

HIKVISION

NEW DEEPINVIEW 7 SERIES

- 1 Overview
- 2 Intelligent Functions
- 3 High-quality Image
- 4 Ease of Use
- 5 Product Showcase

CONTENTS

1

Overview



OVERVIEW

Accelerate Your Business With AI

DeepinView series has a variety of intelligent functions, which can be widely used in retails, public security, buildings and other industries, to improve monitoring efficiency and save the human cost.



High-quality Image

Meeting the monitoring requirements of different environment



Multiple Intelligent Functions

Collecting a variety of algorithms in one device to meet the needs of different industries



Ease of Use

Ease of integration and protection

2

Intelligent Functions



7 INTELLIGENT FUNCTIONS

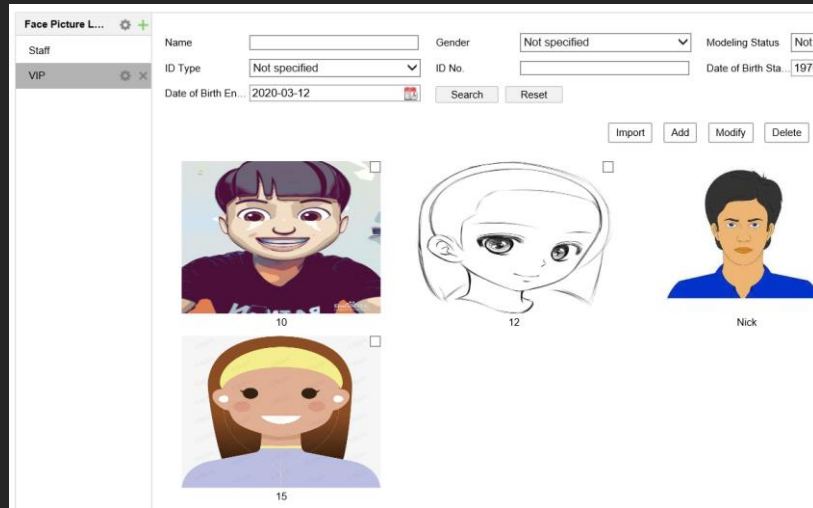




FACIAL RECOGNITION



1. Face Picture Library



2. Face Capture

Best shot / Quick shot



3. Face Comparison

4. Result

Comparing the captured face image with face images in face picture libraries to get the comparison result.



FACIAL RECOGNITION



Real-time Analyze

Face Capture

- Hikvision facial recognition cameras support human **face detection, capture, recognition and features analysis** at the same time
- **List alarm** based on the comparison result
- 3 face libraries with **90,000 faces** in total

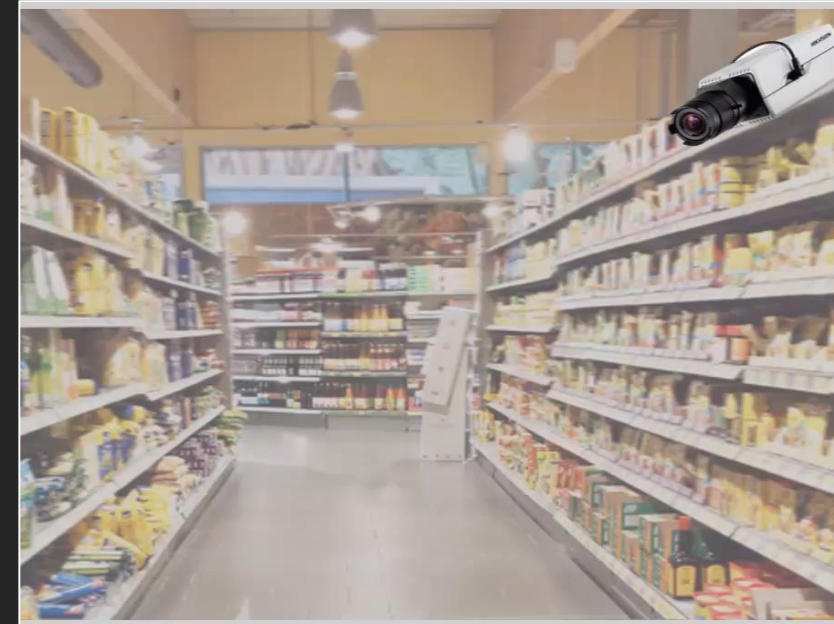


FACIAL RECOGNITION APPLICATION



Consumption Places

- Hotels, 4S shops, retails, etc.
- Improving service quality through VIP customer recognition



Public Security

- Bank, industry park, school, safe city etc.
- Enhancing the security of public areas through list alarm



FACE COUNTING

Shop staff are counted in duplication by face counting cameras

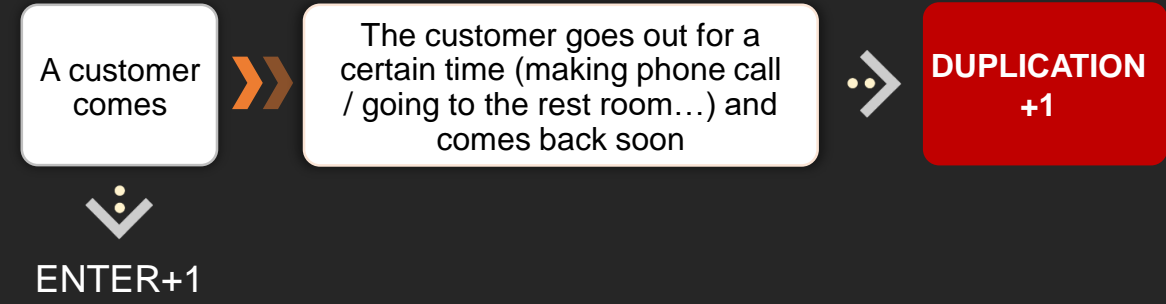
Recognition Record		
Customer	Security Man	Shop Manager
Customer	Customer	Staff
Customer	



Exclusion Targets

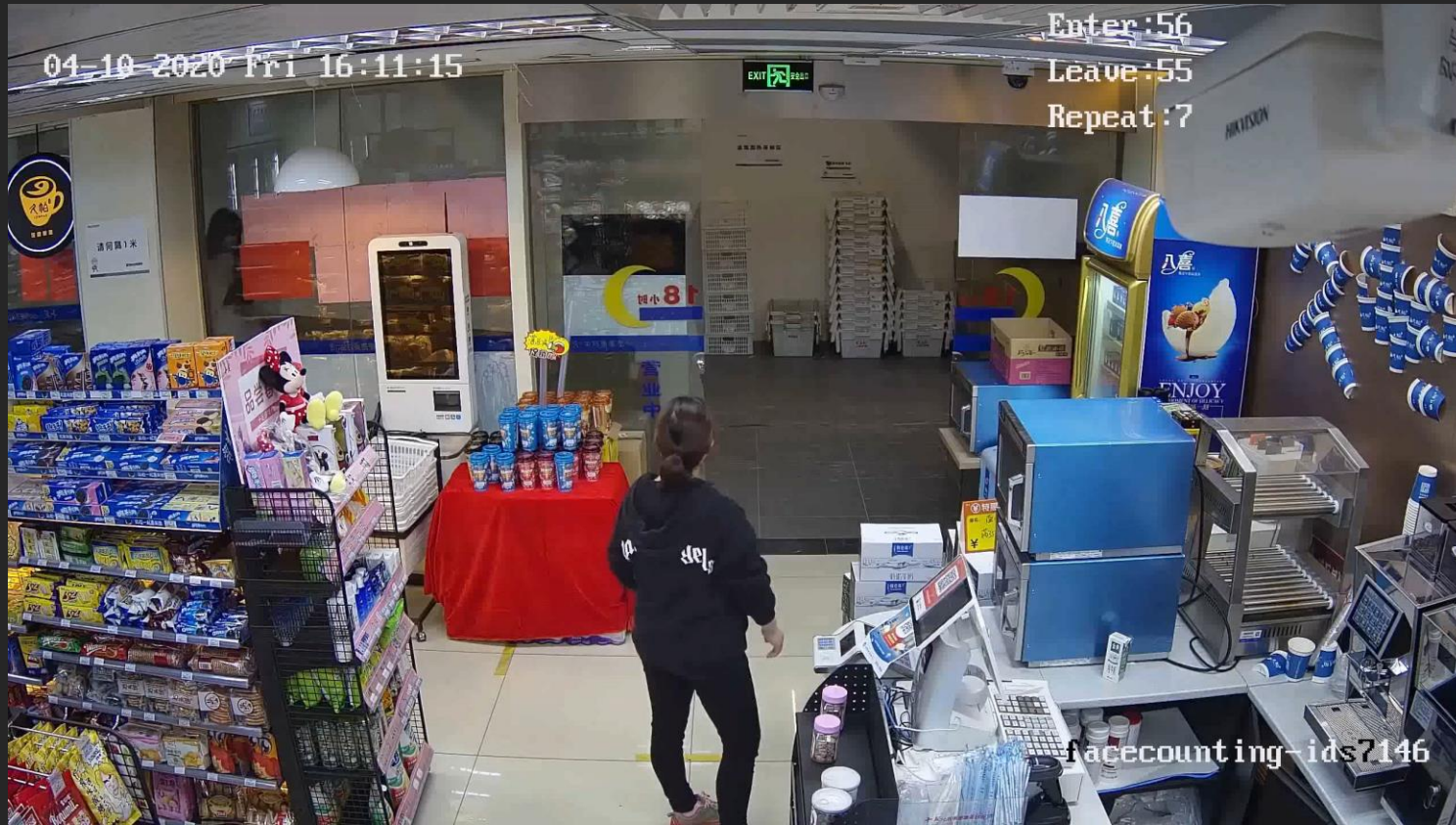
- Shop Staff
- Shop Manager
- Cleaning Staff
- Security Staff
- Repairman
-

Repetitive consumer are counted in duplication by face counting cameras





FACE COUNTING

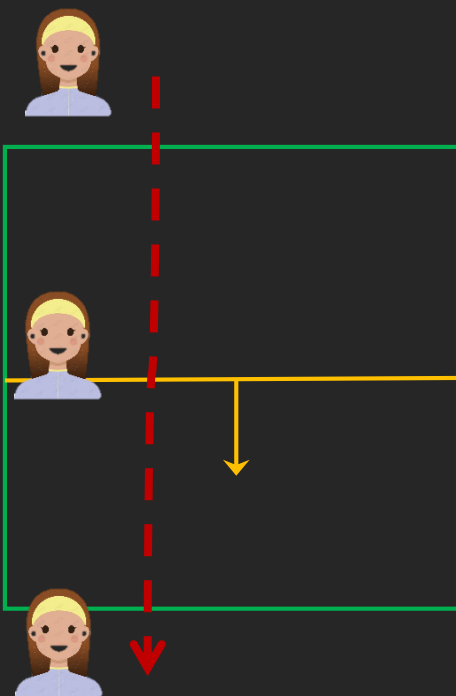


1. Counting the numbers of people coming in and out.
2. Repeat will add if the entering person is an employee or a repeat customer (the employee face images libraries and deduplication time need to be set).
3. The maximum people counting deduplication time can be set from 0s to 23h59min59s.(for repeat customers)



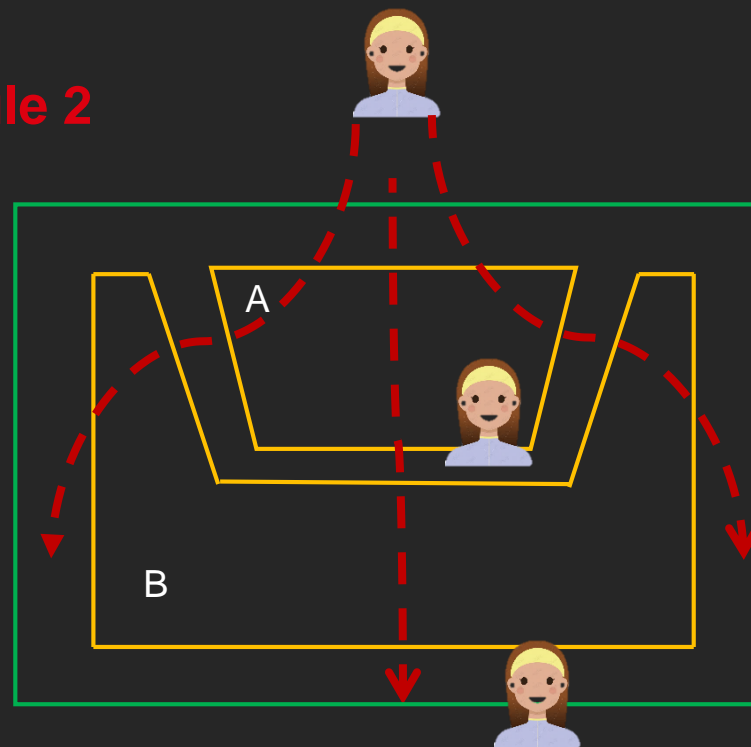
FACE COUNTING

Rule 1



1. The face enters the detection area
2. The face crosses the line
3. The face leaves the detection area
4. To determine the face whether a staff or a repeat customer

Rule 2



1. The face enters region A
2. The face leaves region A then it enters region B
3. The face leaves region B
4. To determine the face whether a staff or a repeat customer



FACE COUNTING - ATTRIBUTE

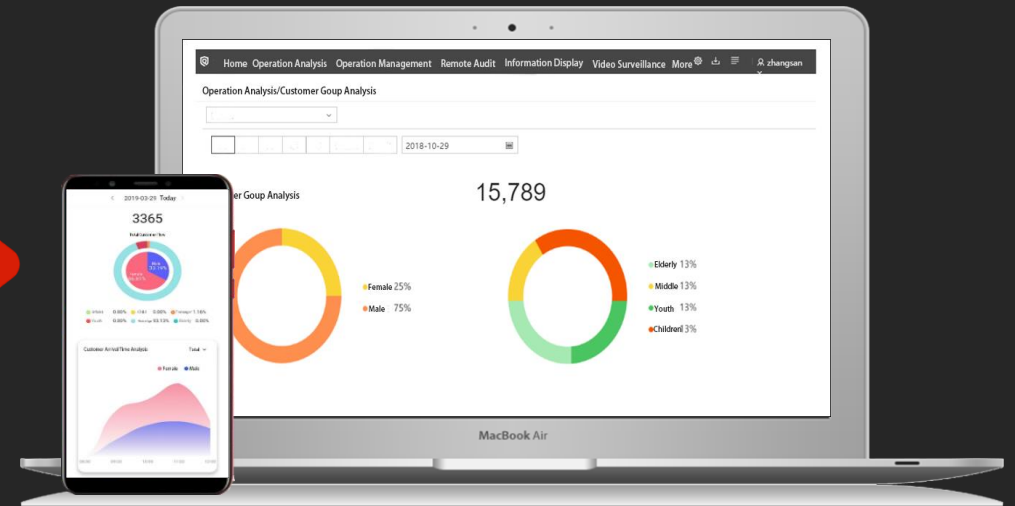
SKU selection for different stores based on the consumers attributes (gender, age, consumer expression...) analysis is the core application of offline data analysis.

Sample: If children make up more than 30% of customers in the supermarket, the operator should improve SKU of candy and toy to increase turnover.

7 Series Camera



Scenario: facing the entrance to recognize customers coming in and record face attributes.





FACE COUNTING APPLICATION



Accurate Statistics

Accurate customer counting helps industries which focus on effective customer number to optimize operation, such as 4S shops, luxury stores, high-end retail, etc.



Attributes analysis

Customer attributes analysis can help operators locate customer features accurately, to implement precision marketing.



List Alarm

Providing targeted services to VIP customers to improve service quality, and enhancing the security through list alarm.



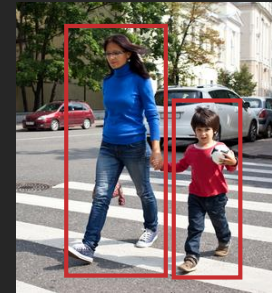
MULTI-TARGET-TYPE DETECTION

Real-time Analyze

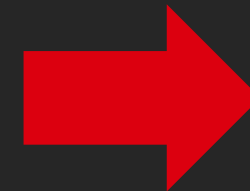
	Camera Name	Camera 01	Capture Time	2024-01-02 00:46:56
	Gender	Female	Age	28
	Age Group	Middle Age	Wearing Mask	Yes
	Wearing Glasses	No	Facial Expression	No Expression
	Wearing Hat	No	Full Beard	No
	Moving Direction	Right	Carrying Bag	No
	Top Color	White	Bottom Color	Blue
	Carrying Thing	No	Top Type	Long Sleeve
	Bottom Type	Pants	Riding Bicycle	Unknown
	Hairstyle	Long Hair	Riding with...	Unknown

	Camera Name	Camera 01	Capture Time	2024-01-02 00:47:23
	Gender	Male	Age	21
	Age Group	Youth	Wearing Mask	Yes
	Wearing Glasses	Yes	Facial Expression	Sad
	Wearing Hat	No	Full Beard	No
	Moving Direction	Right	Carrying Bag	No
	Top Color	Black	Bottom Color	Unknown
	Carrying Thing	No	Top Type	Long Sleeve
	Bottom Type	Pants	Riding Bicycle	Unknown
	Hairstyle	Short Hair	Riding with...	Unknown

Attributes Extraction & Modeling



Face and body



- Gender
- Age
- Glasses
- Tops color
- Baggage
- Bicycle
-

- Modeling by cameras to reduce the burden of back-end device
- Quickly search by attributes to improve efficiency (in back-end)



HELMET DETECTION

Safety Above All Else: detects whether a person wears a helmet or not, and timely triggers alarm when someone does not wear a helmet, which is essential to ensure safety.



Scenarios:



Construction site



Mining industry



Smelting industry



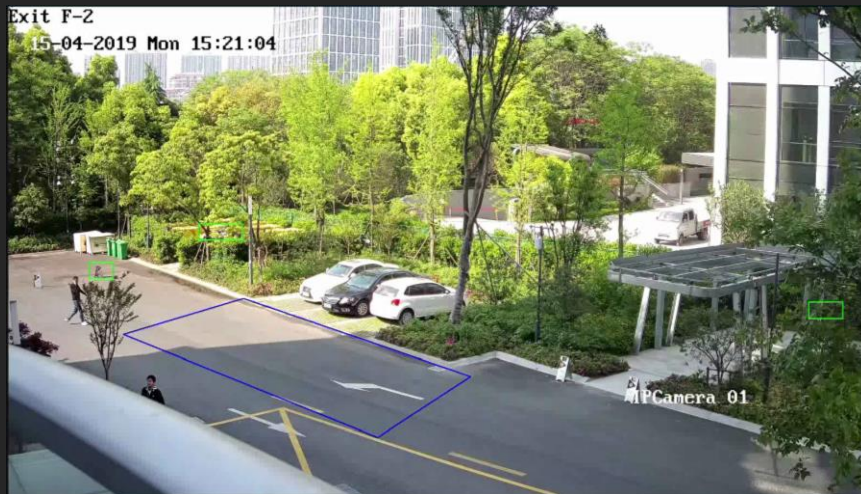
Substation



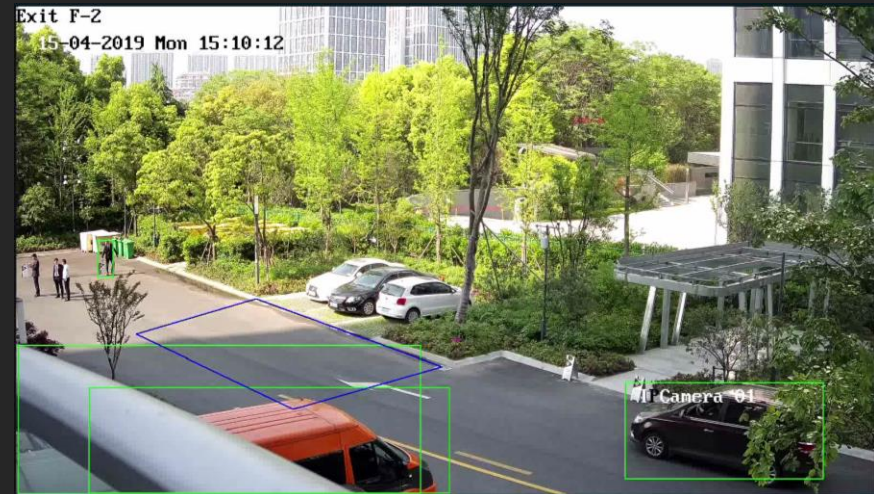
PERIMETER PROTECTION

For conventional cameras, all targets crossing perimeters will send alarms which causes a lot of troubles to users. Now, the perimeter protection camera supports only sending the alarms which are triggered by human or vehicle or human and vehicle.

Improving efficiency and saving bandwidth by target classification and false alarm reduction



Triggered by Human Only



Triggered by Vehicle Only

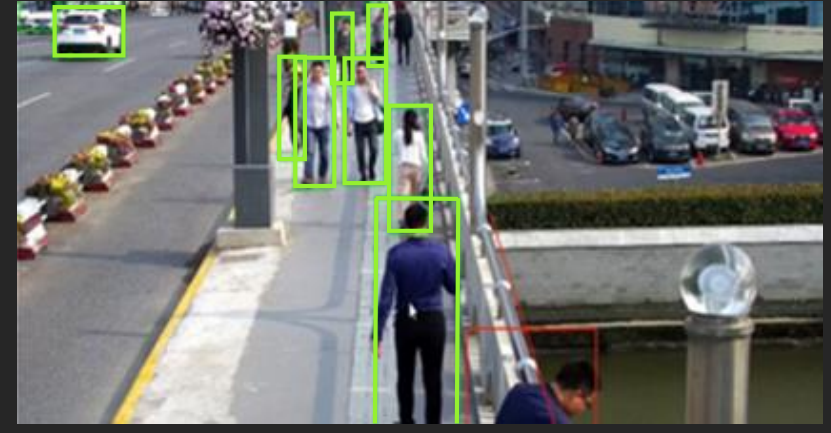
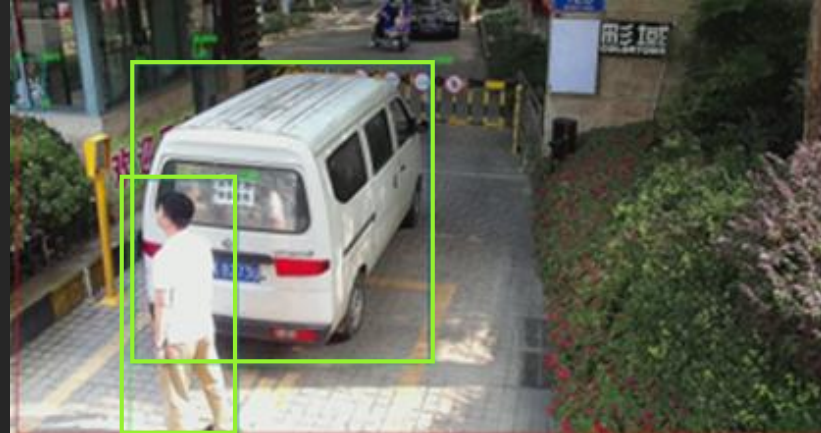


PERIMETER PROTECTION

1st Generation



2nd Generation Upgrade



▲ Single-target scenarios

▲ Scenarios with human and vehicle targets

▲ Multi-target scenarios



PERIMETER PROTECTION - AUTO TRACKING

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▲ Auto Tracking Performance Video

- The video will only track humans and vehicles based on EPTZ. Not only does it help users **get more details** about effective objects in a limited bandwidth, but also helps users **save storage** by only storing effective objects.
- Hikvision 7 series cameras support automatic tracking of humans, or vehicles, or humans and vehicles.
- EPTZ function is realized in the **fourth stream**.



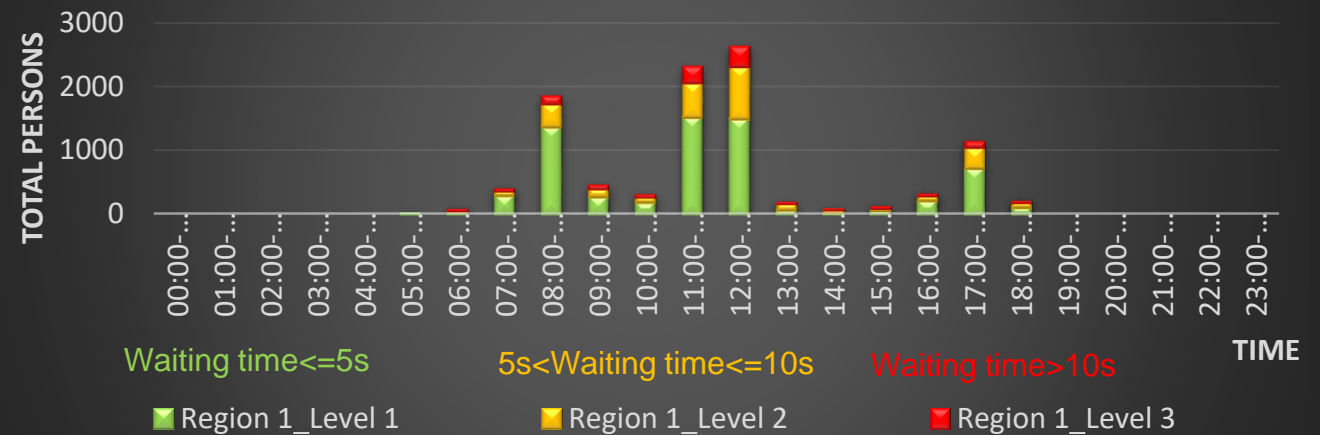
QUEUE MANAGEMENT



- These cameras support detecting **the number of persons** and **the wait times of each person** in the line.
- The cameras will trigger an **alarm** when the number of persons or the wait time of each person exceeds the set threshold.
- A queue management camera supports **3 detection areas**.

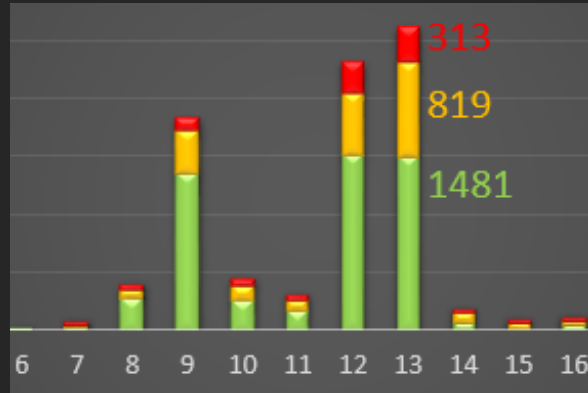
- Queue management cameras support generating **reports** to help users analyze queues.
- Queue management is the process of managing and optimizing queues to **improve operational efficiency** and **the queuing experience**.

Region1 People Queuing-Up Time Bar Chart





QUEUE MANAGEMENT



Optimizing Queue Management

Increasing or reducing the number of cashiers according to the queue data improves operational efficiency.

Improving Shopping Experience

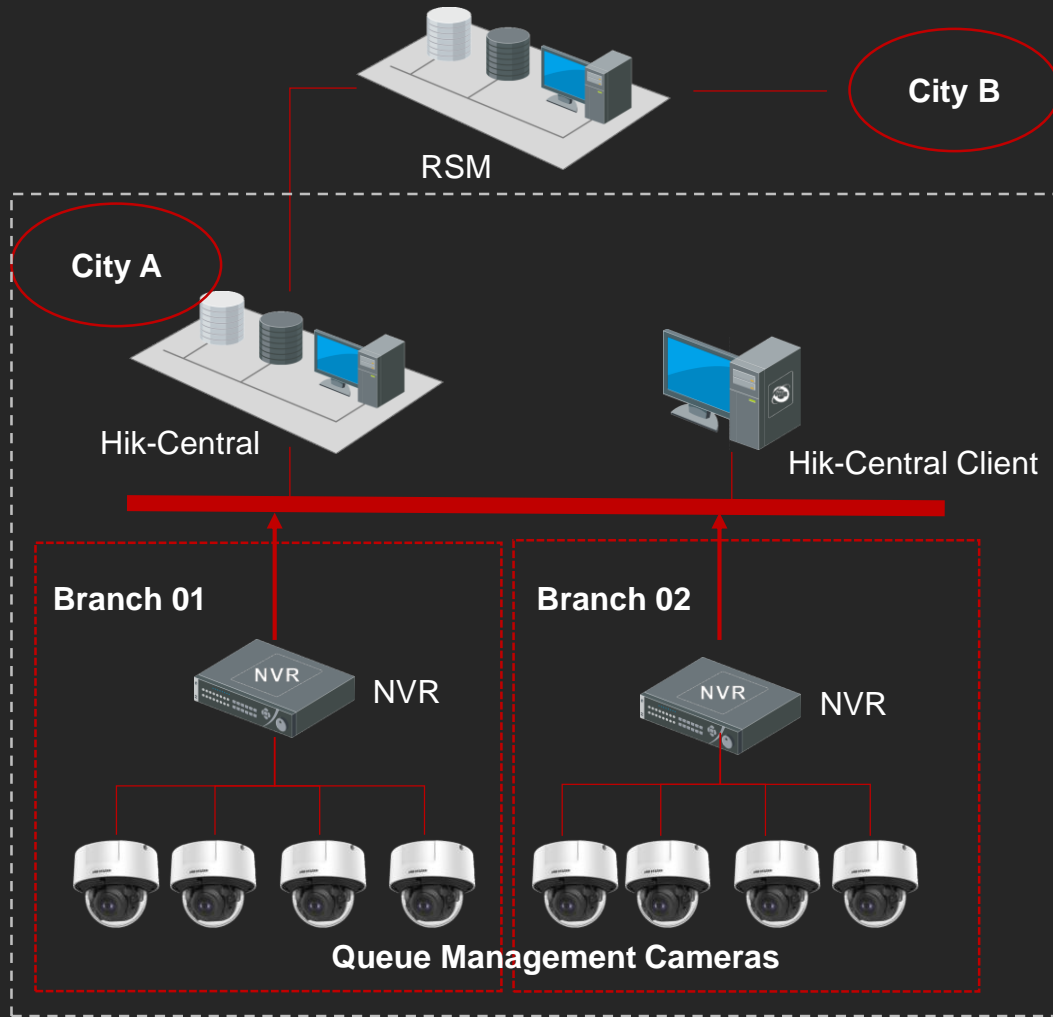
Queue management systems will alert cashiers when the number of persons or the wait time of anyone in the line is more than the threshold; operators can then implement strategies to improve the customer experience.

Increasing turnover

Digital queue management application can result in operational improvement, cost reduction, and increased profitability.



QUEUE MANAGEMENT



Centralized queue management and operation for multiple stores

Application Scenarios



Shopping Mall



Supermarket



Airport



Exhibition Hall



VEHICLE ANALYSIS

UPGRADE



Dual Modes

To capture and recognize license plates accurately in different scenes.



High Performance

To reduce missing rate effectively.



Vehicle attributes analysis

To support vehicle analysis in checkpoint of city streets.

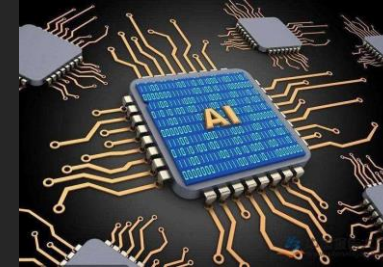


VEHICLE ANALYSIS - ANPR

➤ Dual modes switchable to reduce false recognition

1. Vehicle priority: recognizes the license plates after detecting vehicles
2. License plate & vehicle: detects license plates and vehicle at same time

➤ Higher performance to reduce missing rate



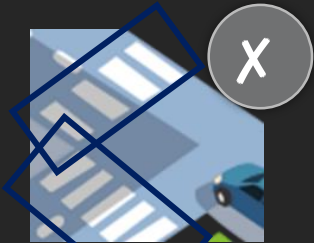
Deep Learning algorithm runs on high performance chips

➤ No-plate vehicle detection



Recognition result: No Plate

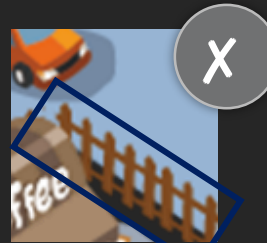
➤ Direction detection



Pedestrian crossing



Pedestrians clothing



Roadside fence

* Mode 2 is recommended when the vehicle can't be detected because of low light or installation environment



Linkage Method	
Direction <input checked="" type="radio"/> All <input type="radio"/> Forward <input type="radio"/> Reverse	
<input type="checkbox"/> Normal Linkage	<input checked="" type="checkbox"/> Trigger Alarm Output
<input checked="" type="checkbox"/> Notify Surveillance Center	<input checked="" type="checkbox"/> A->1
<input type="checkbox"/> Upload to FTP/Memory Card/...	<input checked="" type="checkbox"/> A->2



VEHICLE ANALYSIS - ATTRIBUTE

Hikvision ANPR cameras support vehicle analysis in checkpoint of city streets.

The screenshot displays the Hikvision ANPR software interface. At the top, there are navigation tabs: Live View, Playback, Picture, Application, Configuration, and Smart Display (which is active). The user is logged in as 'admin'. The main area is split into two sections. On the left is a live video feed of a street with a white FedEx van. The video shows the date and time '03-16-2020 Mon 11:36:40' and the camera name '海外H7'. On the right is the 'Real-time Analysis' panel, which provides detailed information about the detected vehicle:

Camera Name	海外H7	Capture Time	2020-03-16 11:36:38		
Plate No.	AAH72N9	Vehicle Type	Large Bus	Vehicle Color	White
License Plat.	Unknown	Moving Dire...	Reverse	List library n...	otherList
Vehicle Brand	Unknown	Country	Australien		

Below the main analysis panel is the 'Vehicle Detection' section, which shows a grid of four small video frames, each with a license plate number: AAH72N9, ALT709, AM9U70, and AA6S6T6. At the bottom of the interface, there is a copyright notice: ©2020 Hikvision Digital Technology Co., Ltd. All Rights Reserved.

➤ Quickly search by vehicle attributes to improve efficiency (in back-end)

3

**High-quality
Image**



DARKFIGHTER

HIKVISION®



▲ 4 MP DarkFighter



▲ 4 MP powered by DarkFighter



▲ 2 MP DarkFighter



▲ 4 MP Normal



LIGHTFIGHTER

HIKVISION®



▲ 4 MP LightFighter WDR On



▲ 4 MP Normal WDR On



▲ 2 MP LightFighter WDR On



▲ 4 MP Normal WDR Off

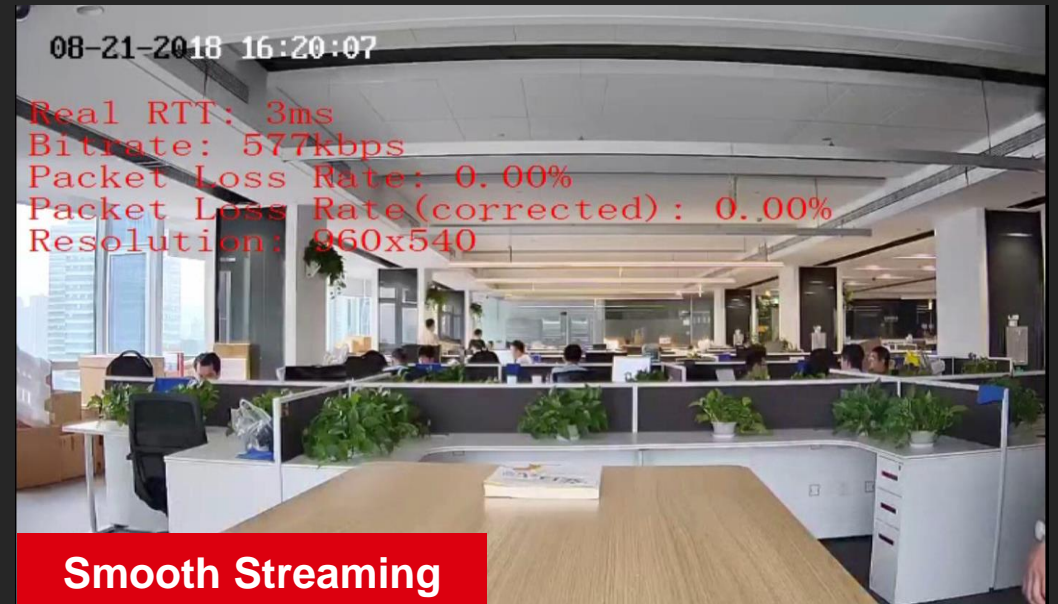


SMOOTH STREAMING

Smooth Streaming can **automatically adjust bit rate and resolution** according to real-time network condition to ensure smooth live view.

Condition: network bandwidth 800 kbps (1920*1080p at 25 fps, bitrate 4 Mbps)

➤ The video with smooth streaming is much **smoother**.





SMOOTH STREAMING

The **data self-correcting mechanism** for smooth streaming is able to solve mosaic or delay problems caused by packet loss or error code in complicate network.

Condition: 2% packet loss in complicated network (1920*1080p at 25 fps, 4 Mbps)

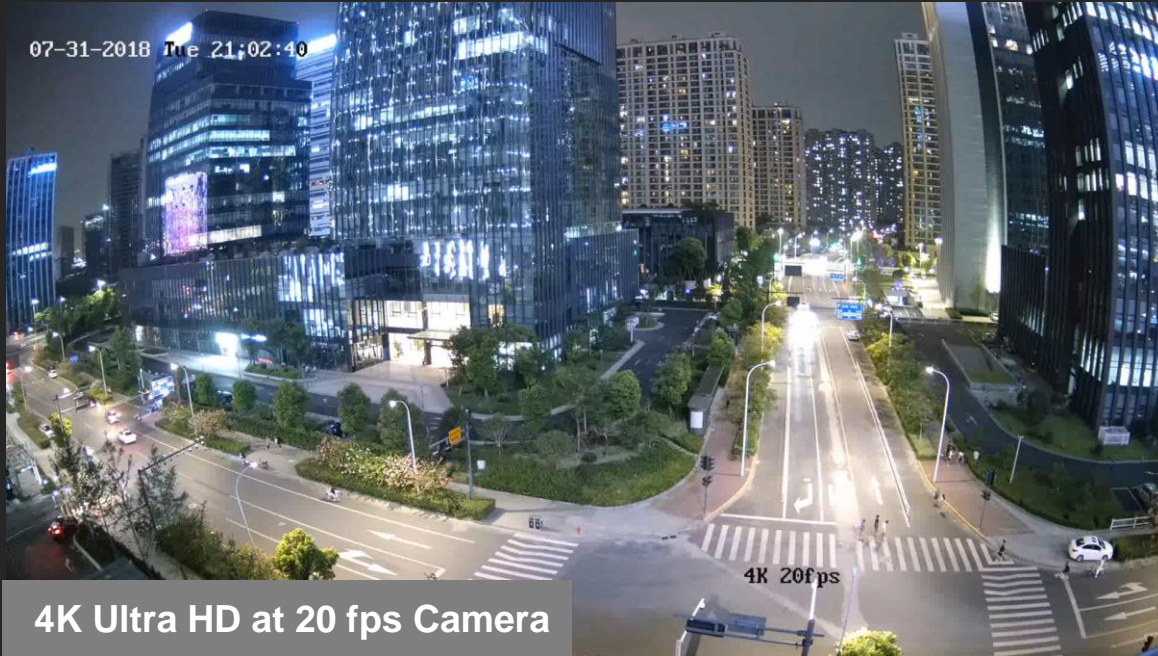
➤ The video with smooth streaming is much **smoother**.



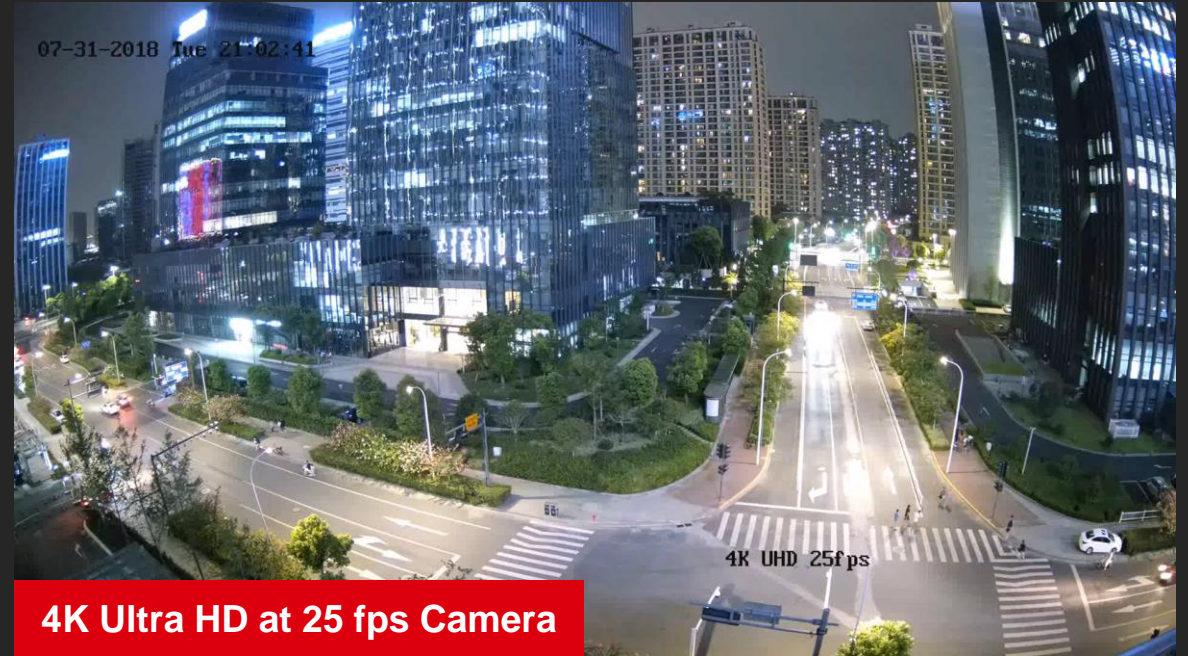


4K

HIKVISION®



Ordinary 4K camera



Hikvision 7 Series 4K camera

The 4K video is **smoother** which is captured by Hikvision 7 Series high performance camera.

4

Ease of Use



MULTIPLE STREAMS

5 defined streams + 5 custom streams

All streams support
H.265



MJPEG up to
2 MP at 30fps



Recording



Cellphone surveillance



Preview



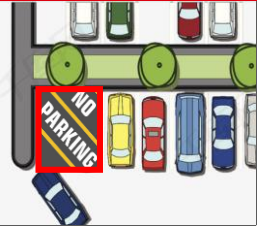
Third party integration

- Multiple streams are convenient for integration with different applications.



METADATA

Intelligent Function



Intrusion

Line Crossing

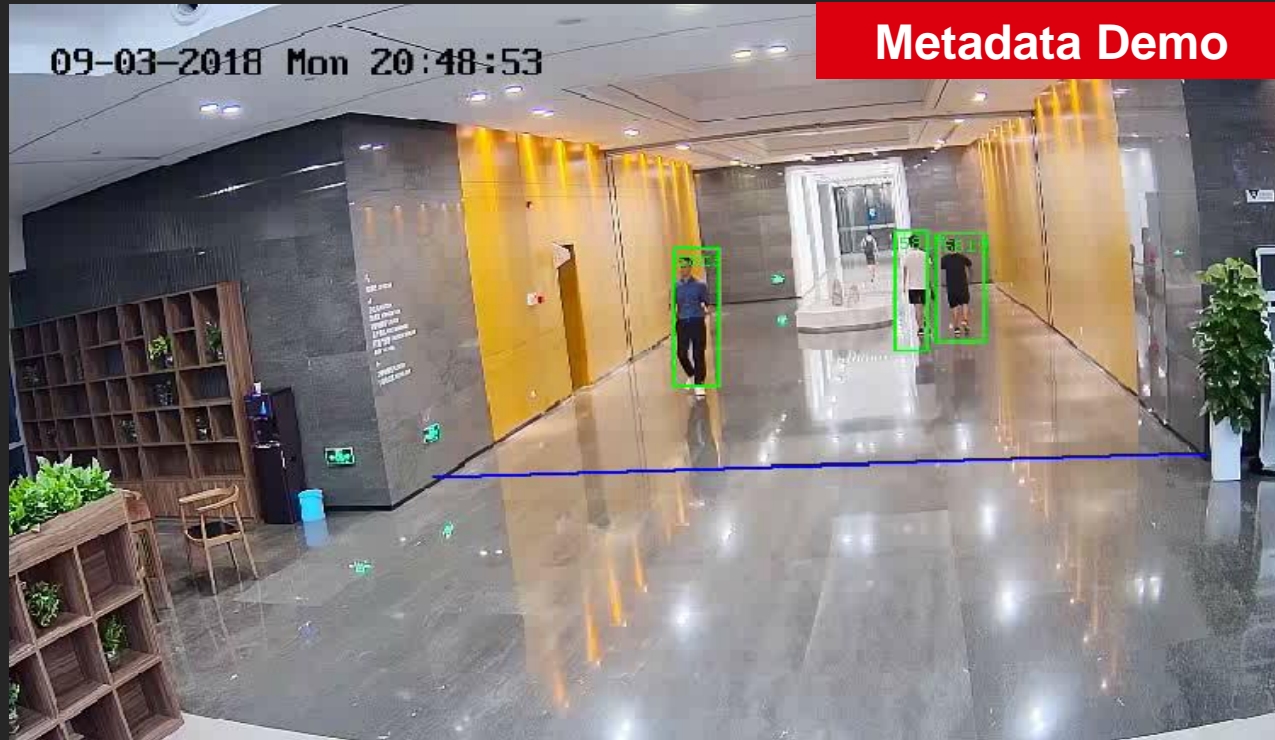


Region Entrance

Region Exiting

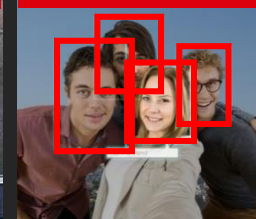


7 Series cameras can provide **metadata** based on ONVIF & ISAPI, which provides the ability for third-party platform to support the function of quickly retrieving relevant images from abundant video data in the backend device, or tracing targets to make more analysis.



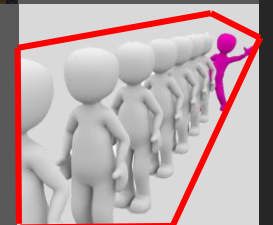
Metadata Demo

Intelligent Function



Face Capture

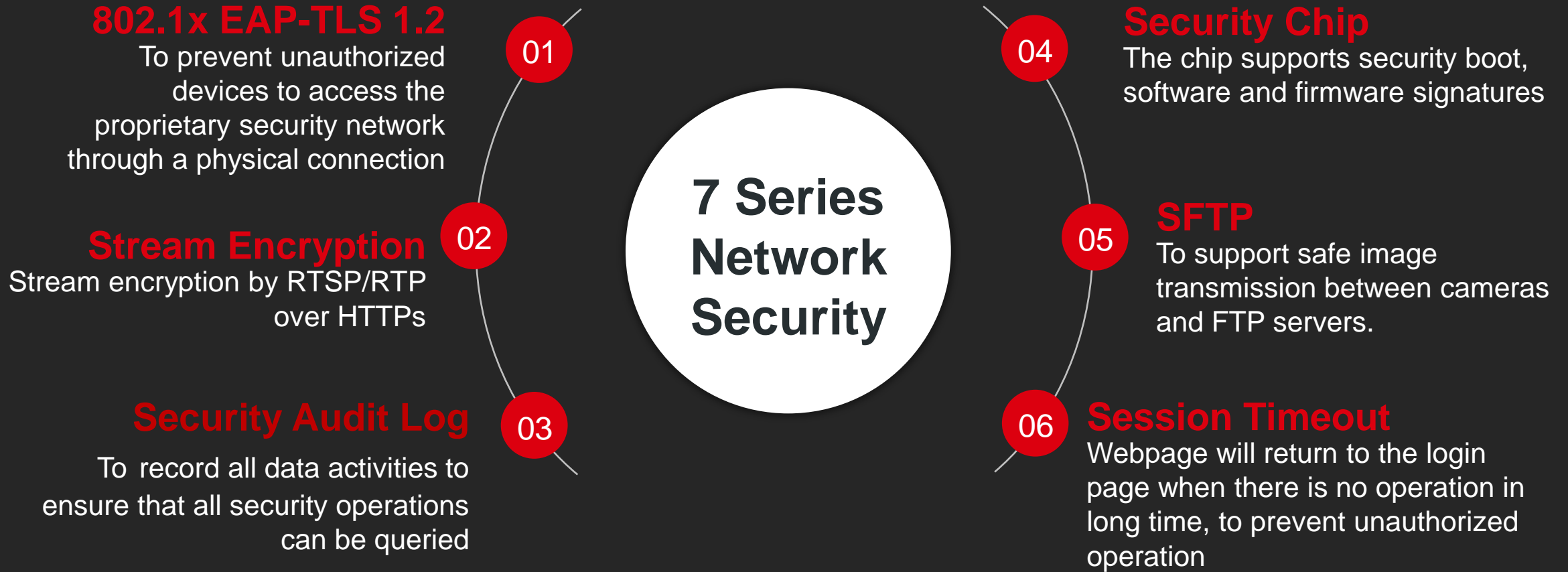
Flow Analysis



ANPR



NETWORK SECURITY





VIBRATION DETECTION







Hikvision 7 Series outdoor cameras support vibration detection to avoid violent destruction.

5

**Product
Showcase**



PRODUCT SHOWCASE

Appearance				
6 functions in 1 /E: with housing -Y: anti-corrosion -R: EN50121-4 /F11: optical port	iDS-2CD7026G0-(AP)	iDS-2CD7126G0-IZS	iDS-2CD7526G0-IZHS	iDS-2CD7A26G0-IZHS
	iDS-2CD7046G0-(AP)/(F11)	iDS-2CD7146G0-IZS	iDS-2CD7546G0-IZHS	iDS-2CD7A46G0-IZHS
	iDS-2CD7086G0-(AP)	iDS-2CD7186G0-IZS	iDS-2CD7586G0-IZHS	iDS-2CD7A86G0-IZHS
	iDS-2CD70C5G0-(AP)	iDS-2CD71C5G0-IZS	iDS-2CD75C5G0-IZHS	iDS-2CD7AC5G0-IZHS
	iDS-2CD7026G0/E-IHSY(R)		iDS-2CD7526G0-IZHSY(R)	iDS-2CD7A26G0-IZHSY(R)
	iDS-2CD7046G0/E-IHSY(R)/(F11)		iDS-2CD7546G0-IZHSY(R)	iDS-2CD7A46G0-IZHSY(R)
	iDS-2CD7086G0/E-IHSY(R)		iDS-2CD7586G0-IZHSY(R)	iDS-2CD7A86G0-IZHSY(R)
	iDS-2CD70C5G0/E-IHSY(R)		iDS-2CD75C5G0-IZHSY(R)	iDS-2CD7AC5G0-IZHSY(R)
Vehicle Analysis	iDS-2CD7026G0/P-AP			iDS-2CD7A26G0/P-IZHS(Y)
	iDS-2CD7026G0/EP-IHSY			iDS-2CD7A46G0/P-IZHS(Y)
	iDS-2CD7046G0/P-AP			
	iDS-2CD7046G0/EP-IHSY			
/S: no face function version	iDS-2CD7026G0/S-AP	iDS-2CD7146G0/S-IZS	iDS-2CD7546G0/S-IZHSY	iDS-2CD7A46G0/S-IZHSY
		iDS-2CD7186G0/S-IZS	iDS-2CD7586G0/S-IZHSY	iDS-2CD7A86G0/S-IZHSY