Smart Carpark Solution Introduction

Base on the video analysis technology

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Industry Development & Customer Confusion

Industry Development

Guard on Site

Someone is responsible for the distributing ID card, billing and entrance control

Automatic Park

Completely automatic parking, supports immediate access, easy to entry or exit from the parking lot.

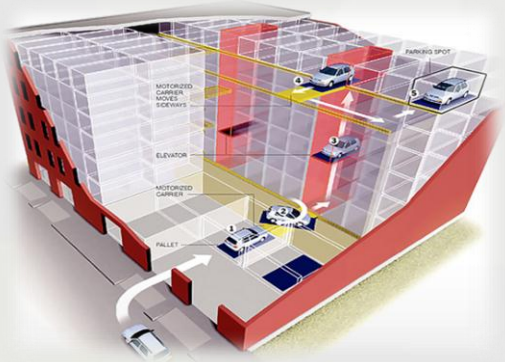
Today

Yesterday

Unattended Operation

Use the modern technique, such as RFID, Bluetooth, Ultrasonic, Video ANPR improve the parking efficiency and make sure the unattended Operation

Tomorrow



Customers Confusion

Entrance & Exit

Low efficiency!

Manual entrance control and payment. Low efficiency.

Parking

How to find available space?

Where are available parking spaces? It becomes a troublesome issue to customers.

Customers Confusion

Locating Vehicle

Where is my car?

Too many cars in the parking lots. How to locate my car? Many customers face the same problem in the parking lot.

Accident

Hard to find evidence!

Accidents and scratches happen in the parking lot. How to trace back the accident process? No video surveillance, no evidence!

Solution Overview

SOLUTION

Dahua smart Carpark solution is based on the video technique. Video analysis, ANPR and other technologies guide the customers to park, locate vehicle and pay quickly and easily.

Entrance Control

Base on the ANPR technique to replace manual entrance control to enhance the efficiency.

Vehicle Locating

Base on the ANPR technique to locate vehicle position through kiosk to display.

Parking Guide

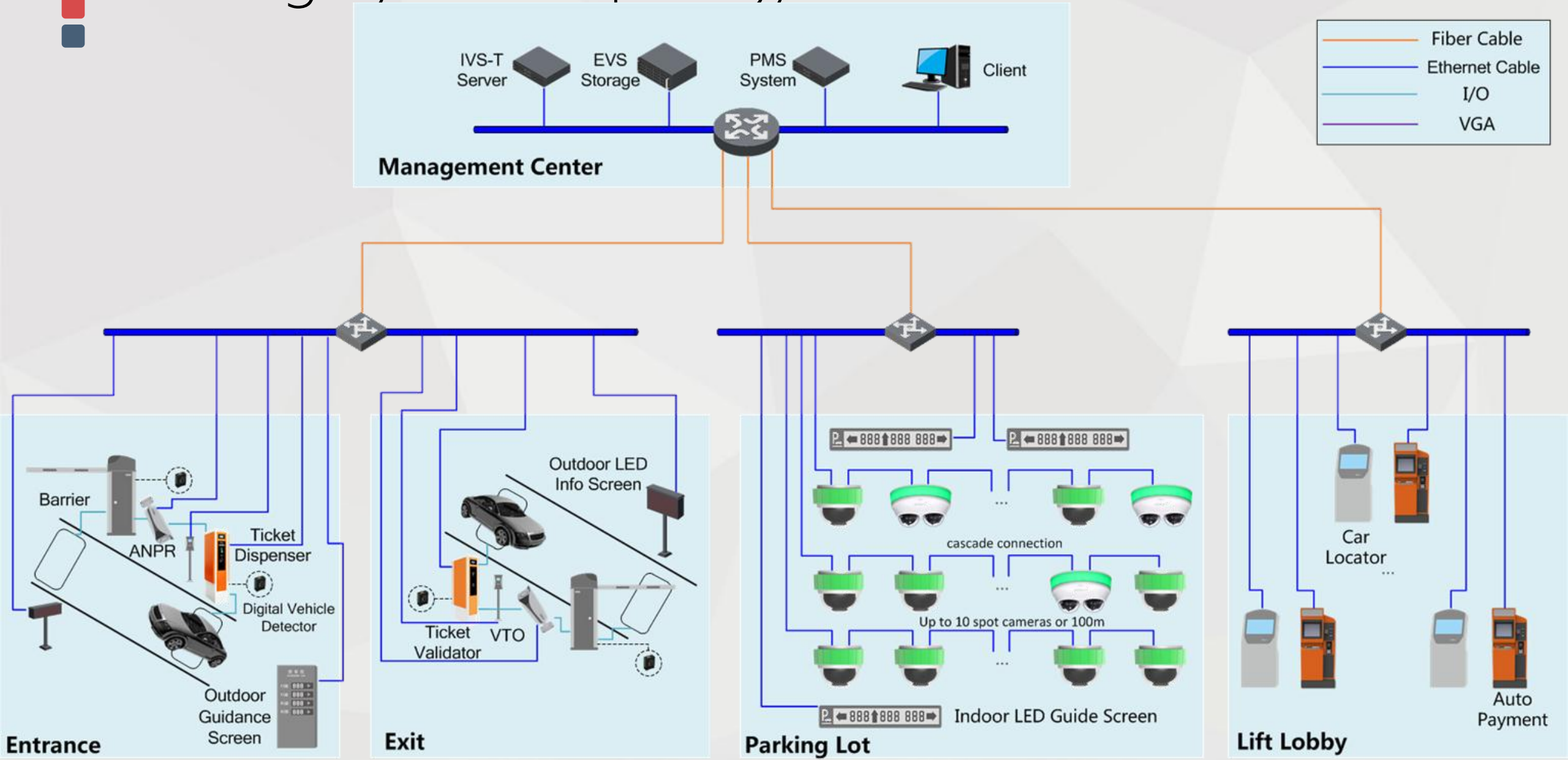
Automatic calculate the number of available parking spaces in each area and show in the screen. Guide driver to find available spaces.

Video Surveillance

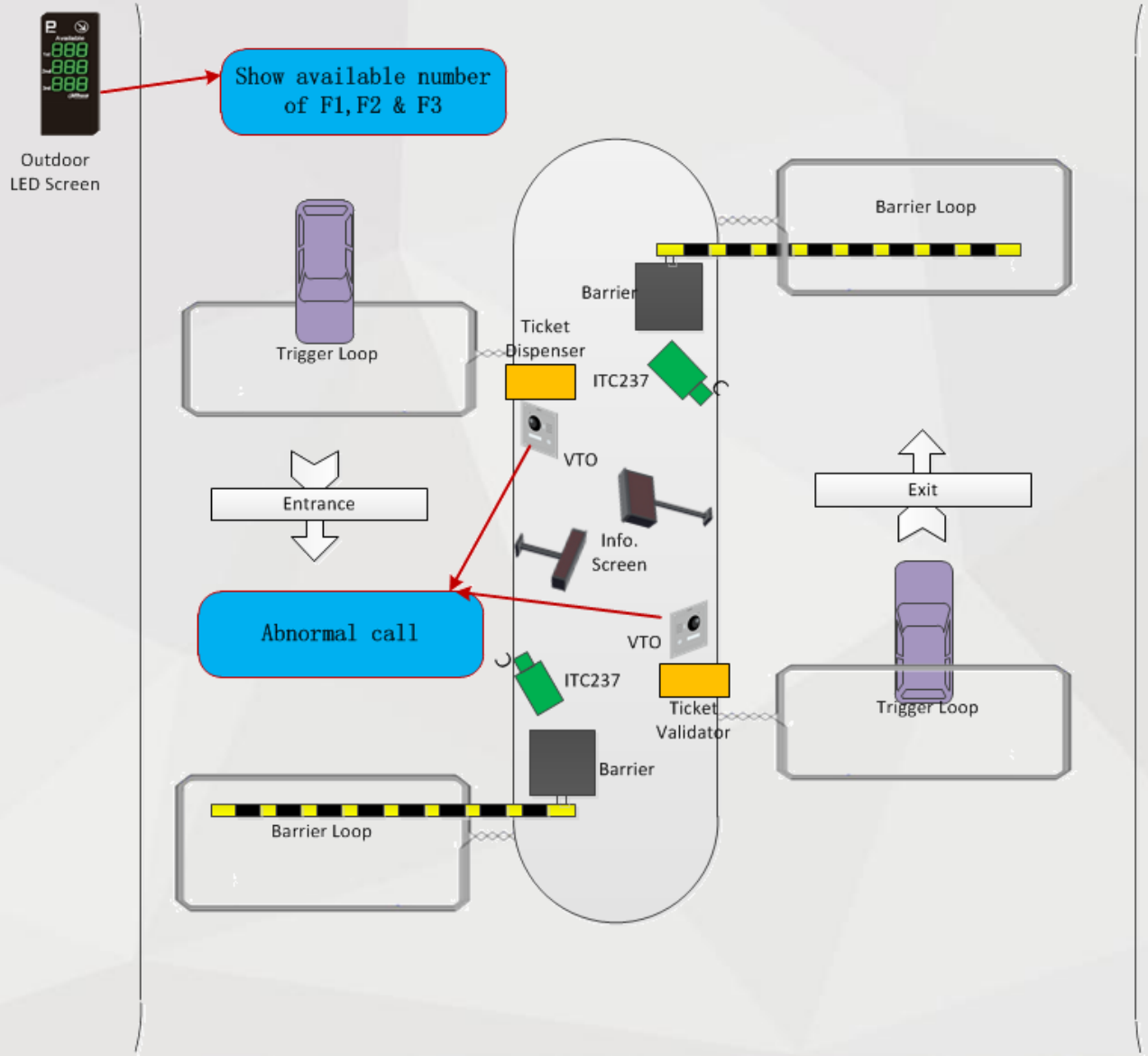
Provide comprehensive video surveillance as evidence whether or not an accident happen.

Dahua Smart Carpark Solution Detail

Parking System Topology

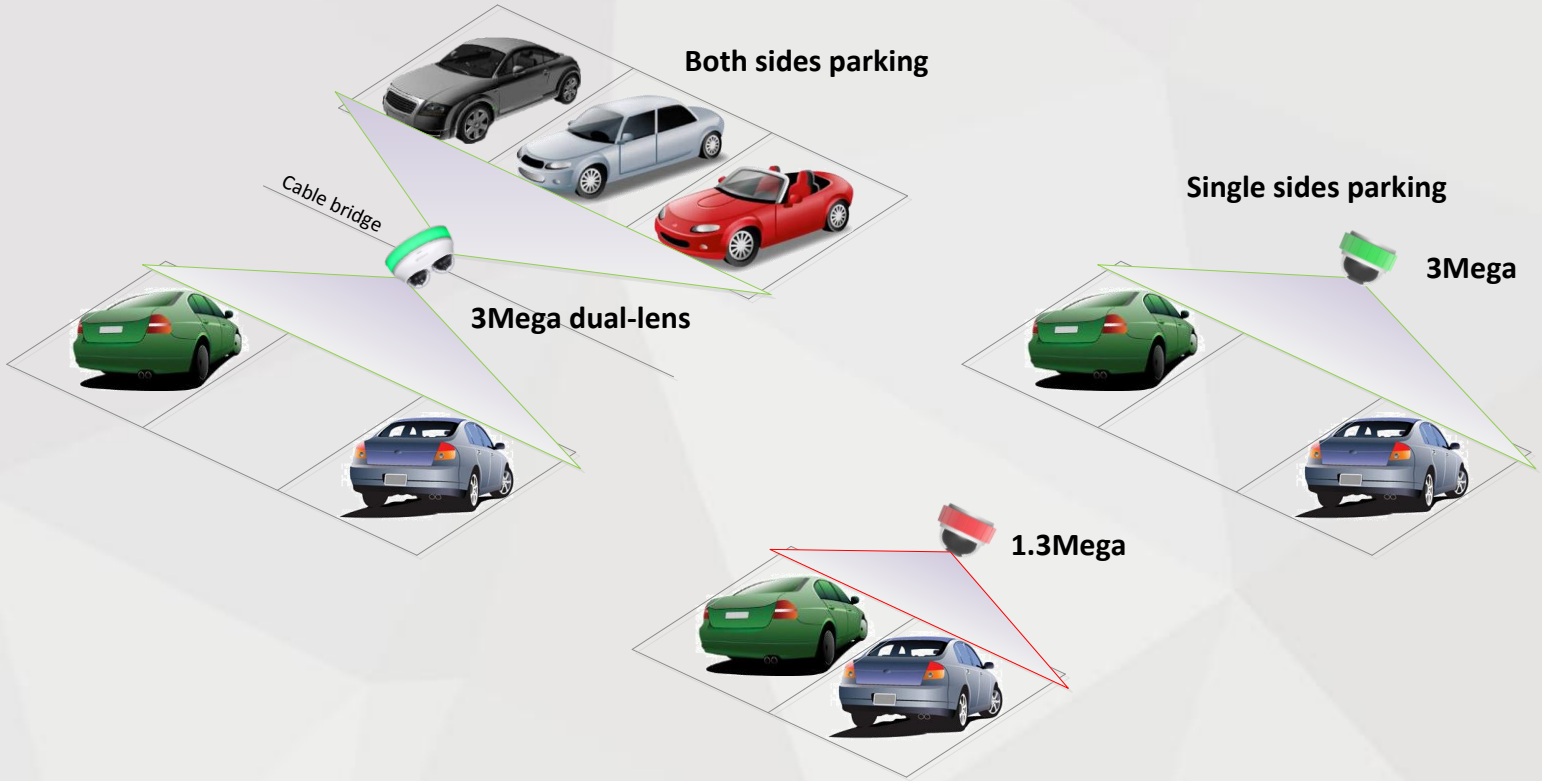


Entrance & Exit Control



- **Auto Ticket Control:** Vehicle entrance controlled by ticket, auto dispense and validate unattended. Save the cost and increase the efficiency
- **ANPR:** Special designed access camera, it can detect and record high-quality license plate image and send them to IVS server
- **Loop Trigger:** loop trigger guarantee 100% capture rate, no car missing. Pure video trigger is also available
- **Outdoor LED Screen:** LED screen could show the available number of every floor
- **Abnormal Holding:** Press VTO button for emergence call once needed

Parking Guidance



Guidance Screen

Show the number of available parking space in each direction, indicate the driver to the available zone.

Spot Detector

Detection camera will tell you if the parking spot is occupied or not. Integrated seven color indication light could show different kinds of parking space and statue

ANPR

License plate is recognized by IVS server and space detector automatically identify the current parking space of the license plate

Reservation & VIP Parking

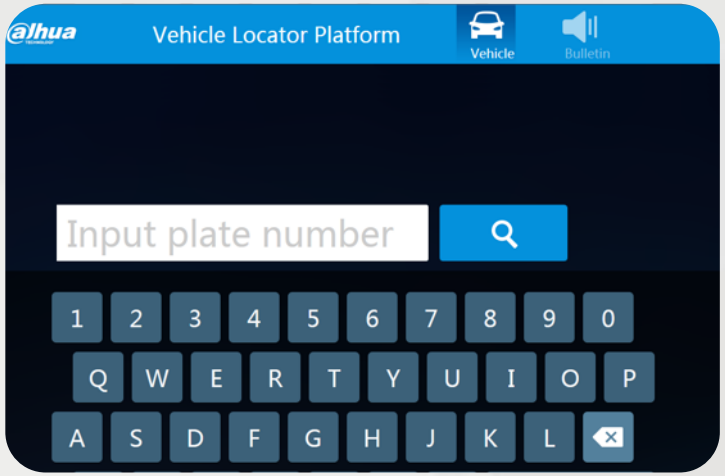
Reservation services

Provide reservation interface or protocol to third-part platform. Customers can reserve a private parking space or choose the nearest parking space to the elevator

Illegal Occupation Warning

If reserved or special parking place is occupied illegally, there would be a warning for the administrator, and real-time video preview could display automatically. The administrator could activate sound-light alarm to the illegal vehicle.

Vehicle Locating



Car Locator

Through touchscreen kiosks positioned at locations

Input Plate Number

Support fuzzy search, simply find your vehicle and provide picture for confirmation

Show the Best Path

Show the best route from kiosk to the vehicle

Self-Service Payment

- **Replace traditional manual operation:** LCD touch screen, touch, good user experience
- **Easy to pay:** Scan the ticket or input the vehicle license number to pay, Improve the experience in the parking system
- **Payment methods:** Cash, Coin. Change is accepted
  A period of time could be set, such as 15/30 minutes, to allow drivers to reach the exit after payment

Control Center

- **Comprehensive Surveillance:** Real-time video, image preview and playback
- **Abnormal Handling:** Response to visitor or emergency call by VTO
- **Remote Management:** Modify the vehicle information remotely. Control the barrier remotely.
- **Information Display:** Space status, Vehicle plate and picture, entry&exit history log, videos, and etc.,

INFORMATION DISPLAY

Including the vehicle picture, license plate number, entry & exit history log, Real-time surveillance video in the platform.

Manual Control

The administrator can control the barrier and modify the status of ANPR when emergency is triggered, put video and related information on the wall.

Solution Highlight

Easy Come, Easy Go

Indicate

Entry

Guidance

Locating & Payment

- Conveniently find available parking spaces
- Quickly locate the vehicle and pay to leave

ANPR

ANPR, High accuracy

Professional IVS server responsible for plate number recognition. High-performance and stable

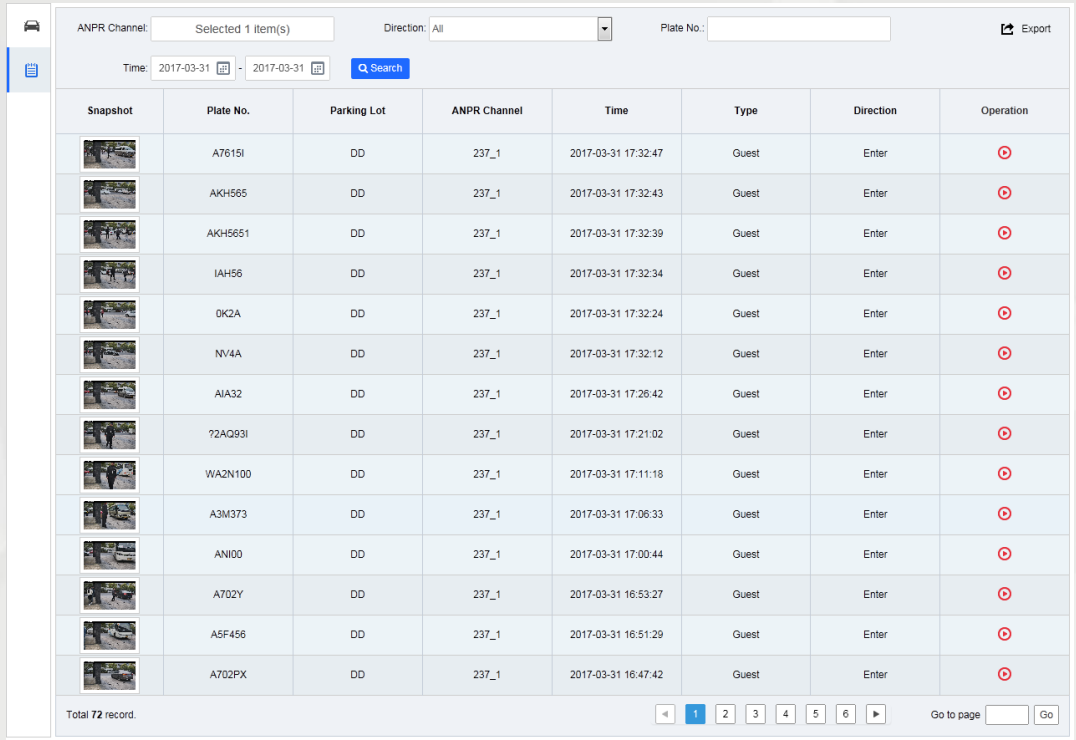
Provide Relative Information

Upload plate number and image info to the software platform. Provide rich parking data

Provide License Plate for Billing

License plate could bind with ticket, it could help when the customers lose their ticket

Comprehensive Surveillance



ANPR Channel: Selected 1 item(s) Direction: All Plate No.: Export

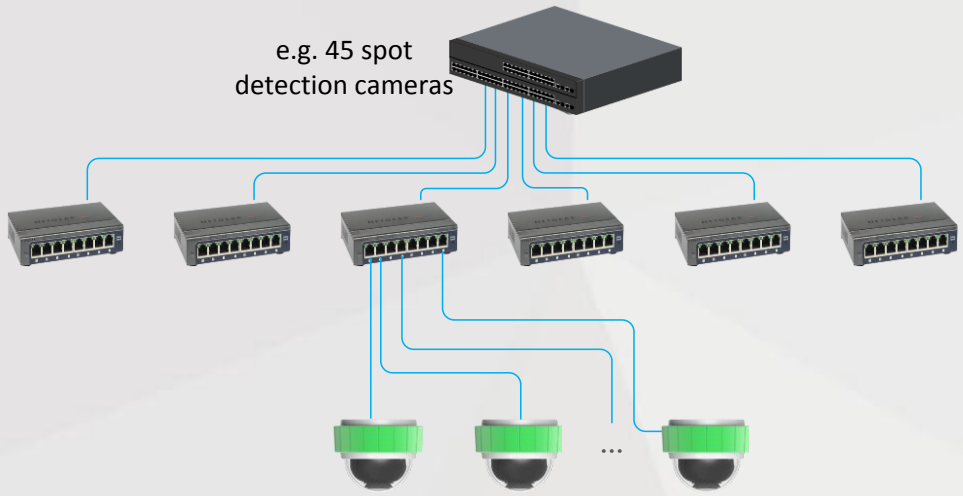
Time: 2017-03-31 - 2017-03-31 Search

Snapshot	Plate No.	Parking Lot	ANPR Channel	Time	Type	Direction	Operation
	A7615I	DD	237_1	2017-03-31 17:32:47	Guest	Enter	
	AKH565	DD	237_1	2017-03-31 17:32:43	Guest	Enter	
	AKH5651	DD	237_1	2017-03-31 17:32:39	Guest	Enter	
	IAH56	DD	237_1	2017-03-31 17:32:34	Guest	Enter	
	0K2A	DD	237_1	2017-03-31 17:32:24	Guest	Enter	
	NV4A	DD	237_1	2017-03-31 17:32:12	Guest	Enter	
	AIA32	DD	237_1	2017-03-31 17:26:42	Guest	Enter	
	?2AQ93I	DD	237_1	2017-03-31 17:21:02	Guest	Enter	
	WA2N100	DD	237_1	2017-03-31 17:11:18	Guest	Enter	
	A3M373	DD	237_1	2017-03-31 17:06:33	Guest	Enter	
	ANI00	DD	237_1	2017-03-31 17:00:44	Guest	Enter	
	A702Y	DD	237_1	2017-03-31 16:53:27	Guest	Enter	
	A5F456	DD	237_1	2017-03-31 16:51:29	Guest	Enter	
	A702PX	DD	237_1	2017-03-31 16:47:42	Guest	Enter	

Total 72 record. 1 2 3 4 5 6 Go to page Go

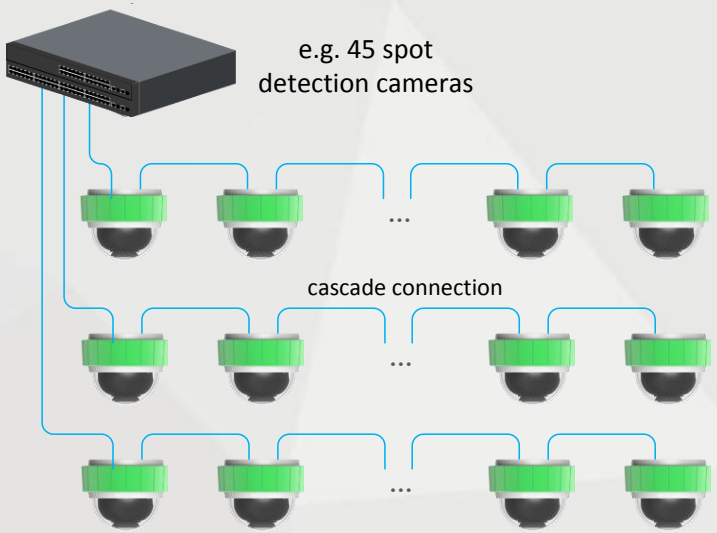
- Offers 24×7 surveillance features using the Access Camera and Space Detector.
- Search the video and image by date/time/license plate number from the storage.

Easy Deployment & Cost Down



Traditional way

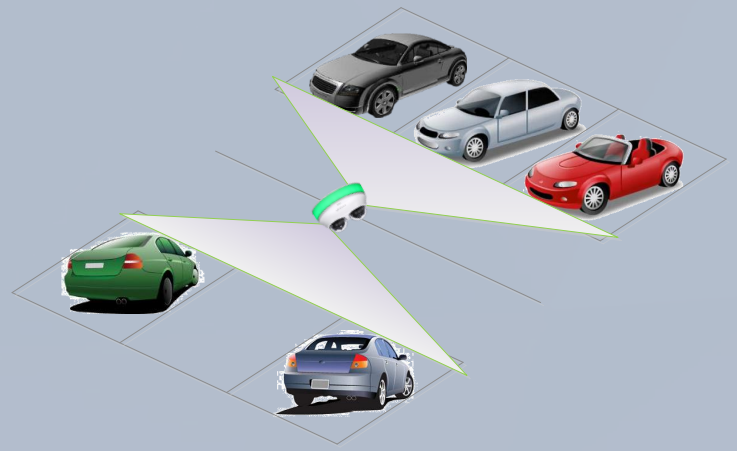
VS



Innovative way

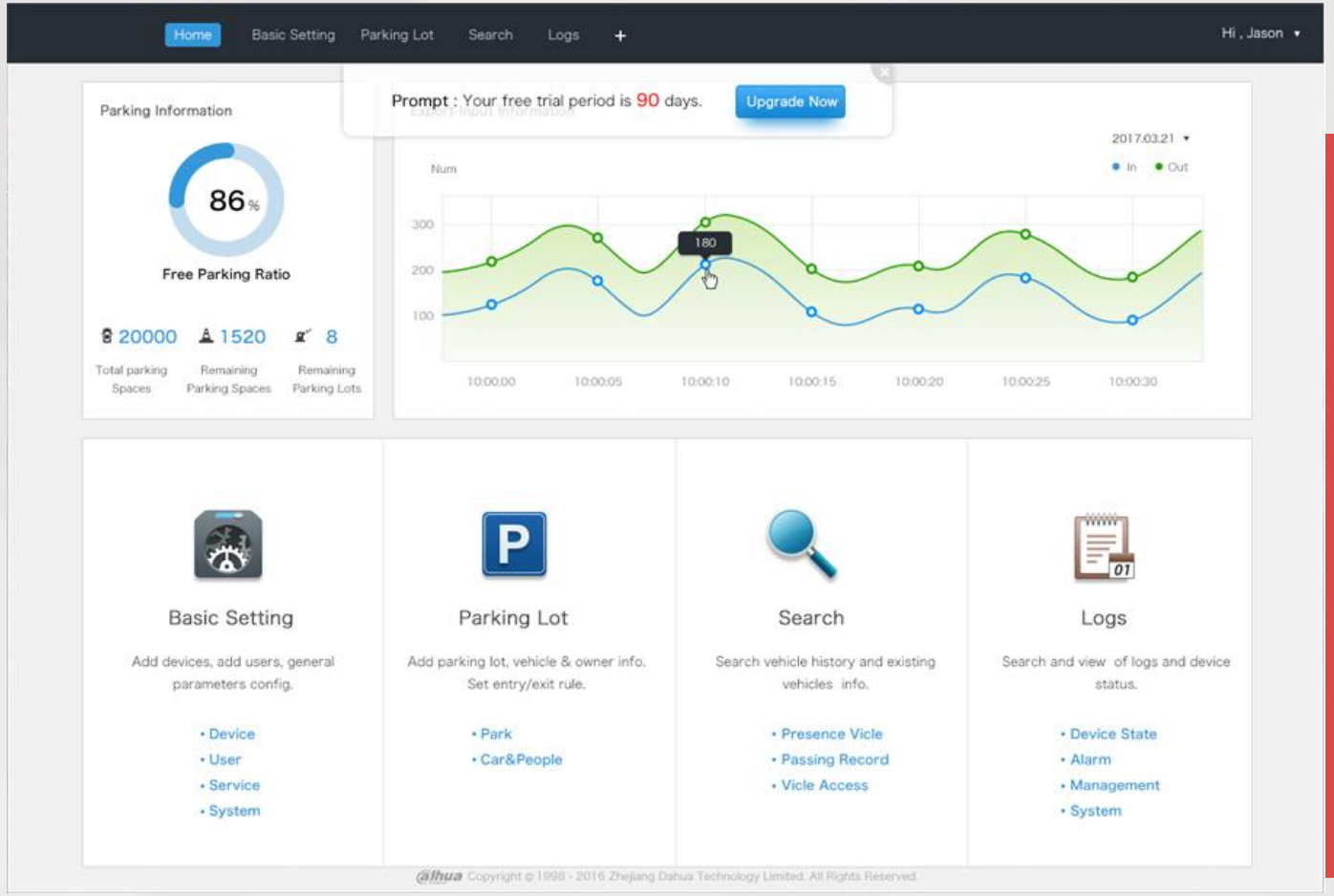
Simplify Deployment & Cost Down

- Reduce UTP cable deployment and cost (83%)
- Reduce the quantities of switches
- Reduce the cost of cable bridge (63%)



Cover more spots

Professional parking management platform



- **Easy-To-Use Platform:** Special design for parking management. Visual interface and operation.
- **Devices Status:** visually display the status of the device in the map.
- **Smart Search:** Search the video and image by date/time/license plate.
- **Parking Log:** Rich parking, entry and exit history log, including vehicle picture, license plate, parking spaces, time information and etc..

Related Products

Access Camera

ITC237-PW1B-IRZ

Ideal distance for ANPR: 3~8m, 1 lane width

- 1/2.8” 2Megapixel Exmor R CMOS
- H.265, Duel video streams
- Short range(PW1B): 2.7-12mm motorized;
- Interface PW1B: alarm in/out: 2/1
- Video & loop detection, video analysis less than 40kmh
- ANPR Snapshot: plate cutout, overview image
- White list inside to control barrier, 10000 lists.
- DC 12V , POE, <12W

Barrier

IPMECD-2012AL(Straight-arm)

- Speed: 3 second
- Straight-arm: less than 4m
- Control way: Manual button, hand movement when power is off
- Interface: 1 I/O for open, 1 IO for close, 1 IO for stop,1 RS485
- Automatic falling: Support, 1 ch loop and 1 ch IR detection
- Anti Hit

Ticket dispenser

TD81
Ticket dispenser for entrance

- Using thermal paper, economic and environmental
- Easy maintenance, large size paper roll maximum to 260mm with 7500 copies continuation dispensed tickets, particularly suitable for large volume of the parking lot;
- Works online and offline with management system
- Support vehicle detection with loop
- Working voltage: DC24V/AC110V 60Hz/AC220V 50Hz

Ticket validator

EV91
Ticket validator for exit

- Read the ticket and recycle bills
- Works online and offline with management system
- Support vehicle detection with loop
- Working voltage: DC24V/AC110V 60Hz/AC220V 50Hz

Spot Detection Camera

ITC314-PH1B Series
3 Megapixel Parking Spot Detector

- 3 Mega Pixel 1/3”inch CMOS, 0.01lux min illumination.
- Simultaneously detect 3 spaces.
- Indicator supports at least 7 colors.
- Interactive design with parking space indicator.
- In-ceiling installation.
- Unique dual-streaming insure high quality photo output and video output.

ITC314-PH1A Series
3 Megapixel Dual-Lens Parking Spot Detector

- 3Mega 1/3”inch CMOS, 0.01lux min illumination.
- Dual-Lens design, simultaneously detect 6 spaces.
- Indicator supports at least 7 colors.
- Interactive design with parking space indicator.
- In-ceiling installation.
- Support dual stream output of JPEG and H.264, 1~10fps adjustable.

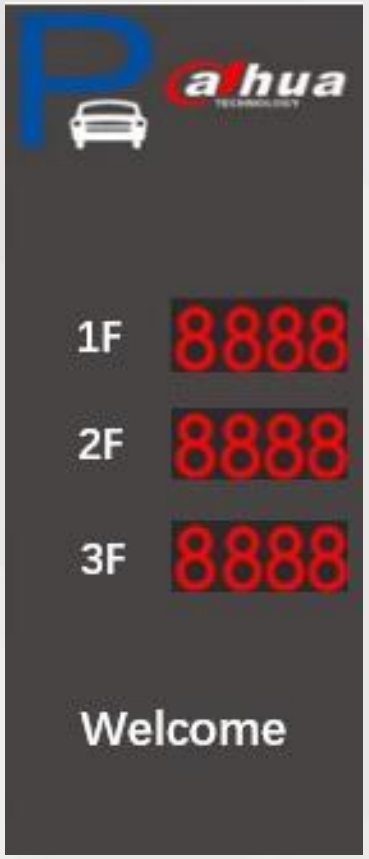
Indoor LED Screen

DHI-IPMPGI Series Indoor LED Screen

The DHI-IPMPGI indoor LED screen series product is used in the indoor parking area. Guide the vehicle to find the available parking space quickly and improve the parking efficiency.

- Providing three directions of arrow indication.
- Red/Yellow/Green tricolor display.
- Up to 3 arrows & 9 digits number display.
- 1 RS485 port and 100Mb Ethernet port.
- Providing SDK Tool for third-party management platform integration.
- Meet the ROHS and CE certifications.

Outdoor LED Screen



DHI-IPMPGI Series Outdoor LED Screen

The DHI-IPMPGI outdoor LED screen series product is used in the entrance of the parking lot, or installed on the road to guide the vehicle finds the available parking lot quickly.

- Providing six layers LED display.
- Red/Yellow/Green tricolor display.
- Modular design, easy to maintain.
- 1 RS485 port and 100Mb Ethernet port.
- Providing SDK Tool for third-party management platform integration.
- Meet the ROHS and CE certifications.

Car Locator

DHI-IPMPGS-200A

Base on the ANPR technology to locating vehicle position through kiosk show the best path from kiosk to the vehicle.

- 19 inch touch screen
- Support locating the vehicle position within plate number.
- Show the location of vehicle and route from kiosk to destination in map

Auto Payment

Auto Payment Machine

- 19 inch touch screen
- Scan the bar code ticket
- Accept coin and cash, support change
- Print receipt
- Power: AC110V 60Hz/ AC220V 50Hz

Parking Management System

PMS

Special designed for parking management

- Special designed for parking management
- Simple deployment, one-key upgrade
- Safe and stable, high reliable
- Open system, good compatibility
- Distribution and deployment, easy expansion
- Hot standby, high innovation
- Power performance, economical choice

Successful Case

Jiantao Commercial Plaza of Shanghai

Project Requirement

- Large commercial & complex square including residential, retail and hotel
- Video recognition making non-stopping for entry & exit
- Parking guidance and Reverse Search
- Auto payment & parking fee management

Project Scale

- 2000 Parking Spaces, 750 Detection Camera
- 8 ANPR Camera /110 Guidance Screen/17 Kiosks
- Management central

Macalline Plaza in Guiyang

Project Requirement

- Video recognition making non- stopping for entry & exit
- Visualization of parking guidanc6e and find car
- Unified management

Project Overview

The first “Double MALL" urban commercial project in Guiyang, promote the efficiency of access or exit

- 3000 Parking lots/1020 Detection Camera/ 5 kiosk
- 6 ANPR camera,80 Guidance Screen
- 350 CCTV Camera

Make Your Life Safer

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