Intelligent Taxi Monitoring solution

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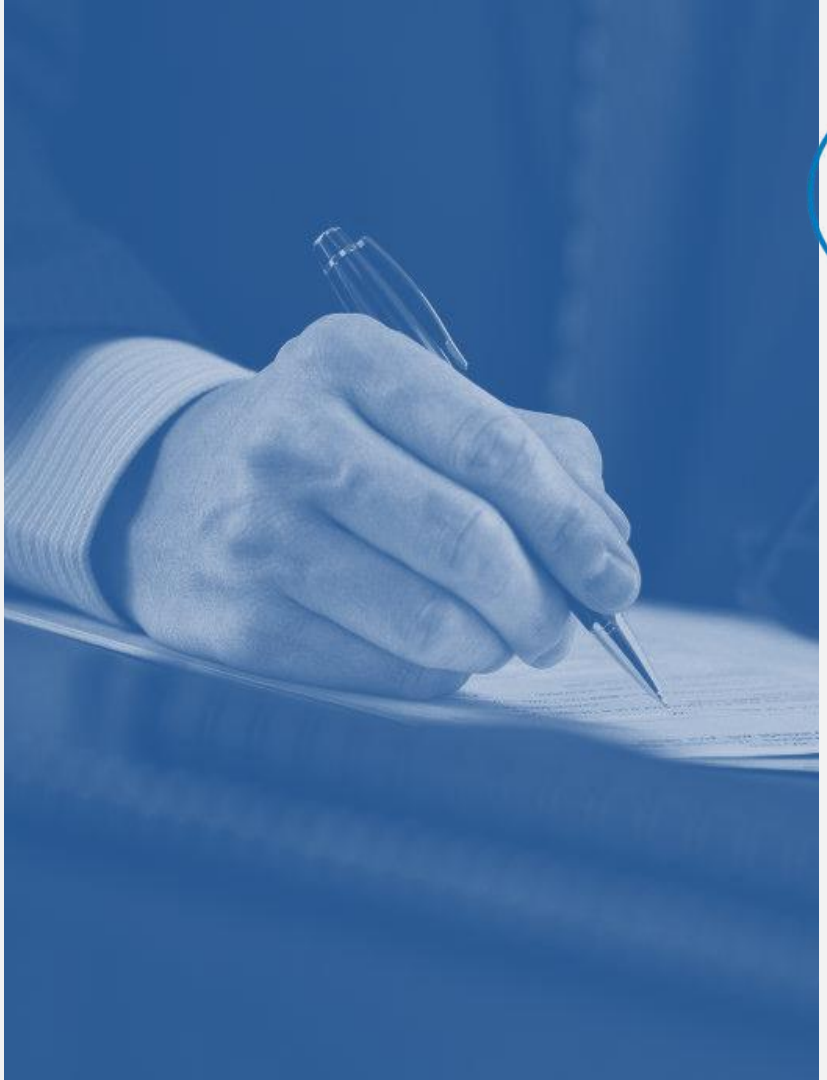
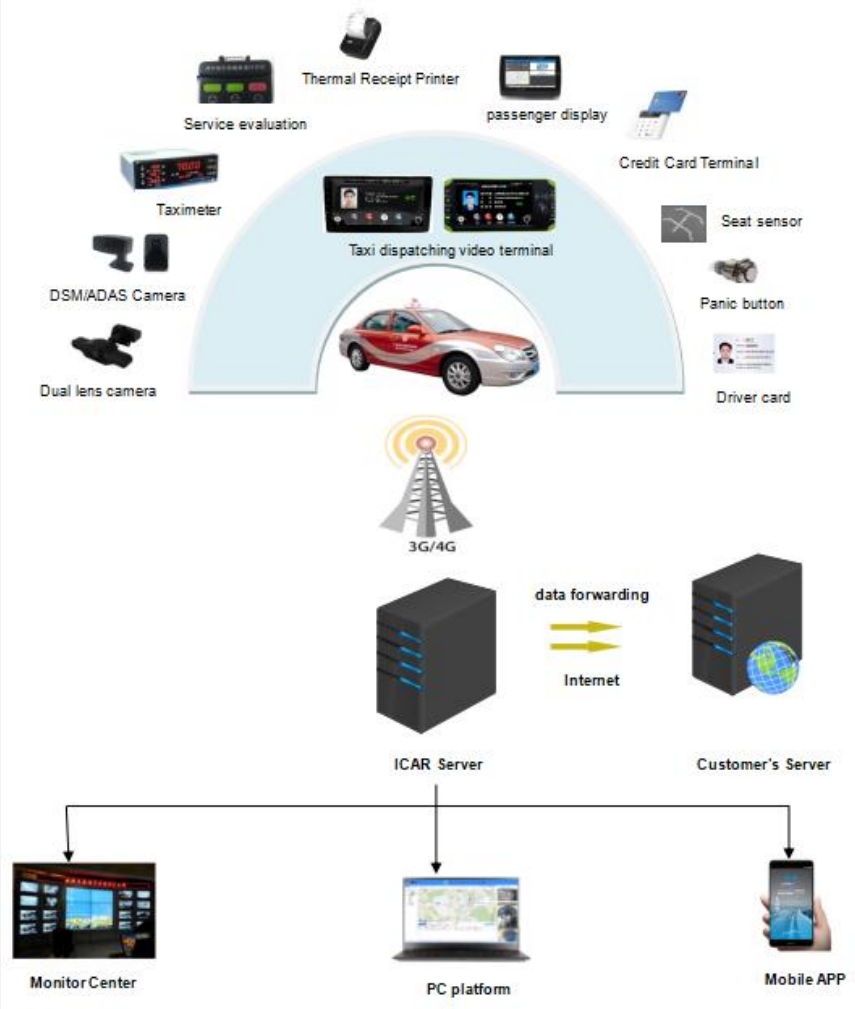


目录 Contents

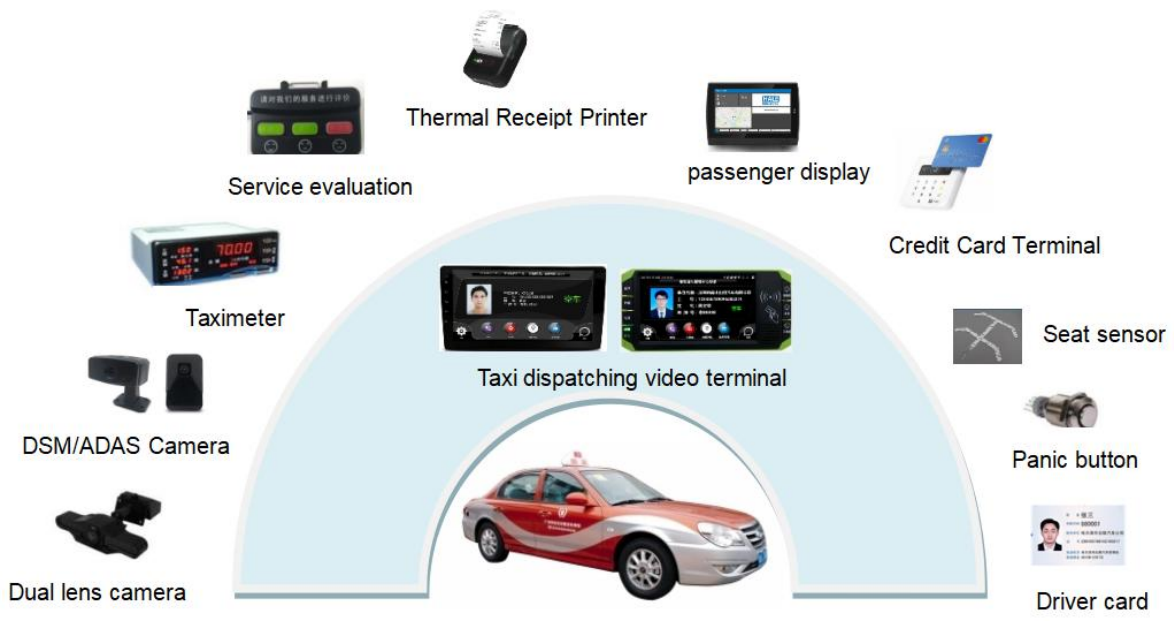
1 Taxi project design

- It includes Taxi monitoring devices and platform
- Support the third-party platfrom integration
- It has PC platform, Web platform, Mobile App
- New requirements are acceptable, it can be added later.



2 Monitoring devices

Taxi solution includes: Taxi Monitoring terminal(2 options), DSM camera, HD Dual lens surveillance cameras, Taximeter, passenger display, payment card terminal, Thermal Receipt Printer, seat sensor, emergency alarm button, it mainly achieves the management and control of the vehicle.



2.1 Intelligent taxi monitoring terminal - Model: JT1

- Language can be customized
- Support Andriod OS, 8 Core Processor, CPU Frequency: 2GB
- 7inch Touch screen (resolution: 800x480)
- 2 channels of 720P AHD video inputs, can be extended to 4 channels
- Data storage: 1 SD card 256 GB
- Support Wi-Fi hotspot
- Support Face recognition
- Support driver facial login system
- Support ADAS / DSM algorithm technolgy（optional）
- Internal GPS, 3G / 4G,Bluetooth module (support Bluetooth headset / OBD)
- Support RFID card-reader for driver ID card verification
- With service evaluation button
- Support on-board navigation, message notification from center, telephone, live video, order list, payment record, and able to integrate with other accessories such as such as fare meter, LED advertisement panel, POS machine, driver panic button, service evaluator, Status LED displayer for extended functions.
- Support driver facial login system
- Multiple alarm reports and business reports
- Support uninterrupted Audio recording, small file size for download
- On-board power-off delay for data protection
- 9V~36V wide voltage power supply

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2.2 Intelligent taxi monitoring terminal - JK1A

- Language can be customized
- Support Andriod OS, 4 Core Processor, CPU Frequency: 1.5GB
- 9inch/10.1inch (optional) Touch screen, adapt to various models of central control size
- 2 channels of 720P AHD video inputs, can be extended to 4 channels
- Support 1 channel 720P reversing camera, realize fast reversing image function
- Data storage: 1 SD card 256 GB
- Built-in radio module, support FM/AM radio function
- Built-in power amplifier module (12V, 24V model optional), support docking 4 channels of the original car horn
- Support Wi-Fi hotspot
- Support Face recognition
- Support driver facial login system
- Support ADAS / DSM algorithm technolgy（optional）
- Internal GPS, 3G / 4G,Bluetooth module (support Bluetooth headset / OBD)
- Support RFID card-reader for driver ID card verification
- With service evaluation button
- Support on-board navigation, message notification from center, telephone, live video, order list, payment record, and able to integrate with other accessories such as such as fare meter, LED advertisement panel, POS machine, driver panic button, service evaluator, Status LED displayer for extended functions.
- Support driver facial login system
- Multiple alarm reports and business reports
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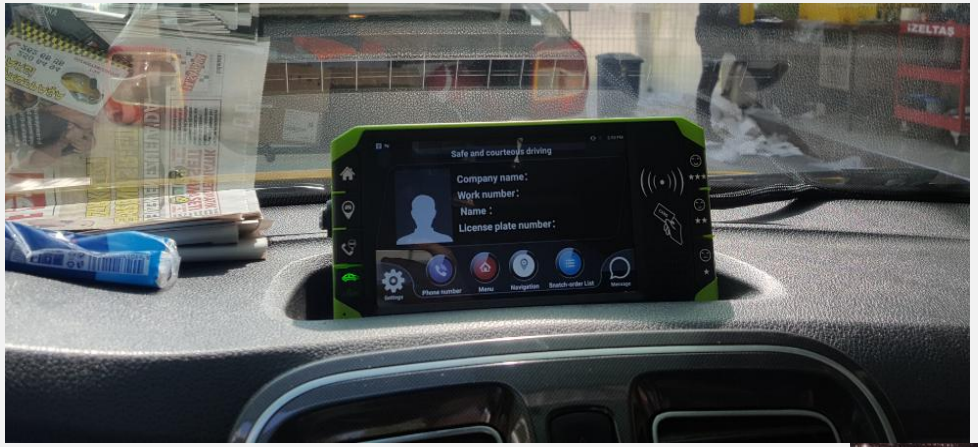
* There are 2 different devices for customer’ s option, see the installation way.



2.3 Driver behavior analysis - DSM camera

DSM camera is mainly used for analyzing and warning drivers' dangerous driving behaviors and checking drivers' face attendance. The collected video is used for the host to perform the intelligent algorithm of dangerous driving behavior analysis, which can detect:

- Fatigue driving
- Close your eyes
- Smoking
- Make a phone call
- Distracted

2.4 HD Dual lens camera

for passenger view

for front road view

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2.5 Taximeter

- The Taxi monitoring terminal communicates with the Taximeter through serial port RS232, it can be used for data transaction
- It meets the requirements of JJF 1604-2016 taxi meter metrology verification regulations
- According to the system instruction, the device can return the working status
- After a single operation, the device will transmit the data to Taxi monitoring terminal
- In case of network failures, 1500 operational data can be stored, it’s retransmitted automatically when the communication is normal

2.6 Passenger display

- The device will be connected to Taxi Monitoring Terminal via RJ45 port for data transferring, it shows the mileage, the cost, the route(navigation), the video/picture advertisement play and other functions to passengers.
- 7/10 "TFT LCD with LED backlight
- Android operating system

2. 7 Thermal Receipt Printer

- The Taxi monitoring terminal communicates with the printer through serial port/Bluetooth, it prints the invoice of each driving service charge
- Support custom printing invoice information content and format
- Specially designed for vehicle-mounted environment
- Small size, light weight

2.8 Payment Card Terminal

- The Taxi monitoring terminal communicates with card terminal through the serial port, it can be used for data transaction
- Support multiple payment method

2.9 Seat sensor

- Auto seat pressure sensor is a membrane touch point sensor and touch point was distributed uniformity on the suffer facade of seat .It is use to apperceive system of auto seat such as safety belt alarm sensor.We can design to different sensor figure and touch point sensitivity according to shape,rigidity and elasticity of car seat.
- The seat sensor can transmit the status of with/without passengers to the taxi monitoring terminal
- Adapts to most vehicle seat designs (front and rear seats)
- Seat sensors are easy to install and secure under the seat cover

2.10 Service evaluation

- The Taxi monitoring terminal communicates with service evaluation through the serial port 485, it supports the status query instruction
- The device has three evaluation buttons: "Satisfaction", "Basic Satisfaction" and "Dissatisfaction"
- With hibernation and other functions, there is no power consumption during non-evaluation period

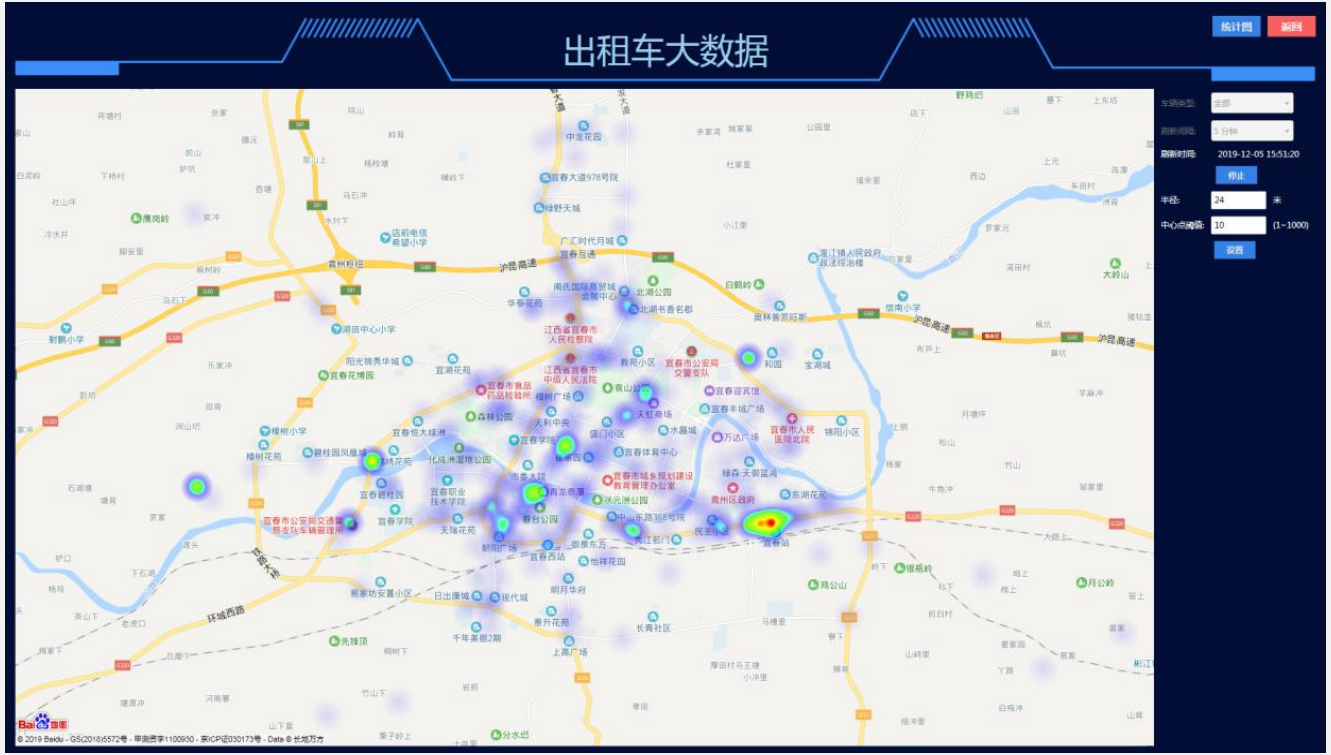
3 Platform features

It’s a system whereby from a central place of management, vehicle usage, driver ID and driver behaviors can be monitored for compliance, it supports 50000 taxis online at the same time.

- ➢Vehicle Monitoring
- ➢Driver management
- ➢GPS routing
- ➢Real-time tracking
- ➢Asset monitoring
- ➢Routing & Reporting
- ➢Notifications Alert
- ➢Visual calendars
- ➢Delivery status tracking
- ➢Monitor driver behavior and activity
- ➢Synchronize drivers, orders, calendars

3.1 Dashboard for Overview

3.2 Intensity of Vehicles Location



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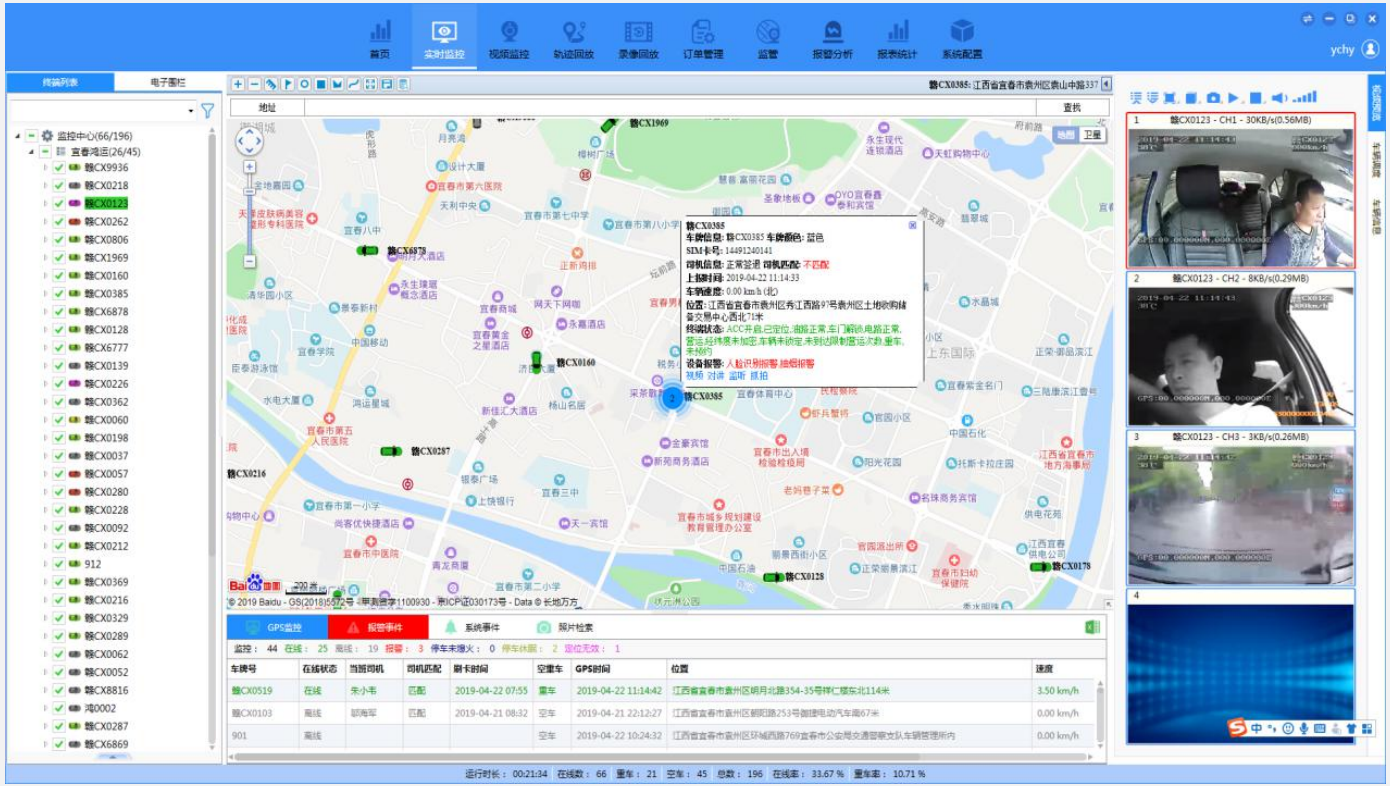
3.3 Live Fleet Monitoring



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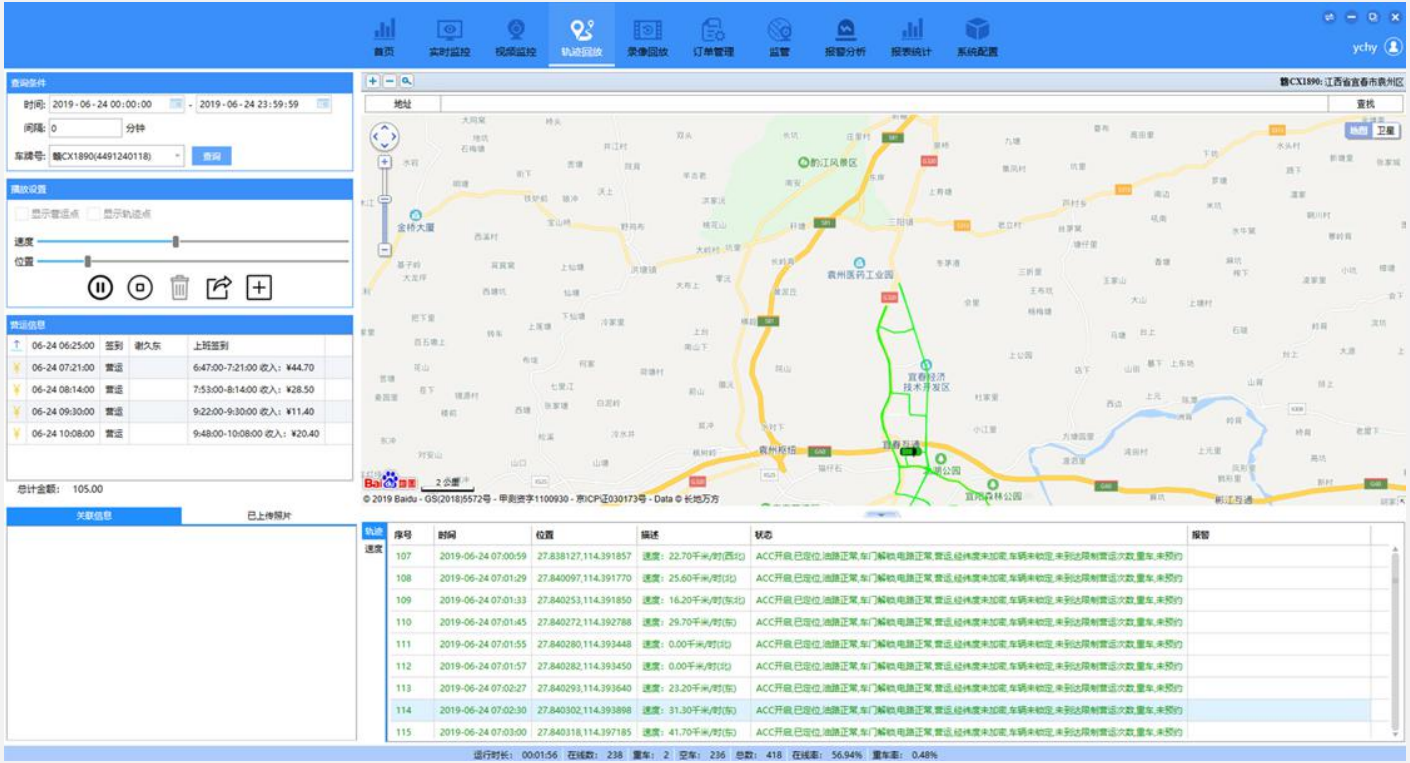
3.4 Track Playback



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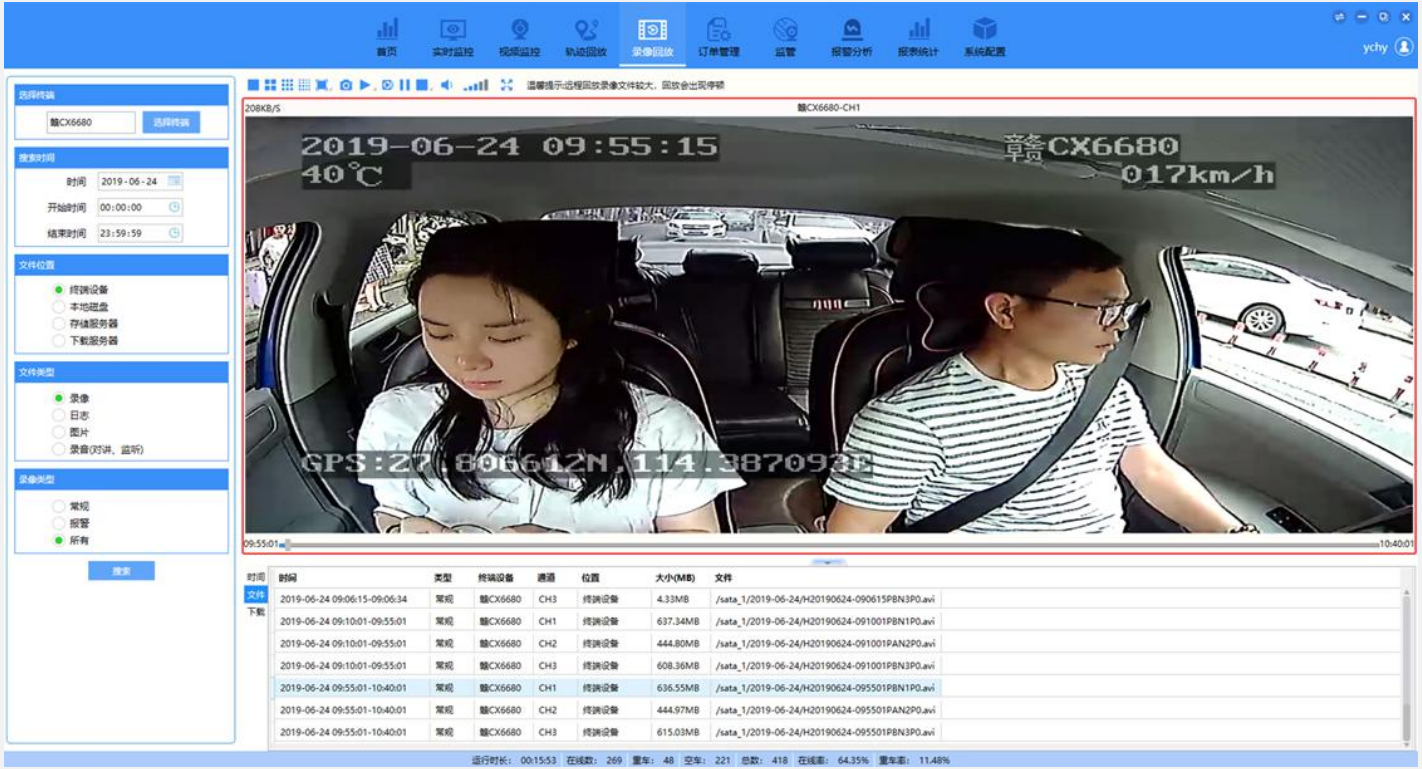
3.5 Video Playback



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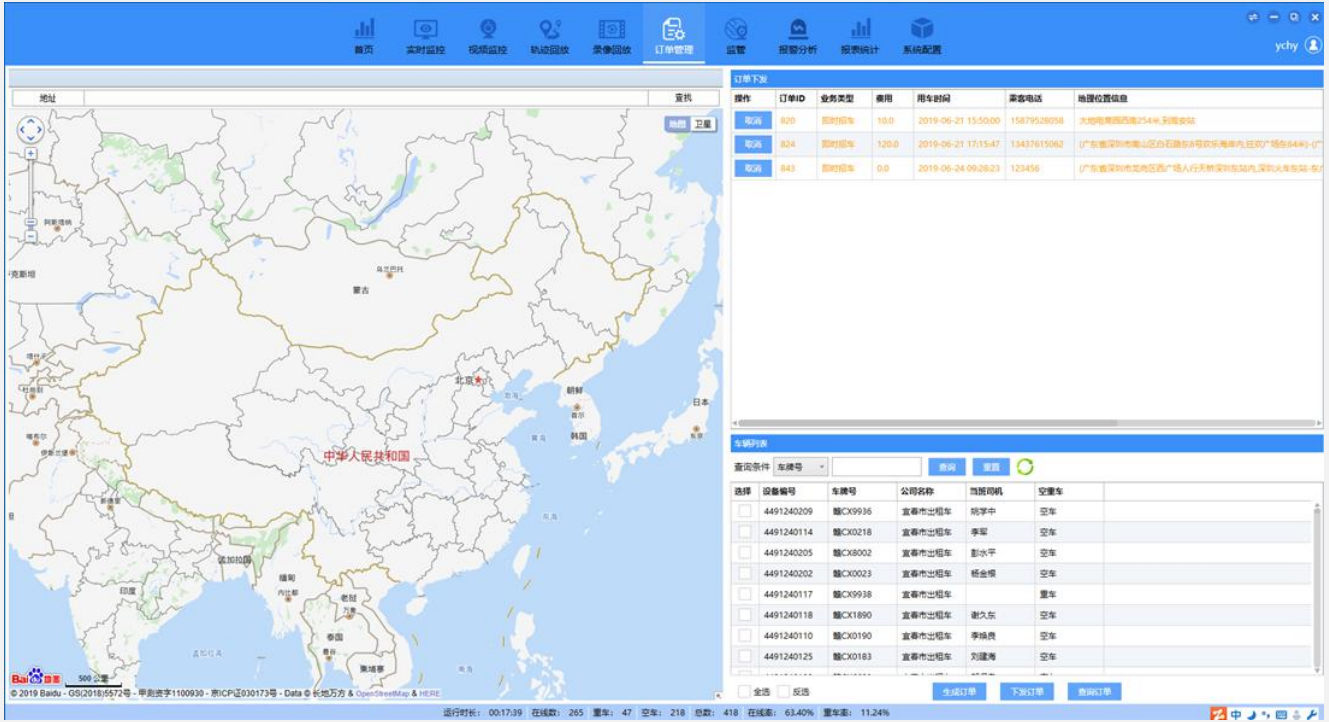
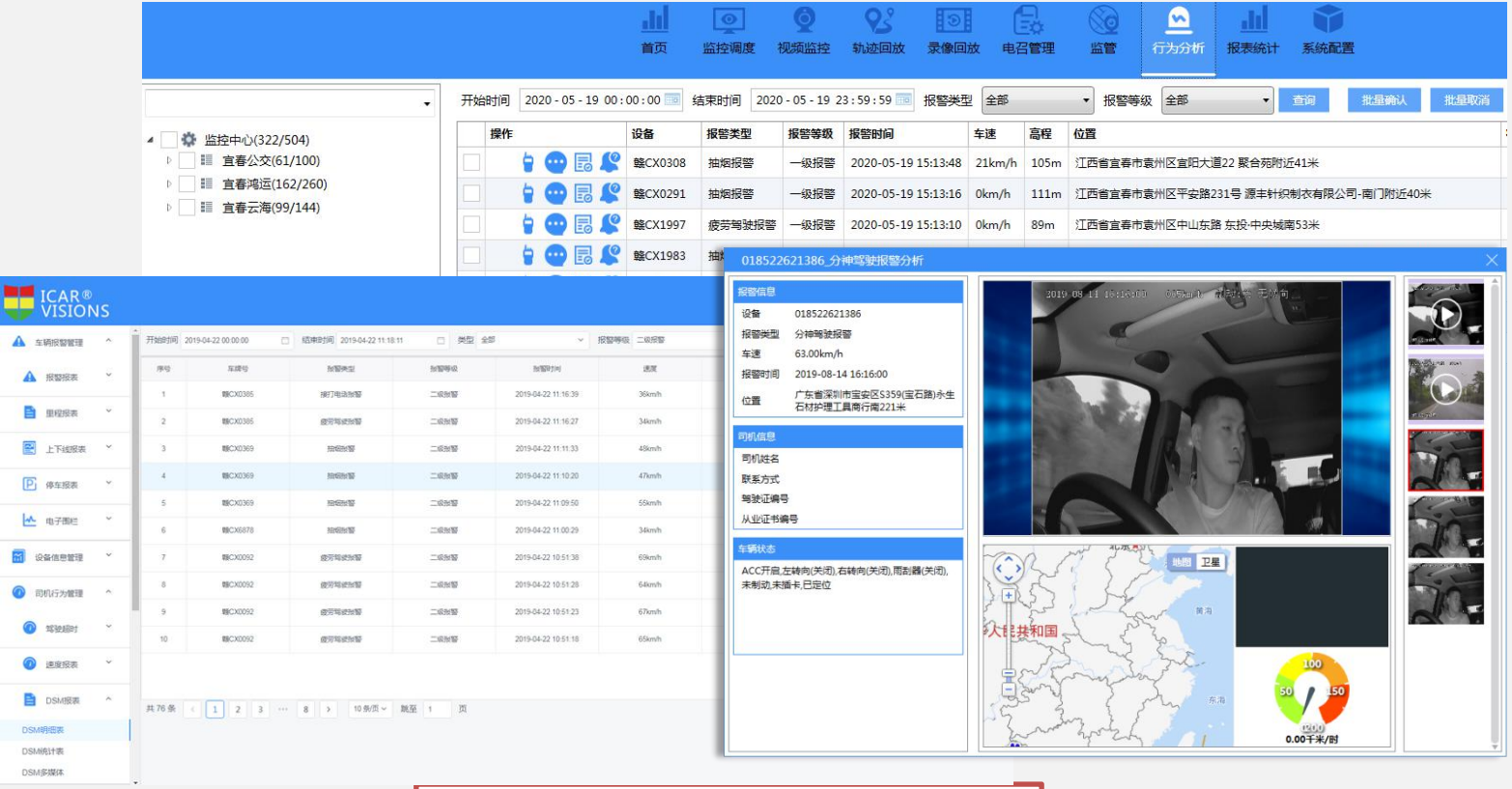
3.6 Order Management

Phone App Call



Platform Phone App Call information平台下发电召信息

3.7 Artificial Intelligence Technologies for Safety Alarm Analysis



Alarm type：

- ADAS
- DSM
- Face Reconginition

For example: DSM Alarm report

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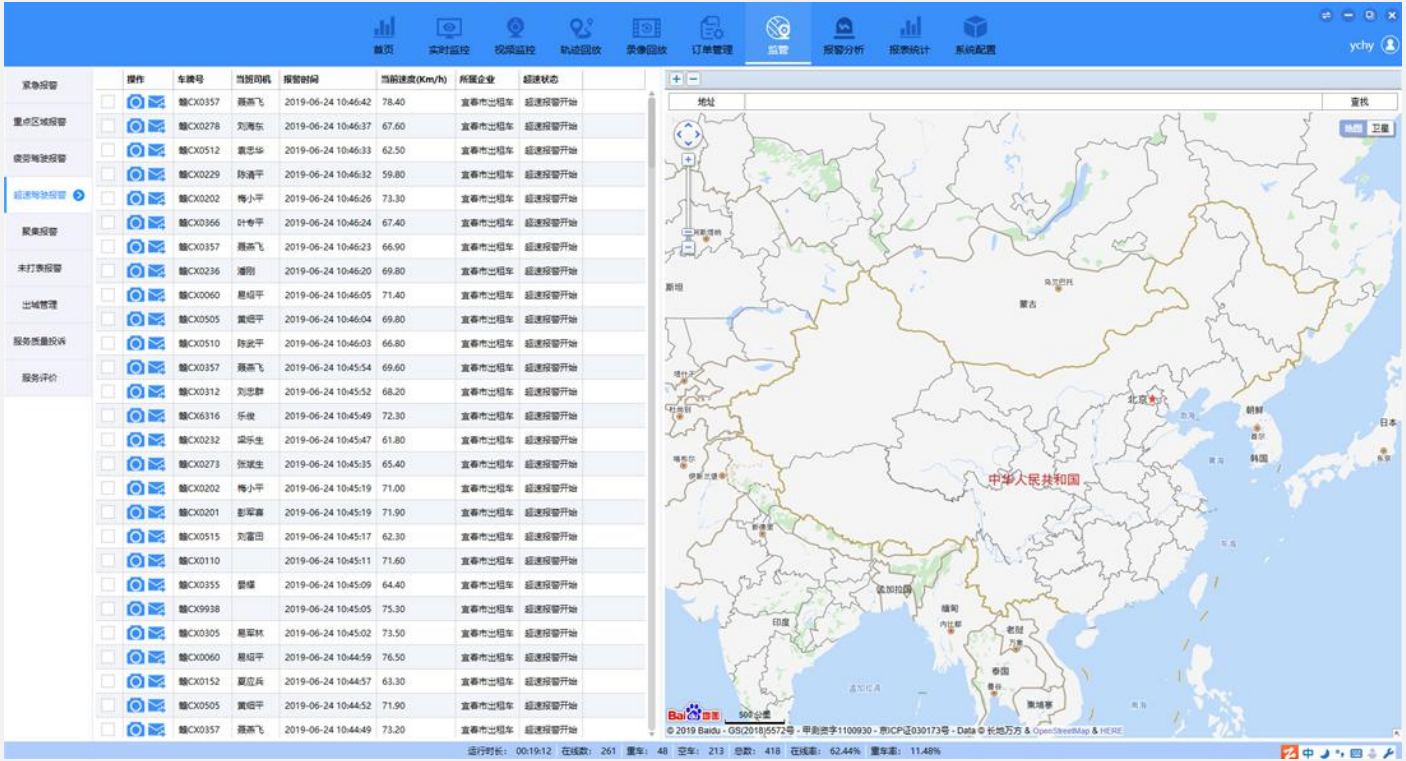
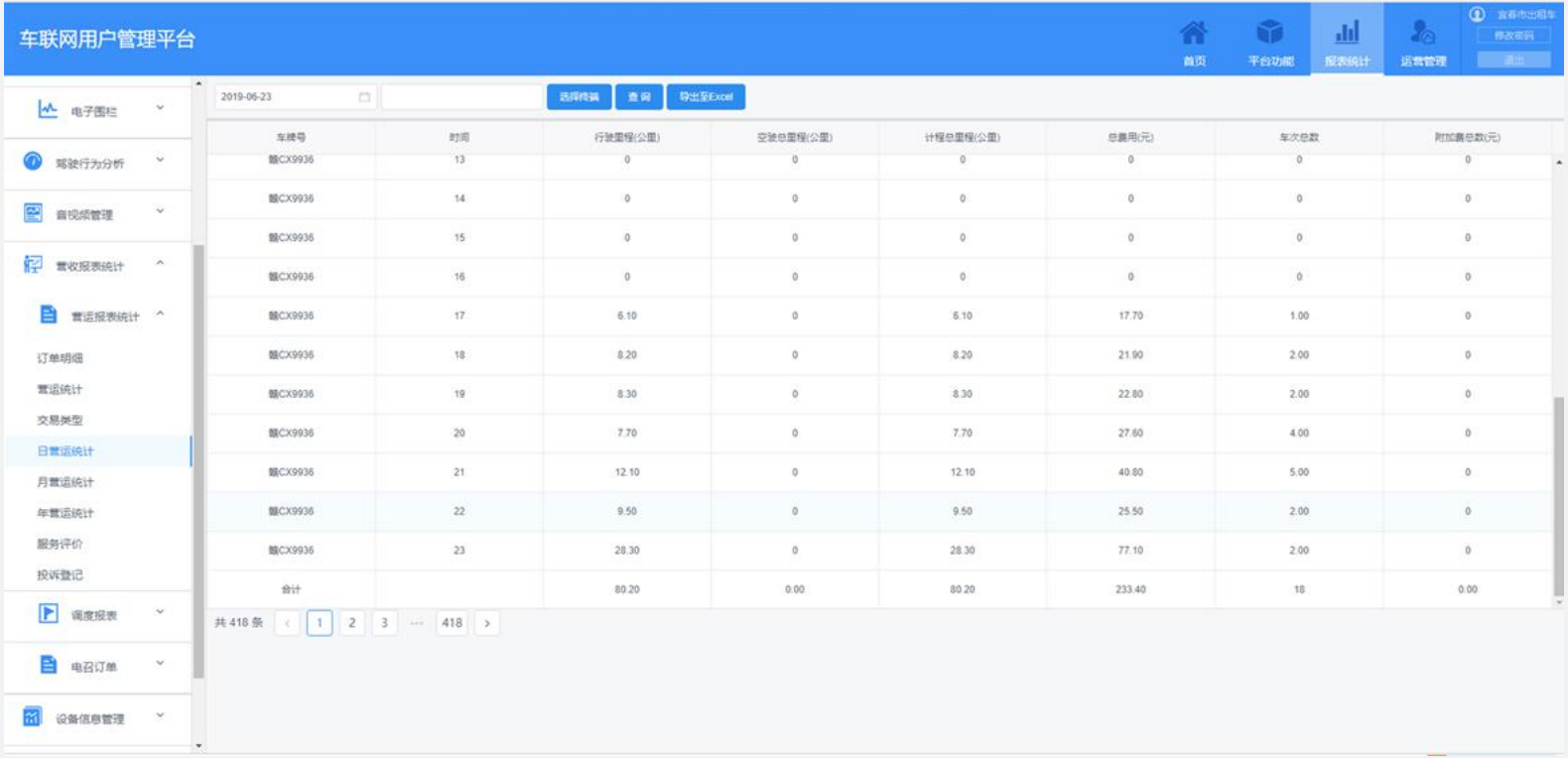
3.8 Overspeed Supervision

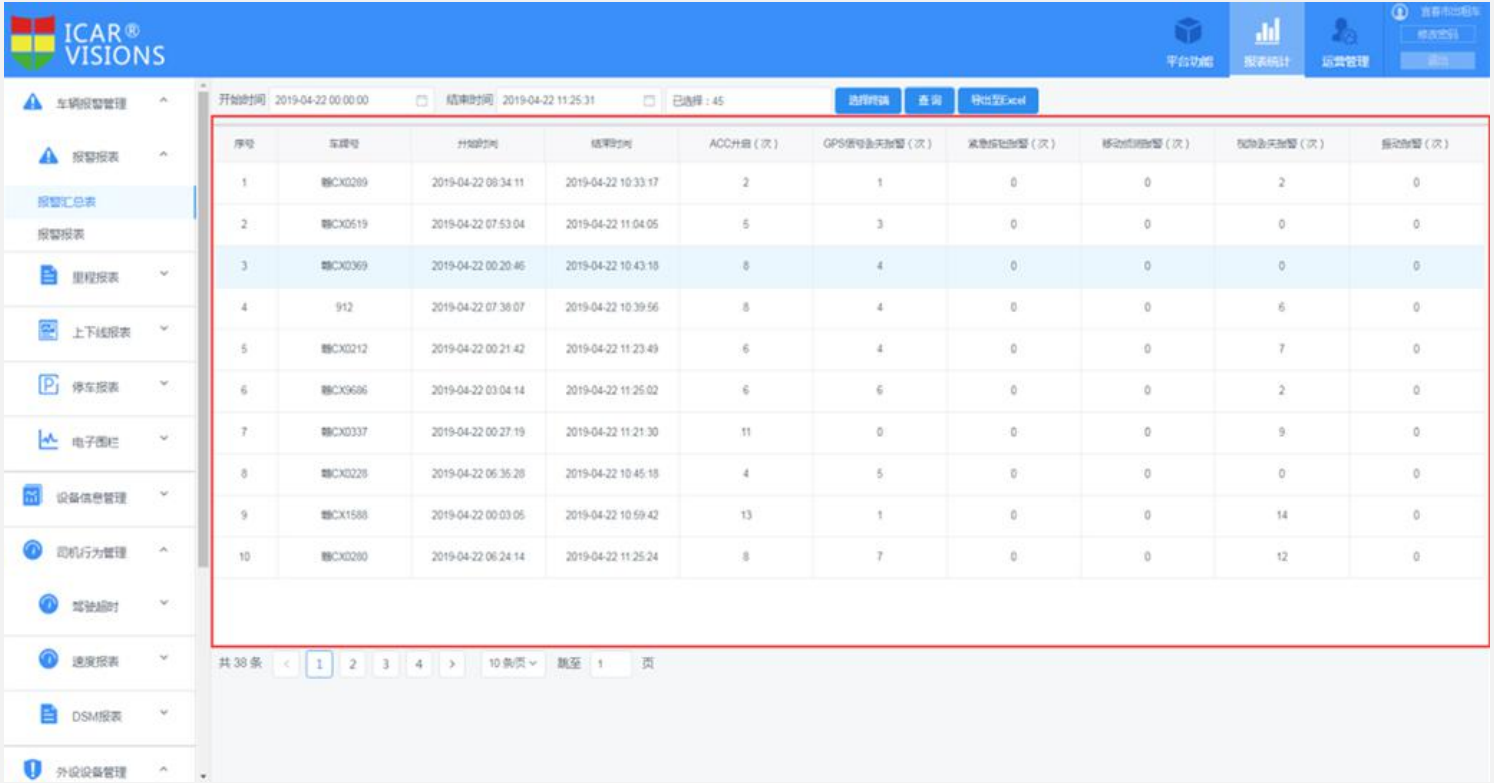


3.9 Operational statistics



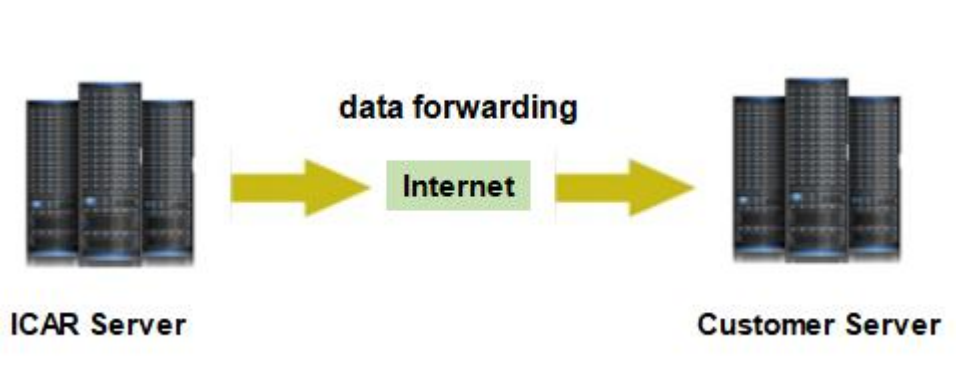
车牌号	时间	行驶里程(公里)	空驶总里程(公里)	计程总里程(公里)	总费用(元)	车次总数	附加费总数(元)
赣CX9936	13	0	0	0	0	0	0
赣CX9936	14	0	0	0	0	0	0
赣CX9936	15	0	0	0	0	0	0
赣CX9936	16	0	0	0	0	0	0
赣CX9936	17	6.10	0	6.10	17.70	1.00	0
赣CX9936	18	8.20	0	8.20	21.90	2.00	0
赣CX9936	19	8.30	0	8.30	22.80	2.00	0
赣CX9936	20	7.70	0	7.70	27.60	4.00	0
赣CX9936	21	12.10	0	12.10	40.80	5.00	0
赣CX9936	22	9.50	0	9.50	25.50	2.00	0
赣CX9936	23	28.30	0	28.30	77.10	2.00	0
合计		80.20	0.00	80.20	233.40	18	0.00

3.10 Alarm statistics



序号	车牌号	开始时间	结束时间	ACC开启（次）	GPS信号丢失报警（次）	紧急按钮报警（次）	移动侦测报警（次）	视频丢失报警（次）	振动报警（次）
1	粤CX0289	2019-04-22 08:34:11	2019-04-22 10:33:17	2	1	0	0	2	0
2	粤CX0519	2019-04-22 07:53:04	2019-04-22 11:04:05	5	3	0	0	0	0
3	粤CX0369	2019-04-22 00:20:46	2019-04-22 10:43:18	8	4	0	0	0	0
4	912	2019-04-22 07:38:07	2019-04-22 10:39:56	8	4	0	0	6	0
5	粤CX0212	2019-04-22 00:21:42	2019-04-22 11:23:49	6	4	0	0	7	0
6	粤CX9686	2019-04-22 03:04:14	2019-04-22 11:25:02	6	6	0	0	2	0
7	粤CX0337	2019-04-22 00:27:19	2019-04-22 11:21:30	11	0	0	0	9	0
8	粤CX0228	2019-04-22 06:35:28	2019-04-22 10:45:18	4	5	0	0	0	0
9	粤CX1588	2019-04-22 00:03:05	2019-04-22 10:59:42	13	1	0	0	14	0
10	粤CX0280	2019-04-22 06:24:14	2019-04-22 11:25:24	8	7	0	0	12	0

3.11 Data forwarding to Customer’ s platform



- The taxi server supports forwarding vehicle positioning, video, alarm, driver vehicle information and other data to the customer's platform through the network.

Thank you.