GVD VMS 4.0 Suites

Cloud AI Solution for Flexible Deployment

GVD **VMS 4.0** is designed to run Deep-Learning AI, with a cloud-based solution combining hybrid storage. The **4.0** is capable of managing up to 100,000 channels.

With a new architecture, GVD **VMS 4.0** is easy-to-grow to greatly lessen the complexity of large-system integration and communication.

The 4.0 can easily stack up to a group of workstations, video walls, NVRs, data servers, storage, 3rd-party systems, and, as previously mentioned, a large number of 100,000 IP cameras.

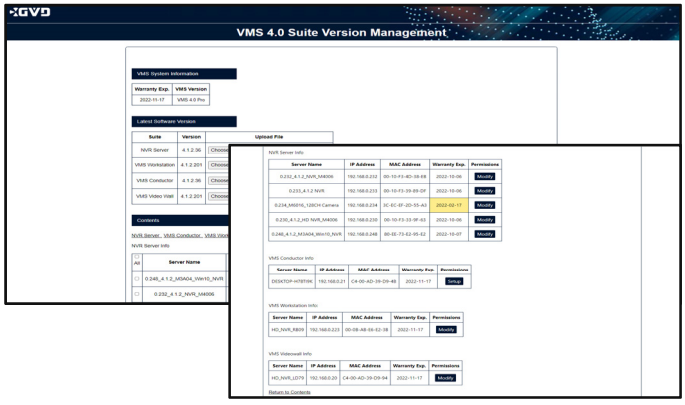
The **VMS 4.0** features **iGlance Dashboard**, which encapsulates system big data with simple graphs in a real-time way. All system health, device status, device recording status, device recording days, common system tasks, etc., can be quantified and visualized through pies and charts.

- Max: 100,000 IP cameras support
- Elasticsearch for system scalability, availability, data visualization
- Hybrid storage in NVRs, IP-SAN, camera SD cards, and clouds
- AI video computing in both central cloud and edge devices
- iGlance Dashboard for a quick overview of system big data

Migration & upgrades

GVD provides **VMS 3.8** users with seamless migration and upgrades to **VMS 4.0**. Whether plugging GVD new AI features or adapting 3rd-party AI is quick and easy.

The Device Keeper is an automated maintenance system for software version overview, license dispatch, and automatic system upgrade for a large group of GVDservers. All tasks are centralized and simplified in Device Keeper to avoid human mistakes and improve efficiency and productivity.



New Architecture

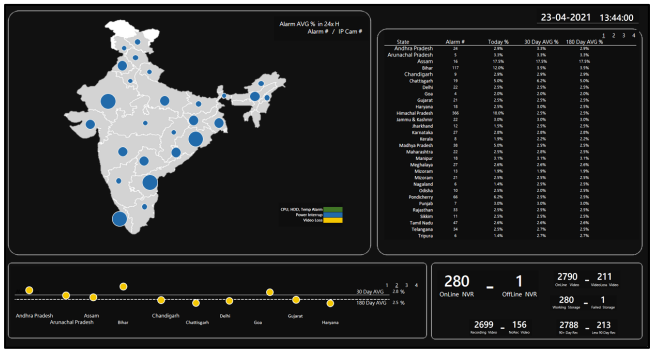
VMS-driven solution for hybrid storage with AI applications

By a new architecture allowed by GVD new products, GVD **VMS 4.0** is highly flexible to expand, whether with more cameras (up to 100,000) or more applications from the 3rd parties.

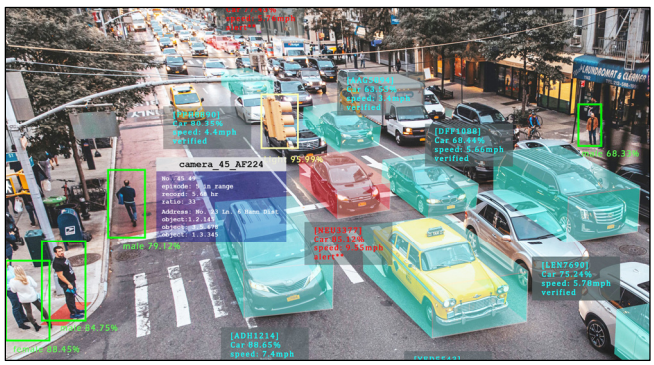
The new architecture allows mixed storage in the existing NVRs, IP-SAN, camera SD cards, and private/public clouds, especially for a large-scale project, such as enterprise or government,

Another highlight of the new architecture is the support for diverse networking media, including the traditional Ethernet, optical fiber, or 4G/5G, to allow a new network for HD IP cameras.

The new architecture also lets you deploy AI applications gradually in the VMS, per budget or schedule. It doesn't matter where you deploy the AI, whether with edge devices or with the share-based servers. The flexibility of the new architecture will support a large number of HD IP cameras.



iGlance Dashboard: State statistics & average statistics



GVD Ai Vechicle Classification

VMS 4.0 Suites Software Package	VMS Pro Package	VMS Max Package
Pro-NVR Software	▲	▲
VMS Database	▲	▲
VMS Manager	20 per Database	100 per Database
VMS Conductor	20 per Database	100 per Database
VMS VideoWall	▲	▲
POS, IO Support	▲	▲
Failover Server Software	optional	▲
Archive Server Software		optional
iGlance Dashboard		▲
Ai AppPack Support	▲	▲
Device Keeper	▲	▲
VMS Apps: Chrome, iOS, Android	▲	▲
Federal Domain Support		▲
Cloud VM Support		optional

GVD CaseBuilder

GVD VMS 4.0 Product Lineup

D4200 VMS Videowall

"Synchronous Videowall Control" from platform center to decoders. Each decoder supports max. 4 monitors and each monitor supports 64 synchronous live videos, and Intuitive GUI.

E4200 / E2200 VMS Workstation

Cloud-based with AI, with iGlance Dashboard to quantify system data with graphics. Powerful features include: eMaps, CaseBuilder, Device Manager, and Synchronous Videowall Control.

H8000
Cloud NVR Server

Container-based cloud NVR for max. 1280 HD channels per server.

X8000 / SH800
Cloud Archive Server

X8000 brings high-end and high-availability backup to max. 1280 HD channels per server. SH800 comes with iSCSI or fiber ports for massive data throughput, with expansion up to 512 HDDs per server.

C5104-DBS
VMS Database Server

Supports 100,000 cameras, with high-scalability, high-availability, and cluster & redundant design for zero down-time.

C5104-IGS
iGlance Server

Provides an iGlance Dashboard to quickly sketch system Big Data with graphs.

C6101-VLC
Device Keeper

Provides automated maintenance for a large group of GVD servers, including quick overview of software versions, license dispatch, and automated system upgrade. Centralized, simplified, human mistake reducing, and productivity improving.

M6000/4000/3000
M2000/1000/X5000
NVR & Failover Server

GVD NVRs are high-performance NVRs with Modbus support for massive system integration. GVD Failover Server is good for uninterrupted and seamless video live-view and playback.

A5208 / N1100
AI AppPack Server
AI Edge Node

Features dual CPUs and four GPUs for high AI performance and exclusive “Virtual Channels" to bust the high-price of AI., with AI modeling for LPR, vehicle classification, human behavior, and face recognition.

Azure
Google Cloud
AWS
Public / Private Cloud

M1000
Mobile NVR

Supports 8 channels and 4G / WiFi, with fanless design, PoE LAN ports, and certified with railway standards EN50155, EN50121-3-2, & EN61373.

ONVIF
SD Card

GVD NVR auto-retrieves edge storage from networked cameras and saves them to the NVR's storage.

GVD Apps
iOS / Android

Supports 20 live-videos, 128 channels, and 50 NVRs, with push alarm notice, push alarm emails, and alarm list.

Success Story

Smart City Taichung

As Taiwan's 2nd largest city with a population of 2.8M, Taichung City has integrated GVD VMS with more than 20,000 cameras.

Taichung uses GVD VMS to improve city traffic, where IP cameras collect and pass video images to the cloud-based AI servers to classify vehicle types, such as sedans, motorbikes, buses, trucks, etc., and to identify objects, such as parkways. So vehicle speeds and traffic flow are estimated.

Taipei Police Dept.

The Police Department of the capital city Taipei Taiwan has deployed more than 400 pieces of 4G-enabled cameras in GVD VMS platform and used 350 units of GVD Management Console E4200 to access the system, just to ensure zero dark corners in the city that never sleeps. GVD VMS supports ONVIF Profile G & S to combine edge storage and centralized cloud.Now this project is ready for 5G.

Thai Bank

Thailand's largest state-owned bank with 1,000 branches nation-wide had choosen GVD VMS platform to protect their assets. The project built the storage in a private cloud and has integrated AI Facial Recognition in GVD VMS to reach the highest level of security.

Semiconductor FABs in Japan & Korea

GVD products are used by some major players in the field of semiconductors. The VMS 4.0 Pro Suites are collaborating closely with the Automated Guided Vehicles (AGV) in the semiconductor fabs of SAMSUNG and SK Hynix in both Japan and Korea. More than 4000 WiFi IP cameras with SD cards are recording video to GVD VMS' Hybrid Storage to ensure 24x7 production is free from problems.