

# INTELLIGENT CAR PARK MANAGEMENT SOLUTION CREATING INNOVATIVE, SECURE, AND EFFICIENT

PARKING WITH VIDEO PROTECTION



## WITH HIKVISION AS YOUR INTEGRATION PARTNER, YOU WILL STAND ON A SOLID FOUNDATION.

#### RAPID GROWTH

Hikvision is the world's leading supplier of video surveillance products and solutions, featuring the industry's strongest R&D workforce and state-of-the-art manufacturing facilities. Since 2001, Hikvision has grown from being a single-product supplier to a complete solution provider to a global market leader. Now, Hikvision has established one of the most extensive marketing networks in the industry, comprising 59 international subsidiaries and branches throughout the world, ensuring quick responses to the needs of customers, users and partners.



#### **FUTURE INNOVATION**

Hikvision's Research Institute conducts innovative research and development to keep us at the forefront of technology.

- Research topics include: Perceptive Technology, Intelligent Analysis Technology, Big Data and Cloud Storage Technology, and Multimedia Technology.
- Sophisticated experience in video target detection, image segmentation, video structuring and video retrieval.
- Introduced the AI Cloud structure that combines cloud and edge computing



## **Over 9%**Of annual revenue invested in R&D



Research Institutes
Hangzhou, China
Shanghai, China



10 R&D Centers Montreal, Canada London, UK



Almost 1/2 of our employees are R&D Engineers in the security industry



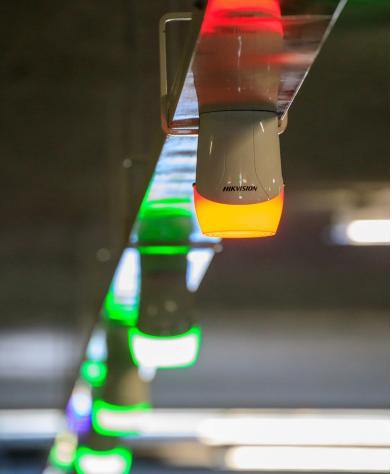
**4,000+ patents** (over 1,200 added in 2019 alone)

Car park operators and drivers have one thing in common: they want parking operations to be easy, secure, and efficient. However, in practice it can be tricky to find a free space after entering a car park. As many drivers will know, this is very frustrating!

Hikvision offers a way to guide drivers to a free space quickly, with products that can be easily combined and integrated for a simple and efficient solution. Streamlining parking, both at a entrances/exits and through the car park, makes operations much more efficient, speeding up the process and potentially freeing up spaces more quickly for further occupation. This means maximizing profits on spaces. It also provides extra layers of security, giving peace of mind to drivers and operators alike.

There's a wide range of options to cater for the requirements of any modern car park.









## **BENEFITS**

#### FREE SPACE INDICATOR



Parking Guidance Cameras detects a vehicle in a space and shows its availability status automatically by colored lights, so drivers can easily see where to park. For example, it turns red for occupied and green for free. Different colors can also be used to categorize spaces, for instance for disabled parking.

#### FREE SPACE COUNT



The number of available spaces can be displayed, for example at the entrance to a car park on an LED Display. This uses count information using ANPR data from entrance/exit cameras or Parking Guidance Cameras, and updates immediately when a space fills, or becomes free. It informs a driver right from the start if there's space inside the car park.

#### SEARCH VIDEO BY TIME



Operators can search the Parking Guidance Camera footage via the Parking Control Panel by time, to see activity in the car park, if there's an incident. So, if something happens at a particular time, an operator can see if there were any alerts at that time, and investigate.

### SEARCH VIDEO BY LICENSE PLATE



Operators can search for license plates in the HikCentral VMS using ANPR data from the Parking Guidance Camera, increasing security and providing a useful feature if an incident occurs. For example, a 'hit and run' accident could be investigated. This data is also used by a Parking Inquiry Machine (see below).

#### ACCESS CONTROL BARRIER BY LICENSE PLATE



Controlling access to the garage with an Access Control Barrier Gate means only vehicles registered, or paid, can enter, increasing efficiency. A Capture Trigger Radar registers a vehicle as it enters, using ANPR, and raises the barrier if the vehicle is 'cleared'. This reduces human resources, since there's no need for a guard on the entrance, for example. It can also be configured to calculate a fee based on parking time as a car goes in and out.

## **VEHICLE LOCATOR**



Parking Inquiry Machines can be placed at pedestrian entrances to the garage so drivers can find their car if they forget where they parked. They only need to enter their license plate number, and they can see the space, and directions to it, on a map on the screen. The machine picks up their license plate number from the ANPR data through the Parking Guidance Camera, coordinated by HikCentral.

#### PARKING DATA ANALYTICS

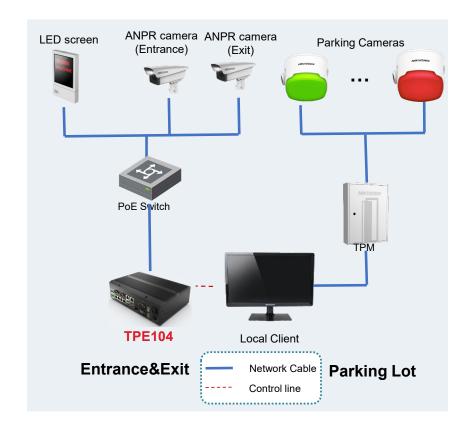


Operators can maximize their efficiency, and returns, using management statistics from the system, like detailed entry and exit records indicating occupancy. HikCentral Enterprise VMS is a powerful tool to make this intuitive and can provide a wealth of information in reports to help business decision making.

## **SOLUTION OPTIONS**

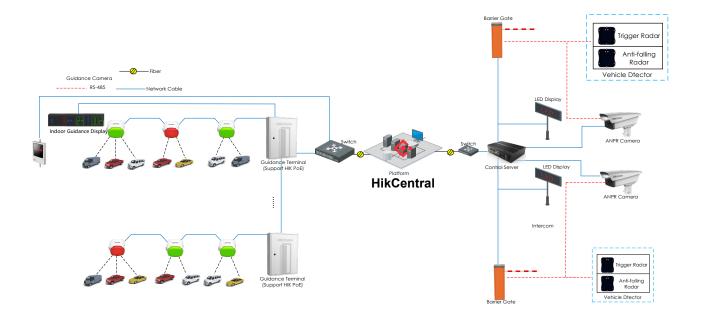
### **PARKSMARTER**

Simple, secure and efficient parking solution for garages with one entrance/exit.



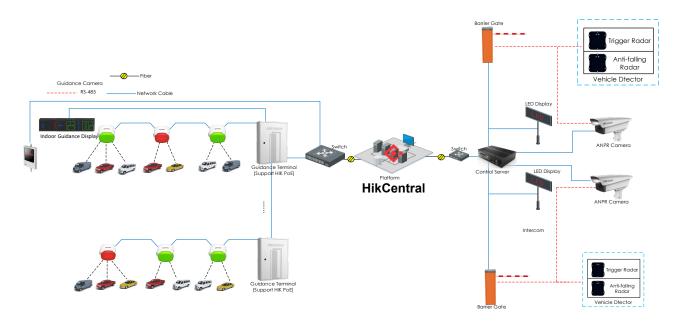
## PARKSMARTER PLUS

Adds more guidance and security to ParkSmarter – for garages with multiple entrances/exits.



## PARKSMARTER PREMIUM

Adds further guidance features to ParkSmarter and more management tools - for garages with multiple entrances/exits.



## **SYNOPSIS**

	ParkSmarter	ParkSmarter Plus	ParkSmarter Premium
Free space indicator	•	•	•
Free space count	•	•	•
Search video by time	•	•	•
Search video by license plate		•	•
Access control barrier by license plate		•	•
Vehicle locator			•
Parking data analytics			•

## PRODUCT SHOWCASE



#### **ANPR Unit**

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



#### E&E Outdoor LED Display

- Four lines of text, LED outdoor Display
- Integrates with speaker
- LED Brightness: 1,200 cd
- Colours: Red, yellow, green
- Pixel Resolution: 64 x 64
- Dot Pitch: P4.75
- Dimensions: 364 x 484 x 60mm



#### Control Terminal

- 4 Channels of lane access
- 4 x 10/100 Mbps Ethernet ports, 2 x 1000 Mbps Ethernet ports, dual NICs
- •2 x RS485 ports, 3 x RS232 ports
- 4 x Relay ports support barrier / gate control
- •1 x audio output
- 2TB HDD included



#### **Barrier Gate**

- Entrance, HDD not included
- Supports chat, no card output, support LED audio remind
- Supports charging and accepting car when system offline



#### Capture Trigger Radar

- 79GHZ MMIC
- maximum trigger distance : 6m
- Beam width: Vertical 34°, Horizontal 12°
- Adjustable Detection Range
- Distinguish the vehicle from pedestrian and only capture vehicle



#### Anti-fall Radar

- 79GHZ MMIC
- maximum trigger distance : 6m
- Beam width: Vertical 12°, Horizontal 34°
- Adjustable Detection Range
- Avoid fall accidents of both vehicles and pedestrians



#### Guidance Camera

- 4 MP camera, single/dual lens options
- detection of the parking space status and ANPR
- smart analysis of over line, motion detection
- Integrated with indicator light, up to 7 color can be configured
- Covers 1 6 parking bays
- Angle adjustment, 0° to 30°
- Hikvision POE cabling, IP 54



#### Guidance Terminal

- Accesses up to 32 Guidance Cameras
- Integrates power supply, cabinet, indoor screen, kiosk and switch
- Wall-mounted design provides flexible camera access
- Video and image storage for up to 32 guidance cameras, 6 HDD bays



#### Platform-HikCentral All in one server



#### POE Switch

- HikCentral-P-VSS-Base/HW/300Ch
- HikCentral-P-EntranceExit-Module
- HikCentral-P-ANPR

- L2 unmanaged, 10/100M RJ45 PoE
- 1x 10/100M RJ45 uplink port
- 802.3af/at, PoE power budget.
- 300m long distance transmission
- 6KV surge protection



#### Indoor Guidance Display

- Indoor one, two, or three-direction indicator
- Single-colour display
- Supports RS-485 and Network Transmission

## **SUCCESS STORIES**

## AC HOTEL BY MARRIOTT INNSBRUCK

In Austria used a Hikvision Parking Guidance Solution help their customer to find a space easily.





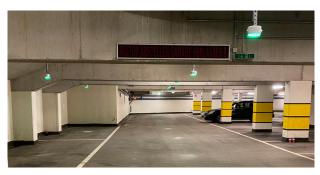




## **CUSTOMERS OF SKI RESORT HINTERTUX GLACIER**

In Austria, find spaces easily with the help of a Hikvision Parking Guidance System.









#### INTELLIGENT CAR PARK MANAGEMENT SOLUTION

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