

HIKVISION



E&E MANAGEMENT SOLUTION

FOR PROFESSIONAL

International Product and Solution Center

CONTENT



Solution Background



Solution Clarification



Solution Scenarios

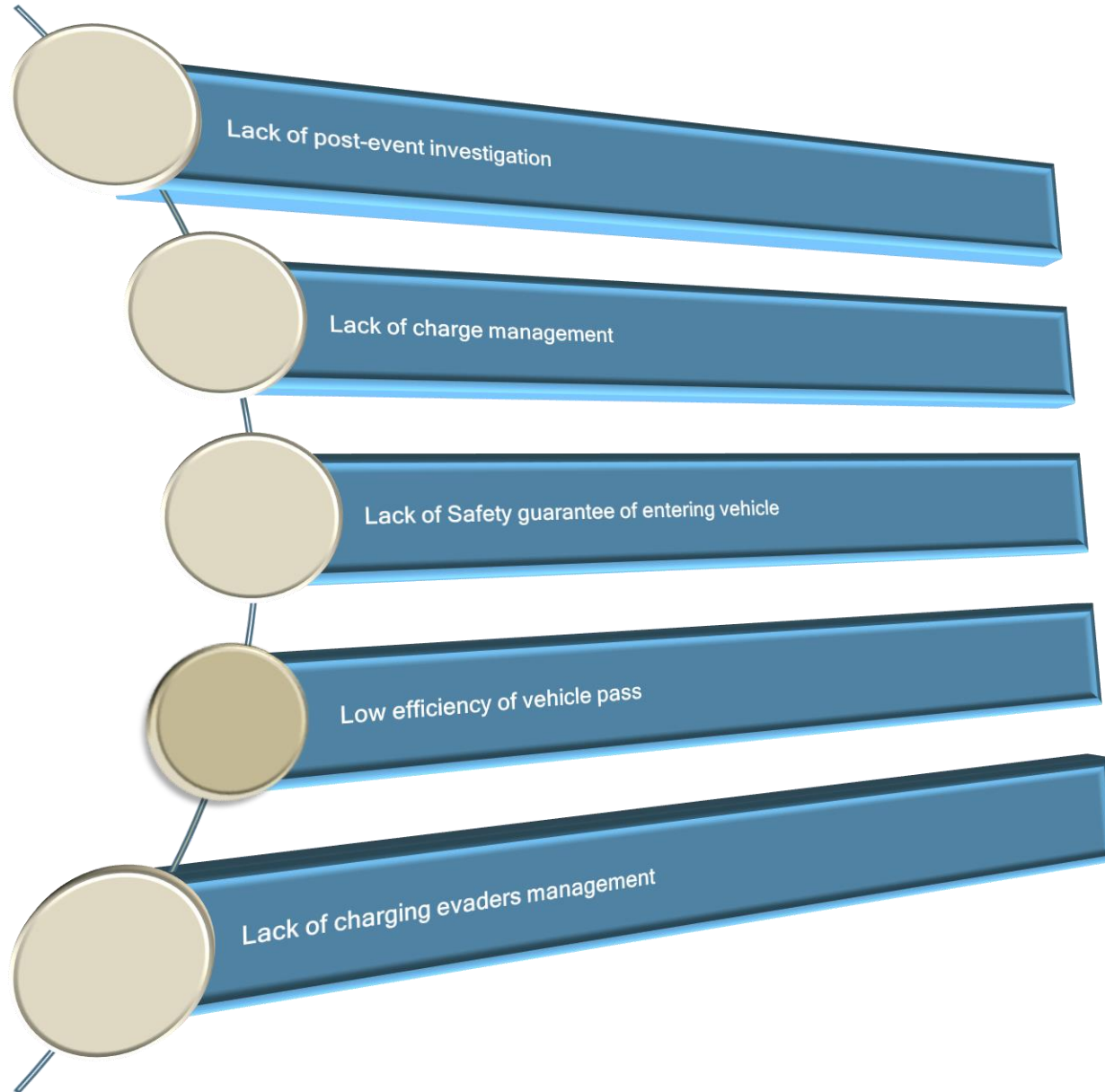


Product Showcase

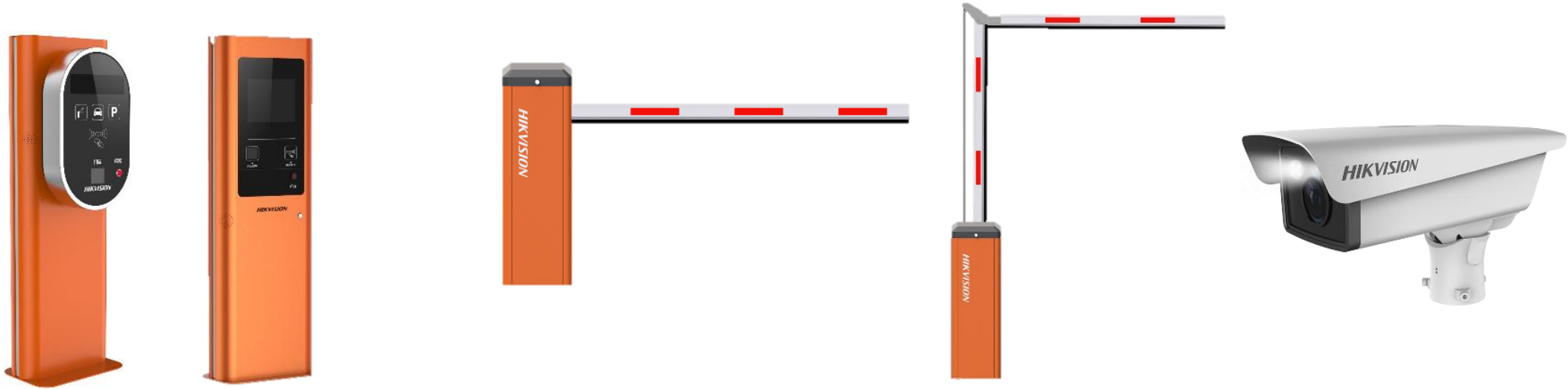


Successful Cases

Pain Points



E&E Management Solution for handling



- Reducing administrative effort at the entrance & exit
- Non-stop passing the barrier with the authorization via ANPR
- Capturing reliable, high-definition evidence for post-event investigation
- Guaranteeing 100% accuracy of access credentials via ticket controller
- Calculating payment results automatically by various modes and multi-rules
- Dealing with tailgating situation effectively

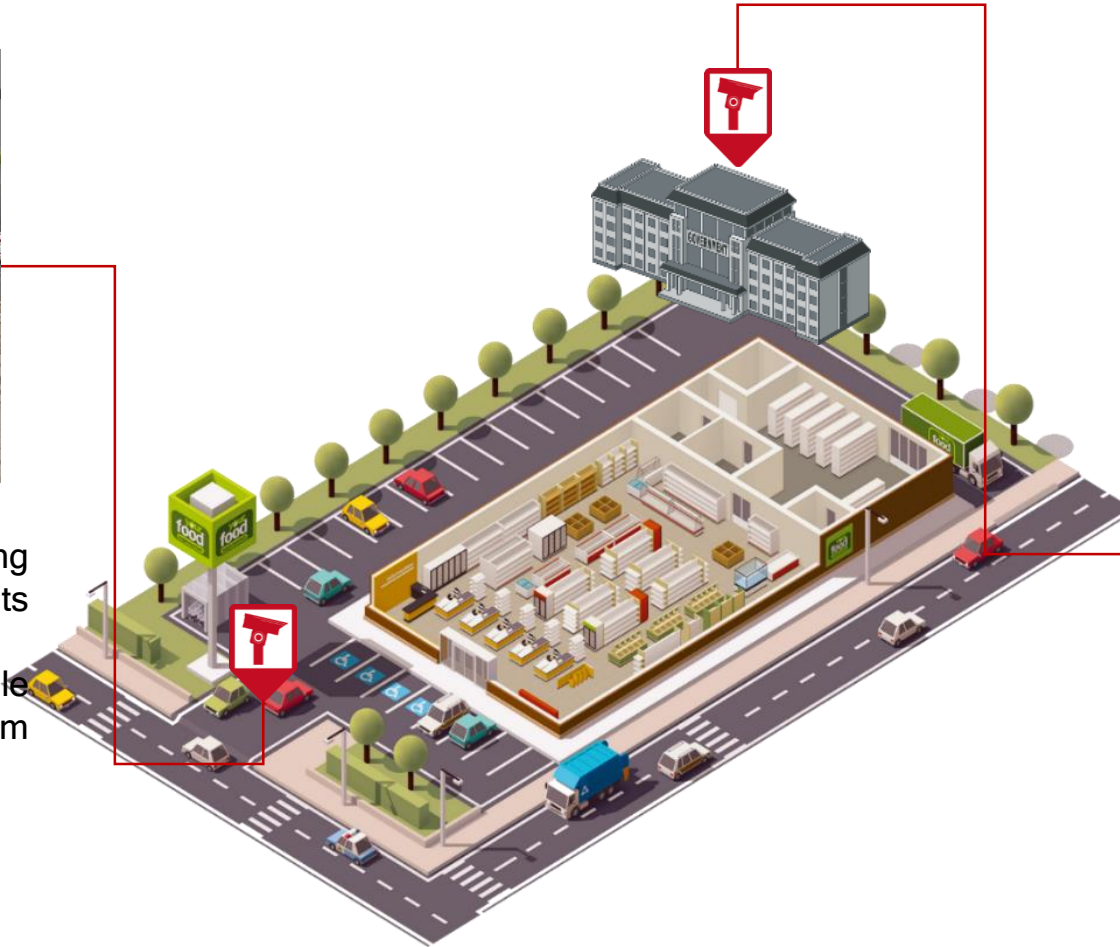
E&E Management Solution for handling



Entrance& Exit

Guarantee operation status running stably and smoothly, and billing results reliable.

VIP vehicles auto passing, while vehicles in blacklist triggering alarm immediately to management center.



Management Center

Efficient and flexible management of customer's vehicle and parking lots resource;

Quick location of a specific vehicle's parking event from historical mass data for post event investigation.

CONTENT



Solution Background



Solution Clarification



Solution Scenarios

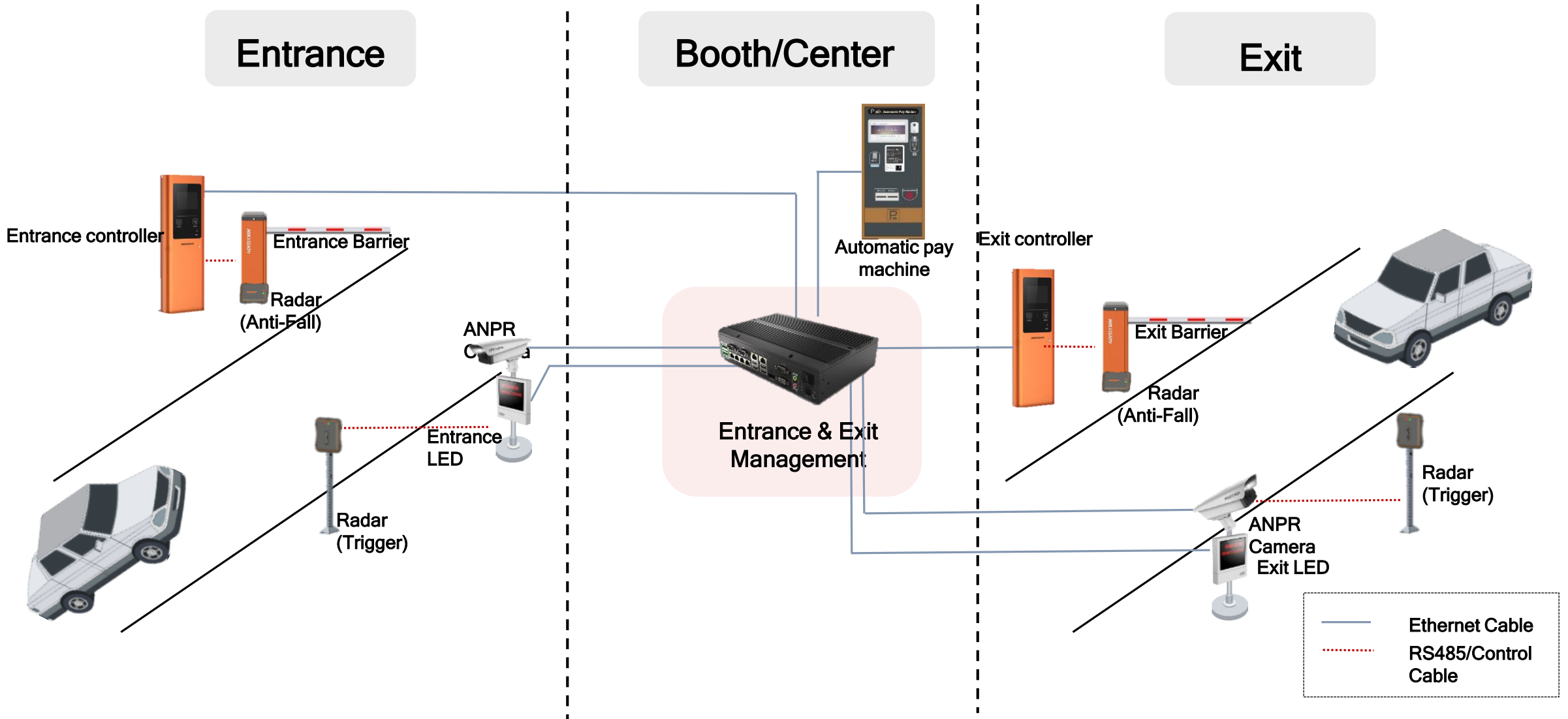


Product Showcase



Successful Cases

Solution Achitecture -- E&E Solution

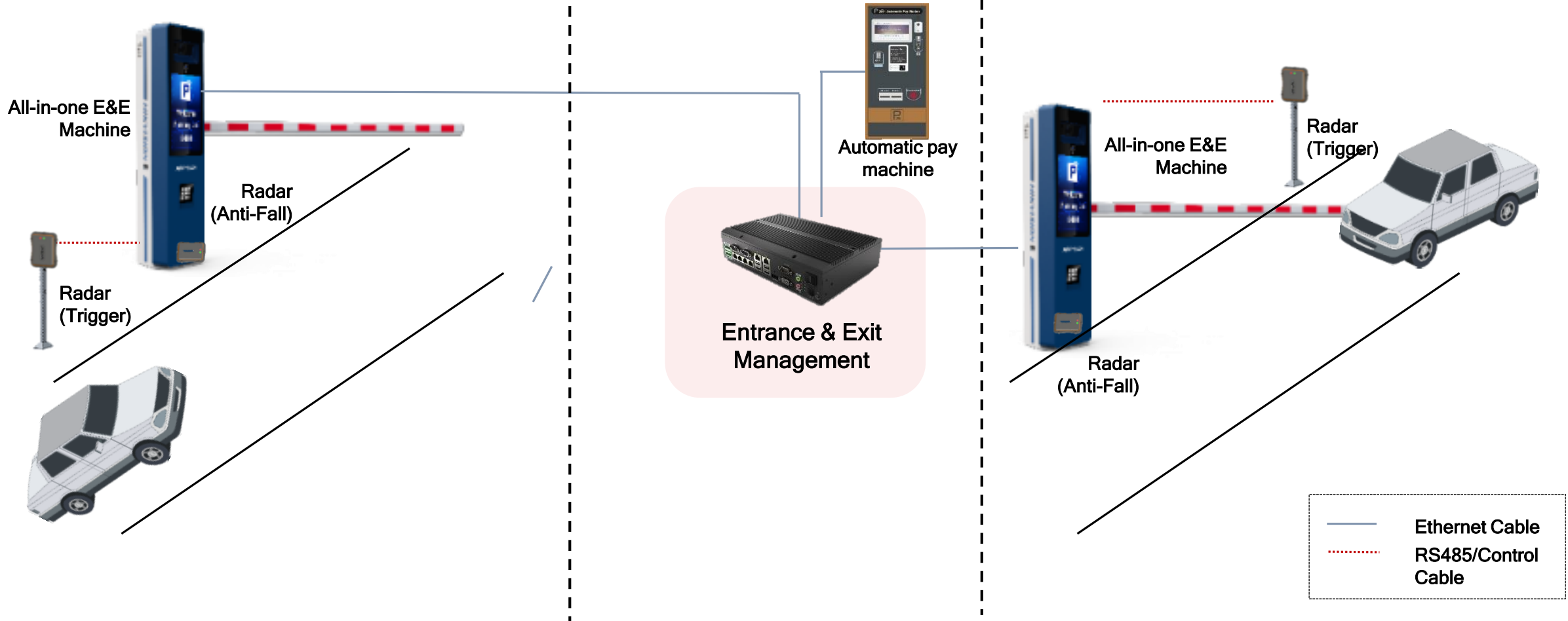


Solution Achitecture -- E&E Solution

Entrance

Booth/Center

Exit



E&E Management Solution Applications

ANPR, Access Management , Monitoring

- Detects approaching vehicle with radar & video , and recognize the vehicle plate with video
- Built-in AI License Plate Recognition algorithm based on video
- Blacklist/Whitelist configuration and comparison in the camera
- Available number is counted by software and displayed on the outdoor screen
- Dark Fighter and True WDR technologies



E&E Management Solution Applications

Control Terminal, standalone/integrated model

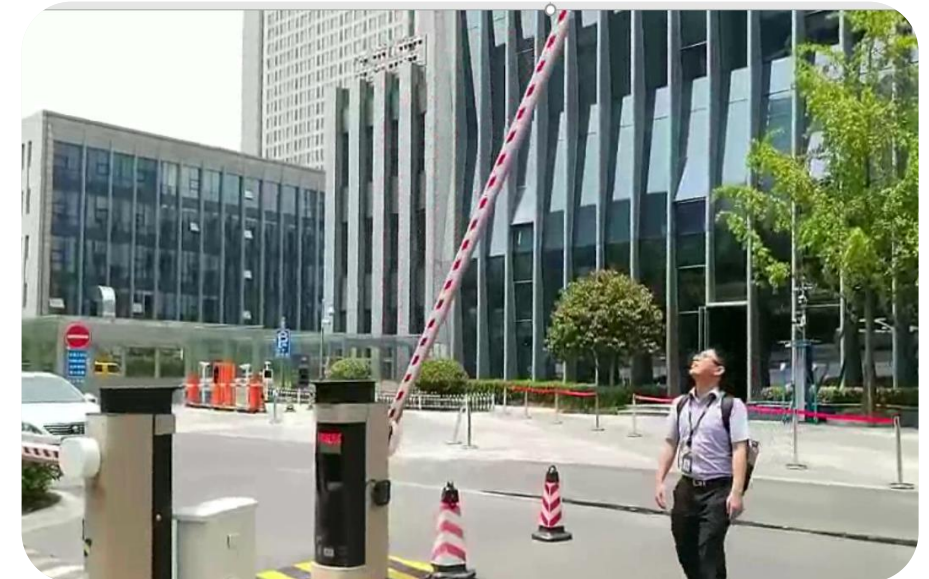
A comprehensive system, dedicated entrance control terminal with rich interfaces to connect external devices, ideal for a mid-large sized location with video surveillance, management, reporting and multi-sites deployment. Customization is available to meet more business requirements.



E&E Management Solution Applications

Barrier Trigger Radar & Anti-Fall Radar

- Easier installation and maintenance - No pavement removal required for the sensing coil
- Extra Safety - Both vehicles and pedestrians benefit from protection
- Robust Design - Free from environmental influences including light, dust, rain and snow
- Trigger radar detects approaching vehicle and triggers ANPR and barrier
- Safety sensor ensures the barrier remains open when passageway is not clear
- Support filter pedestrian from the vehicles



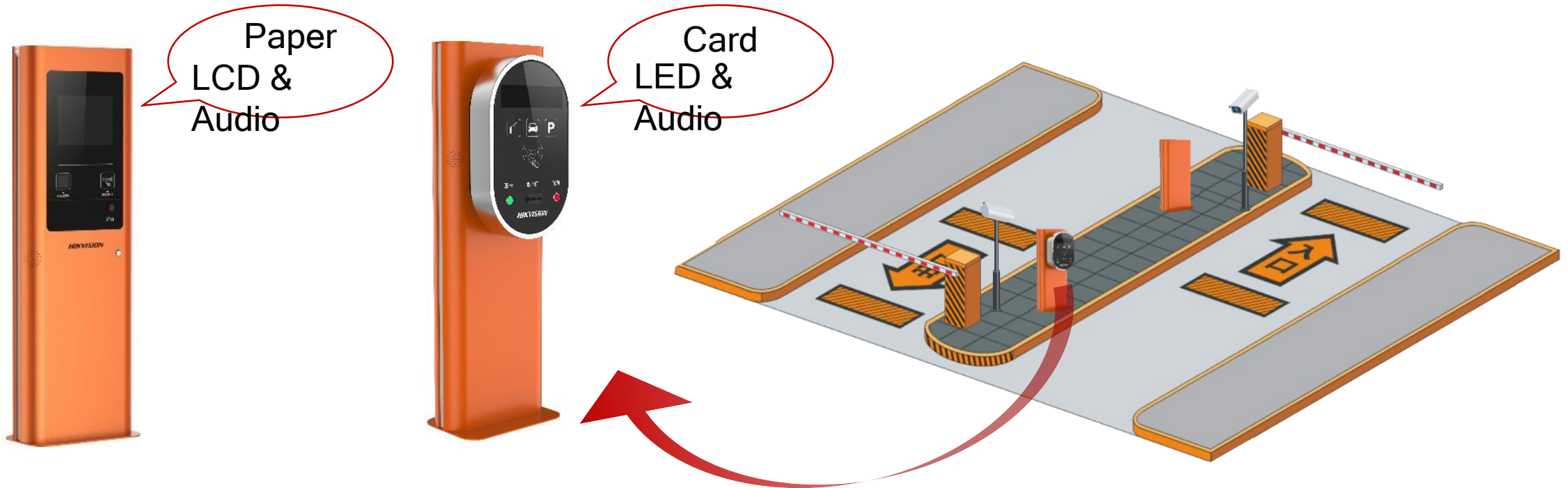
E&E Management Solution Applications



Outdoor LED Display Panel Integration

- By integrating an LED display panel at the entrance, all available parking resources and information can be easily displayed for customers
- Show the vehicle plate recognition result for drivers , to indicate driver related information when barrier doesn't open and help driver to acknowledge the vehicle plate and parking fee clearly

E&E Management Solution Applications



Distributed Cards or Paper Tickets / Two-way Audio Barrier Helper/ Display Panel

- Appropriate for the specific scenarios like temporary vehicles account for the majority
- Stops card dispatch automatically when there is no available parking space to control and manage the vehicle number
- Flexible management strategies for vehicle entering and exiting such as card or paper ticket as evidence to satisfy the requirements in different situations.
- Two-way audio communication to register for barrier gate open.

E&E Management Solution Applications

Manual Charge Management -- Flexible and configurable payment rules

◆ Payment rule examples for temporary parking at tollbooth :

Parking Rates	Parking Rates	Parking Rates	Parking Rates	Free Parking	Parking Rates	Parking Rates																																																						
No charge for first 30 minutes.	No charge for first 30 minutes.	No charge for first 30 minutes.	No charge for first 30 minutes.	This rule is for free parking.		No charge for first 30 minutes.																																																						
<table border="1"><thead><tr><th>Parking Time</th><th>Rate</th></tr></thead><tbody><tr><td>08:00 - 12:00</td><td>2 per half an hour Maximum: 12</td></tr><tr><td>12:00 - 20:00</td><td>3 per half an hour Maximum: 20</td></tr><tr><td>20:00 - 02:00</td><td>4 per half an hour Maximum: 30</td></tr><tr><td>Maximum per day</td><td>60</td></tr></tbody></table>	Parking Time	Rate	08:00 - 12:00	2 per half an hour Maximum: 12	12:00 - 20:00	3 per half an hour Maximum: 20	20:00 - 02:00	4 per half an hour Maximum: 30	Maximum per day	60	<table border="1"><thead><tr><th>Parking Time</th><th>Rate</th></tr></thead><tbody><tr><td>0.5 to 2 hours</td><td>5</td></tr><tr><td>2 to 4 hours</td><td>10</td></tr><tr><td>4 to 8 hours</td><td>15</td></tr><tr><td>Over 8 hours</td><td>20</td></tr><tr><td>Maximum per day</td><td>50</td></tr></tbody></table>	Parking Time	Rate	0.5 to 2 hours	5	2 to 4 hours	10	4 to 8 hours	15	Over 8 hours	20	Maximum per day	50	<table border="1"><thead><tr><th>Parking Time</th><th>Rate</th></tr></thead><tbody><tr><td>08:00--21:00</td><td>4/hours</td></tr><tr><td>21:00--08:00</td><td>10/entry</td></tr><tr><td>Maximum per day</td><td>50</td></tr></tbody></table>	Parking Time	Rate	08:00--21:00	4/hours	21:00--08:00	10/entry	Maximum per day	50	<table border="1"><thead><tr><th>Parking Time</th><th>Rate</th></tr></thead><tbody><tr><td>0.5 to 1 hour</td><td>4</td></tr><tr><td>Every subsequent half an hour or part thereof</td><td>2 per half an hour</td></tr><tr><td>Maximum per day</td><td>50</td></tr></tbody></table> <p>Overnight parking is surcharged by the rule. Double click the picture to configure rule.</p>	Parking Time	Rate	0.5 to 1 hour	4	Every subsequent half an hour or part thereof	2 per half an hour	Maximum per day	50	Double click the picture to configure rule.	<table border="1"><thead><tr><th>Vehicle Type</th><th>Rate</th></tr></thead><tbody><tr><td>Small-sized vehicle</td><td>4/entry</td></tr><tr><td>Large-sized vehicle</td><td>8/entry</td></tr></tbody></table>	Vehicle Type	Rate	Small-sized vehicle	4/entry	Large-sized vehicle	8/entry	<table border="1"><thead><tr><th>Parking Time</th><th>Rate</th></tr></thead><tbody><tr><td>08:00 - 12:00</td><td>8</td></tr><tr><td>12:00 - 20:00</td><td>10</td></tr><tr><td>20:00 - 02:00</td><td>8</td></tr><tr><td>Maximum per day</td><td>20</td></tr></tbody></table>	Parking Time	Rate	08:00 - 12:00	8	12:00 - 20:00	10	20:00 - 02:00	8	Maximum per day	20
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Charge by unit time	Charge by parking time periods	Charge by time and sessions in daytime and nighttime	Charge by parking time	No Payment	Charge by parking sessions	Charge by time periods																																																						

◆ Payment rule for parking pass :

Customers can pay for a annual pass, 6monthly pass, 3 monthly pass, monthly pass, or other custom periods.

◆ Personalized payment rule :

More payment rules can be personalized as the customers need.

◆ The system also supports discount management, card cost management, etc.

E&E Management Solution Applications

Parking Operation - Various Logs & Reports

Passing Information Search

Passing Vehicle Payment Information Search

Search Vehicle in Parking Lot

Payment Information Search

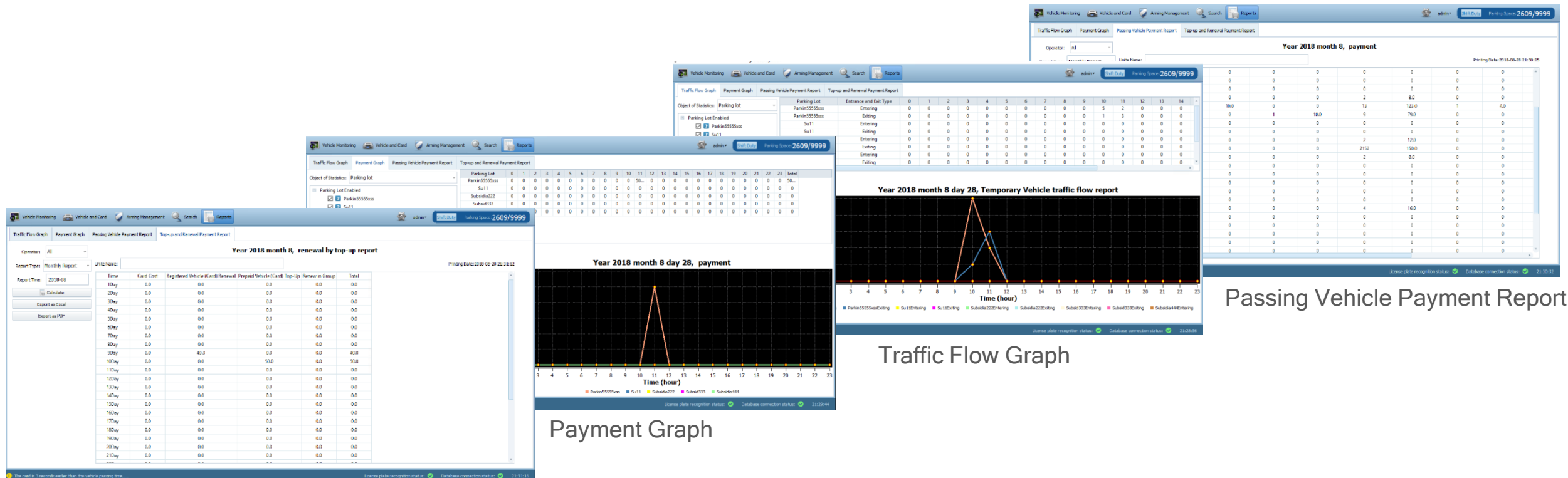
Card Information Search

Duty Shift Search

Operation Record Search

Discount Search

Various of system records and reports like passing record, passing vehicle payment record, duty shift record, operation record, discount record for real-time status trace or the operation analysis (The terminal support to store more than 800,000 passing records)



Top-up and Renewal Payment Report

Passing Vehicle Payment Report

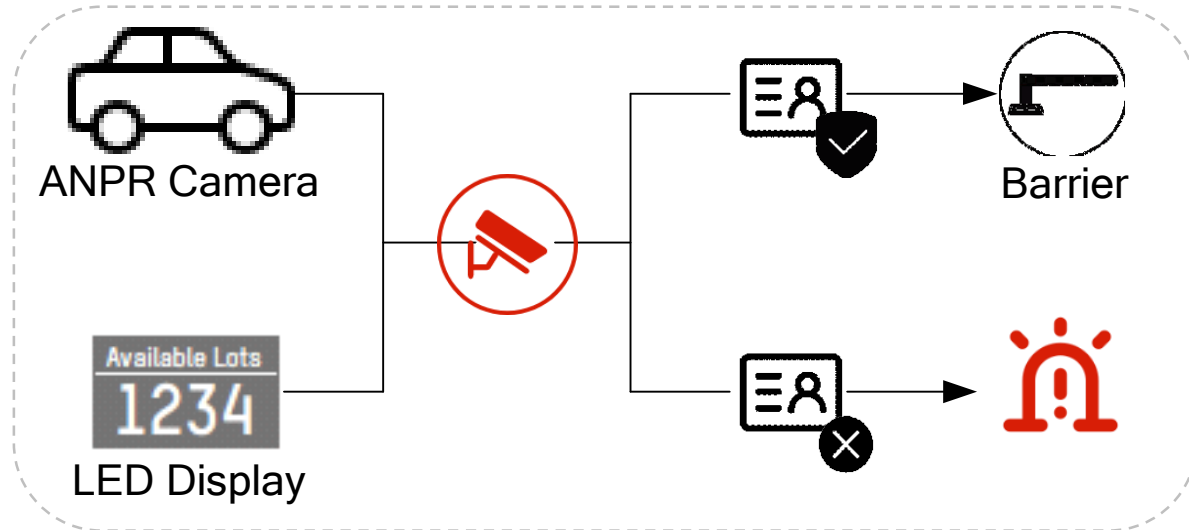
Traffic Flow Graph

Payment Graph

Management Center

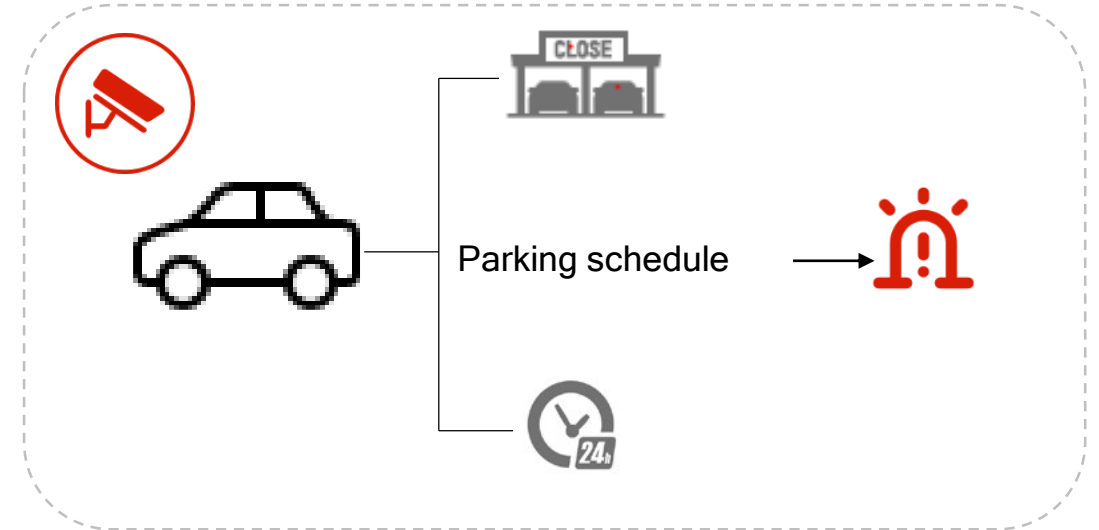
Multiple Parking Violation Alarms to Expedite Response

Whitelist Expiration / Blacklist Alarm



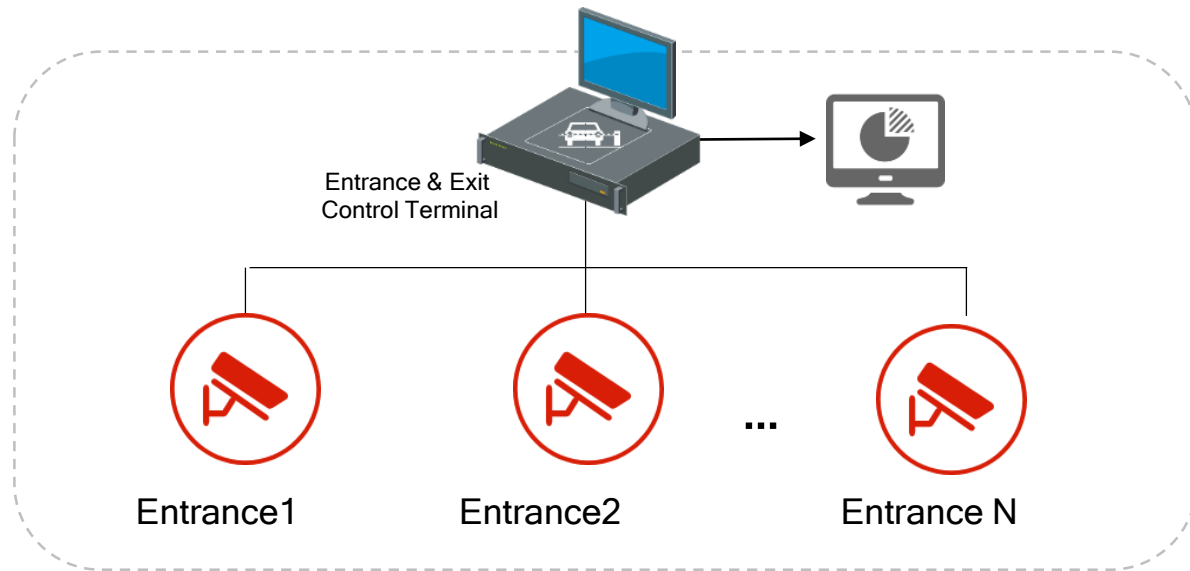
- An alarm will be triggered when a vehicle is recognized as included on blacklist; the barrier can remain closed to prohibit entry by that vehicle
- Whitelist Expiration Alarm: When a vehicle on a time-limited whitelist attempts to enter and/or park after expiration, an alarm will be triggered. This function is especially useful for hotel parking, visitor parking in residential areas, etc.

Parking After Closing Time / Forbidden Parking Periods



- An alarm will be triggered when a vehicle remains in a parking area after business hours or other specified period
- Helps parking area management personnel quickly identify how many and which vehicles remain in a parking area after business hours or other specified period

Management Center

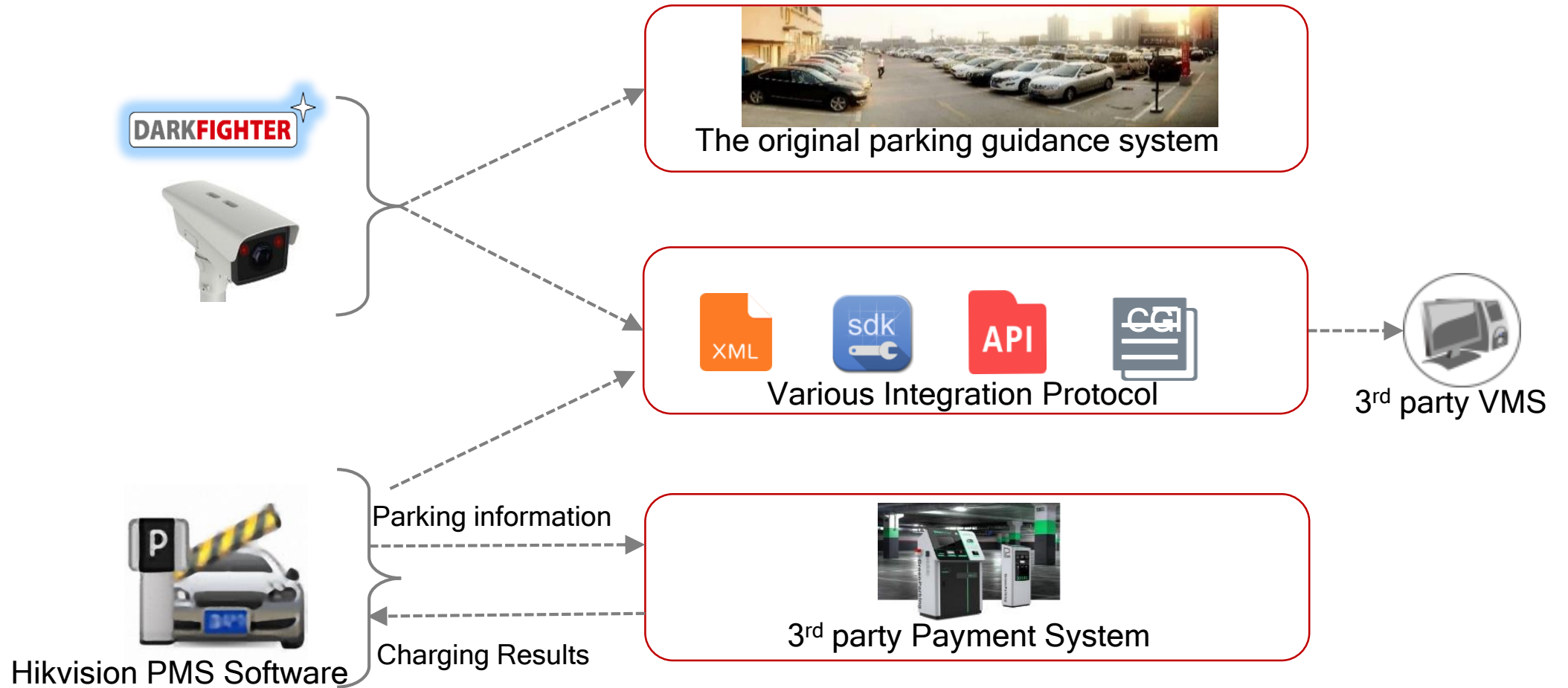


Business Operation Assistance Business Intelligence Reports

- Generation of multiple parking area reports, including reports of multiple entries & exits, etc.
- Business reports inform management personnel of daily parking and visitor statistics, such as normal parking times, etc.

Flexible and open system

Promotion Strategy and Third-Party System Integration



Open Protocol for integrated

Provide abundant data through different protocol of different styles of product combinations

CONTENT



Solution Background



Solution Clarification



Solution Scenarios



Product Showcase



Successful Cases

Application Scenarios Analysis



Residence Community



School



Government



Industrial Park



4S shop



Gas Station

In these scenarios, major vehicles are registered ones, and the charging mode is free normally.

Meanwhile, in these scenarios, for guaranteeing the safety of children or government officers, the system should be usually requested to be of more confidentiality and higher security. That is to say, the system have to support easy operation on alarms, and the entire system should be highly responsive to them.

Recommended Solutions:

ANPR-Based Solution

Application Scenarios Analysis



Shopping Mall



Hospital



Airport



Railway Station



Stadium



Tourist Attraction

In these scenarios, most vehicles only need temporarily stop and usually have stop briefly for a moment. The registered vehicles are only belong to staff and the quantity of them is limited.

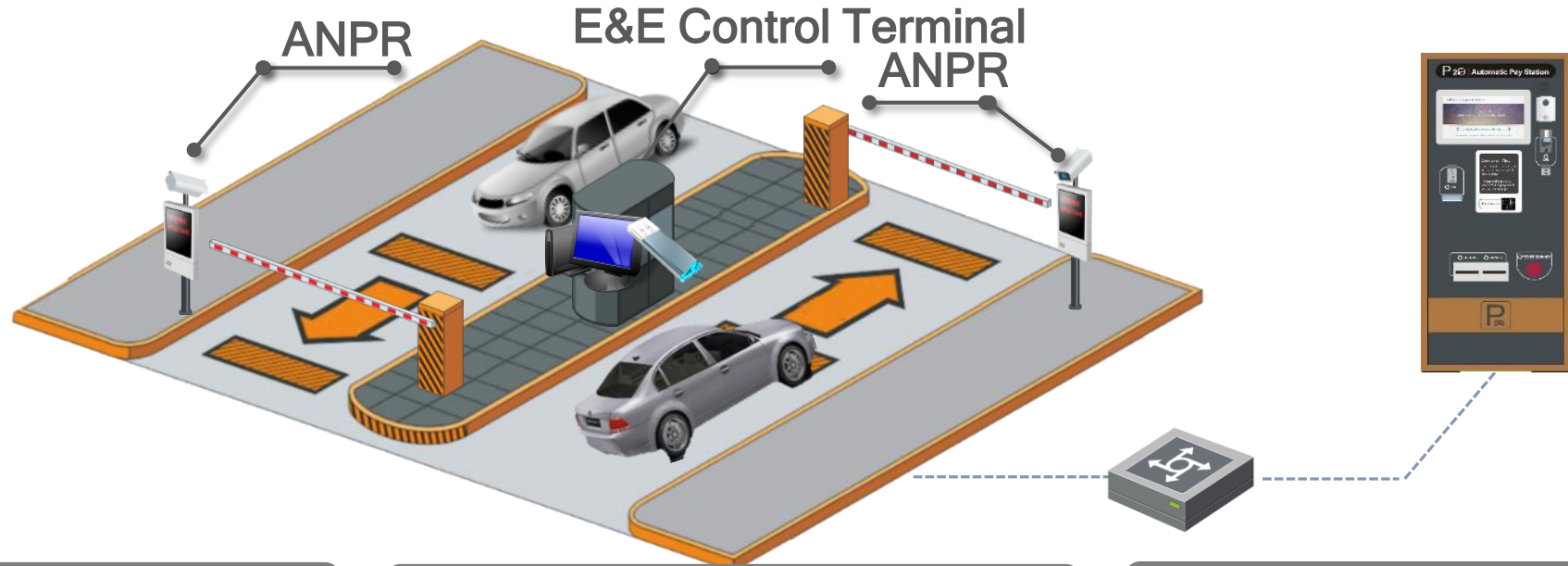
Besides, the parking in these places commonly will be a payment with various charging rules. So, the vehicles matching at entrance and exit and getting the payment results correctly are pretty significant in these scenarios.

Limiting escaping without charging and preventing theft behavior also have been well considered when solution design.

Recommended Solutions:

Card/Ticket Solution and ANPR for evidence

Application Scenarios ANPR-Based Solution



Temporary vehicle

IN

1. ANPR captures license plate
2. The system controls barrier to open or not according to configured rule

OUT

1. ANPR captures the license plate
2. The system shows parking fee (Charging mode) and the operator collects money
3. The operator opens barrier

Registered vehicle

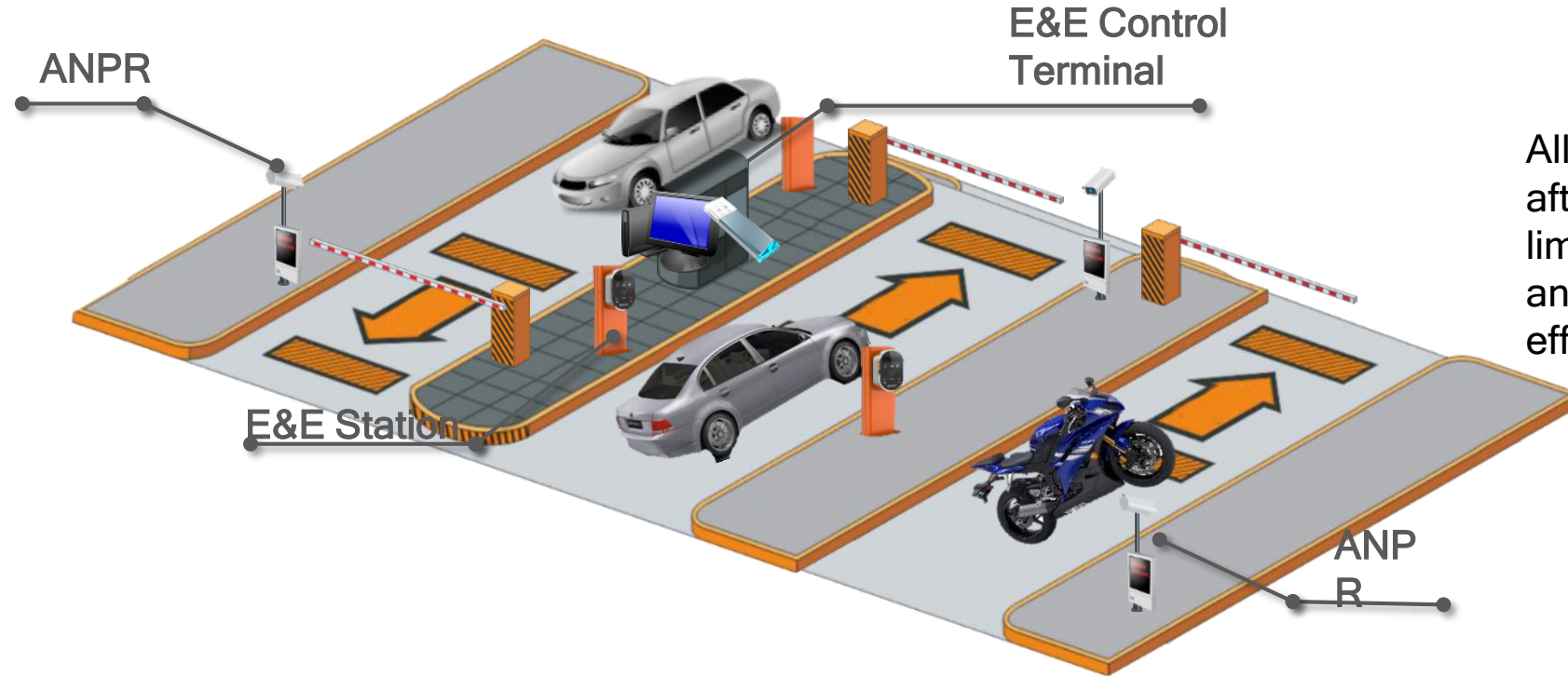
1. ANPR captures license plate
2. The system automatically opens barrier

1. ANPR captures license plate
2. The system automatically opens barrier

Blacklist vehicle

1. ANPR captures license plate
2. The system generates alarm
3. The system prevents the vehicle from entering and inform management center of this alarm by pop-up window.

Application Scenarios Ticket/Card Solution



All the visitors can go through after picking up the card without limitation, suitable for entrances and exits that focus on the efficiency.

Temporary vehicle

IN

1. Get the ticket/card
2. ANPR captures license plate for record
3. The system controls barrier to open or not according to configured rule

1. Reading the ticket/card
2. ANPR captures the license plate for record
3. The system shows parking fee (Charging mode) and the operator collects money
4. The operator opens barrier

Registered vehicle

1. Parking pass being swapped card being read/ANPR captures license plate
2. The system automatically opens barrier

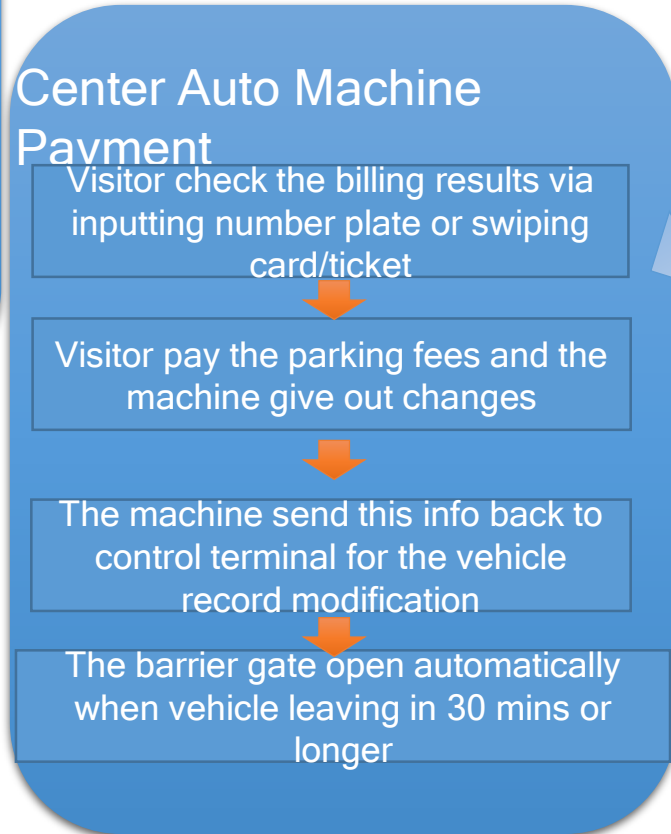
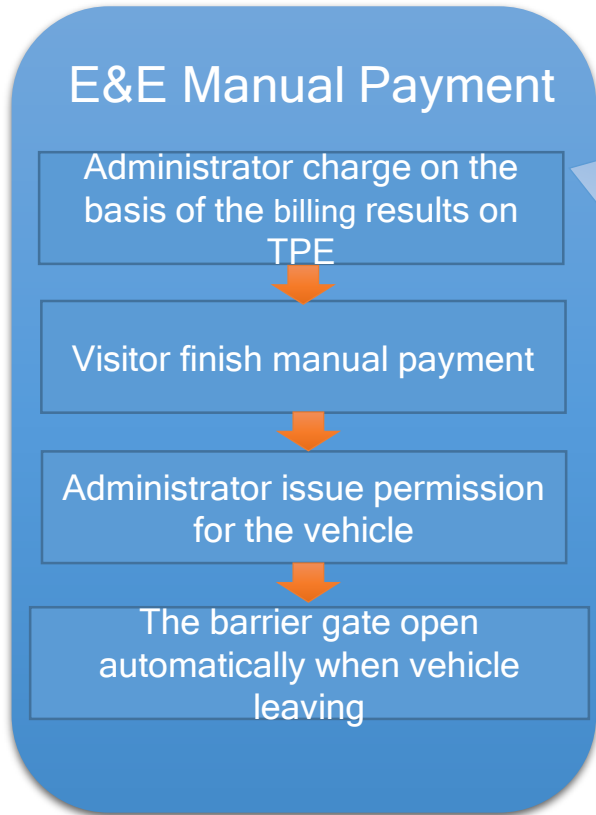
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OUT

Application Scenarios Payment Solution



Vehicle Drive-In



Vehicle Parking



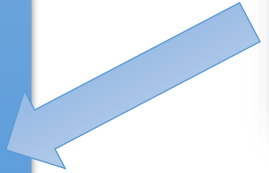
Payment



Car Searching



Vehicle Drive-out



CONTENT



Solution Background



Solution Clarification



Solution Scenarios



Product Showcase



Successful Cases

Key Advantages

1 Higher License Plate Recognition Rate

With **Anti-Glare** technology, the night image quality can be guaranteed in spite of high beam lights.

Advanced trigger mechanism and **deep-learning** ANPR algorithm, which can ensure capture rate to be **99.5%** and recognition rate to be **98%**



No lights



Low beam lights



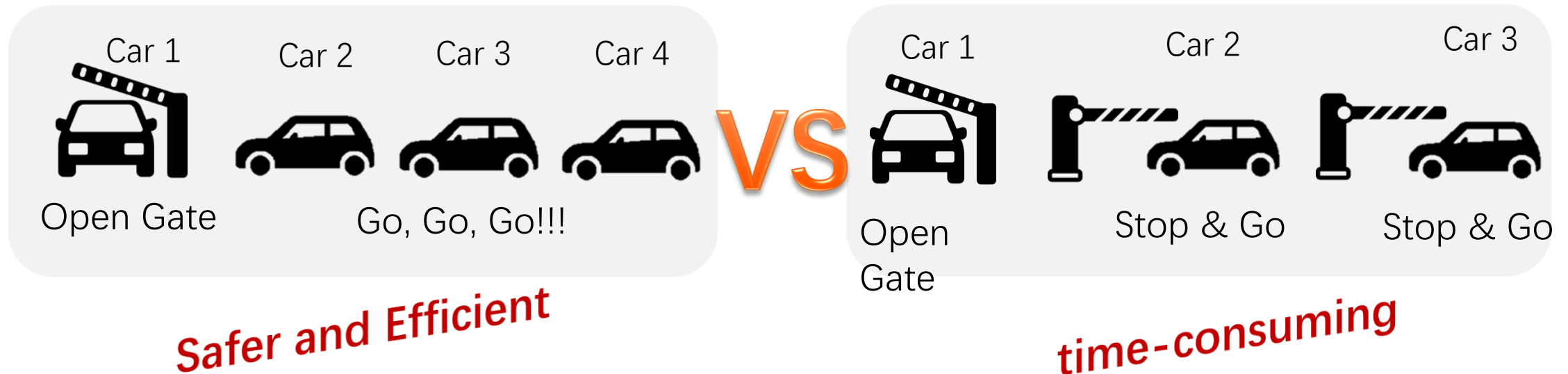
High beam lights

Key Advantages

2 Smart Quick Passing Mode

Due to the optimization of built-in algorithms, when many vehicles are waiting for the gate in a line, the barrier will keep up to let the vehicles pass through continuously.

Meanwhile, the camera will capture all the vehicle number plates, thus improving efficiency and reducing potential vehicle damage caused by a descending barrier.



Product Showcase



DS-TMG035
Capture-trigger

- 79GHZ MMIC
- The maximum Trigger distance : 6m
- Adjustable Detection Range
- Distinguish the Vehicle from pedestrian and only capture Vehicle



DS-TMG035
Anti-fall

- 79GHZ MMIC
- The maximum Trigger distance : 6m
- Adjustable Detection Range
- To avoid the accident of fall Vehicle and Pedestrian

Product Showcase



DS-TME40X-TPC
Control Terminal

- Entrance/ Exit, HDD not included
- Various type of interface
- Support offline charge, speaker, LCD display, car detect, paper ticket printing and scanning, audio chat
- Barrier gate control



DS-TME40X-TRL
Control Terminal

- Entrance/ Exit, HDD not included
- Distributed 350 cards at most.
- Support offline charge, speaker, LED word display, car detect, take and read card, audio chat
- Barrier gate control

Product Showcase



DS-TVL224-4-5Y
Access Outdoor LED
Display

- Four lines of text, LED outdoor Display
- Integrates with speaker
- LED Brightness: 1,200 cd
- Colors: Red, yellow, green
- Support global languages display
- Pixel Resolution: 64 x 64
- Dimensions: 364 x 484 x 60mm



DS-TPE104
Parking Management
Terminal

- Built-in Parking Management Software
- Passing vehicles recording
- Charging rules configuration
- 4-ch 10 / 100 M Interface

Product Showcase

PS: The system also supports to integrate the third-party barrier gate



- Straight boom pole/Telescopic boom pole/Curved boom pole/Fence boom pole/Anti-Collision cylinder boom pole
- **Variable-frequency** Boom Barrier
- Lift-up speed: **0.6s~1.5s/0.9~2.0s/1.5~2.5s**
- Color: Orange
- Anti-falling, Riding priority
- **IP54**
- Working Temperature: **-30 °C to 70 °C**
- Consumption: 300W
- Power Supply: 110VAC/220VAC

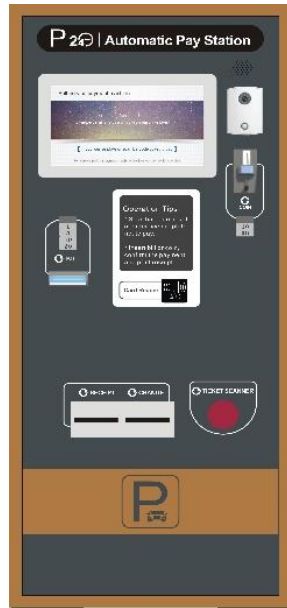
Product Showcase

PS: The system also supports to integrate the third-party barrier gate



- **Barrier Gate:** Straight boom pole/Telescopic boom pole/Curved boom pole/Fence boom pole/Anti-Collision cylinder boom pole
- **ANPR Camera:** 4 MP, 2688 × 1520, CMOS, 1/1.8", 25fps, 3.1-6mm lens
- **LCD Screen:** 21.5 inch, 1080p, 1500cd/m², Supports QR code and advertisement display
- Embedded with 9 IR high-performance **LEDs**
- **Intercom**

Product Showcase



DS-TPP319
Auto Payment Machine

- Locating place: Parking lot entrance, customer service center, etc.
- The auto pay machine is connected with the parking management system.
- Support **bills** or **coins** payment
- Support payment receipt printing.
- Automatic, safe and humanized management system



Thanks
See Far, Go Further