



THE COMPREHENSIVE PACKAGE  
TO FULL PROTECTION  
**THE HikCentral SOLUTION**



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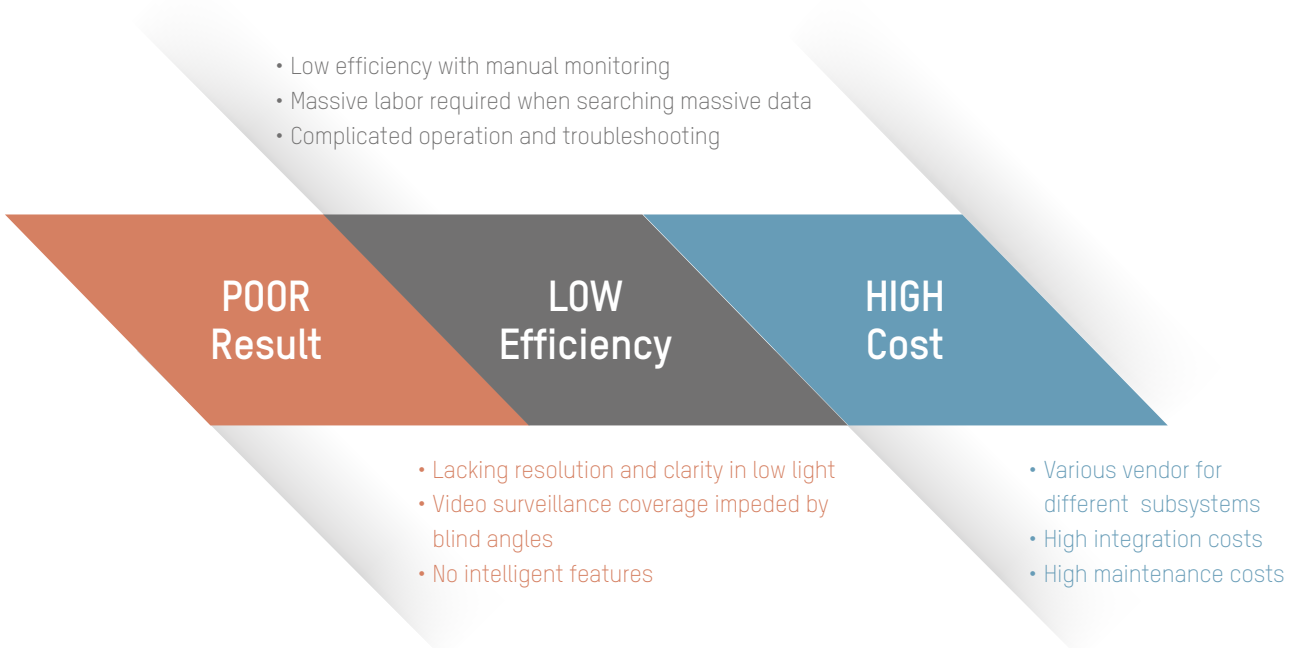
HikCentral  
Advantages



## COMMON CHALLENGES AND HIKVISION'S SOLUTIONS

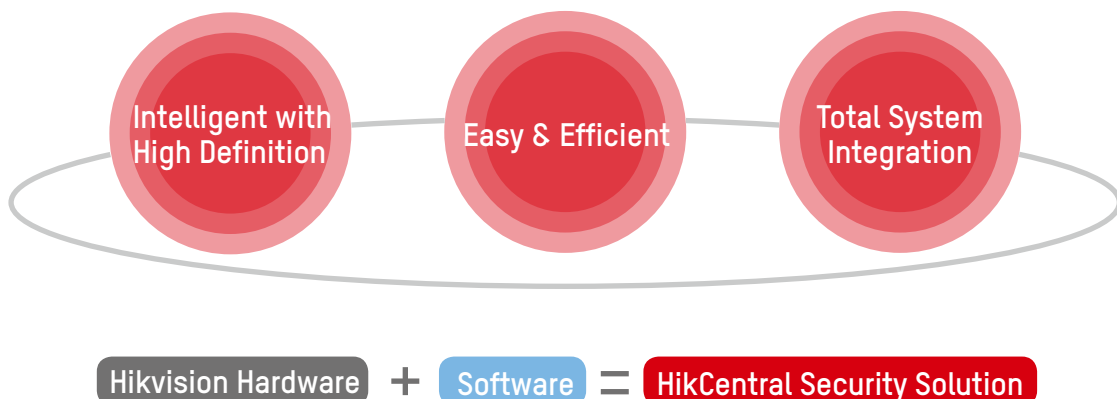
## ■ Common Challenges

A unified, connected, and intelligent platform solution is needed



## ■ The HikCentral Solution Advantages

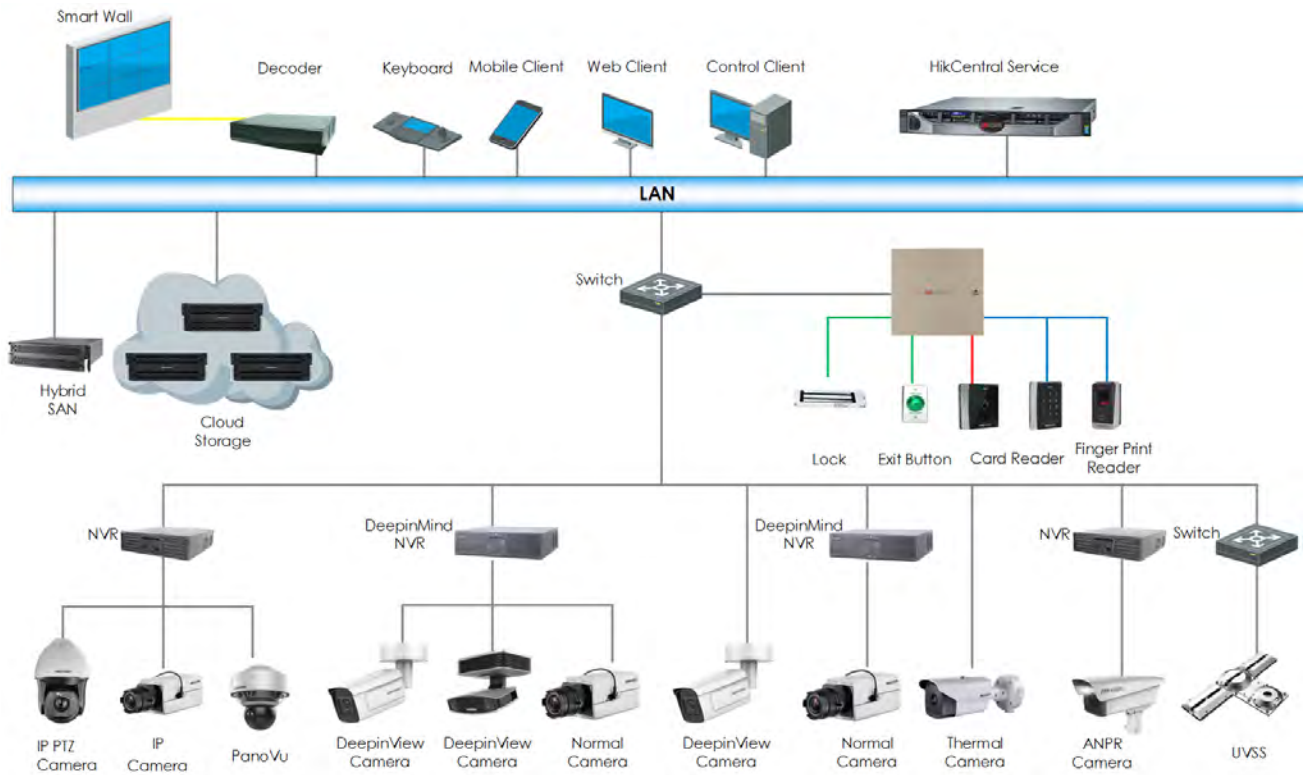
In one word: unified. The HikCentral Solution from Hikvision keeps video surveillance, security systems, and access control units unified. Nothing ties together an extensive setup of critical security hardware like HikCentral. From front- to back-end equipment, and from perimeter protection to central command, the HikCentral Solution unifies whole systems – even integrating products from other manufacturers. It's easy to install and configure, and offers impressive scalability. Its extensive backup systems provide solid, continuous operation. Continue reading to see just how powerful and effective this solution is both for security and for business enhancements in a multitude of vertical market applications.





## THE HikCentral SOLUTION

## ■ System Architecture



### Monitoring Center

- Unified Management
- Smart Wall
- Alarm Management
- Maintenance

### Access Control

- Fingerprint, Card & Password Authentication
- Attendance Report

### Video Surveillance

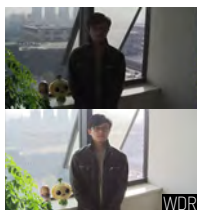
- Front-End
- Back-End
- Central Storage

### Vehicle Management

- License Plate Number Recognition
- Vehicle Chassis Inspection

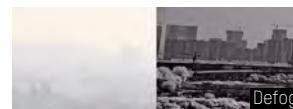
## ■ Solution for Common Scenario

IP Cameras



### Smart IP Box Camera

- 1/2.8" Progressive Scan CMOS
- 1080p @ 60 fps
- High contrast light environments
- 140 dB WDR
- Auto Back Focus



### Ultra Low Light Smart Dome Camera

- 1/1.8" Progressive Scan CMOS
- Auto-iris
- 1920 x 1080 @ 30 fps
- 120 dB WDR
- IP66

IPD



### Network IR Speed Dome

- 1/2.8" Progressive Scan CMOS
- Up to 1920 x 1080 resolution
- Min. illumination:
- Color: 0.05 Lux @(F1.8, AGC ON)
- B/W: 0.01 Lux @(F1.8, AGC ON)
- 0 Lux with IR
- 50x Optical Zoom, 16x Digital Zoom
- Optical Image Stabilization
- Up to 500 m IR distance
- Support H.265+/H.265 video compression
- Deep-learning-based target classification algorithm for auto-tracking 2.0 and perimeter protection



DarkFighterX

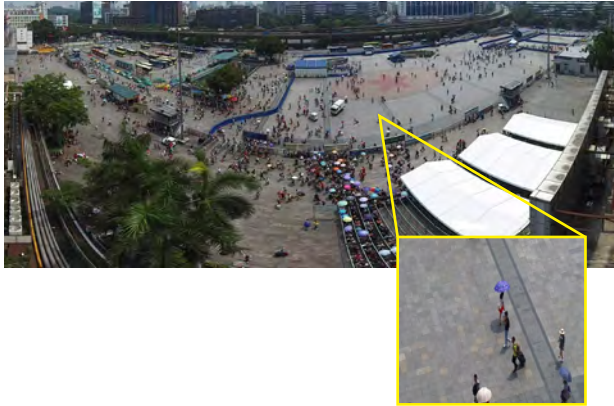
### DarkfighterX IR Network Speed Dome

- 2x 1/2.8" progressive scan CMOS
- Up to 1920 x 1080 resolution
- Ultra-low light:
- Color: 0.001 Lux @(F1.5, AGC ON)
- B/W: 0.0001 Lux @(F1.5, AGC ON)
- 0 Lux with IR
- Up to 200 m IR distance
- Support H.265+/H.265 video compression
- Deep-learning-based target classification algorithm for auto-tracking 2.0 and perimeter protection



## ■ Solution for Large Scenario

PanoVu



### PanoVu Series 360° Panoramic + PTZ Camera

- 360° panoramic + PTZ camera
- 8\*2MP panoramic view + 2/8 MP PTZ view
- DarkFighter technology
- Eight panoramic IR lights, IR distance: 200m
- Auto-tracking

## ■ Entries & Exits



### ANPR Camera

- 2 MP, CMOS, 1920 x 1080, built-in LPR algorithm
- Integrated camera, housing, lens, power adaptor, supplement Lights
- Motorized lens
- Software one-key focus, easy debugging
- Built in whitelist, LPR identification support, barrier / gate control , audio output



### UVSS

- 2048 \* 15000 resolution, support multiple pictures tiled display
- Supports high speed and non-uniform movement with no motion blur
- FOV 180°, designed for distortion optimization
- Supports automatic trigger/ Sense coil trigger
- Waterproof, anti-fog, and anti-corrosion
- High-strength structure supports heavy vehicle passing
- Professional illumination design

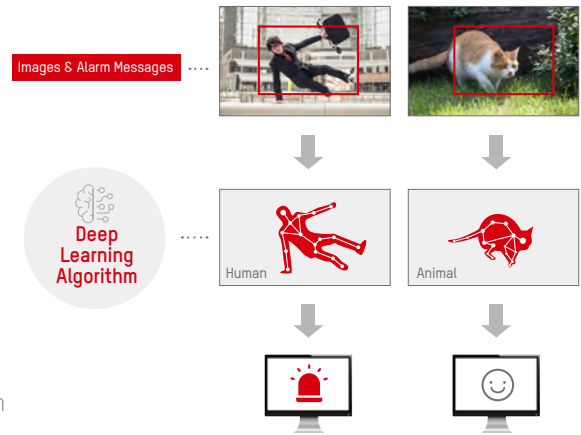
# Intrusion Detection

Perimeter Protection



## DeepinMind Series NVR

- False alarm filter
- Cross-border invasion
- Regional invasion
- Real-time monitoring and alarm
- Secondary target recognition based on deep learning algorithm



Thermal



## Thermal Camera

- Environmental Adaptability  
Adapts to challenging conditions such as complete darkness, high contrast, fog, and more
- Concealed Object Detection  
Effectively detect hidden objects or people
- Long Distance Detection  
Thermal cameras have longer effective detection distance
- High Alarm Accuracy  
24x7 real time alarm with high accuracy



# Business Intelligence

People Counting



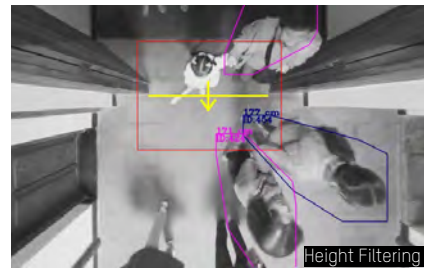
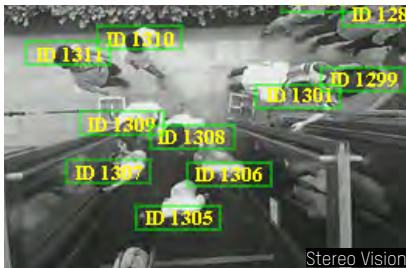
Indoor



Outdoor

## Dual-Lens People Counting Camera

- Supports discrete counting of people entering, exiting, and passing by
- Supports real-time uploading and uploading by statistical cycle
- Flash memory storage for people counting data
- Up to 5m IR range (Outdoor)

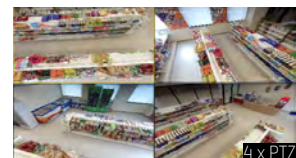


Heat Map



## Network Fisheye Camera

- A graphical representation for visit density in a specified area
- Two behavioral analysis, line crossing detection and intrusion detection
- Heat Map



## ■ Facial Recognition



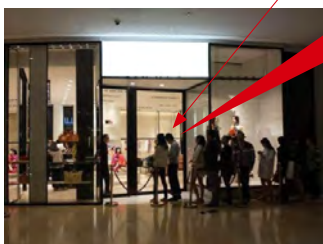
DeepinView Dual-Lens Face Recognition Camera  
Outdoor



DeepinView Face Capture Camera  
Indoor



DeepinMind Series NVR



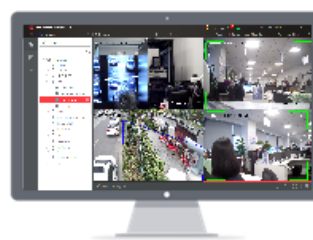
### Blacklist/Whitelist

Blacklist/Whitelist function can be utilized in different scenarios, such as store, bank, school, and casino. Various forms of application such as the following ones can be used.

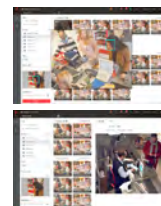
- Blacklist Alarm
- VIP Recognition
- Stranger Alarm

### Search by Picture

Search by Picture allows you to search for relevant videos by sending a snapshot or a face picture of a person to the platform. Similarity level can also be customized according to different needs.



HikCentral  
Face Recognition  
Module



## ■ Access Control



Access Controller(1,2,4)



Professional Card Reader



Fingerprint and Card Reader



Standalone Access Control Terminal

### Anti Pass-back

With Anti Pass-back, an access card can only be used to enter again after it is swiped out. This function prevents multiple people from sharing cards to get into restricted areas.

### First Card

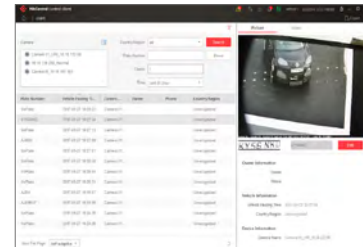
First Card can be associated with different rules and be used in different scenarios. For example, schools can adopt First Card Open to keep the door open for a designated period during the rush hour after the first authorized swipe; offices can adopt First Person Authorization, which only allows regular cards to enter after the first authorized card swipe in.

### Generate Attendance Report

The platform can automatically generate attendance report, which is more cost-effective and accurate.

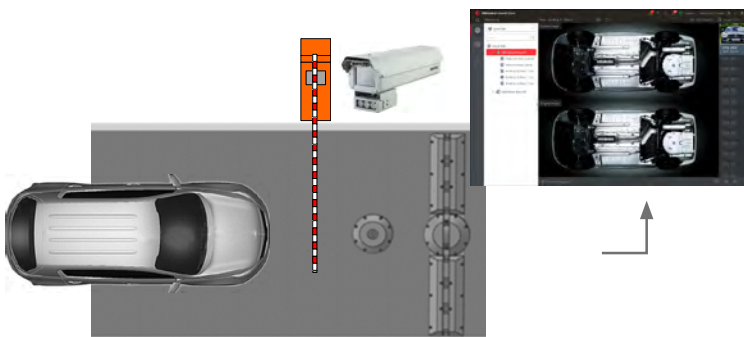


## ■ Vehicle Management



### ANPR

- Automatic Number Plate Recognition (ANPR)
- ANPR available for convenient entry & exit management
- Combines with Hikvision ANPR cameras to automatically recognize plate numbers and record all vehicle entry events
- Automates vehicle access for plate numbers that match VIP list (when integrated with gate or barrier control)
- Supports smart search based on plate number to find specific vehicle entry event

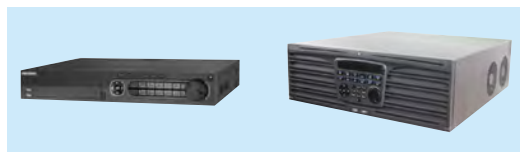


### UVSS

- Automatically detect the underside of vehicles
- Synchronize ANPR camera data with under vehicle picture
- Compatible with various vehicle models
- One picture for the entire vehicle underbody
- High-strength structure
- High-quality picture with low distortion

## ■ Monitoring Center Storage Model

DVR / NVR



### Small Projects

- Distributed Storage
- Independent Storage Space

Hybrid SAN /  
Micro Cloud



Medium Projects

- Central Storage
- Redundancy/Scalability
- Independent Storage Space

Cloud Storage



Large Projects

- Central Storage
- Virtualization
- Unified Storage Space

■ Monitoring Center  
Storage

NVR



- Supports H.265, H.264, & MPEG4 video formats
- Up to 12 Megapixel recording
- Up to 64 IP cameras can be connected with 320M
- Supports HDD hot swap with RAID 0, 1, 5, 6, 10 configurable

Hybrid SAN



- Redundant power supply (1+1)
- HDD interface 16 SATA slots
- Up to 8 TB capacity for each disk(128 TB total storage)
- Supports hot-swap disk
- Supports RAID 0, 1, 3, 5, 6, 10, 50, JBOD, hot-spare

Cloud Storage



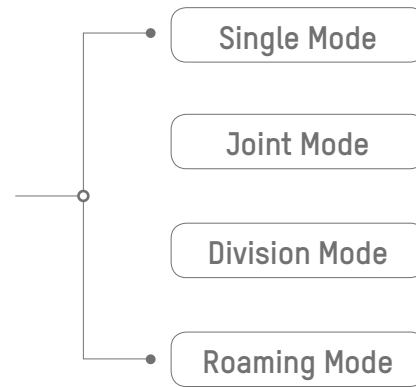
Cloud Management Node Cluster



Cloud Storage Node Cluster

- Consists of management node cluster and storage node cluster
- Supports video storage, picture storage, cloud system management, video storage plan management, and system maintenance management

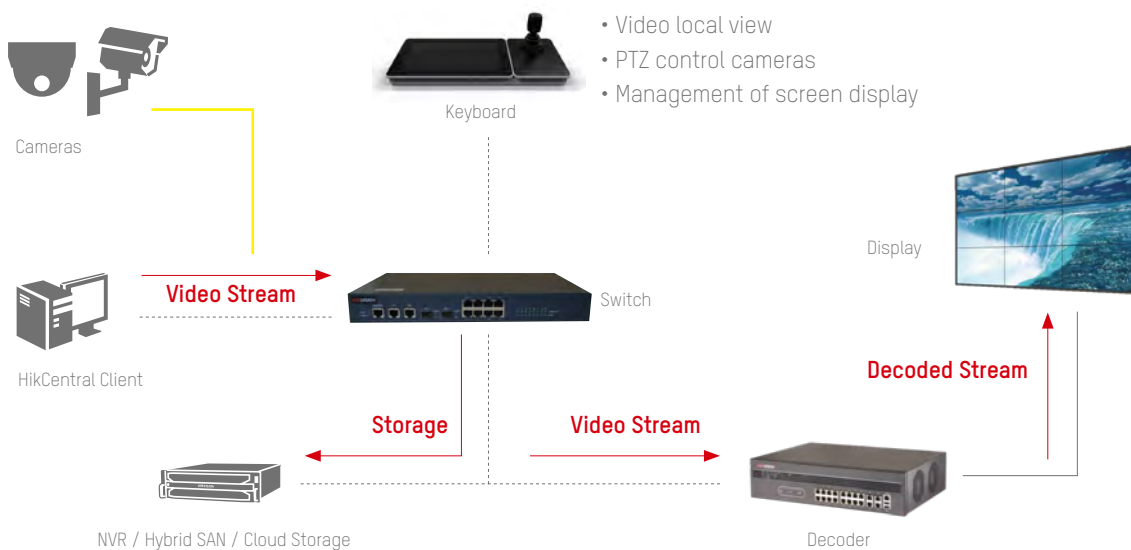
## ■ Monitoring Center



### Display

- Seamless viewing and large-scale screen
- Point-by-point calibration
- Nanosecond response time
- Ultra-wide viewing angle and anti-dazzle

## Smart Wall Work Flow





## ■ Monitoring Center Decode, Display & Control

Decoder



- Input: 1-ch VGA, 1-ch DVI
- Output: HDMI (odd HDMI support 4K) and BNC
- Decoding: Up to 16-ch 12MP or 128-ch 1080p
- Built-in 16-ch 100M switch
- Up to 4×4 video wall control

Network Keyboard



- 10.1" capacitive touchscreen
- 4-axis joystick
- detachable design of touchscreen and joystick
- preview, PTZ and TV wall control

LCD Large Screen

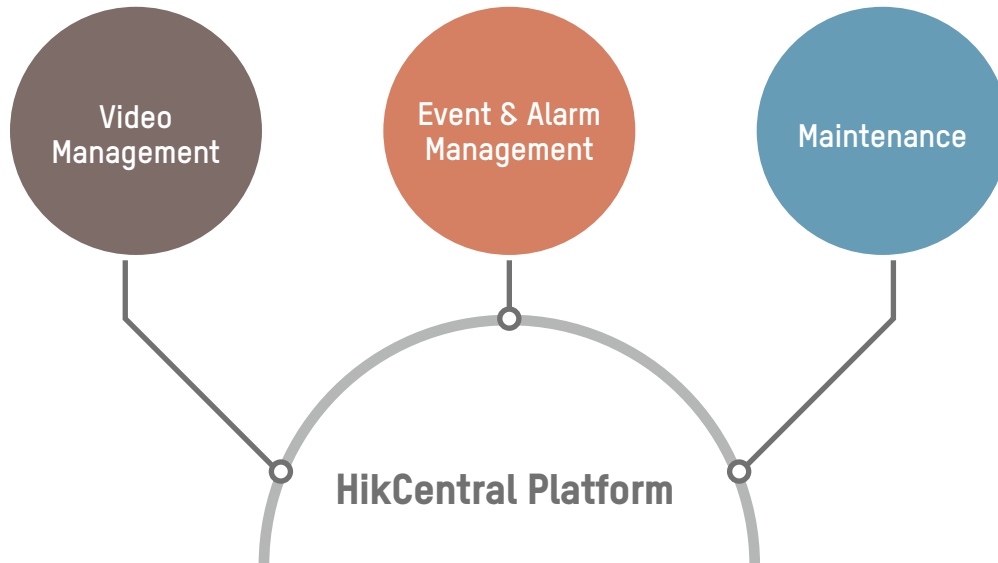


- Physical resolution up to 1920 x 1080p
- 3.5 mm physical seam
- LED backlight, S-PVA panel
- Abundant interfaces including DVI, VGA, HDMI, YPbPr, BNC

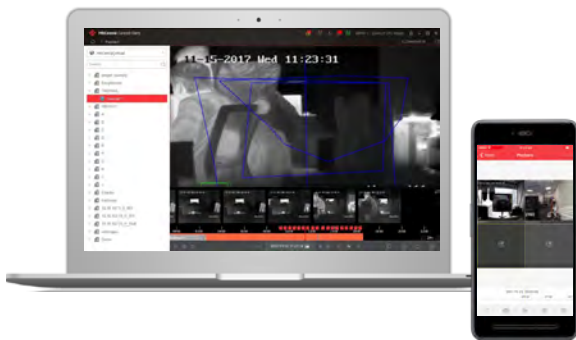


## THE HikCentral PLATFORM

## ■ The HikCentral Platform



## ■ Video Management

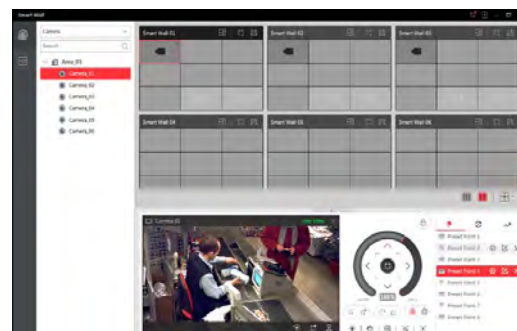


### Live View & Playback

- Mainstream and sub-stream automatic or manual switching
- Supports camera status check
- Supports channel playback on the live view screens during simultaneous live viewing on another channel
- Rapid video clip acquisition around a specified target time; retrieves subsequent video by simply dragging timeline
- Provides live viewing & playback via mobile app

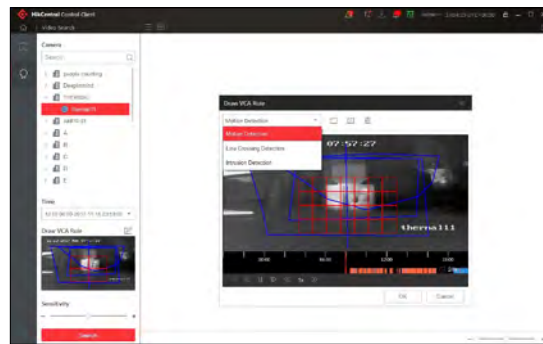
### Smart Wall

- Live viewing and playback mode
- Supports manually sending alarm list to the Smart Wall
- Alarm-related video can pop up onto Smart Wall automatically



## Video Search

- Multiple efficient ways to search video: by tag, by locked status, by interval, by time, by file, etc.
- Thumbnail feature for quicker positioning
- After-the-fact" VCA search of playback video available for convenient analysis
  - Motion Analysis
  - Line Crossing Detection
  - Intrusion Detection



## ■ Event & Alarm Management



- Motion Detection
- Video Loss
- Video Tampering Detection



- Alarm Input



- Device Offline
- HDD Full
- R/W HDD Failure



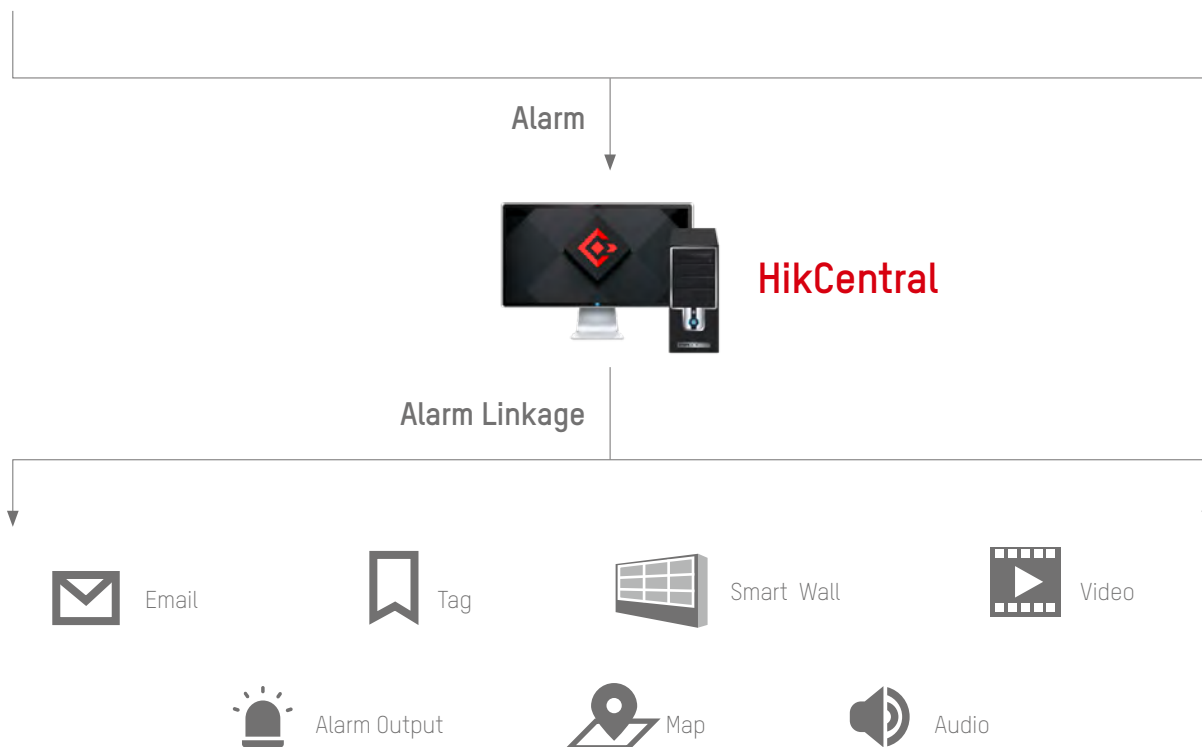
- Unsafe System Temperature
- Unsafe CPU Temperature
- Memory Issue or Anomaly



- License Plate Event Match
- License Plate Event Mismatch



- TCP and/or UDP data packages





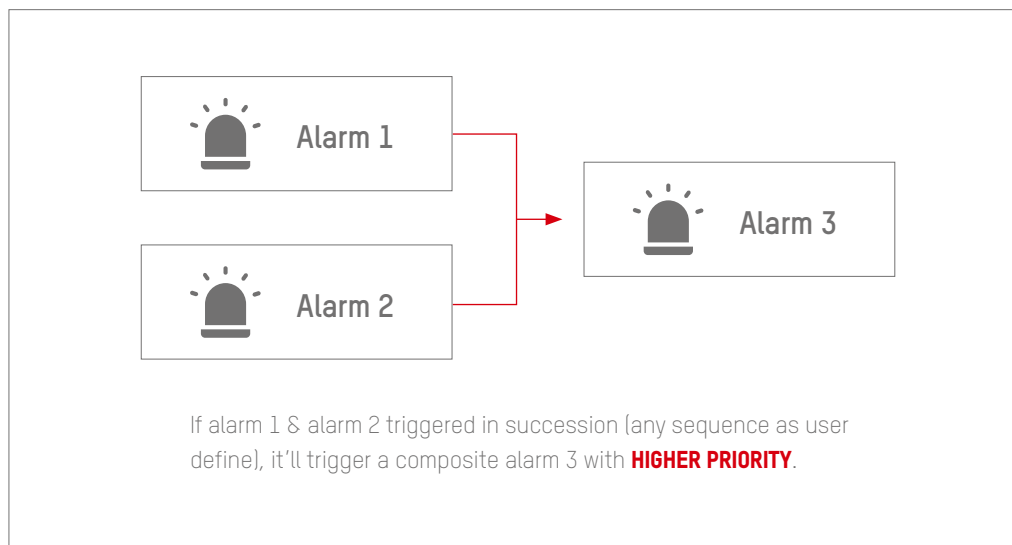
## Event & Alarm

- Event & alarm configuration, including rules and linkage configuration
- Event & alarm management
- Alarm notification on mobile app

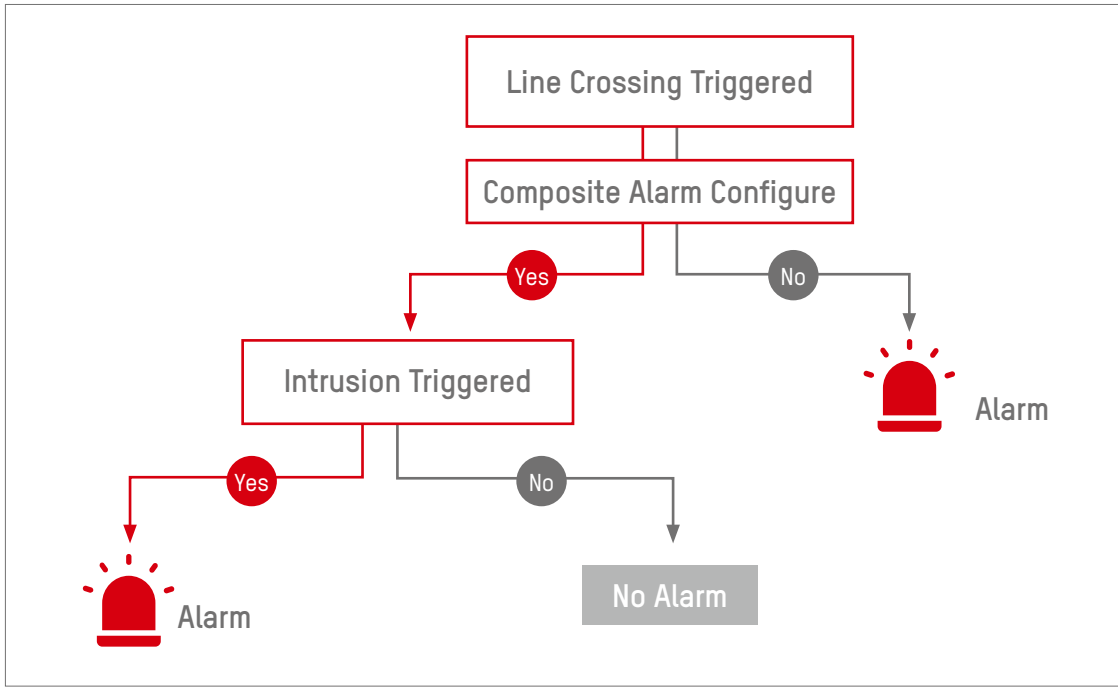
## Composite Alarm

- Composite Alarm is able to lower the false alarm rate and increase alarm efficiency.

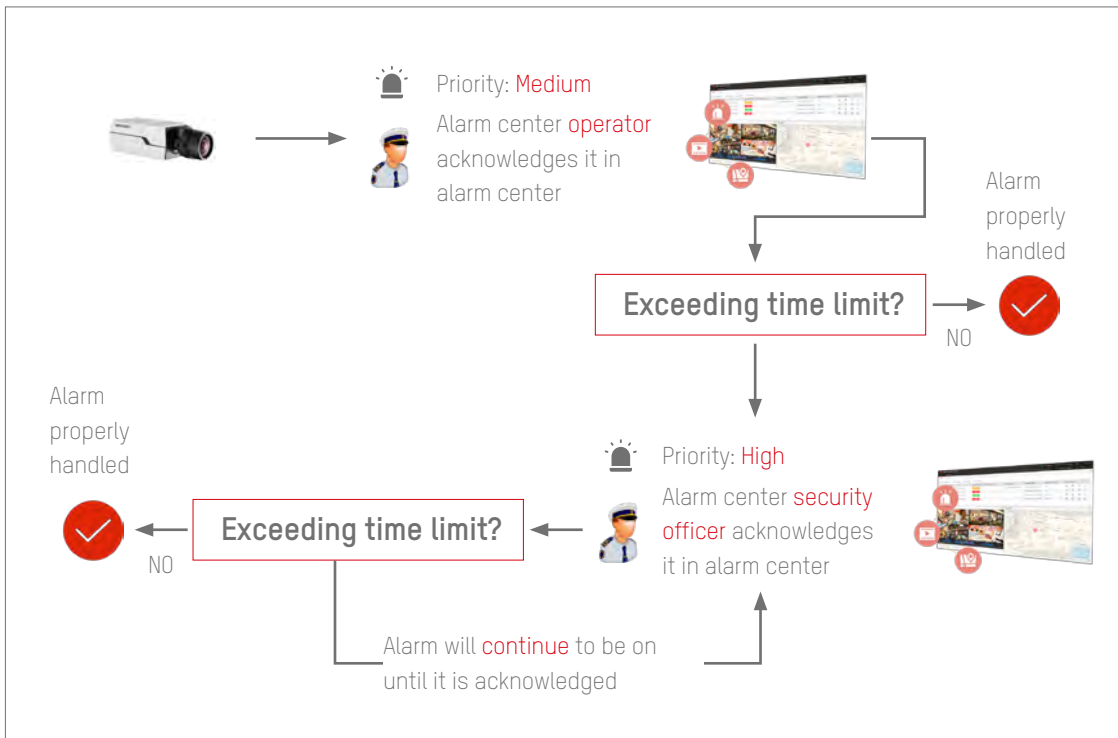
You can customize the rules and priority levels for composite alarms according to different needs.



Composite alarm is triggered when all the preset conditions are met. For example, a bird that only triggers line crossing will not trigger the composite alarm, thus lower the false alarm rate.



### Alarm Escalation



## Maintenance

- Centralized display of general system health on dashboard for up-to-the-minute status report

Name	Address	Area	Connection Number	Net Status	Video Signal	Recording Status	Operator
Camera 199 219	19.19.148.19	DeepMind	6	Offline (Down)	Loss	Getting Signal	
gsm	19.19.148.19	DeepMind	6	Offline (Down)	Loss	Getting Signal	
19.19.148.6.a.a	19.19.148.6	3002Plex	6	Offline (Down)	Getting signal	Getting Signal	
19.19.148	19.19.148.8	3002Plex	6	Offline (Down)	Getting signal	Getting Signal	
19.19.148	19.19.148.9	3002Plex	6	Offline (Down)	Getting signal	Getting Signal	
Camera 01_136	19.19.102.2	vpn	2	Online (Up)	Normal	Unconfigured	
PC	19.19.102.3	IPC	4	Online (Up)	Normal	Exception	

- Quickly locate the exceptional servers and devices via the related link to help fast resolving of problems

**Logical View**

**Camera Status (Central)** Total 23

7  
Abnormal

Camera Offline	5 >
Video Loss	2 >
Communication Exception	5 >
Record Exceptions	1 >
No recording schedule	1 >

**Door** UVSS

5	9	0	1
Offline	Total	Offline	Total

**Physical View**

**Video Surveillance ManagementServer**

The server is running properly.  
Streaming Gateway: ↓ 0 ↑ 0

✓  
Normal

**Recording Server** Total 1

1  
Abnormal

Exception	1 >
Notice	0 >
Normal	0

**Encoding Device**

1	13
Offline	Total

**Access Control Device**

2	3
Offline	Total

**Decoding Device**

0	1
Offline	Total



## VERTICAL FEATURES

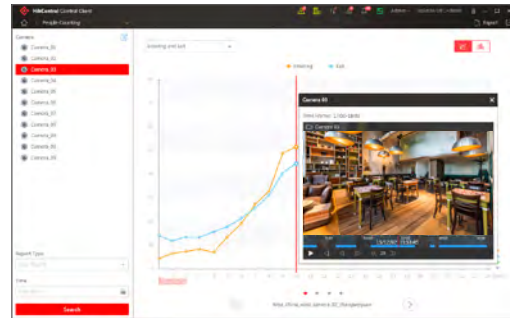


# ■ Retail

## People Counting



- Real-time foot-traffic control
- Intelligent analysis and statistics for visitors
- Reports crowd traffic statistics



People Counting Camera



Switch

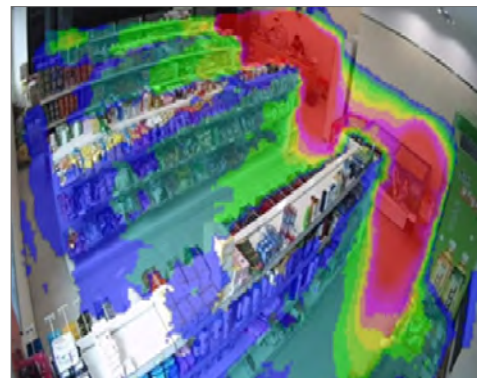


HikCentral

## Heat Mapping



- Improves decision making of sales based on dynamic analysis through advanced Heat Map
- Provides insightful recommendations for locations of commodities
- Masters the statistical reports for requests and behaviors of consumers



Fisheye Camera



Switch



HikCentral

# POS Integration

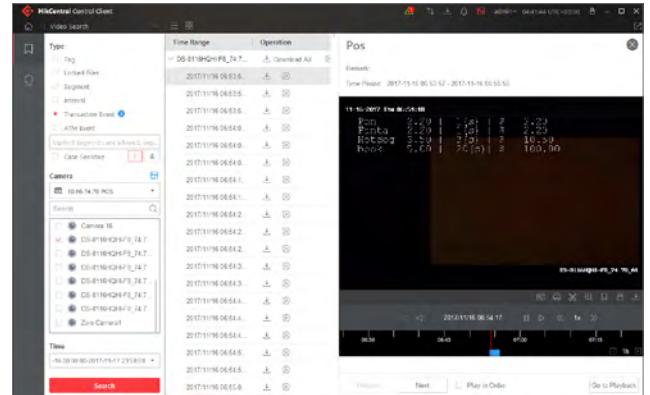
The POS NVR provides multiple ways to connect with POS servers, making integration highly flexible



1. NVR supports multiple POS protocols, including Universal Protocol, EPSON, AVE, and NUCLEUS
2. In universal protocol, user can self-define tags indicating start line, line break, and end line



- Effective solution for loss prevention in retail sectors and for customer dispute resolving
- Supports search by keywords contained in POS information
- Links keywords to relevant POS videos which can be easily found and exported for investigation purpose



POS NVR



- H.265+ compression effectively reduces the storage space by up to 75%
- HDMI and VGA independent outputs provided
- POS information overlay on live view and playback
- POS triggered recording

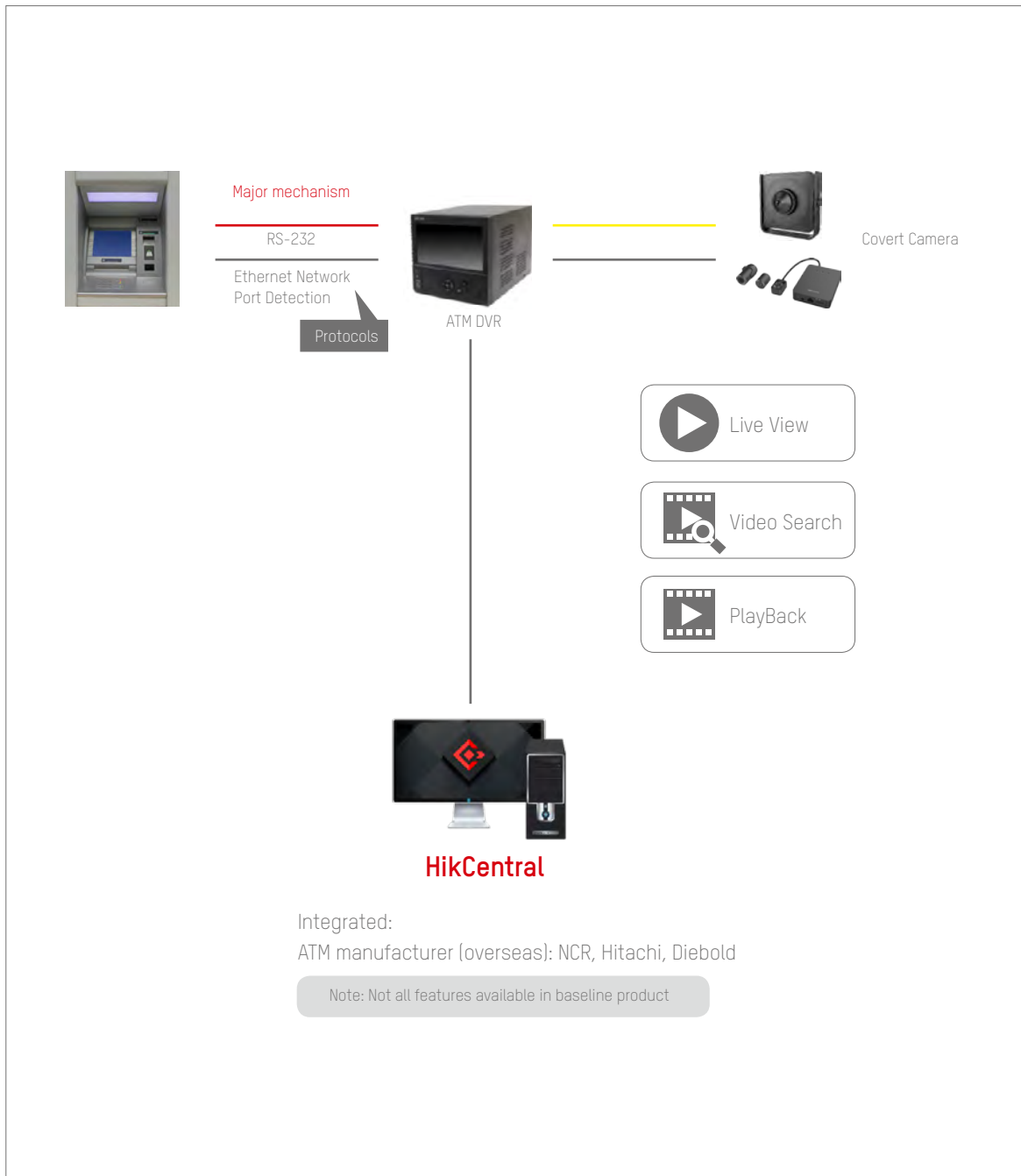
Covert Camera



- 1/3" Progressive Scan CMOS
- Up to 1280 x 960 @ 30 fps for real-time output
- True WDR, up to 120 dB
- Power over Ethernet (PoE) power supply is supported
- Design options for the front-end (the mini bullet and block) and brackets

# ■ Banks

## ATM Integration





- ATM cameras solve transaction disputes and create efficient management for transaction data
- ATM smart search that based on keywords helps to locate relevant transaction videos quickly
- Transaction video includes detailed information overlaid on the screen

ATM DVR



- H.264+ compression improves encoding efficiency by up to 50% and reduces data storage costs
- Supports overlapping the multiple ATM card numbers and multiple protocols
- Supports triggered recording upon insertion of ATM card
- Supports triggered recording by ATM transaction behaviors
- Privacy mask (in some regions) conceals and protects sensitive information

Covert Camera



- 2 MP high performance CMOS
- High quality video in ultra-low light environments
- 1920 x 1080 resolution
- 120dB true WDR, 3D DNR
- Switchable TVI / CVBS
- Designed for ATM machines / areas

## ■ Education

### Access Control

- Manage student's access to dangerous areas such as the lab room
- Prevent irrelevant personnel to enter restricted areas such as the finance center

### Perimeter Protection and Behavior Analysis

- Perimeter protection with advanced behavior analysis to prevent false alarm



### Facial Recognition and Blacklist Comparison

Prevent unauthorized person to enter campus



## HikCentral ADVANTAGES

## ■ Ease Of Use

### Easy Set Up

Install the system in minutes! The simple installation package design helps reduce the install time to minutes

### Easy Configuration

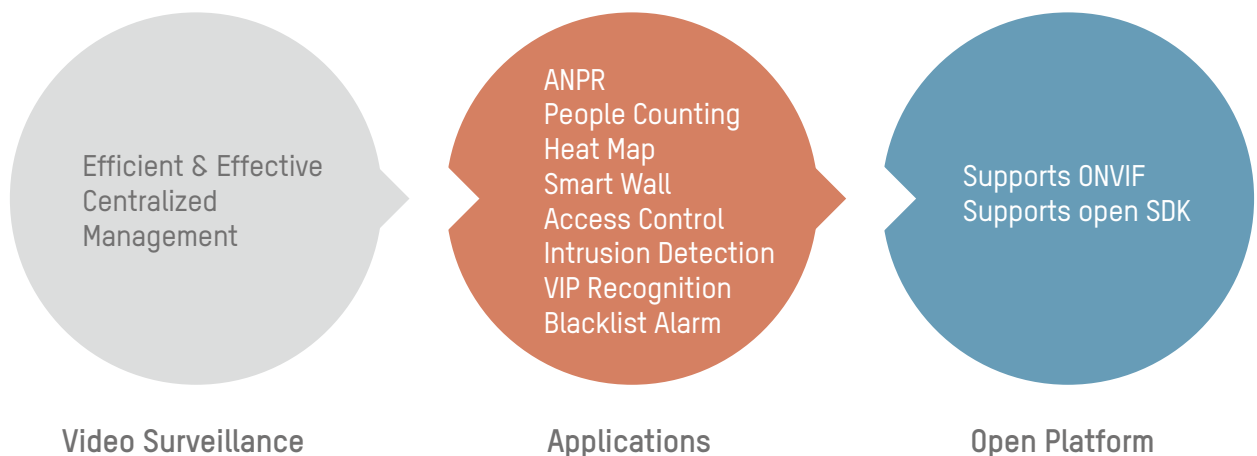
- One-step addition for DVRs, NVRs, and IP Cameras
- One-step configuration automatically detects devices and allows quick Live Viewing and Playback of video



- Automatically creates logical areas by device name
- Synchronizes camera names
- Synchronize Recording Schedule

## ■ Unified Platform

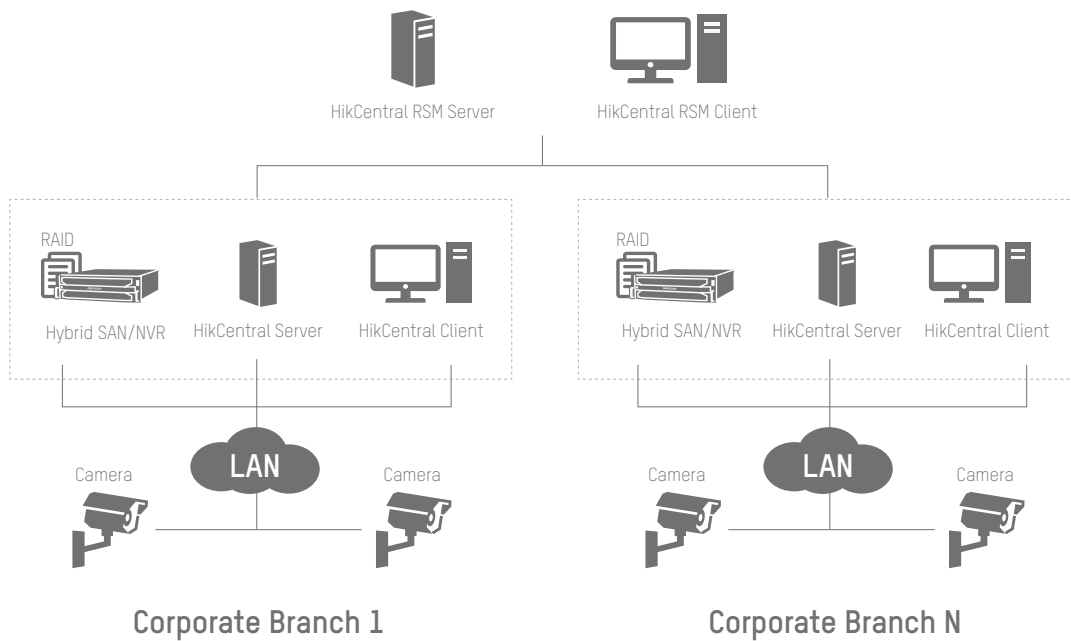
HikCentral is a unified platform that blends video surveillance, access control, ANPR, POS, and 3rd-party system integration into one highly efficient solution





# ■ System Scalability

## HQ Centralized Management via RSM



### Super-large project solution

- Up to 1,024 HikCentral servers supported, covering 1,000 large branches
- 1 RSM server for centralized management
- Up to 100K+ camera access and management

### Branch operator

- Manage the branch video resource
- 100 local clients supported

### HQ RSM

- Manage the resource of all branches
- 100 RSM clients supported

## ■ System Reliability

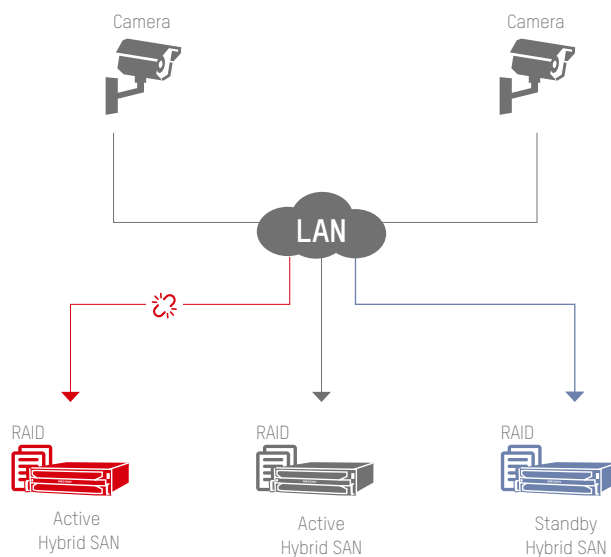
With HikCentral VMS pre-installed and optimized for maximum performance, Hikvision Management Server provides advanced security solutions. These solutions are ideal for customers requiring highly reliable security.



- Strict system testing for pre-installed HikCentral on **Hikvision Management Server**
- The system supports **Hybrid SAN N+1** hot-spare for storage reliability
- Supports **Windows Cluster** and **Rose Replicator** solutions for system reliability

- Single-spot storage backup – Multi-RAID supported by embedded NVR and Hybrid SAN
- Multi-spot storage backup – When more than 1 of 10 active Hybrid SANs are out of service, the standby Hybrid SAN can take over recording automatically

**In extreme situations, a single standby Hybrid SAN can cover recording for 10 Hybrid SANs.**



N+1 Storage equipment device backup



## THE COMPREHENSIVE PACKAGE TO FULL PROTECTION THE HikCentral SOLUTION

Distributed by



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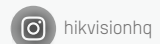
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