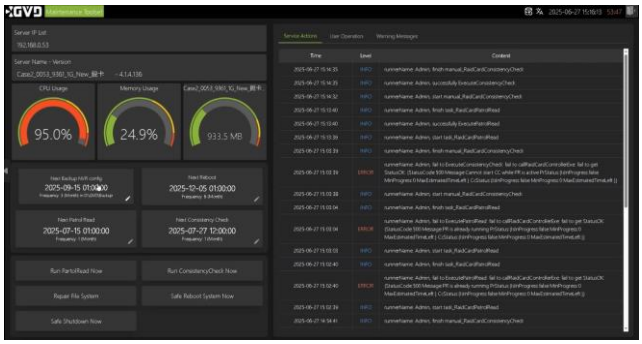
iGlance is to give operators a quick comprehensive view of system status: Alarm, NVR, IP cams, network statistics, video analytics to ensure all operation and future maintenance.

Seamless Video on eMap

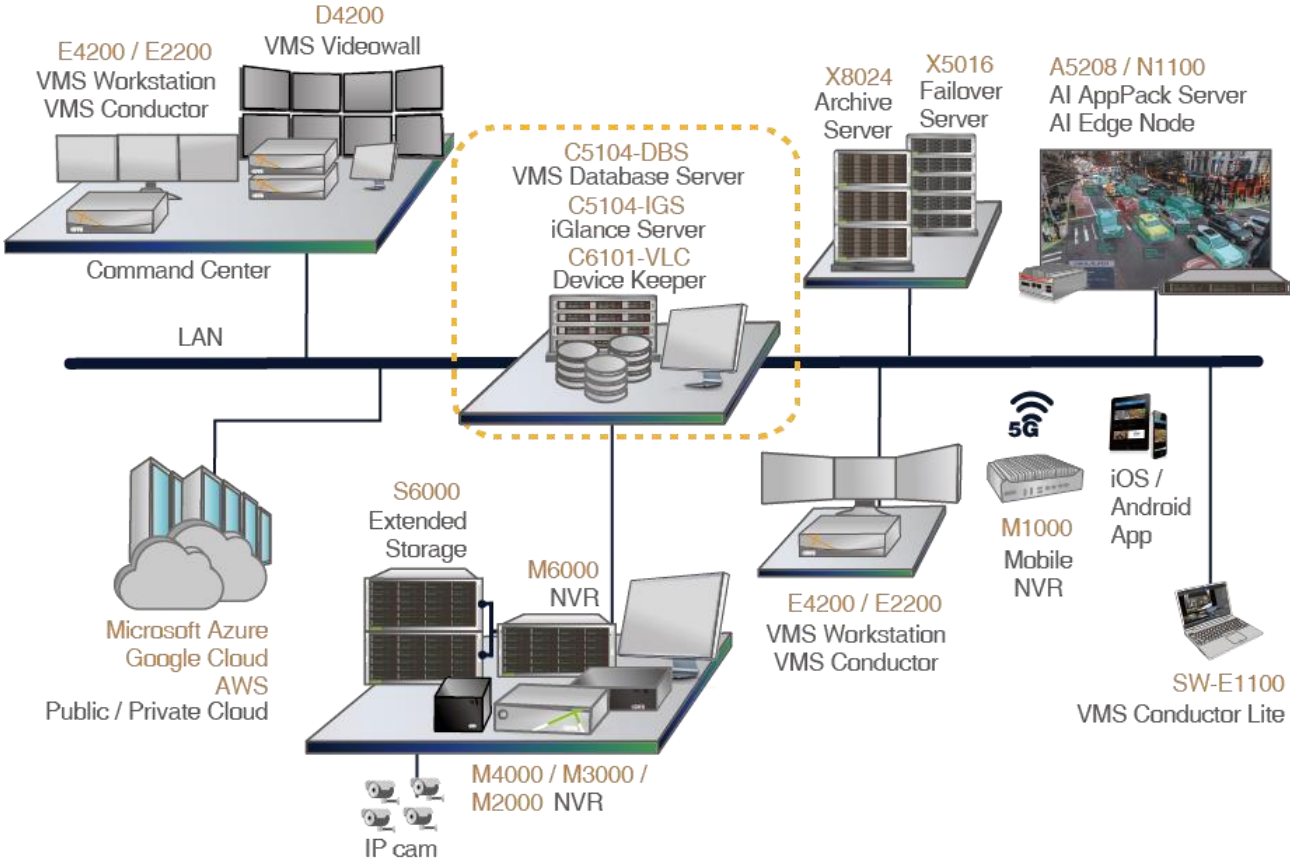
GVD VMS designed for video HA (high availability) to fetch the sources of the video from NVR or the redundant systems such as Failover server. Such HA videos are embedded on GVD eMap for easy and intuitive operation.

Automatic Self Maintenance

VMS 4.0 ToolSet kits for your important configuration and systems periodically restart automatically. VMS Toolset will show all of important messages from OS and your NVR for any necessary NVR maintenance steps.



System Architecture



Hardware Specifications

Product		M6024-Dual Eng	M6024	M6016	M6012	M6108
Description		True Enterprise NVR (Dual-Engine)	True Enterprise NVR			
System	CPU	Intel® Xeon® 8 Core	Intel® Xeon® 4 Core			
	Memory	32GB				
	OS	Windows® 11 IoT Enterprise / Windows Server 2022	Windows® 11 IoT Enterprise			
	Watchdog	Hardware watchdog & software watchdog				
Storage	Interface	3.5" SATA HDD				
	Hard disk trays (hotswap)	24 pcs		16 pcs	12 pcs	8 pcs
	Storage capacity	24 x 30TB		16 x 30TB	12 x 30TB	8 x 30TB
	RAID level	RAID 0, 1, 5, 6, 10, 50, 60				
Display	Output	1x VGA				
	Local disp. resolution	4096 x 2160 4K Monitor				
Interface	Rear USB port	2 x USB2.0; 2 x USB3.2				
	Serial COM port	1x COM				
Network	Interface	2 x 10G and 2 x 1GbE LAN	2 x 1GbE LAN			
	Protocols	IPv4, TCP/IP, UDP, HTTP, HTTPs, SMTP, SNMPv2, DNS, DDNS, DHCP, NTP, ARP, ICMP, FTP, RTSP/RTP/RTCP, IGMPv3, UPnP, CIFS, NFS				
Power	Voltage	100~240 Vac, 50-60Hz				
	PSU	1200W		1000W	920W	600W
	Redundancy	Yes				No
	Consumption (w/o HDD)	248W	232W	212W	190W	186W
Environ.	Operating temp.	5°C~35°C (41°F~95°F)				
	Storage temp.	-40°C~70°C (-40°F~158°F)				
	Operating humidity	8%~90%				
	Storage humidity	5%~95%				
Mechanic	Chassis	4U rackmount		3U rackmount	2U rackmount	
	Certification	CE, FCC, BSMI, BIS		CE, FCC, BIS		
	Dimensions (W)x(H)x(D) mm	437x178x660		437x132x647	437x89x647	437 x 88.9 x 533.4
	Net weight w/o HDD	34.3 kg	34 kg	32.7 kg	23.5 kg	17 kg

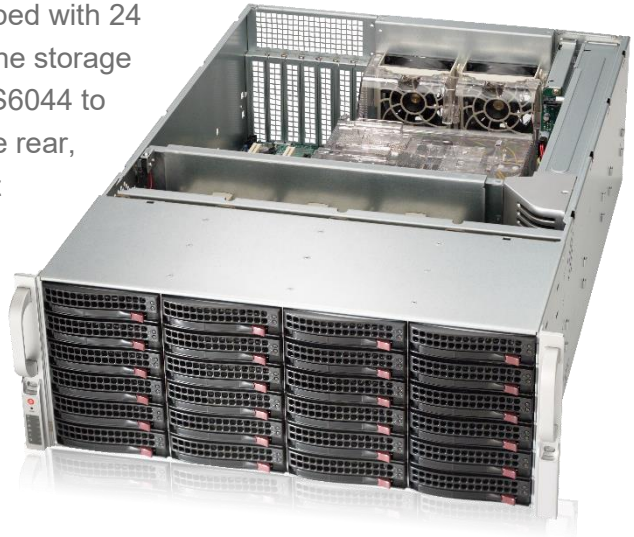
Software Specifications

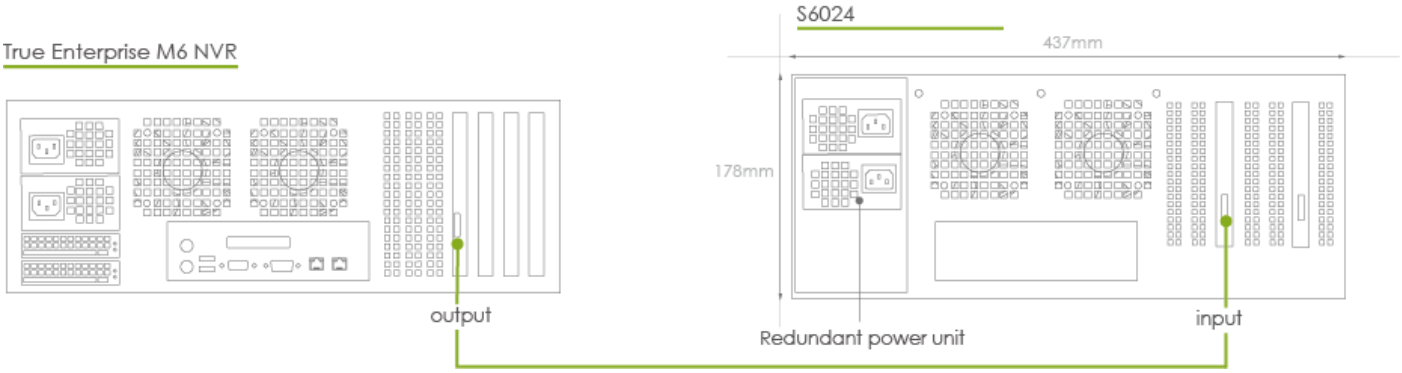
Software		M6024-Dual Eng	M6024	M6016	M6012	M6108
Description		NVR Manager - Pro	NVR Manager			
Video recording	IP camera license	96, 128, 168	64, 96	64, 96	48, 64	32, 48, 64
	Recording rate	Max. 588Mbps	Max. 384Mbps	Max. 384Mbps	Max. 384Mbps	Max. 288Mbps
	Recording resolution	D1, 1.3~20 megapixels				
	Recording mode	Full-time recording, manual recording, recording by schedule, event, alarm, video motion detection				
	Video codec	H.265, H.264, MPEG4, M-JPEG, MxPEG				
	Audio codec	G.711, G.726, AAC				
	Streaming type	Unicast & Multicast				
Video display & management	No. of live video streams	168	80	80	64	64
	Display pattern	1, 2, 3, 4, 5, 6, 8, 9, 12, 13, 16, 18, 24, 25, 36, 48, 64				
	Live-view operation	ROI, ePTZ, corridor mode, software de-warp, digital zoom in/out, onscreen PTZ				
	ONVIF	ONVIF Profile S				
	Synchronous playback	Up to 16ch				
	Playback controls	Forward/backward playback, pause, jump to next/previous frame, go to date, speed controls, go to sometime later/ago (0.5/1/5 minutes)				
	Video export	Via USB (*.AVI. *.AVA, & *.MKV supported), digital watermark				
	Video search	By time, alarm, event, missing object, foreign object, E-Fence, people counting, transaction data from POS				
PTZ	Controlling device	Mouse, K205 Keyboard				
	Operation	Direction controls, zoom in/out, preset, patrol				
VCA	Features	E-Fence, video motion detection, people counting, missing/foreign object search				
	Event search	Search for a missing or foreign object; search for an event of people counting, video motion, or E-Fence				
	Trigger source	Video loss, sensor trigger, HDD crash, system crash, abnormal transaction from POS, E-Fence, video motion detection, people counting				
	Reaction	User-definable text message, video pattern popup, e-mail, output alarm signal, trigger recording, PTZ preset				
	Setup	A Rule Wizard for flexible setup				
Alarm	Trigger source	Video loss, sensor trigger, HDD crash, system crash, abnormal transaction from POS, E-Fence, video motion detection, people counting				
	Reaction	User-definable text message, video pattern popup, e-mail, output alarm signal, trigger recording, PTZ preset				
	Setup	A Rule Wizard for flexible setup				
	DI & DO points	48 x DI points; 48 x DO points				
Remote access clients	Web client	IE 9.0, 10.0, 11.0 (Chrome, Safari, Edge, Opera are supported with VMS Database Server)				
	App client	iOS 10 and above; Android 5.0 and above				
	VMS/CMS & PC thin client	VMS(E4200), CMS(SW-E2200-CW03), CMS Lite(E90-Window 8 &10)				
	Number of clients	16				
POS	License	8 units				
	Integration	Integrable with all brands via POS filters				
	Transaction view	Pattern-view with both transaction data and relevant videos				
	Data search/retrieval	Search by time, keyword or price to retrieve transaction data with relevant video				
	POS alarm	Alarm setup by item or value; supporting popup alarm, email alarm, text message alarm, etc.				
System	System update	NVR software update				
	Backup & recovery	Yes, by VHD (virtual hard disk)				
	Event logs	Event logs of system, cameras, users, etc.				
	Languages	20+ languages are supported, including English, Spanish, French, Dutch, Italian, Japanese, Chinese, etc.				

S6044 & S6024

Rackmountable extended storage

GVD Extended Storage Servers S6024 and S6044 are equipped with 24 and 44 front-accessible hard disk trays, designed to expand the storage capacity of a True Enterprise NVR. By simply connecting an S6044 to an M6236 True Enterprise NVR via the SAS connectors at the rear, the system can instantly extend its recording capacity to meet large-scale or mission-critical requirements. Together, they provide an ideal solution for projects that must remain online around the clock, such as shopping complexes or large-scale banking operations.





Product		S6044	S6024
DESCRIPTION		Extended Storage Server (DAS Server)	
STORAGE	Interface	3.5" SATA HDD	
	Hard disk trays (bays)	44 pcs	24 pcs
	Storage capacity	44 x 30TB	24 x 30TB
	RAID level	Depending on the host	
POWER	Voltage	100~240 Vac, 50-60Hz	
	Redundancy	Yes	
	Avg. consumption	120W	98W
ENVIRONMENT	Operating temp.	5°C~35°C (41°F~95°F)	
	Storage temp.	-40°C~70°C (-40°F~158°F)	
	Operating humidity	8%~90% (non-condensing)	
	Storage humidity	5%~95% (non-condensing)	
MECHANIC	Chassis	4U rackmountable chassis	
	Certification	CE & FCC	
	Dimensions (W)x(H)x(D)	437 x 178 x 699 mm	437 x 178 x 660 mm
	Net weight w/o HDD	43.09 kg	34 kg