# i2V Systems & Hanwha Techwin's Wisenet Integration

**OVERVIEW:**

As the name suggests i2V (Intelligent Integrated Video) as a company believes in providing intelligent (logical and reasonable) and integrated (complete) solution to its clients. I2V Video management software brings all the puzzle pieces of video surveillance & video analytics together in an exceedingly perfect combination to make an answer that keeps people and property safe today-and tomorrow. Also, the unique price and feature combination results in saving time, reducing cost and optimizing resources.

The main purpose of integration with Hanwha Techwin's Wisenet cameras is due to the fact that these cameras has always met video quality parameters of every industry sector and domain. Hanwha Techwin cameras provide clear view of the objects in environments with strong backlight conditions and supports the transmission of HD images & audio which helps in more accurate video analytics. As i2v is a leading provider of VMS and Video Analytics in India, this integration could help both the companies to cater and solve increased challenges
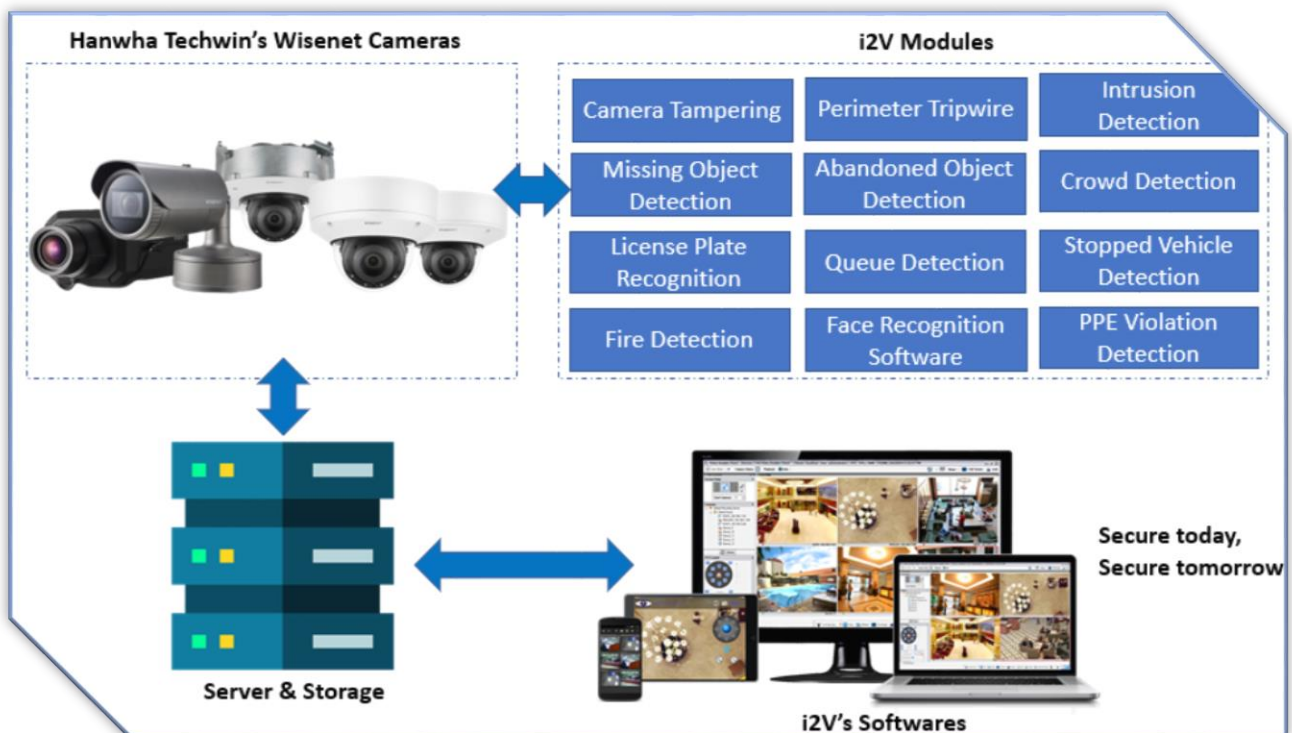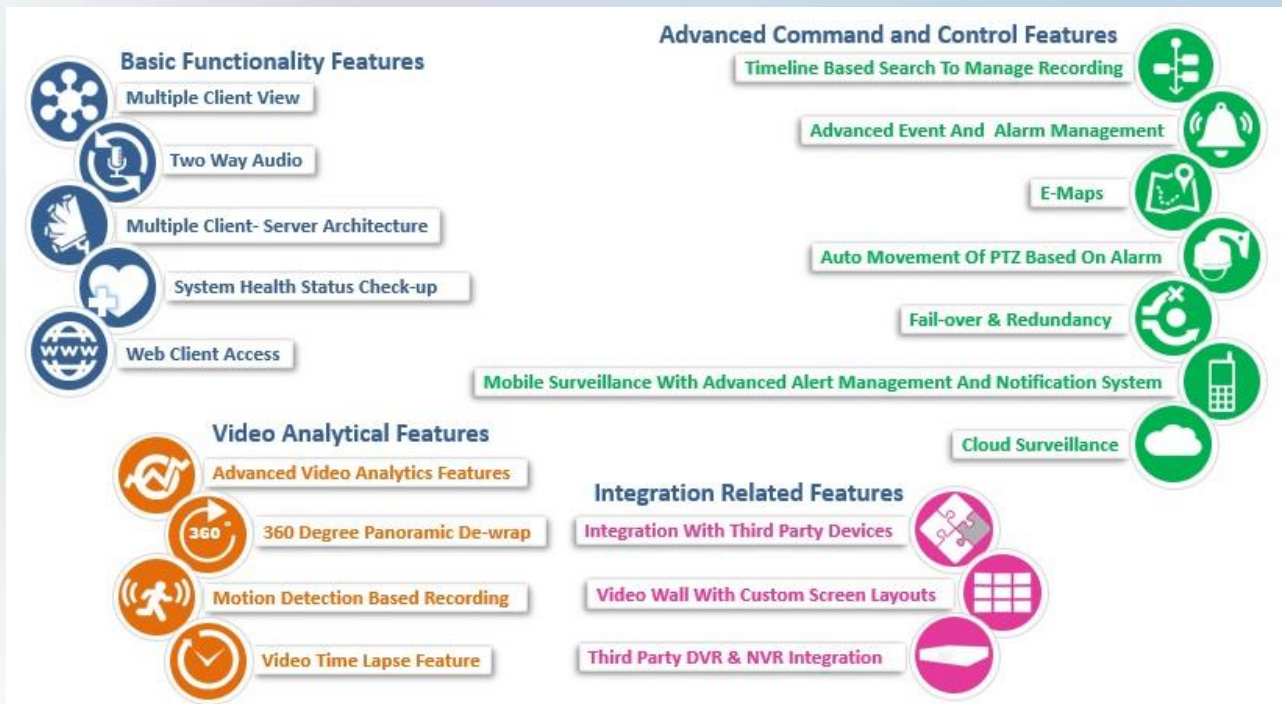
# System Integration

i2V's VMS, VA, Command & Control has the following integration features with the Wisenet Cameras:
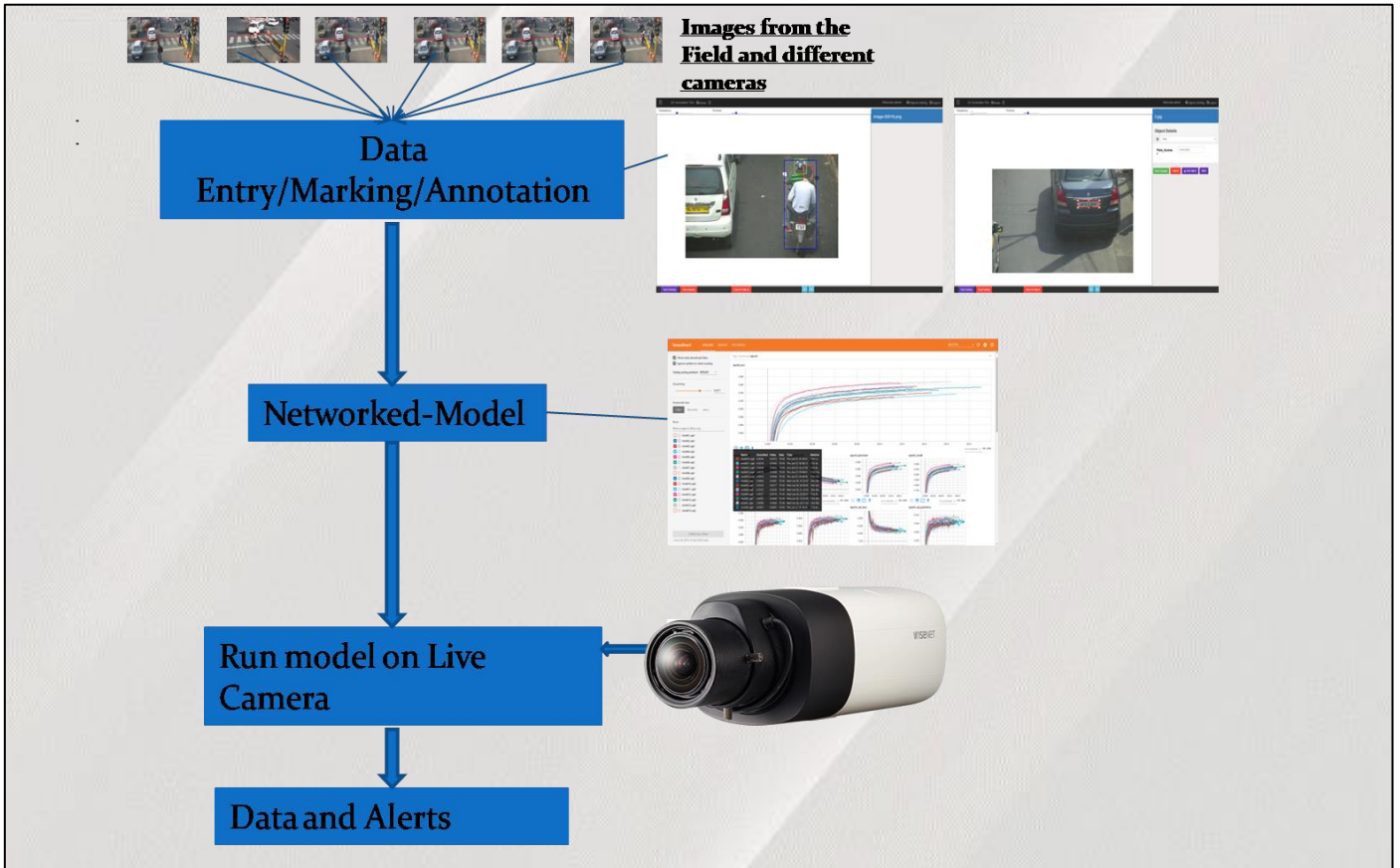
- Camera Discovery:
  - IP cameras from **Hanwha Techwin** are integrated with I2V, and this includes auto-discovery.
  - Additionally, cameras can be manually added (individually or in bulk).
  - Furthermore, cameras can also be added with Onvif profile S, G, T & M.

- Media Streaming: Wisenet camera's video streams are transferred using http & RTSP to i2V's VMS software.

- Custom Event Creation: All the events from camera are created in i2V's Analytics platform which is integrated with i2V's VMS Module.
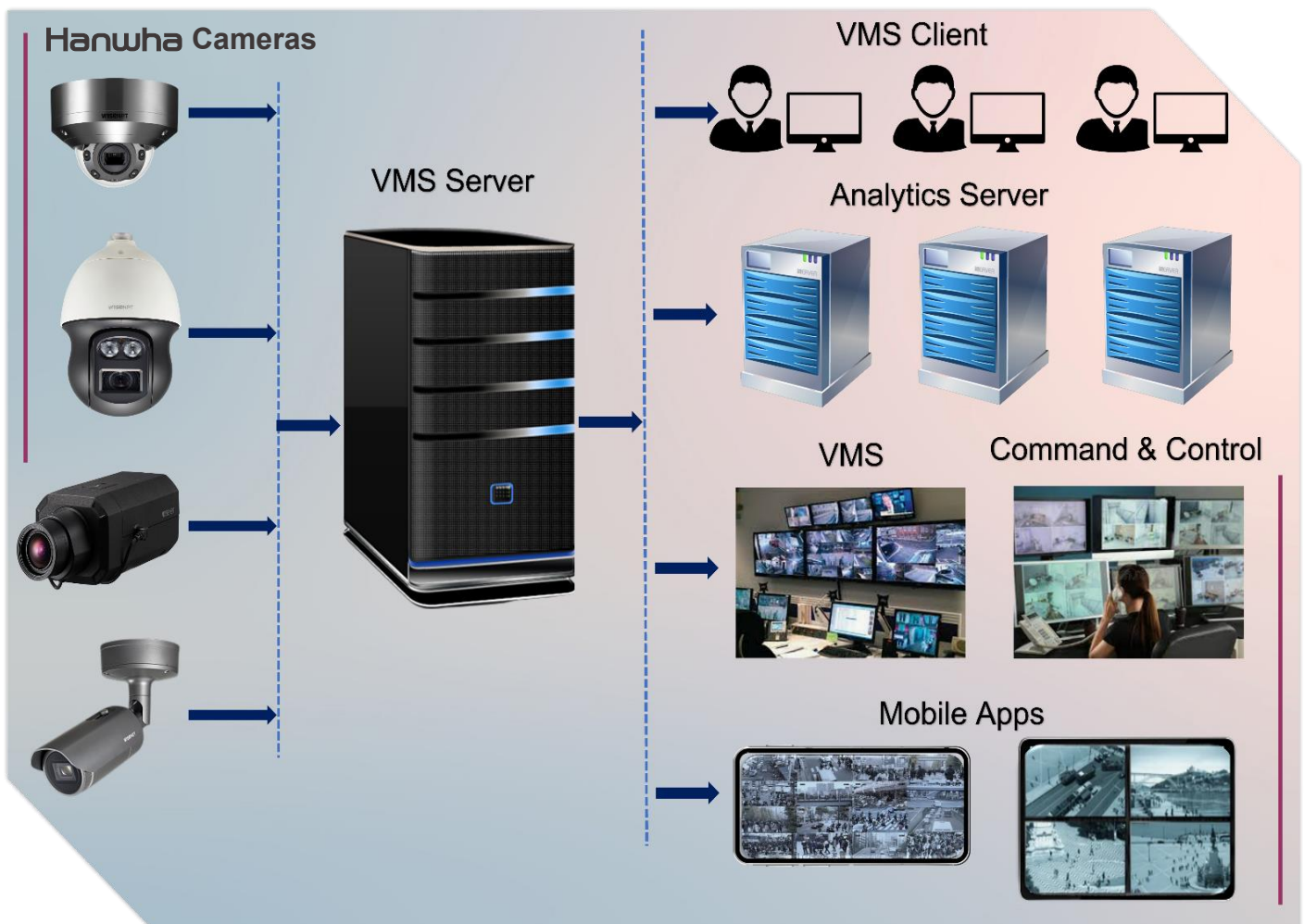
With the video feed from **Hanwha Techwin's** Wisenet Cameras, i2V's Incident-Event-Action framework strengthens the solution with advanced Alarm Management over multiple types of devices.



**Basic Functionality Features**
- Multiple Client View
- Two Way Audio
- Multiple Client- Server Architecture
- System Health Status Check-up
- Web Client Access

**Advanced Command and Control Features**
- Timeline Based Search To Manage Recording
- Advanced Event And Alarm Management
- E-Maps
- Auto Movement Of PTZ Based On Alarm
- Fail-over & Redundancy
- Mobile Surveillance With Advanced Alert Management And Notification System
- Cloud Surveillance

**Video Analytical Features**
- Advanced Video Analytics Features
- 360 Degree Panoramic De-wrap
- Motion Detection Based Recording
- Video Time Lapse Feature

**Integration Related Features**
- Integration With Third Party Devices
- Video Wall With Custom Screen Layouts
- Third Party DVR & NVR Integration



**Hanwha Techwin's Wisenet Cameras**

**i2V Modules**

| Camera Tampering | Perimeter Tripwire | Intrusion Detection |
| Missing Object Detection | Abandoned Object Detection | Crowd Detection |
| License Plate Recognition | Queue Detection | Stopped Vehicle Detection |
| Fire Detection | Face Recognition Software | PPE Violation Detection |

Secure today, Secure tomorrow

Server & Storage

i2V's Softwares

# i2V AI Based Analytic Working



# Compliance with **Hanwha Techwin** Products



| | | | |
|---|---|---|---|
| XNO-6120R | XNO-6080R | XNP-6400 | QNO-7080R |
| XNB-8000 | PNM-9085RQZ | QNB-8002 | QNV-8080R |

# Solving Challenging Use Cases

| Camera Model | Project Requirements | Solutions |
|---|---|---|
| **XNO-6120R** | **Automatic and real-time detection of the non-compliance of workers for not wearing PPE in chemical industry**<br><br>Customer wants surveillance across various locations to check its employees are wearing safety helmet and safety vest or not as it is very difficult for safety officer to present on all the locations at the same time. And due to non-wearing of safety helmet and safety vest, several tickets are already paid by the company. | The Combination of **Hanwha** Cameras and i2V's analytics Solution detects if a Person is wearing a Helmet and a High Visibility Safety Jacket in fraction of seconds in real time through the Surveillance Video feed & gives an Alert in real time if any Person is found to be not wearing or following the PPE Compliance. |
| **XNO-6080R** | **Automatic and real-time crowd detection in oil & gas industry**<br><br>Due to safety measures protocols, customer wants to cover those designated areas where gathering of crowd could raise concern to high risk at their premises. | With combination of **Hanwha** Cameras and i2V analytics, it became quite easy to detect & Classifies a Human/Person within the Field of View of the Cameras within the defined area of interest. With i2V analytics, it's possible to define a user configurable safe distance threshold limit. Therefore, live analytics stream gives real-time distance between moving & idle Person.<br>It generates alerts if set distance limit is violated. It counts the no. of people in the scene & gives alert in case crowd count exceeds the input threshold value. |
| **QNB-8002** | **Automatic and real-time fire and smoke detection in oil and gas industry**<br><br>The ability to detect the presence of fire is a vital part of an overall fire safety strategy. Without a means of detection specially in oil and gas industry, it would cause huge risk to people and property. Customer wants immediate response system so that they can | With combination of **Hanwha** Cameras and i2V's Fire & smoke detection technology has further strengthen the IP video surveillance solutions. It works using advanced Image processing and pattern recognition algorithm. This analytic has been tested on a wide variety of scenarios ranging from normal indoor mild fire to forest fires. It |

| | | |
|---|---|---|
| | alert their local fire department team and activate many other fire safety measures or summon the fire service. | alerts the user the intensity and duration of the alert. i2V's False Alarm Suppression Technology (FAST) further helps in adding more reliability to this Video Analytic. |
|  **XNB-8000** | **Automatic and real-time intrusion detection in power industry**<br><br>Recent security incidents and analysis have demonstrated that manual monitor to such attacks is no longer feasible.<br>Customer wants a robust system that can detect people in real time if they enter in a restricted area and simultaneously, they can be alerted via. two-way camera audio. | With combination of Hanwha camera and i2V's intrusion detection module, it became quite simple to allow the user to set the activity threshold depending on what the user wants to monitor. The algorithm analyses the video frames and outputs the location of moving targets within the frame. i2V's intrusion detection module has the capability to set the sensitivity for the indoor or outdoor conditions to avoid any false alarms. |

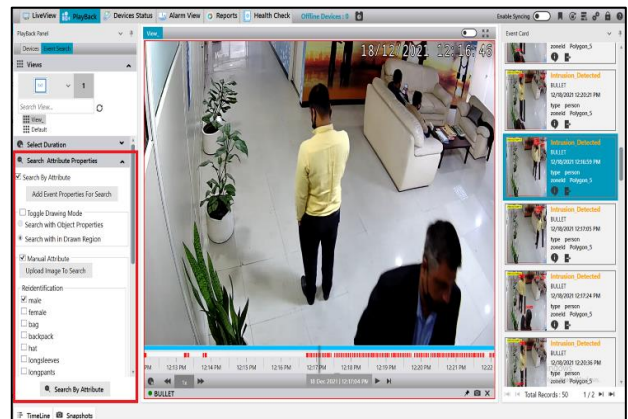# i2V Software – GUI

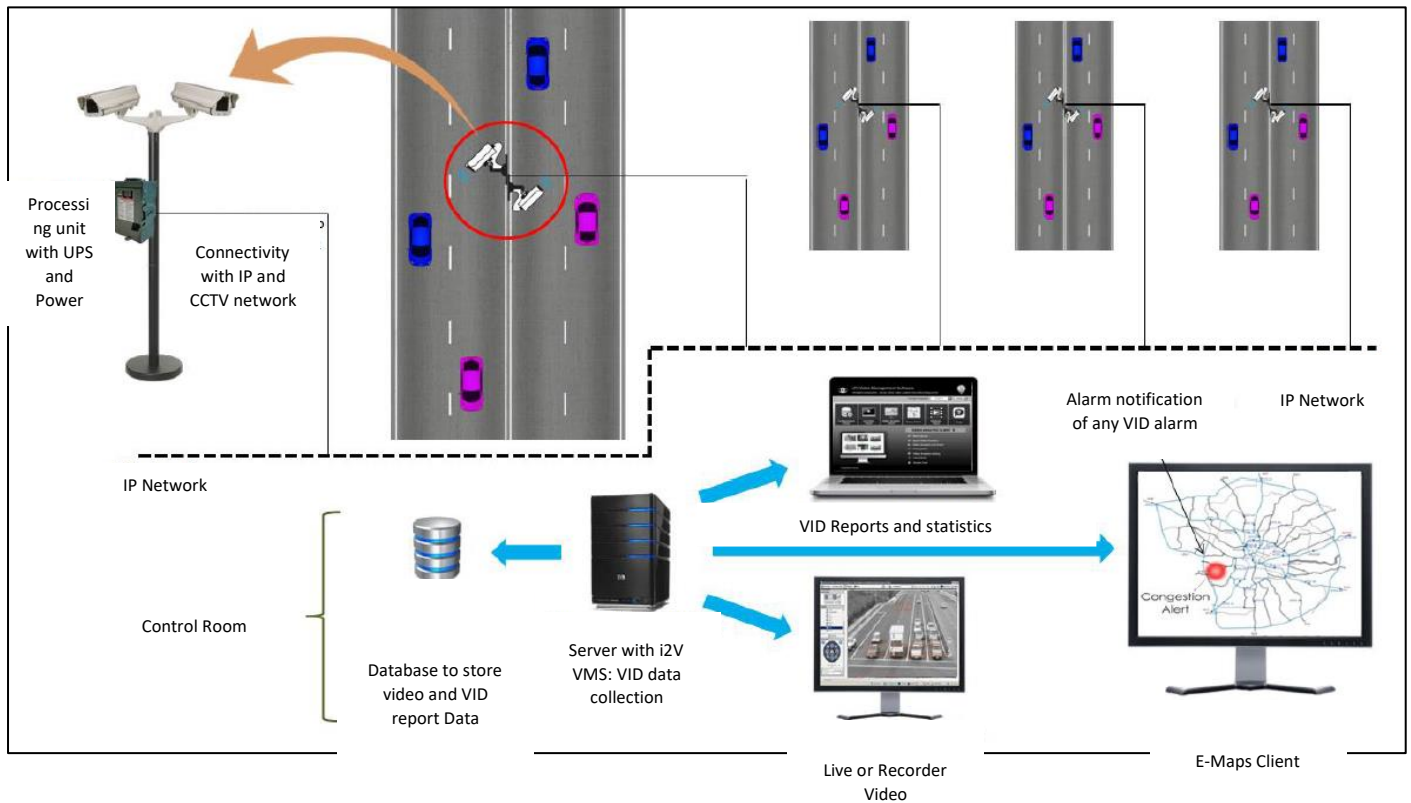### Camera Configuration wizard
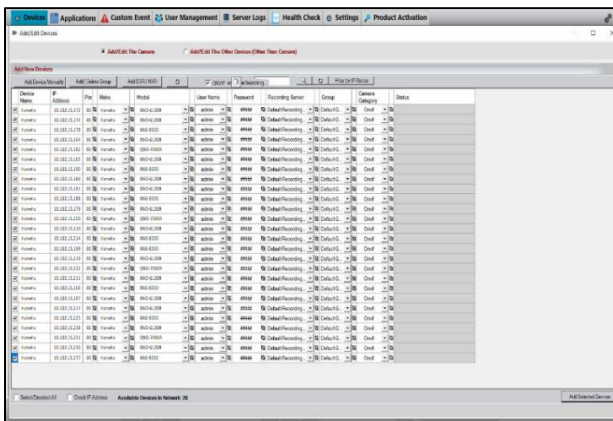


### Camera Health Report
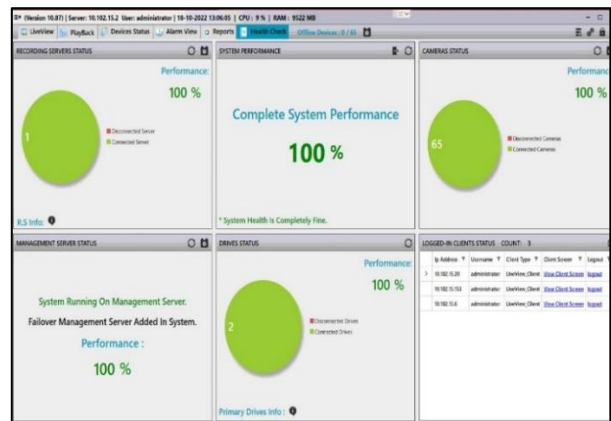


### Live View & Playback



### Forensic Analysis

# i2V's Video Incident Detection System



i2V VIDS (Video Incident Detection System) is a multi-functional set of intelligent transportation system comprised of modules such as vehicle counting, vehicle classification, vehicle speed, traffic congestion/traffic volume, vehicle wrong way detection, stopped vehicle and illegal parking detection, crowd detection, pedestrian movement detection, object fall or abandoned object detection and integration with Video Management Software.

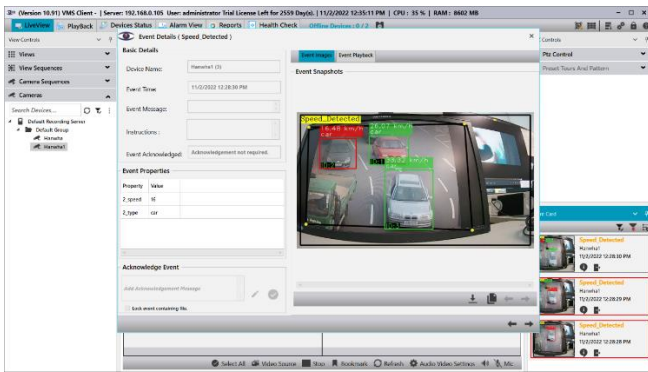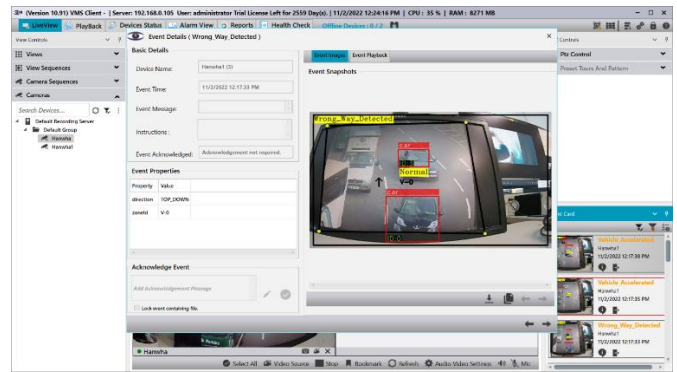## Tested VIDS applications with Hanwha Techwin's Camera Models : QNO-7012R & QND-6082R
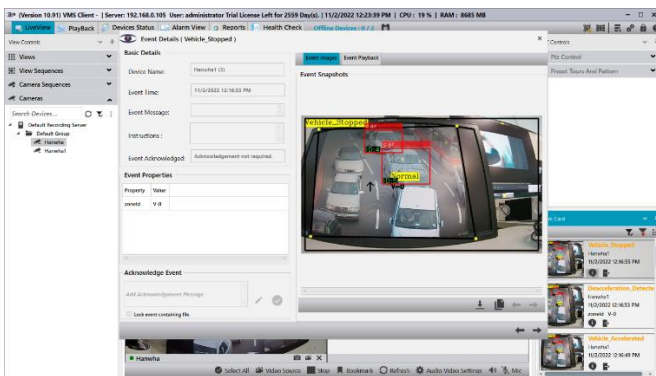
### QNO-7012R

### QND-6082R

1. Speed Detection
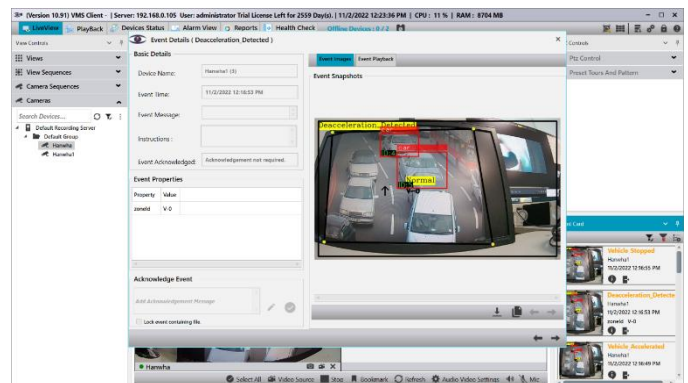2. Wrong Way Detection
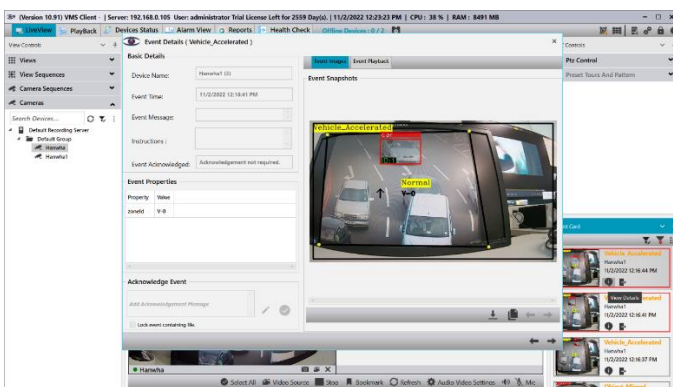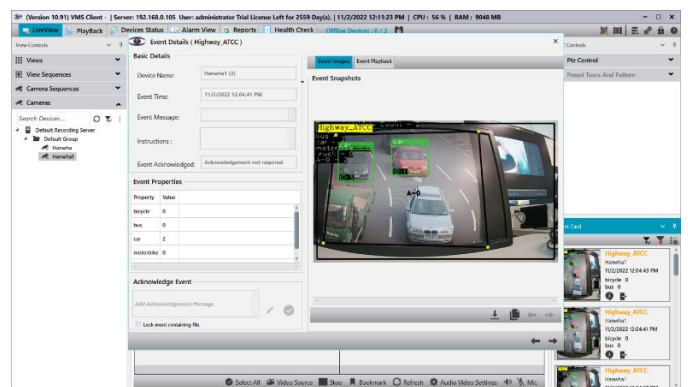



3. Stopped Vehicle Detection
4. Deceleration Detection




5. Acceleration Detection
6. ATCC




## Features provided by Analytics

- Analytics can be applied on H.265, H.264 compression and 25-30 fps.
- Both offline and Real time analytics options available.
- Option to Email or SMS any Video Analytics Event to mobile phones.
- Offline analytics possible in avi,mp4, mpeg, h264 and asf file formats.
- Offline analytics should run in batch mode to take every file from specified folders and run analytics one by one on each file automatically.
- Pre-buffer and Post buffer recordings up to 10 minutes for video analytic events.

- Minimum and maximum object size based filtering.

Below are some i2V's Systems & Hanwha Techwin Cameras disruptive and technologically advanced functions which have lead the video surveillance and security to a different level:

**Speed**
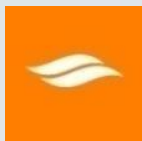Very fast processing with features like automatic camera detection with easy to add, delete and replace the device

**Reduced Operating Cost**
Ability to operate maximum number of cameras with limited server resources

**Limitlessness**
No limit in terms of number of camera connection per server, number of client connection, storage limitation etc.

**Smooth**
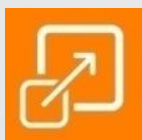Multi-Server, Multi-Site Deployment with Centralized Management

**High-Definition Video Quality**
Supports MJPEG, MPEG4, H.264 and H.265 video protocols.

**Intuitive graphical user interface**
Easy to understand graphical user interface with more than 10 languages integrated

**Exceptional scalability**
Examined with thousands of cameras which proved highly scalable nature of software

**Flexibility**
Any No. of New Cameras can be added in the software without affecting the video surveillance.

**Harmonization**

Single Application for Video Management, Video Recording & Video Analytics Software

# Hanwha Techwin

## ABOUT Hanwha GROUP

Established in 1952, Hanwha Group is one of the largest business conglomerates based in South Korea. It is the country's third largest exporter and is a "FORTUNE Global 500" company.

Hanwha Group is at the forefront of various industries including aerospace and defence, petrochemicals, solar energy, finance, construction and retail. The Group's footprint includes 85 affiliates in South Korea and 380 global networks worldwide including America, Europe, China and the emerging markets in Southeast Asia, India and Middle East.

## ABOUT Hanwha Techwin

Hanwha Techwin is a subsidiary of Hanwha Corporation, a South Korean based company. Hanwha Techwin offers total security solutions which encompass cameras, recording solutions, and video management software and compression technologies. Hanwha Techwin has solidified its leadership position in security solutions by building self-developed SoC chipset along with the optical, manufacturing and image-processing technologies accumulated over 30 years. Now, Hanwha Techwin is preparing for the future by continuously investing in AI and cyber security in order to provide convenient and safe security solutions to customers. With the representative brand, Wisenet, Hanwha Techwin will strive to serve security solutions that customers can trust.

Hanwha Techwin is ranked in the Top 4 in the global video surveillance camera market.

**WE MOVE WITH TRUST**
Visit us on: http://www.Hanwha-security.com/

## ABOUT i2V SYSTEMS PVT. LTD.

i2V stands for Intelligent Integrated Video. i2V is a technology R&D company focusing on design, development and production of Intelligent Surveillance products. i2V specializes in development of Proactive Video Surveillance products with an aim of providing high quality software engineering solutions to clients worldwide. i2V customized solutions for security industry are suitable for systems that require integration with multiple vendor devices, access control systems and a range of other security devices and applications. i2V's open architecture gives flexibility to integrate command & control and situation management parameters within its video platform.

The product offerings include IP Video management software, Intelligent Video Analytics/analysis using image processing, Computer vision, Machine and Deep learning, Automatic Number Plate Detection System, Red Light violation Detection System, Automatic Traffic Counting & Classification (ATCC), Central Monitoring System, Face Recognition, Command & Control System, Smart City Dashboard, PSIM (Physical Security Information Management), Incident Management System, Cloud Surveillance and Mobile Surveillance.

i2V's client list includes Safe and Smart cities, Oil and Gas Companies, Law Enforcement & Defence, Education, Transportations, Industrial, Forest, etc.

i2V is Number One VMS Solution provider in India. i2V is selling its products in more than 20 countries.

Visit us on: http://www.i2vsys.com/