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Intelligent Park Solution

Overseas Product & Solution Department



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01
Request Analysis & Target
What is the background of the industrial park design .

02
Solution Design
What kind of solution Dahua able to provide

03
Success Cases
What kind of projects Dahua already show the value.







CONTENTS

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/01

Request Analysis & Target

What kind of challenge enterprise park faces.

Request Analysis

Security Management



Entrance & Exit Management



Office Operation Management



System Management

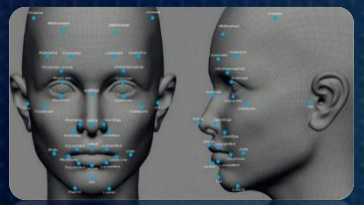


- How to enhance the security management inside the park?
- How to improve the access efficiency?
- How to improve the satisfaction during the daily office operation?
- How to reduce the cost for the system maintenance?



Solution Target

AI



By using AI tech, improve the security management, accelerate the response speed, improve the experience level.

IOT



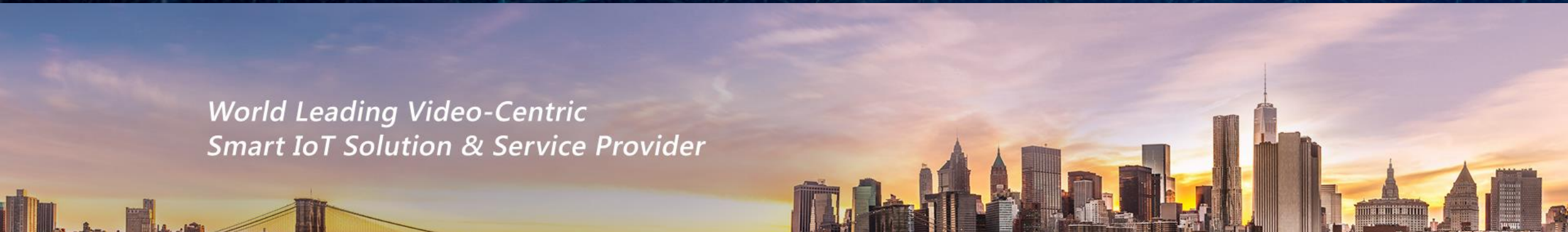
Apply the IOT tech to different scenarios, realize the fusion between person, vehicle, object, provide the original data for different applications.

Big Data



Collect data from application systems, construct a big data platform, fusion data and provide organized data for application and decisions.

- Improve Security
- Improve Efficiency
- Enhance Experience
- Reduce Cost



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/02

Solution Design

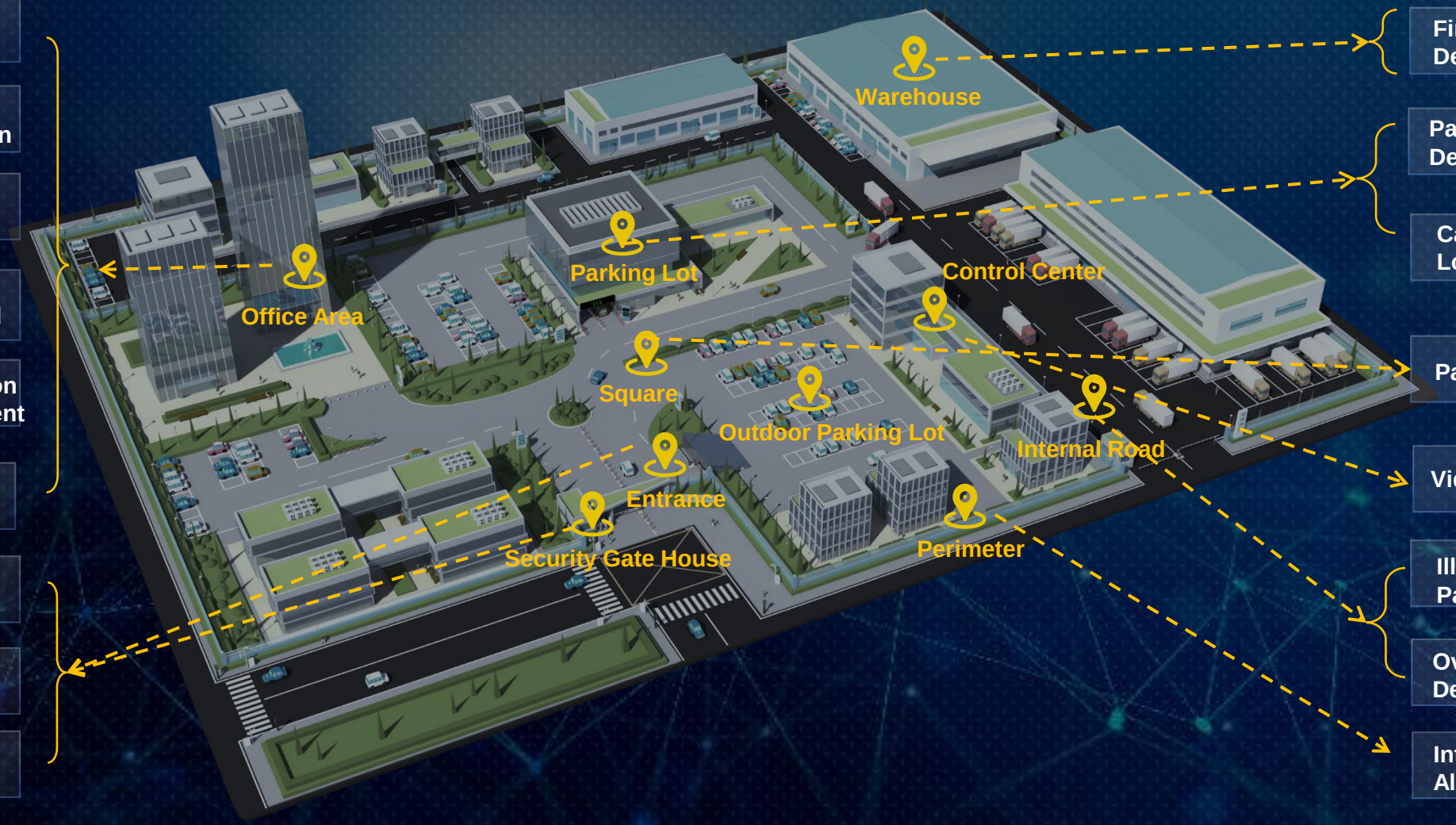
By using the latest technology, we provide a solution to satisfy the requests.

Solution Overview

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Intelligent Security » Efficient Access » Smart Operation

- Facial Access
- Facial Recognition
- Elevator Control
- E-whiteboard
- Information Releasement
- Panoramic
- Facial Barrier
- ANPR
- Visitor Terminal



- Fire Detection
- Parking Detector
- Car Locator
- Panoramic
- Video Wall
- Illegal Parking
- Over-speed Detection
- Intrusion Alarm



STATUS

Reopening Business

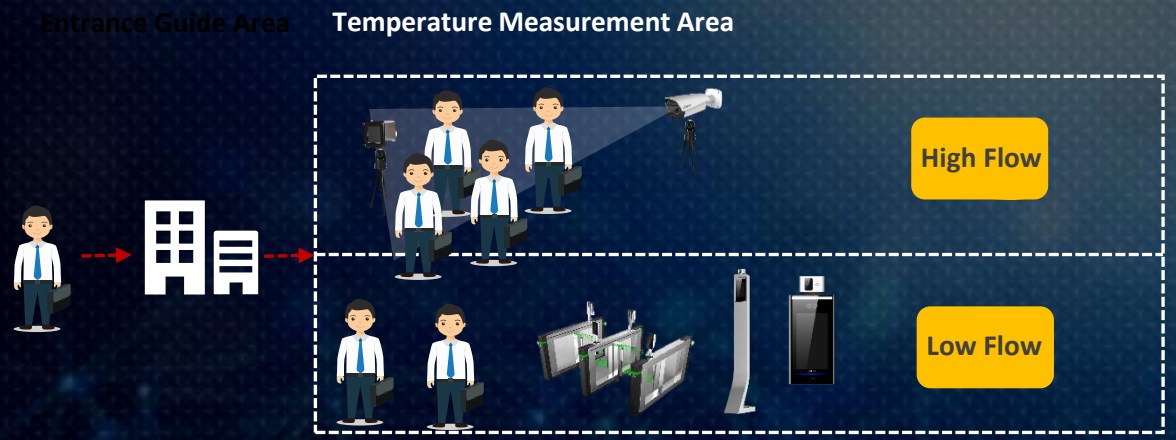
Temperature Detection - Automatic Daily Check and Protect Your Employee

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Countries are emerging from lockdown after epidemic, The company needs to comply with national protocol and take relevant measures to **ensure the safety and health of employees** to **prevent a second breakout.**



Process



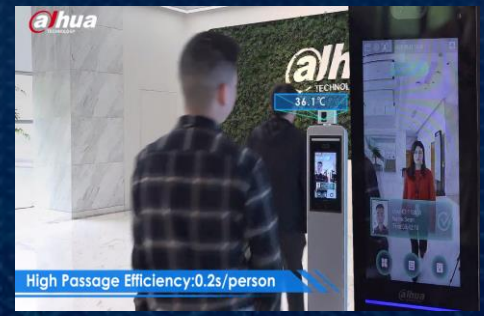
For the outdoor, you need to **set tent** to guarantee the effect.





Multi-targets **(30 person at same time)**





High Passage Efficiency: 0.2s/Person

Value

High Efficiency

Multi-targets **(30 person at same time)**
High Passage Efficiency:**0.2s**

High Accuracy

±0.3℃
(with blackbody)

Flexible

Can be used in both **High Flow and Low Flow** scenarios

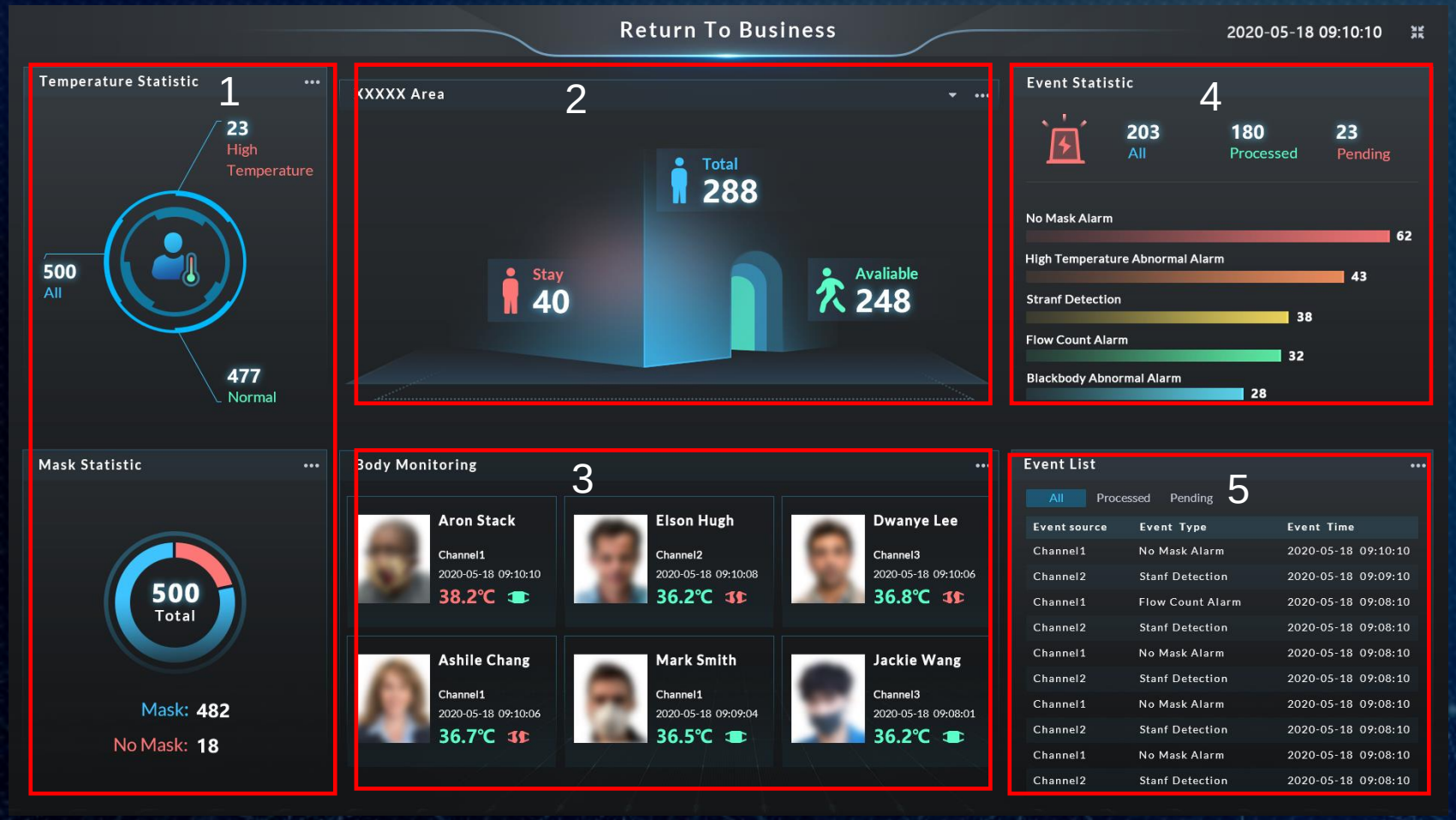
Easy to Retrofit

Just purchase **the Access control Terminal** to complete the **Retrofit**

Reusable

After the Pandemic, device can be **Reused** for **fire prevention, access control and time attendance**.

Visual Management- Real-time monitoring status of employee



1. The data from both camera and access control terminal;
2. Flow control statistics, currently support single region only;
3. Display the latest snapshot from both camera and access control;
4. Event statistics will be all the event set in DSS Pro;
5. Display the latest event records;

➢ Click the "…" upper right corner of the module to jump to detail

Visual data status of employee provide the data support for the manager decision

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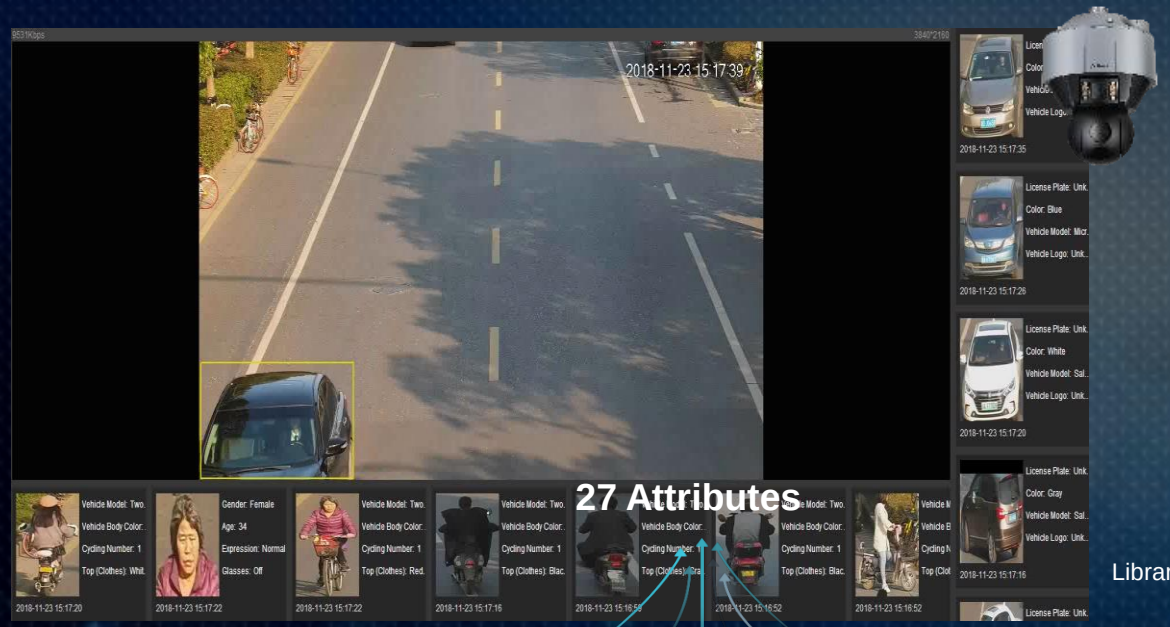
STATUS

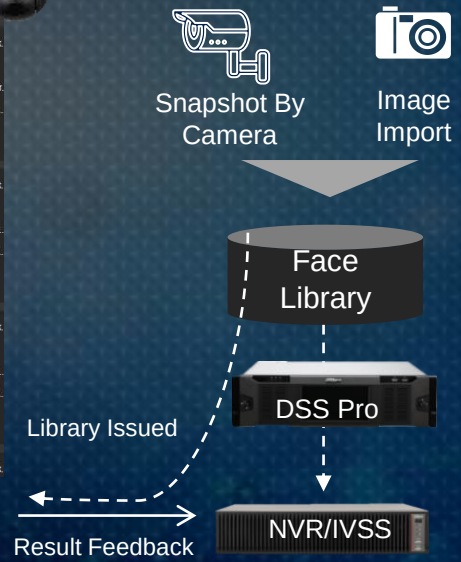
Intelligent Security

- AI protection
- Scenario Monitoring
- Perimeter Protection
- Key Area Protection

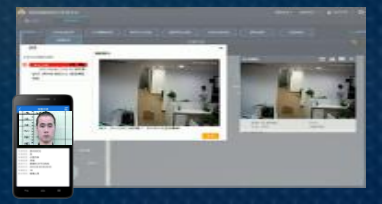
AI Protection

AI technology help to manage all objects captured, including person, vehicle

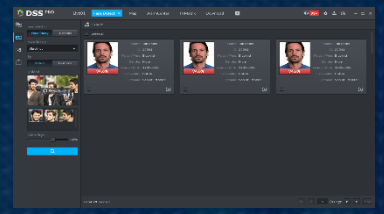




Application



Receive the realtime alarm to find out if there is blocklist person or stranger appear inside the park



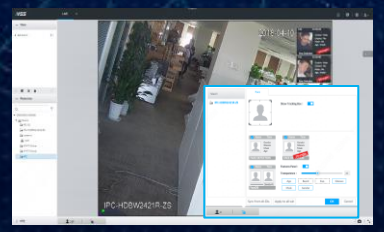
Search the snapshot library by face, get the result if the target has been appear in park



Trace by face and know where the target has been.



Dahua provide the metadata for big data analysis.



Metadata search, search the record by attributes, decrease the analysis time. (Specific feature should be confirmed before project)

27 Attributes

(not the final version)

Face: 6

Human: 7

Non-motor Vehicle: 5

Motor Vehicle: 9

- Gender
- Age
- Glasses
- Mouth Mask
- Expression
- Beard

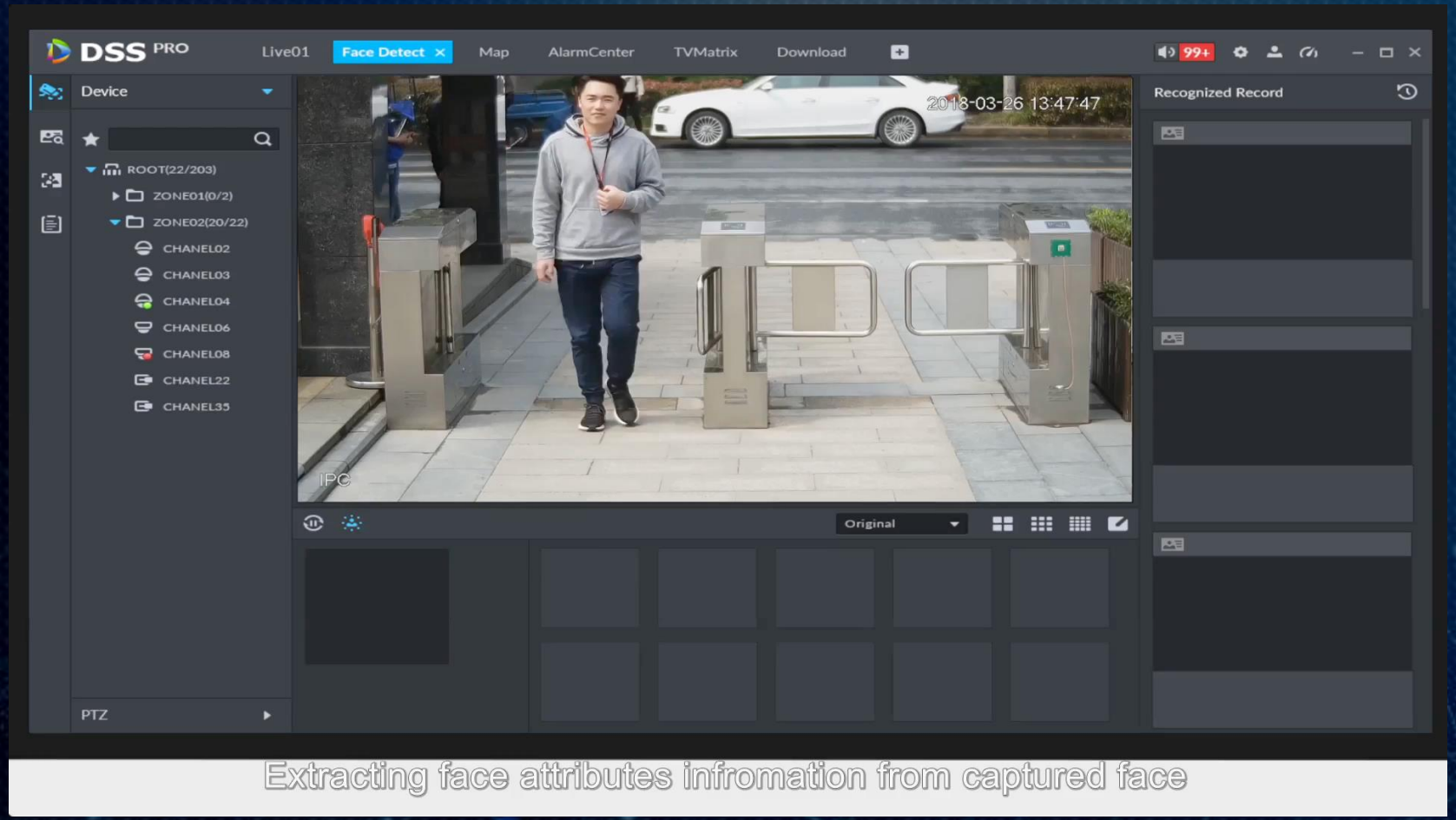
- Gender
- Top Color
- Top Type
- Bottom Color
- Bottom Type
- Hat
- Bag

- Car Type
- Car Color
- Cycling Number
- Top Color
- Top Type

- Plate Color
- Car Color
- Car Type
- Sunshield
- Ornament
- Calling
- Seatbelt
- Inspection Sticker
- Smoke

AI Protection- Facial Application

■ **Solution Value：Save 90% more time**. Improve the efficiency;



1、Real-time Alarm
Recognize person pass-by and triggered alarm by blocklist configuration.

2、Search by Image
Find out the target by searching inside the snapshot face.

3、Trajectory Analysis
Support to display the trajectory of the target by face image.

Scenario Monitoring-Scenario Definition Cameras

Fisheye



Lobby/Dining hall

Anti-oil camera



Kitchen

Mini Dome



Elevator

Starlight Ball Camera



Corridor

Multi-sensor



Rooftop



Public Area



Full Color Camera

Entrance



Full Color Camera

Reception



Starlight Ball Camera

Security Gate House



Starlight Ball Camera

Parking Lot



Starlight Bullet Camera

Perimeter Protection

Infrared Beam



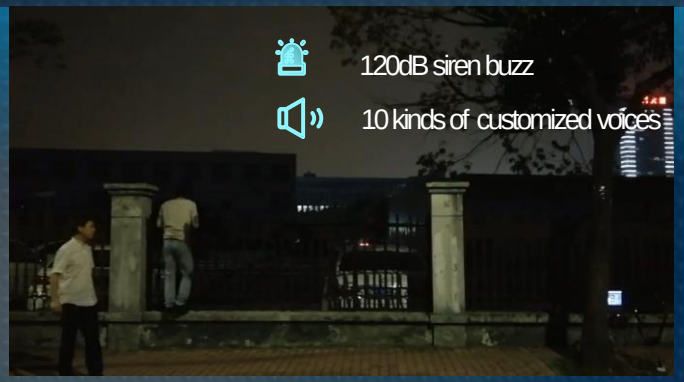
Electrical Fence



Traditional Protection

- Invisible, inefficient verification
- High Deployment Cost
- High False Alarm
- Hard to check





Video Perimeter

Visible at day and night;
Easy Deployment;
Intelligent Filter, filter the animal, leaf, light, reduce 95% false alarm;
Active deterrence, all in one installation;
Target classification retrieval, easy for search video record;





Thermal Perimeter

Ignore the situation with zero light, smog, rain, snow, and so on;





Radar Perimeter

Long distance perimeter protection,
Offers moving track display and PTZ camera real-time monitoring;
Supports human/vehicle target filtering

Security Inspection

Security screening is a necessary inspection procedure for hotel.

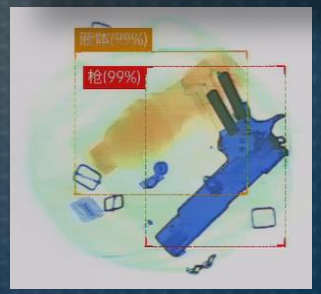
Rely On Manpower



Deep Learning Algorithm

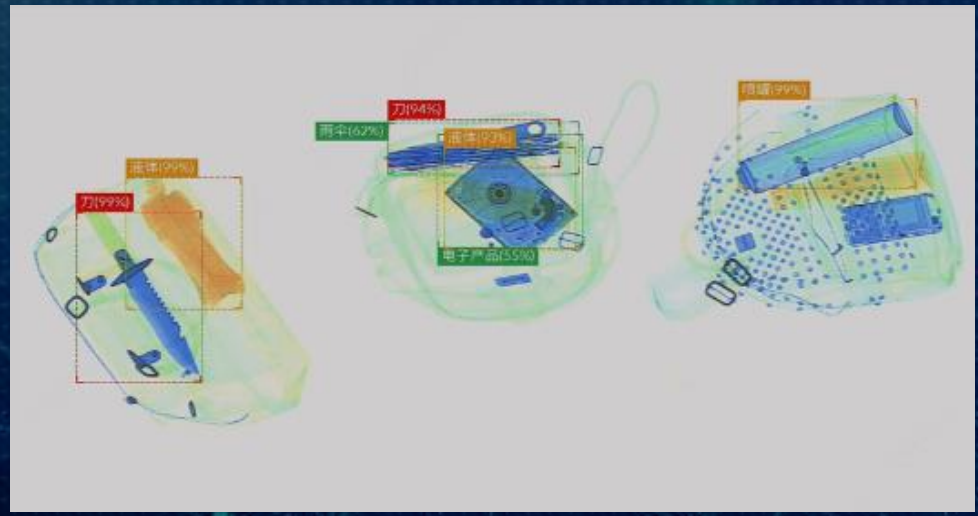


Objects Identification



Independent

Smart



Knives, liquids, guns, sprinklers, lighters, scissors, handcuffs, electronic products



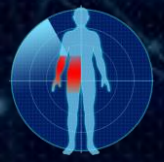
Luggage

DAHUA NEW X-Ray inspection detector has integrated with objects recognition intelligent algorithms. It can realize prohibited objects intelligence recognition independently.

Metal Detector



Human

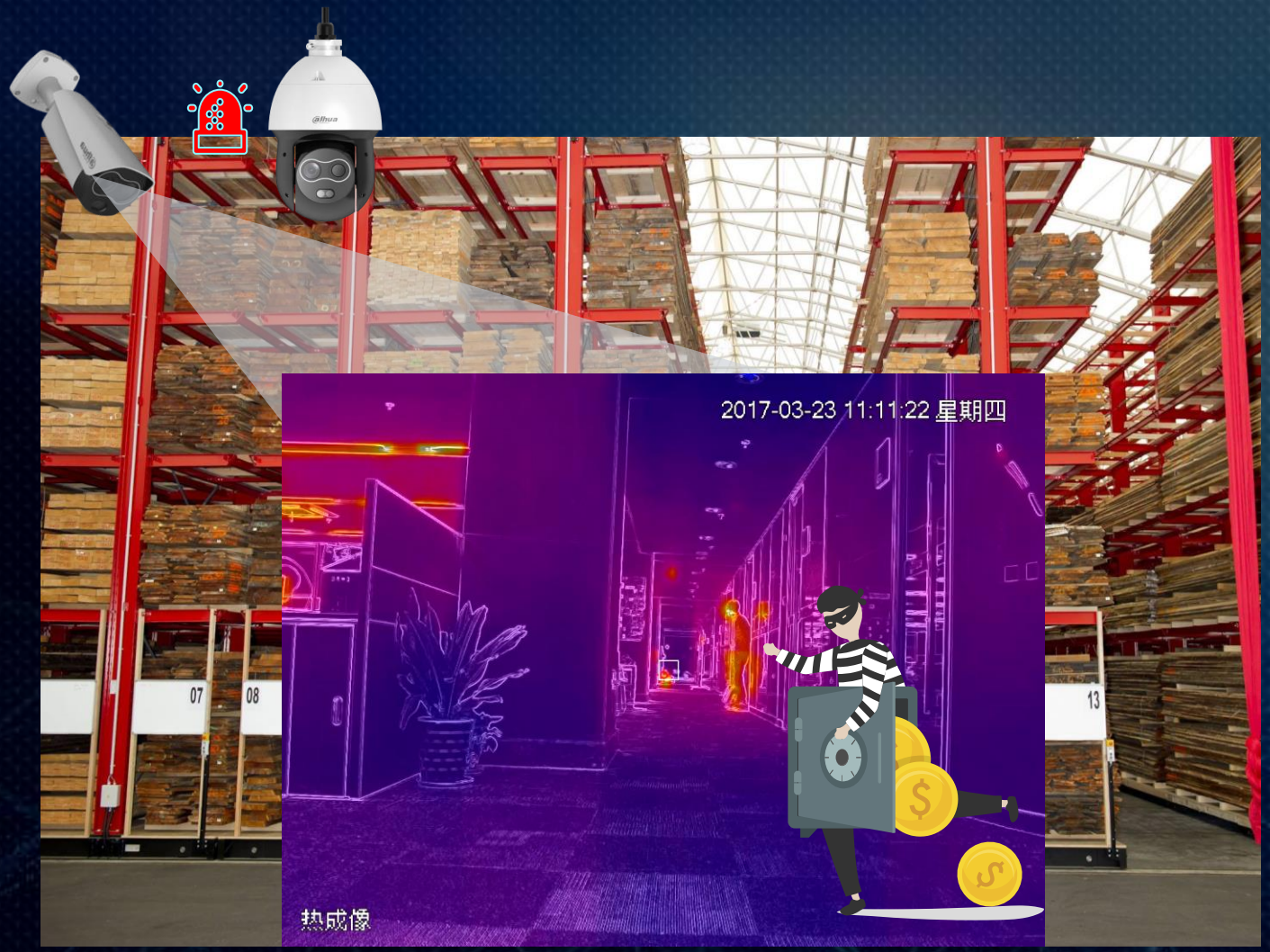


Prohibited Objects Location

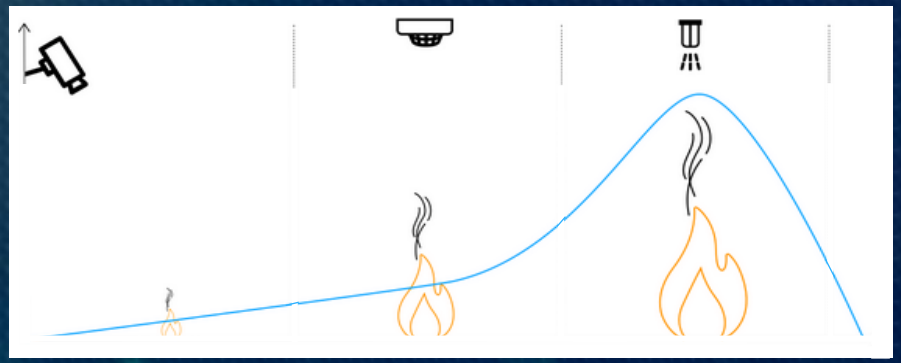


Human Body Temperature Measurement

Warehouse- Fire Prevention / Thief Prevention

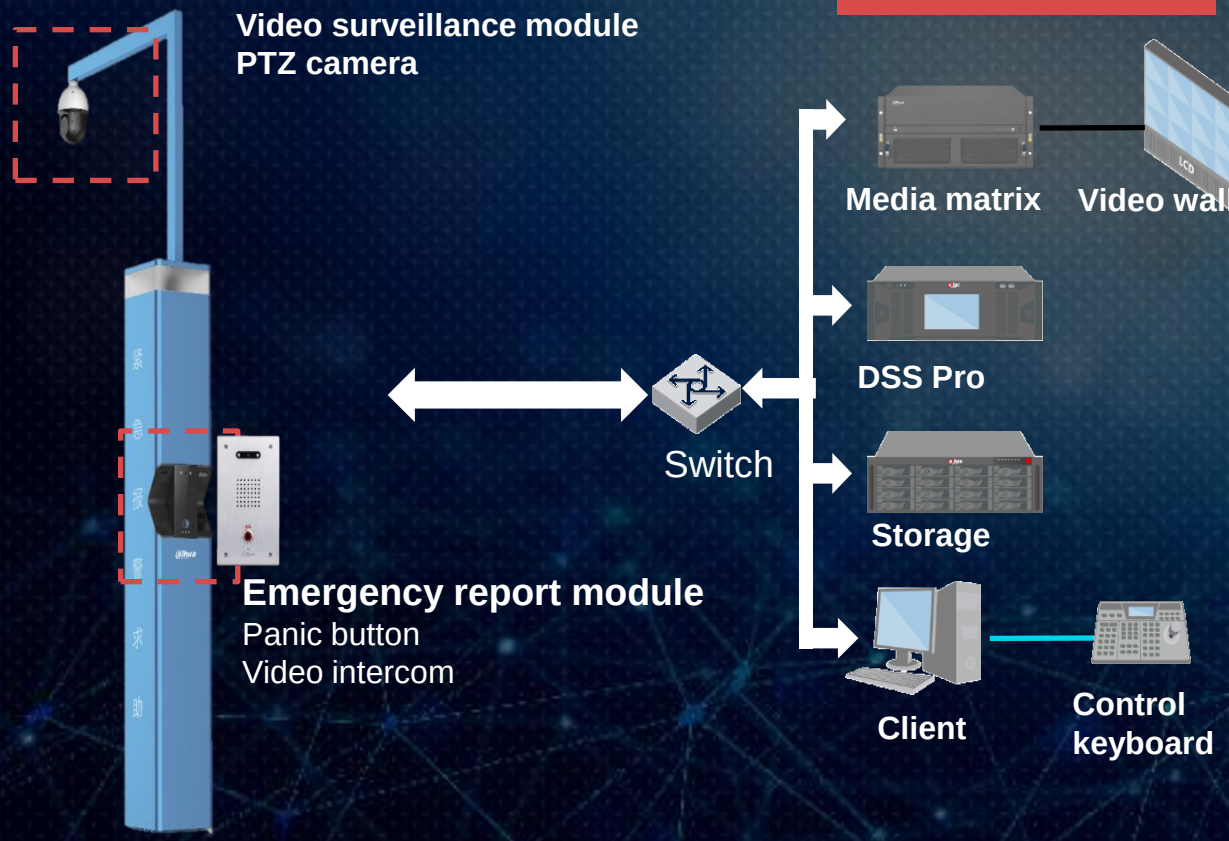


- **Advanced fire detection algorithm**
- **Support alarm linkage-white light and loudspeaker**

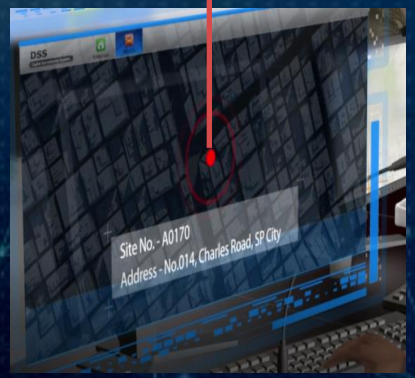


Thermal camera detection the fire first so that able to save the property in advance.
At the same time, using IVS function to detect the illegal behavior during forbidden time.

Emergency Alarm Pole







When there is an emergency happen:

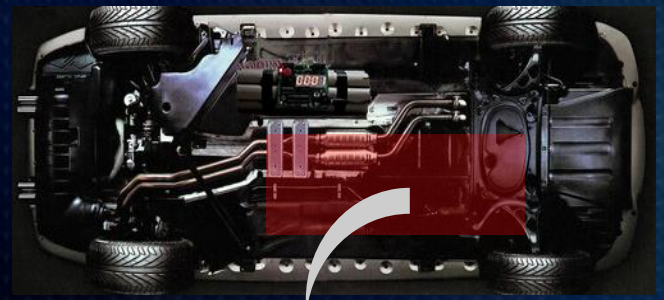
- Push the panic button;
- Communicate with control center directly;
- Security check by video what happen;

■Solution Value

✓ Provide a direct and immediate way between employee and security manager;

✓ Security manager able to see what really happen on site, and make immediate response.

UVSS protection

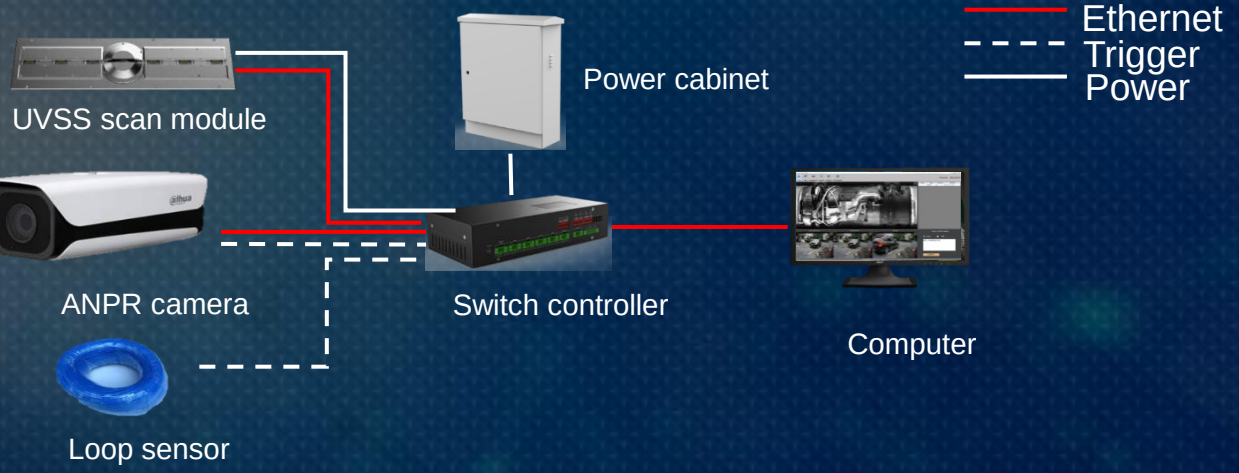


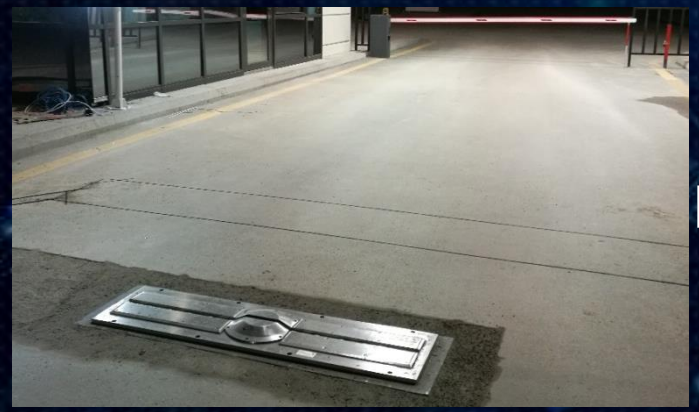




■Solution Value

✓ Provide an efficient and safe way for vehicle under chassis inspection.

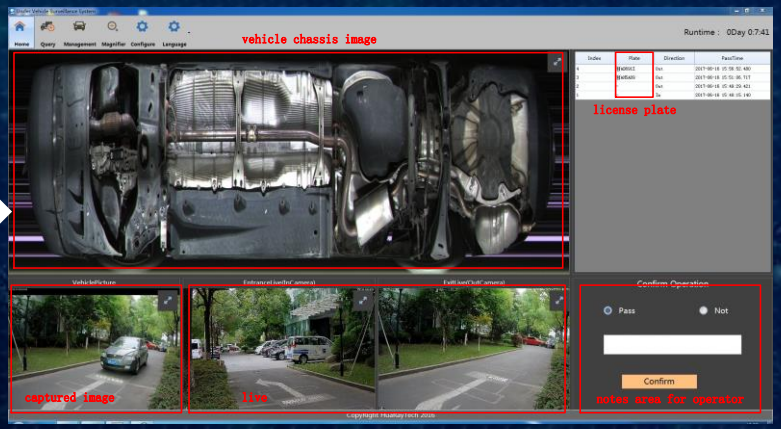




Sensor detects



Snapshot and ANPR



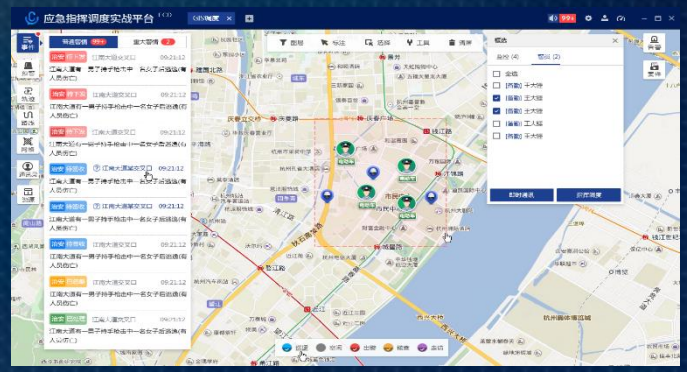
Client Display

Alarm Handle Process

- Hundreds of different alarm resources supported.
- Multiple Sub-systems linkage, fast alarm confirmation.
- Claim alarm with event operation content
- Easy to search the alarm history including the record and operation content.
- The alarm history can be exported for further analysis



1. Onsite Alarm



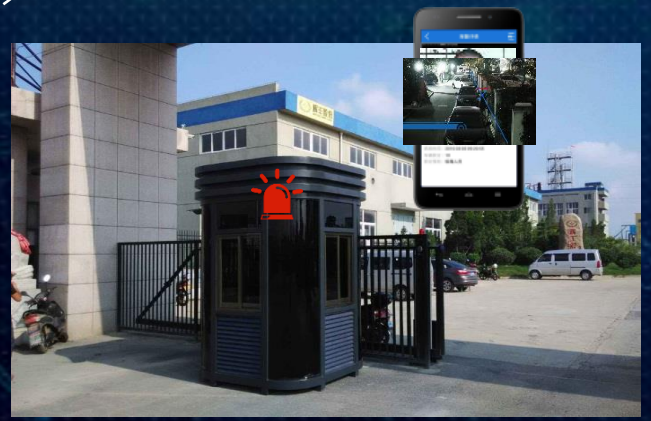
4. Dispatch Center(third party)

Directly receive the alarm

Integration



2. Control Center Real time Alarm



2. Booth Client and Mobile Client Real time Alarm



3. Onsite Manual Processing



STATUS

Efficient Access

- Face With Full Access
- Visitor Management

Face with Full Access

1. Face Registration



2. Main Entrance



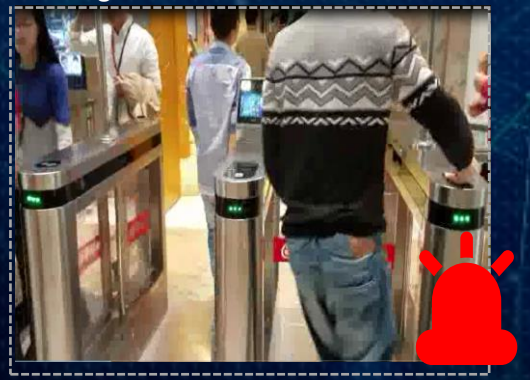
3. Key area Entrance



■ **Solution Value**

- ✓ **One** time registration**, Multiple** access available**;**
- ✓ Facial solution **improve the quality, also security.**
- ✓ All access history is **searchable and recorded,** make the management easier.

✓ **Illegal Entrance Alarm**



✓ **Live Detection**



Flexible Visitor Management(2021 Q1)

Flexible Reservation



Reception reservation

Employee invitation

Efficient Registration





30S

- Find reservation by QR code;
- Face capture;
- ID card capture backup;
- Permission issuance;

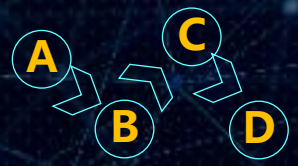
Multiple Access













✓ Visitor permission configuration;

✓ Visit history traceable;

✓ Reservation information and visitor history can be exported.

■Solution Value

✓ **Provide a fast and safe management process for visitors;**

✓ **Flexible visitor modes selectable by different customer requests;**

✓ **Open interfaces for third party system integration;**

Personal Control-Elevator Management

1、Call Elevator



2、Enter Elevator



3、Permission Authentication



4、Choose Floor





Elevator Control set the permission to specific floor, for example showroom, CEO floor, Document Floor, etc.

Elevator Management

Support elevator online management, elevator name, floor configuration.

Permission Management

Support permission setting by group,
Support public floor and change the permission by manual.
Support schedule setting.

History Inquiry

Support to display the elevator control history, including time, name, department, floor, etc

Vehicle Management-Entrance & Parking

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1-Show Available Parking space





- Display the parking space in each layer

3-Parking Guidance

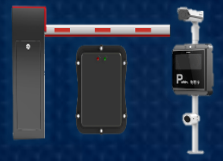




- Precise guidance
- Parking lot reservation

5-Effeciency Exit





- False Tolerance
- No person on site

Before Entrance → **Entrance Process** → **Car Parking** → **Car Locating** → **Exit Process**

2-Non-stop pass





- Fast response barrier open
- Anti-hit radar

4-Car Locator





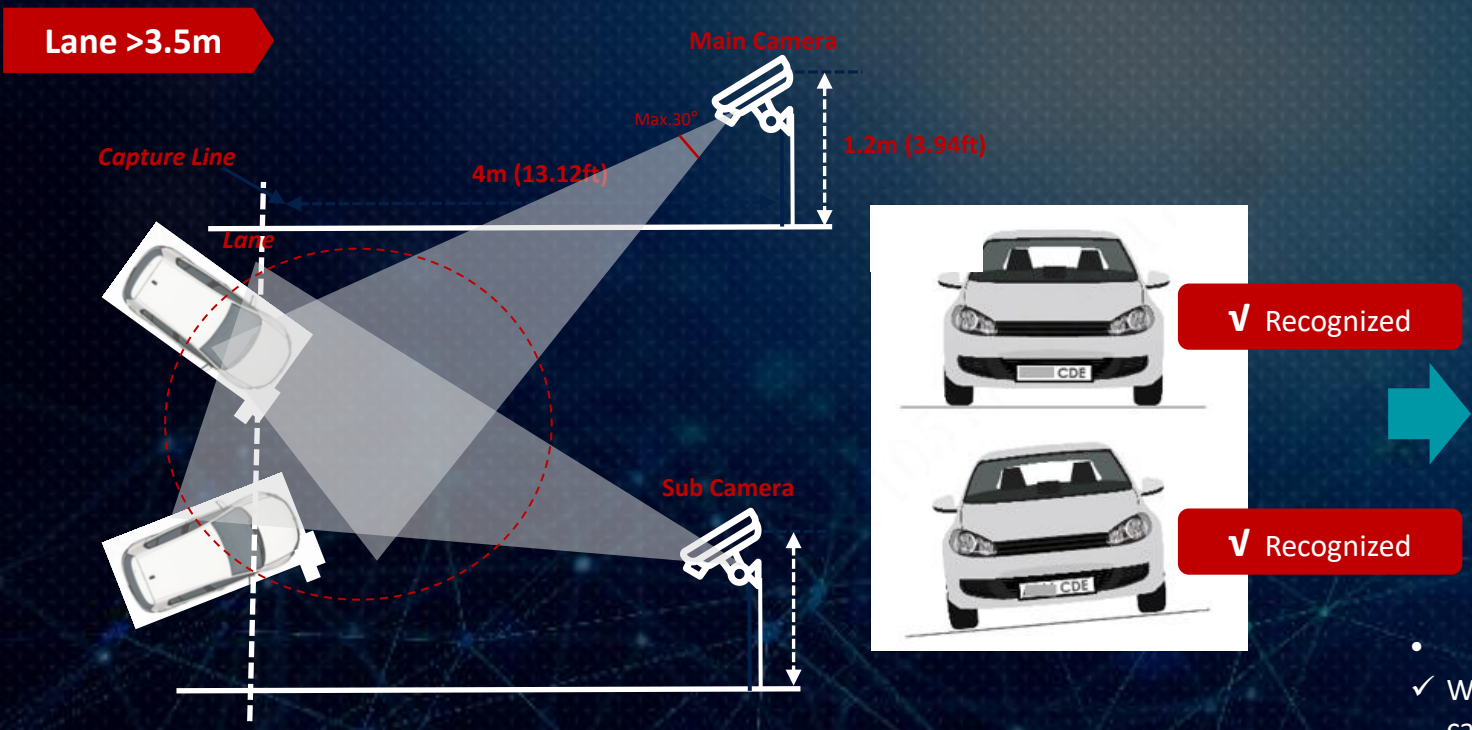
- Show the best route from kiosk to the vehicle

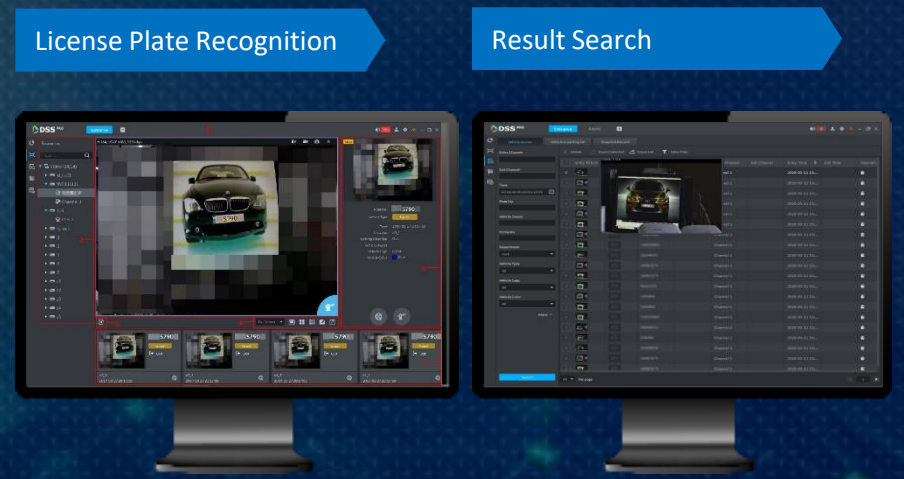
- **Solution Value:** No-stop parking improve efficiency and experience..

Wide Lane License Plate Recognition

Pain Points

- In some residential areas, **the lanes of are very wide** and it is difficult to divide into two lanes.
- The driving direction of the vehicle is unknown, and the front of the vehicle will tilt to the left and right, resulting in **the failure of the license plate recognition**.





- Wider Recognition Area
- Suitable for multiple driving direction

- **Precise Recognition and No Missing**

✓ When vehicle passes by, as long as the recognition result of one of these two ANPR cameras matches the white list, system open the barrier automatically. [Barrier open time<0.5s]

✓ Based on physical connection, camera A and camera B are able to take pictures synchronously

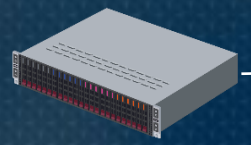
- **No Duplicate Record**

✓ Only one piece of passing-by record will be recorded.

Vehicle Management-Outdoor Parking



5 series 4MP

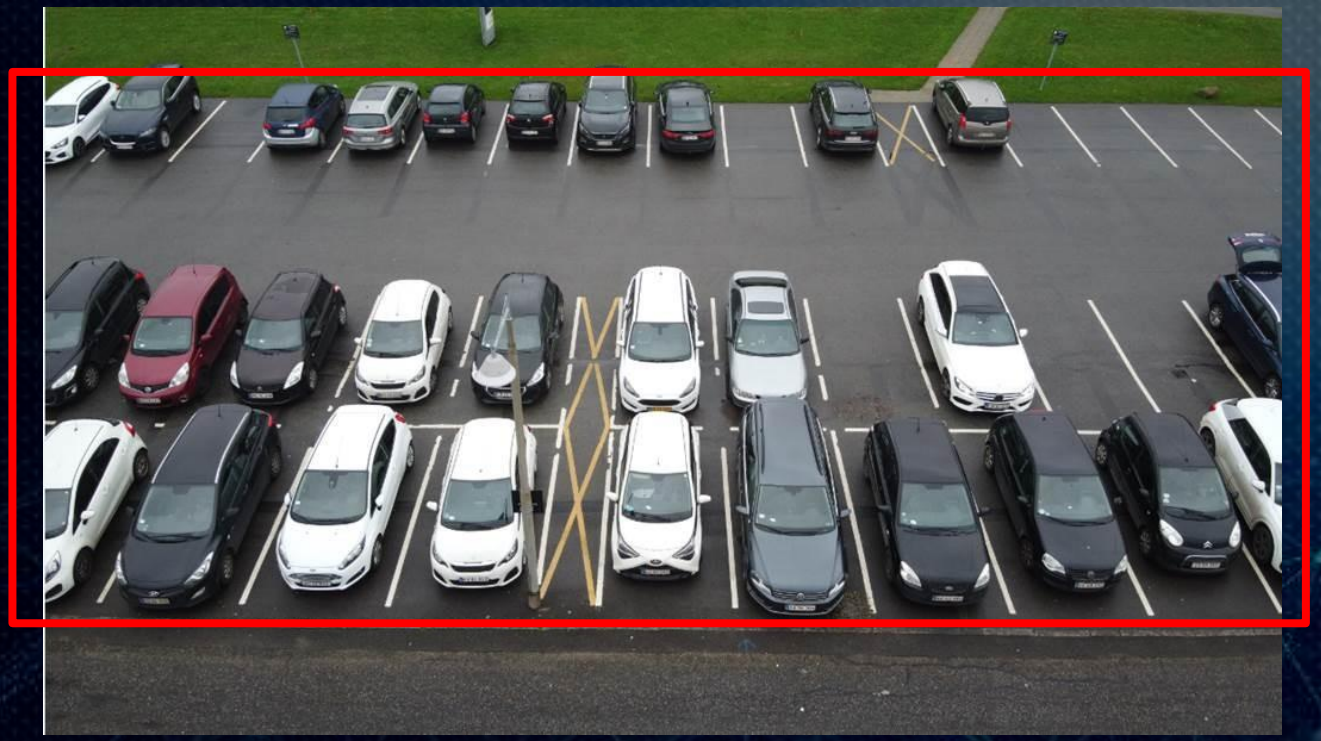


IVSS7008

Update



PMS





Area Guidance



Road Guidance

- **Solution Value:**
  - ✓ realize the outdoor parking management with a low cost solution, show the real-time parking status.

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STATUS

Smart Operation

Media Release Management

Daily notice and promotion





Floor standing

Banners





Stretched

Dinning menu and daily suggestion





Wall-mounted

Outdoor business promotion





Outdoor LED



Media Player





MPS platform software

Cost Save

Instead of purchase the new material, digital signage just need to publish the new program remotely;

Center Management

Use unit platform to manage all the terminals from different locations, program approval process make media more reliable;

Digital Experience

Digital signage improve the technical experience;

■**Solution Value:** Provide various products according to different scenarios, also realize the unified management of the media releasement,

Meeting Management

UHD Display

Dual Android and Windows system



10 points writing and 20 points touch

Wireless projection and interaction



Compatible with various video conferencing

DAHUA TECHNOLOGY

Enabling a Safer Society and Smarter Living

■ **Solution Value:** Instead of the traditional white board, provide a fast, digital meeting solution.

Attendance Management

Flexible Attendance Point



Main Gate



Office Turnstile

Specific Attendance Point



If the attendance report from DSS Pro can not meet the requirement, DSS Pro able to integrate with HRMS to do further customization.



■Solution Value

- ✓ **Fast:** No-stop facial recognition, attendance process easy and fast;
- ✓ **Flexible**: Multi-attendance points selectable.
- ✓ **Real**: Facial recognition, eliminate fake attendance, support verification the attendance image afterwards.
- ✓ **Open**: Support standard interface for third party platform integration, automatically update the attendance data;

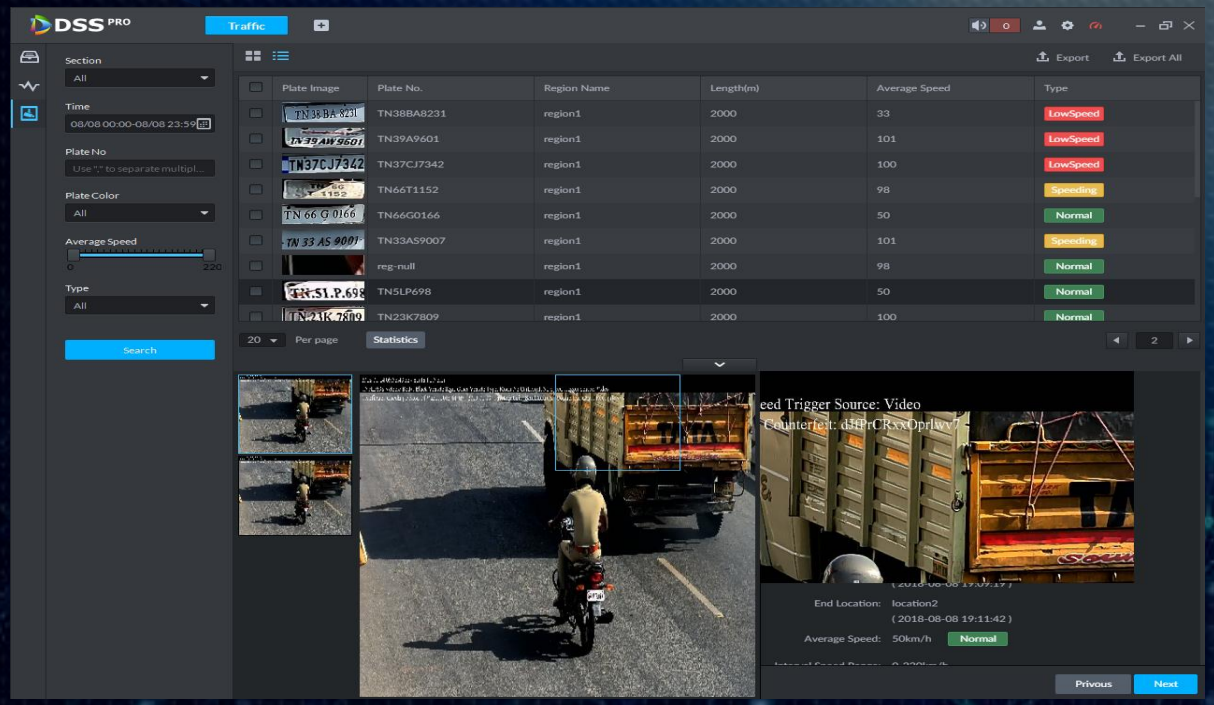
Vehicle Violation Management



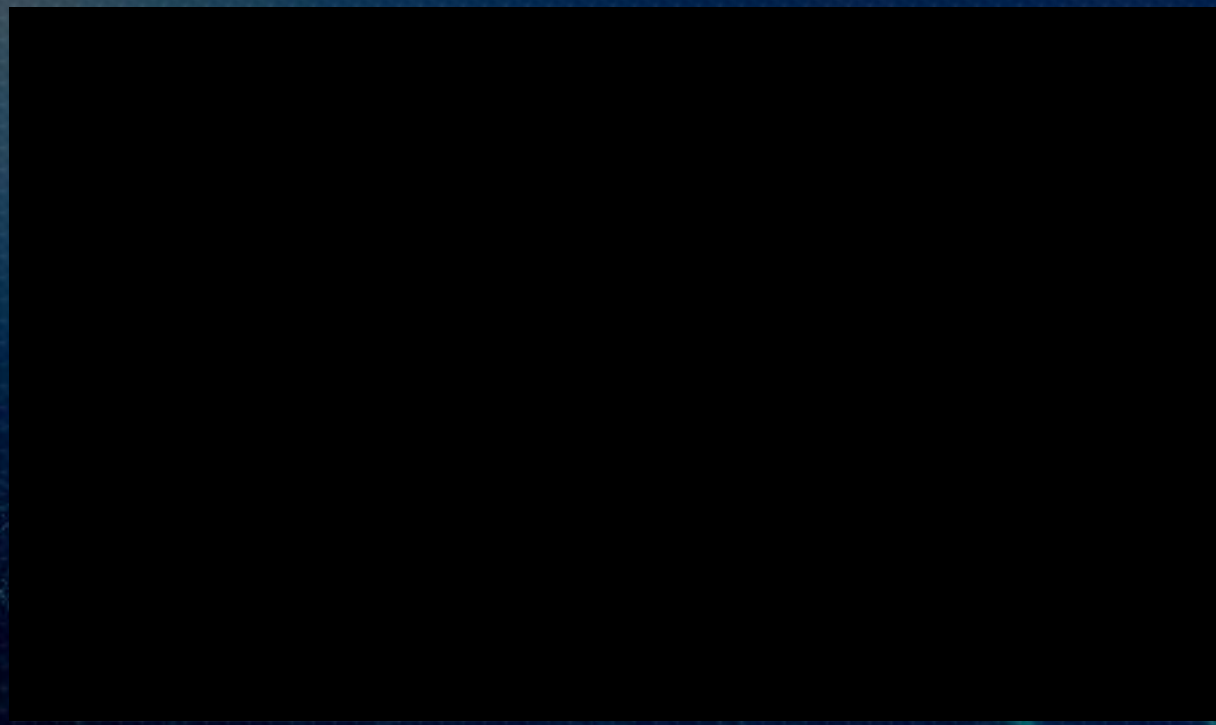
Dahua provide the capability to detect over speed vehicle inside the park, at the same time, record the pass by history.

Easy configuration the available parking time, automatic receive the illegal parking information, improve the response time and efficiency, helps better management the road traffic.





Speed Measurement



Illegal Parking Management

Control Center Construction- Final Display of The Solution



LED display



LCD Display



Control Room is the final display of the solution, a good control room improve the quality and efficiency of the solution. Dahua is an end-to-end solution provider, able to provide the solution from design to maintenance. Which save the time and cost for end user.

Design » Deployment » Maintenance



Security Visualization

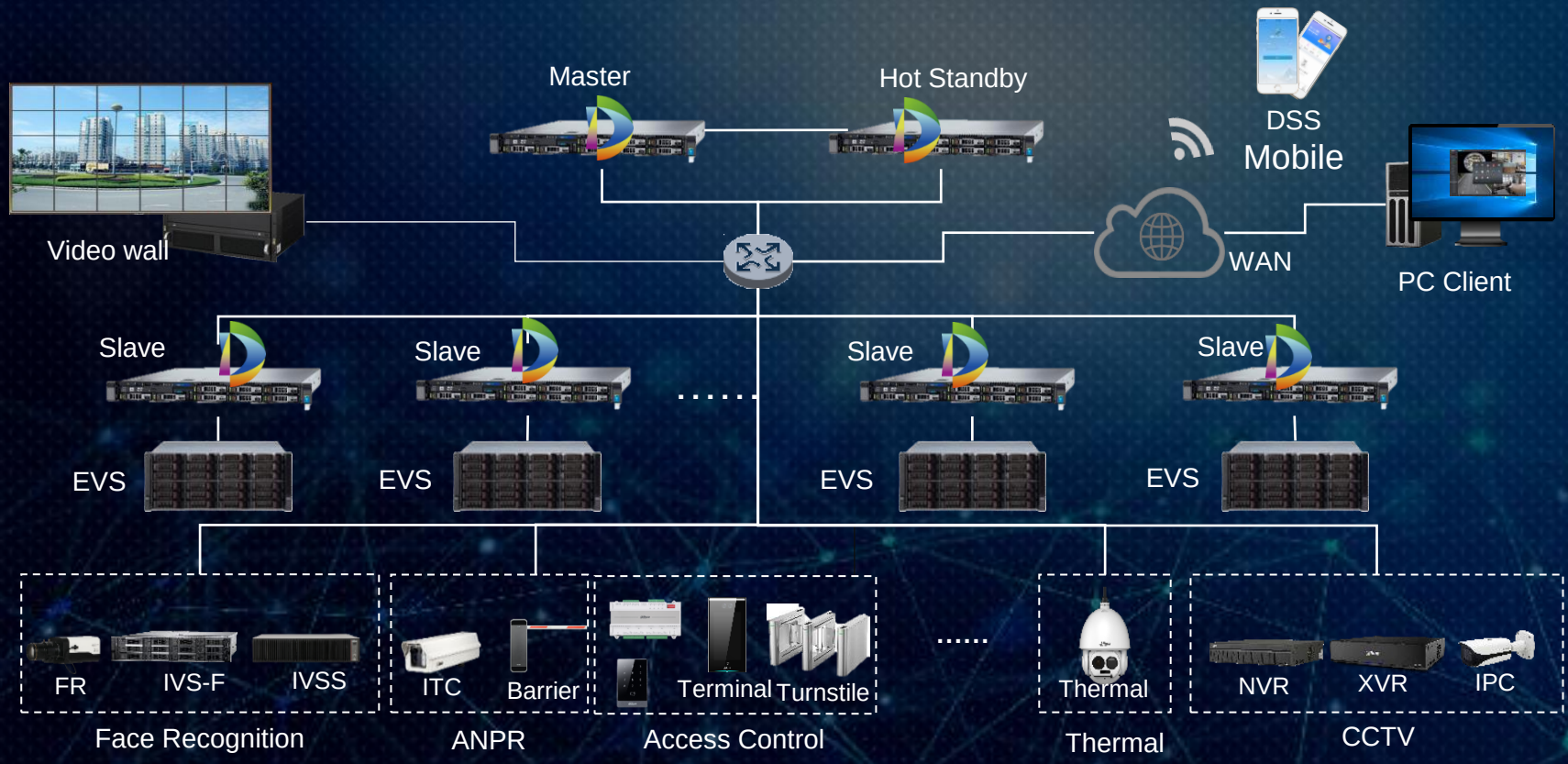
Operation Simplify



STATUS

System Conclusion

Advanced Structure-One Platform, One Datacenter, N Application



One Platform

Most of our devices can be connected to **DSS Pro**. We provide an integrated and scalable platform.

One Datacenter

Data related can be shared between different subsystems. Platform manage the data in **one database.**

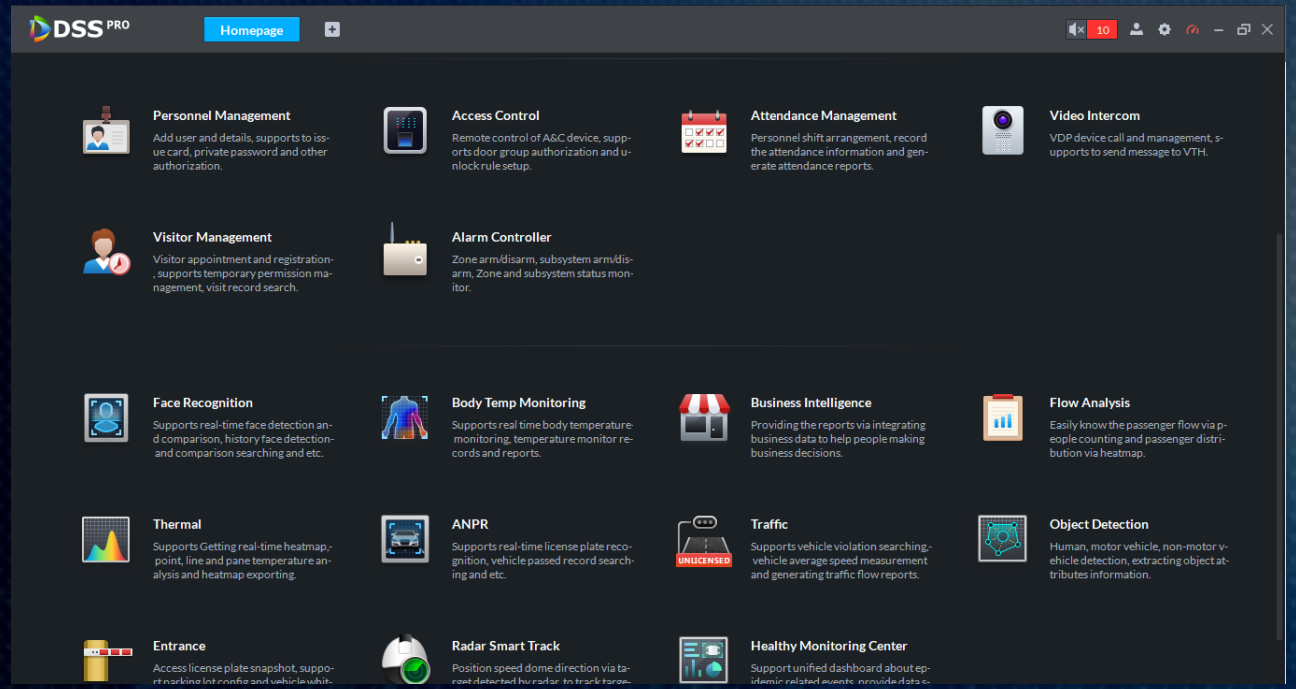
20 Distributed

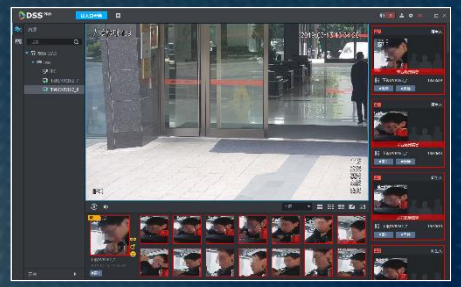
All our devices can be connected to DSS Pro. We provide an integrated and scalable platform. Up to **20000** channels supported.

N Application

DSS Pro provide hundreds of functions to meet the request of the park, also new applications can be updated when new version released.

Integrated System

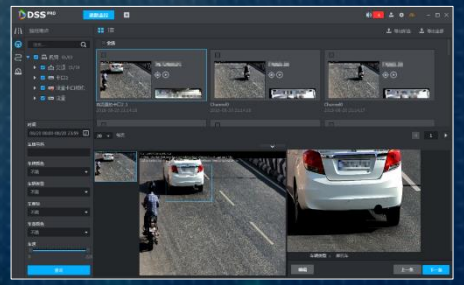




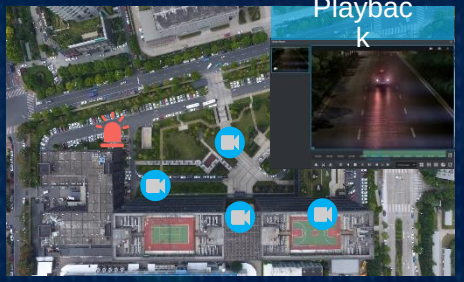
Entrance Attendance



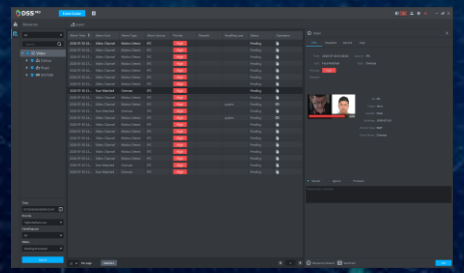
Face Recognition



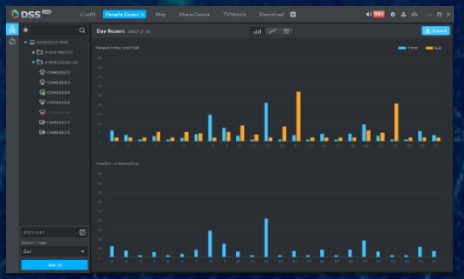
Vehicle Management



E-map display



Event Record



Data Statistics

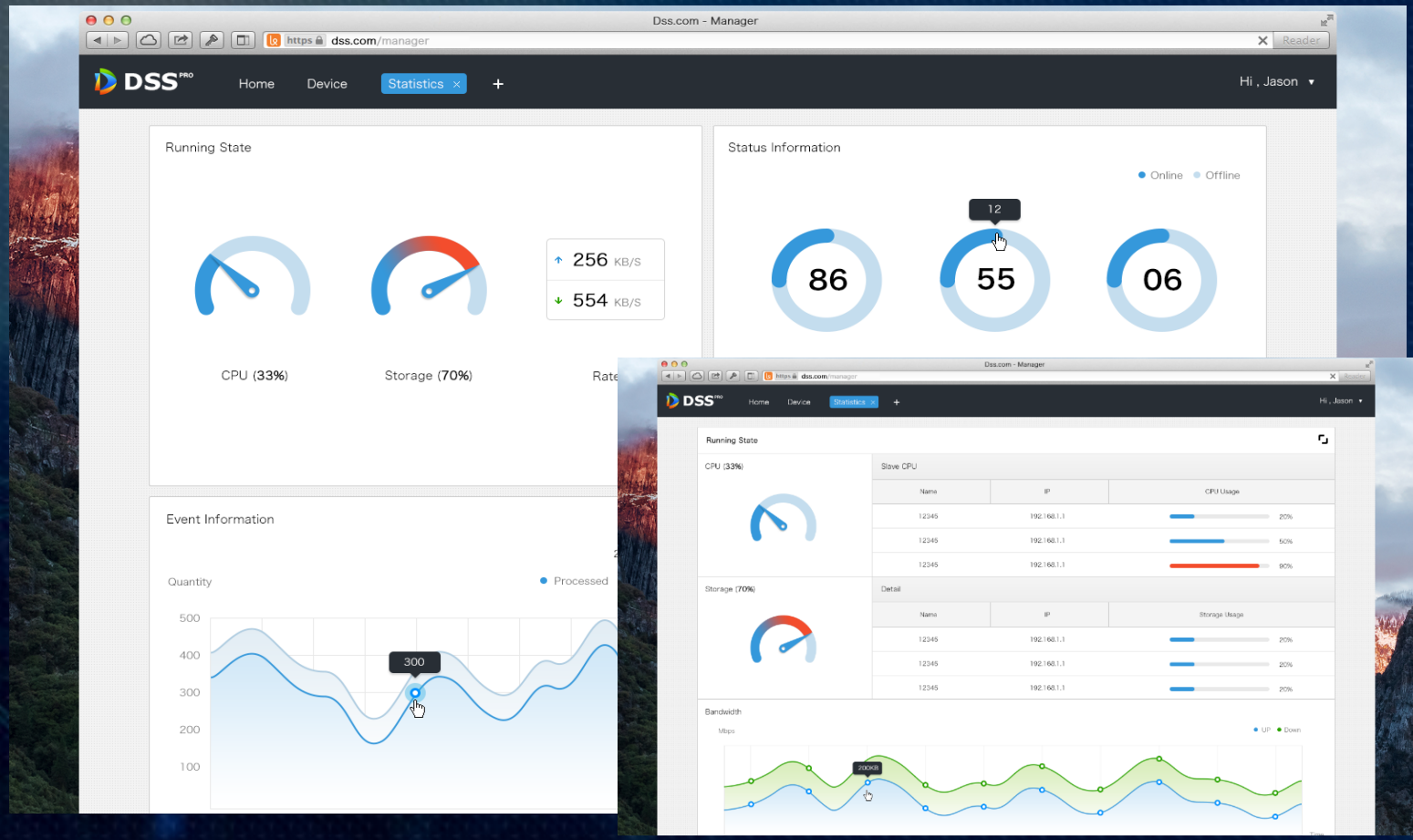
- Professional platform support 7*24 monitoring;
- Unified platform operation with sub-systems linkage;
- Powerful performance support thousands of devices management;
- Easy to system expand and open to integrated with third party system;

Easy Maintenance-Dashboard



- With thousands of devices, how to maintenance these devices?
- How I can know if the status of the system, work well or not?
- If there is some system statistics I can use to support my report?

- Support automatically find out the working status of the server, devices connected, record, bandwidth.
- Support search and export the log by time, by key words, including system log and operation log;



Highlight Conclusion-Intelligent Security, Efficient Access, Smart Operation

EMI SYSTEMS
EMI Systems Ltd.
Protecting Your World

Super HD

See clearer, See more

Intelligent

AI make the system smarter.

Simple Operation

Easy system, easy UI;

Easy Deploy

Fast Deployment

End to end

Dahua provide the end to end solution.

Top Brand

World leading video-centric smart IOT solution & service provider

EMI SYSTEMS
EMI Systems Ltd.
Protecting Your World

/03

Success Cases

Success Cases in domestic and overseas.

Success Cases



Haier Russia

Haier China started a new Haier industry park overseas covering a total area about 124.9 hectares, perimeter around 9 Kilometers. The park plan to build 11 factories for different products, a big warehouse and office buildings include R&D building.

Dahua provide a system based on central management platform, including comprehensive monitoring, perimeter protection based on active deterrence cameras, vehicle entrance & exit based on ANPR, facial access and attendance, also a control room with video wall.

By using the Dahua solution, Haier industry park create a security environment to detect and handle the emergency happen. Improve the response efficiency and accelerate the access speed.



GAC

GAC New Energy Automobile Industry Park area 5,000,000 ㎡, investment amount more than 6 billion USD, the park focus on “Smart Manufacturing+ Innovation Development+ Eco-town”, GAC try to create the Silicon Valley of new energy automobile

Dahua provide smart solution combine with the different processes in industry park, using the new technology like AI, big data, IOT, improve the security management, efficient access, visual manufactory, smart operation, facilitate the digital upgrade of GAC

Dahua provide a HOC smart industry park solution, fusion the AI and products into processes of the enterprise daily operation, help to improve the security, efficient the management and decrease the cost.

Key Products

- Software -

DSS Pro

Comprehensive and Expandable Dahua VMS

> Easy Expansion
> High Reliability
> High Compatibility

PMS

Parking Management System

> Up to 1000 Channels input(include Spot Detector/VTO/IPC/LED)
> Up to 10 Exit/Entrance Channels input
> Up to 200 Online Users



ASI7223X-A

Face Recognition Terminal

> 7-inch LCD display with resolution of 1024 × 600
> Can hold 100,000 users, 100,000 face images, 100,000 password, 50 administrators, and 300,000 records
> Support face and password unlock and unlock through their combinations



ASI3213G-MW

Face Recognition Access Controller

> 4.3 inch LCD touch screen; resolution 480×272
> With 2 MP wide-angle dual lens, white fill light, IR light
> Support face, card and password unlock; unlock by period
> User data can be stored at the access controller; can hold 1500 face



ITC215-PW6M

Access ANPR Camera

> Embraces deep learning algorithm for accurate recognition of vehicles;
> Built-in LED illuminator for simplified installation
> Motorized vari-focal lens, easy for installation and commissioning



ITC314-PH2A-TF Series

3MP Dual-Lens Parking Space Detector

> 3 MP 1/2.8”inch CMOS, 0.01lux min illumination.
> Dual-Lens design, simultaneously detect up to 6 spaces.
> Indicator supports at least 7 colors.
> Interactive design with parking space indicator.

Key Products



IPC-HFW5541T-AS-PV

5MP WDR IR Bullet WizMind Network Camera

> 1/2.7” 5Megapixel progressive scan CMOS

> ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments

> 20 fps@2592 × 1944, 50/60 fps@1080P (1920 × 1080)



DHI-ELC408

Elevator Control Host

> Manages elevator control for at most 128 floors

> Supports 4 Wiegand RS-485 card readers

> Supports 200,000 cards and 150,000 card swiping records



LS550UEM-EG

55” Full-HD Video Wall Display Unit

> Industrial level IPS LCD panel, suitable for 24/7 operation

> Ultra-narrow 0.88mm bezel-to bezel design

> High contrast ratio and high brightness enhance the video layering, and present the details of the video



SDT5X405-4F-WA

4MP Starlight+ IR WizMind Network Dual-PTZ Camera

> Dual-PTZ system
> 1/1.8" 4Megapixel CMOS
> Powerful 5x optical zoom
> Starlight+ technology
> Max. 25/30fps@4M
> Deep-learning-based auto tracking and perimeter protection



DHI-ASV1001A

10 Inch Dual Screens Visitor Terminal

> Dual screen 10 inch display;

> 2M CMOS camera, support 0~180 degree adjustment;

> USB port, dual Ethernet port supported;



M70-4U-E

Multi-service Video Management Platform

> 19” standard 4U ATCA industry box
> Easy and flexible configuration with pluggable card module design
> 80ch@1080P or 320ch@D1 signal encoding (full configured)

THANKS!

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