

# Intelligent Taxi Monitoring solution



20210427

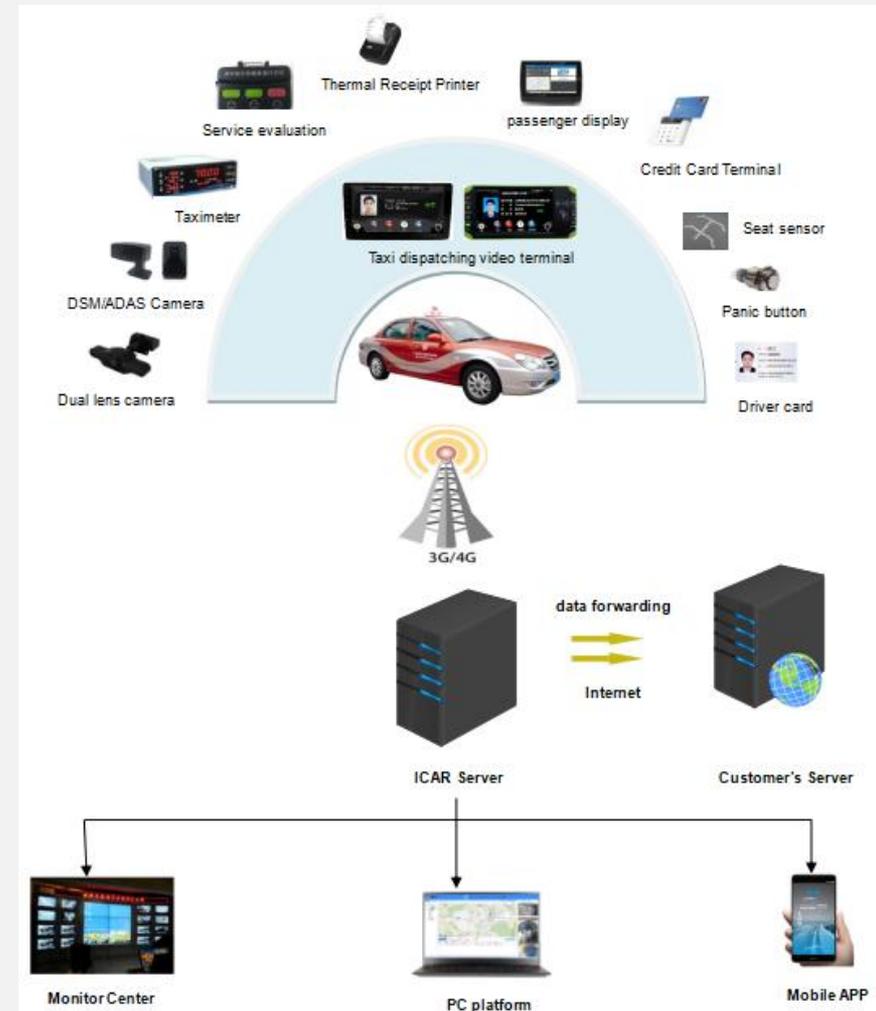


# 目录 Contents

- 1** Taxi project design
- 2** Introduction of Monitoring devices
- 3** Introduction of platform

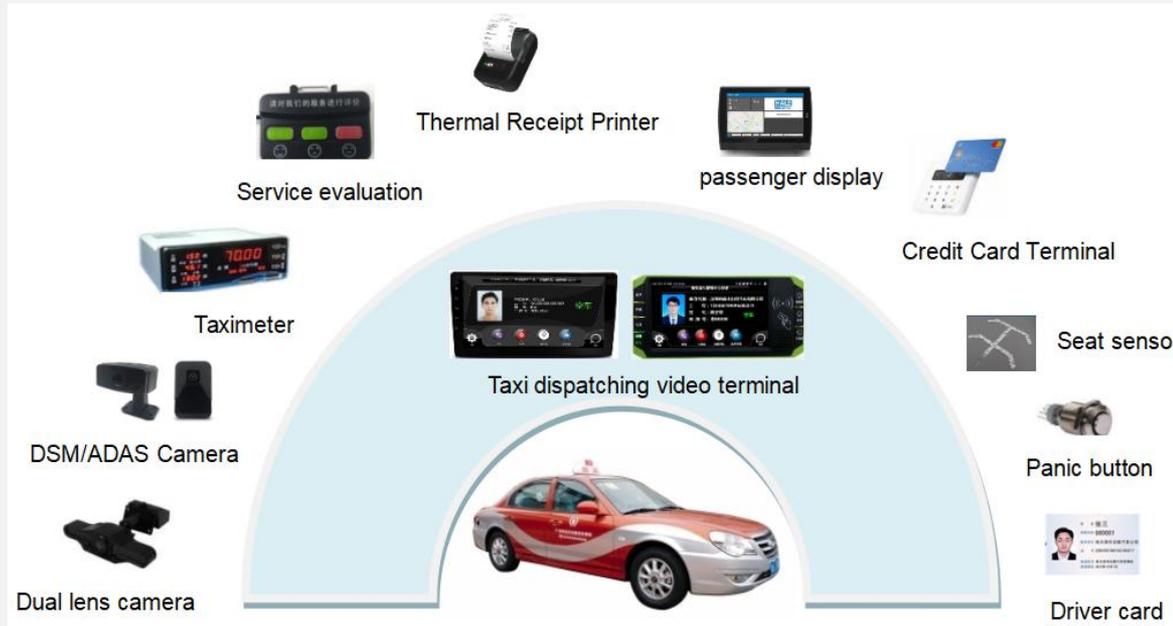
# 1 Taxi project design

- It includes Taxi monitoring devices and platform
- Support the third-party platform 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



## 2.2 Intelligent taxi monitoring terminal - JK1A

- Language can be customized
- Support Android OS, 4 Core Processor, CPU Frequency: 1.5GHz
- 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 technology (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 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



\* 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

## 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 uniformly on the surface 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

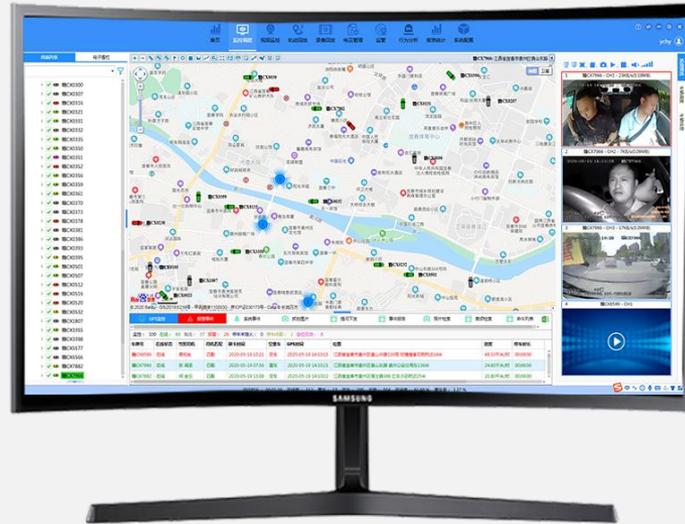


- The Taxi monitoring terminal communicates with service evaluation through the serial port 485, it supports the status query instruction
- The device has three evaluation buttons: "Satisfaction", "Basic Satisfaction" and "Dissatisfaction"
- With hibernation and other functions, there is no power consumption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



## 3.3 Live Fleet Monitoring

**赣CX0385 江西省宜春市袁州区袁山中路337**

车辆信息: 赣CX0385 车牌颜色: 蓝色  
 SEM卡号: 14493240141  
 牌照信息: 正常运营 牌照颜色: 不匹配  
 上报时间: 2019-04-22 11:14:33  
 车速: 0.00 km/h (北)  
 位置: 江西省宜春市袁州区袁山中路337号袁州区土地收购储备交易中心西北1米  
 行驶状态: ACC正常 档位: 档位正常 车门: 车门正常  
 设备报警: 人脸识别等 人脸识别失败  
 视频: 正常 音频: 正常

车牌号	在线状态	当前司机	司机匹配	刷卡时间	空车	GPS时间	位置	速度
赣CX0519	在线	朱小韦	匹配	2019-04-22 07:55	空车	2019-04-22 11:14:42	江西省宜春市袁州区明月北路344-35号赣仁城北114米	3.50 km/h
赣CX0103	离线	胡海军	匹配	2019-04-21 08:32	空车	2019-04-21 22:12:27	江西省宜春市袁州区新阳路253号副业电动汽车67米	0.00 km/h
赣CX01287	离线					2019-04-22 10:24:32	江西省宜春市袁州区环城西路679宜春市公安局交通警察支队车辆管理所内	0.00 km/h

运行时长: 00:21:34 在线数: 66 量车: 21 空车: 45 总数: 196 在线率: 33.67% 量车率: 10.71%

## 3.4 Track Playback

ychy

[首页](#)
[实时监控](#)
[视频监控](#)
[轨迹回放](#)
[录像回放](#)
[订单管理](#)
[监管](#)
[报警分析](#)
[报表统计](#)
[系统配置](#)

**查询条件**

时间: 2019-06-24 00:00:00 - 2019-06-24 23:59:59

间隔: 0 分钟

车牌号: 赣CX1890(4491240118)

**播放设置**

显示速度点  显示轨迹点

速度:

位置:

**轨迹信息**

时间	签到	签别	司机	上车签到
06-24 06:25:00	签到	谢久东		上车签到
06-24 07:21:00	营运		6:47:00-7:21:00 收入: ¥44.70	
06-24 08:14:00	营运		7:53:00-8:14:00 收入: ¥28.50	
06-24 09:30:00	营运		9:22:00-9:30:00 收入: ¥11.40	
06-24 10:08:00	营运		9:48:00-10:08:00 收入: ¥20.40	

总计金额: 105.00

地址:

序号	时间	位置	描述	状态	报警
107	2019-06-24 07:00:59	27.838127,114.391857	速度: 22.70千米/时(西)北	ACC开且已定位,油路正常,车门解锁电路正常,累计超速未加宽,车辆未稳定,未到达限制营运次数,量车,未锁的	
108	2019-06-24 07:01:29	27.840097,114.391770	速度: 25.60千米/时(北)东	ACC开且已定位,油路正常,车门解锁电路正常,累计超速未加宽,车辆未稳定,未到达限制营运次数,量车,未锁的	
109	2019-06-24 07:01:33	27.840253,114.391850	速度: 16.20千米/时(东)北	ACC开且已定位,油路正常,车门解锁电路正常,累计超速未加宽,车辆未稳定,未到达限制营运次数,量车,未锁的	
110	2019-06-24 07:01:45	27.840272,114.392788	速度: 29.70千米/时(东)南	ACC开且已定位,油路正常,车门解锁电路正常,累计超速未加宽,车辆未稳定,未到达限制营运次数,量车,未锁的	
111	2019-06-24 07:01:55	27.840280,114.393448	速度: 0.00千米/时(北)东	ACC开且已定位,油路正常,车门解锁电路正常,累计超速未加宽,车辆未稳定,未到达限制营运次数,量车,未锁的	
112	2019-06-24 07:01:57	27.840282,114.393450	速度: 0.00千米/时(北)东	ACC开且已定位,油路正常,车门解锁电路正常,累计超速未加宽,车辆未稳定,未到达限制营运次数,量车,未锁的	
113	2019-06-24 07:02:27	27.840293,114.393640	速度: 23.20千米/时(东)南	ACC开且已定位,油路正常,车门解锁电路正常,累计超速未加宽,车辆未稳定,未到达限制营运次数,量车,未锁的	
114	2019-06-24 07:02:30	27.840302,114.393898	速度: 31.30千米/时(东)南	ACC开且已定位,油路正常,车门解锁电路正常,累计超速未加宽,车辆未稳定,未到达限制营运次数,量车,未锁的	
115	2019-06-24 07:03:00	27.840318,114.397185	速度: 41.70千米/时(东)南	ACC开且已定位,油路正常,车门解锁电路正常,累计超速未加宽,车辆未稳定,未到达限制营运次数,量车,未锁的	

运行时长: 00:01:56 在路段: 238 量车: 2 空车: 236 总数: 418 在超速: 56.94% 量车率: 0.48%

## 3.5 Video Playback

208Kb/s 警CX6680-CH1

2019-06-24 09:55:15  
40°C  
警CX6680  
017km/h

GPS:27.806612N,114.387093E

09:55:01 10:40:01

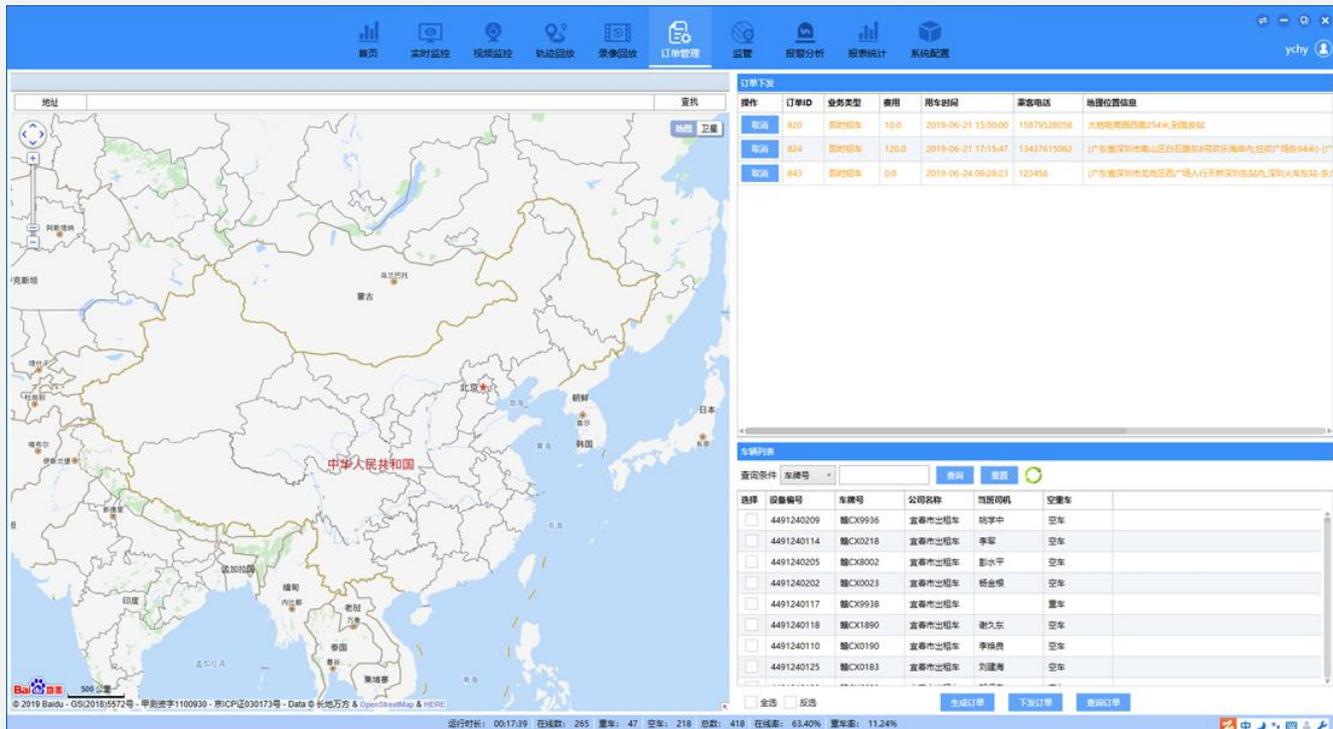
时间	时间	类型	终端设备	通道	位置	大小(MB)	文件
文件	2019-06-24 09:06:15-09:06:34	常规	警CX6680	CH3	终端设备	4.33MB	/sata_1/2019-06-24/H20190624-090615PBN3PO.avi
下载	2019-06-24 09:10:01-09:55:01	常规	警CX6680	CH1	终端设备	637.34MB	/sata_1/2019-06-24/H20190624-091001PBN1P0.avi
	2019-06-24 09:10:01-09:55:01	常规	警CX6680	CH2	终端设备	444.80MB	/sata_1/2019-06-24/H20190624-091001PAN2P0.avi
	2019-06-24 09:10:01-09:55:01	常规	警CX6680	CH3	终端设备	608.36MB	/sata_1/2019-06-24/H20190624-091001PBN3P0.avi
	2019-06-24 09:55:01-10:40:01	常规	警CX6680	CH1	终端设备	636.55MB	/sata_1/2019-06-24/H20190624-095501PBN1P0.avi
	2019-06-24 09:55:01-10:40:01	常规	警CX6680	CH2	终端设备	444.97MB	/sata_1/2019-06-24/H20190624-095501PAN2P0.avi
	2019-06-24 09:55:01-10:40:01	常规	警CX6680	CH3	终端设备	615.03MB	/sata_1/2019-06-24/H20190624-095501PBN3P0.avi

运行时长: 00:15:53 在线数: 269 警车: 48 空车: 221 总数: 418 在线率: 64.35% 复车率: 11.48%

## 3.6 Order Management



Phone App Call



操作	订单ID	业务类型	费用	用车时间	乘客电话	地理位置信息
取消	820	即时用车	18.0	2019-06-21 15:00:00	15879528058	大洲电商园西54米, 深圳东站
取消	824	即时用车	120.0	2019-06-21 17:15:47	13437615062	广东省深圳市南山区白石路18号深圳湾内, 莲花广德合844号-广
取消	843	即时用车	0.0	2019-06-24 09:28:23	129456	广东省深圳市龙岗区西广行人行天桥深圳北站, 深圳火车站-东/

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

## 3.7 Artificial Intelligence Technologies for Safety Alarm Analysis

Dashboard navigation icons: 首页, 监控调度, 视频监控, 轨迹回放, 录像回放, 电召管理, 监管, 行为分析, 报表统计, 系统配置.

Filters: 开始时间: 2020-05-19 00:00:00, 结束时间: 2020-05-19 23:59:59, 报警类型: 全部, 报警等级: 全部. Buttons: 查询, 批量确认, 批量取消.

操作	设备	报警类型	报警等级	报警时间	车速	高程	位置
	赣CX0308	抽烟报警	一级报警	2020-05-19 15:13:48	21km/h	105m	江西省宜春市袁州区宜阳大道22 聚合苑附近41米
	赣CX0291	抽烟报警	一级报警	2020-05-19 15:13:16	0km/h	111m	江西省宜春市袁州区平安路231号 源丰针织制衣有限公司-南门附近40米
	赣CX1997	疲劳驾驶报警	一级报警	2020-05-19 15:13:10	0km/h	89m	江西省宜春市袁州区中山东路 东投-中央城离53米
	赣CX1983	抽烟报警	一级报警	2020-05-19 15:13:10	0km/h	89m	江西省宜春市袁州区中山东路 东投-中央城离53米

ICAR VISIONS logo and navigation menu.

报警信息: 设备: 018522621386, 报警类型: 分神驾驶报警, 车速: 63.00km/h, 报警时间: 2019-08-14 16:16:00, 位置: 广东省深圳市宝安区S359(宝石路)永生石材护理工具商行南221米.

司机信息: 司机姓名, 联系方式, 驾驶证编号, 从业证书编号.

车辆状态: ACC开启, 左转向(关闭), 右转向(关闭), 雨刮器(关闭), 未制动, 未插卡, 已定位.

报警列表 (共76条):

序号	车牌号	报警类型	报警等级	报警时间	车速
1	赣CX0305	转向灯故障	二级报警	2019-04-22 11:16:39	36km/h
2	赣CX0305	疲劳驾驶报警	二级报警	2019-04-22 11:16:27	34km/h
3	赣CX0369	抽烟报警	二级报警	2019-04-22 11:13:33	45km/h
4	赣CX0369	抽烟报警	二级报警	2019-04-22 11:10:20	47km/h
5	赣CX0369	抽烟报警	二级报警	2019-04-22 11:09:50	55km/h
6	赣CX0378	抽烟报警	二级报警	2019-04-22 11:00:29	34km/h
7	赣CX0092	疲劳驾驶报警	二级报警	2019-04-22 10:51:38	63km/h
8	赣CX0092	疲劳驾驶报警	二级报警	2019-04-22 10:51:28	64km/h
9	赣CX0092	疲劳驾驶报警	二级报警	2019-04-22 10:51:23	67km/h
10	赣CX0092	疲劳驾驶报警	二级报警	2019-04-22 10:51:18	65km/h

报警详情: 2019-08-14 16:16:00. 包含摄像头画面、地图、仪表盘速度表 (0.00 km/h) 和报警历史记录缩略图.

Alarm type:

- ADAS
- DSM
- Face Reconignition

For example: DSM Alarm report

## 3.8 Overspeed Supervision

操作	车牌号	驾驶员	报警时间	当前速度(Km/h)	所属企业	超速状态
<input type="checkbox"/>	豫CK0357	魏高飞	2019-06-24 10:46:42	78.40	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0278	刘海东	2019-06-24 10:46:37	67.60	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0512	袁志华	2019-06-24 10:46:33	62.50	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0229	陈清平	2019-06-24 10:46:32	59.80	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0202	梅小平	2019-06-24 10:46:26	73.30	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0366	叶专平	2019-06-24 10:46:24	67.40	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0357	魏高飞	2019-06-24 10:46:23	66.90	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0236	潘刚	2019-06-24 10:46:20	69.80	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0060	葛超平	2019-06-24 10:46:05	71.40	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0505	黄超平	2019-06-24 10:46:04	69.80	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0510	陈洪平	2019-06-24 10:46:03	66.80	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0357	魏高飞	2019-06-24 10:45:54	69.60	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0312	刘忠群	2019-06-24 10:45:52	68.20	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK6316	乐俊	2019-06-24 10:45:49	72.30	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0232	梁永生	2019-06-24 10:45:47	61.80	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0273	张荣生	2019-06-24 10:45:35	65.40	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0202	梅小平	2019-06-24 10:45:19	71.00	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0201	彭军鑫	2019-06-24 10:45:19	71.90	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0515	刘富田	2019-06-24 10:45:17	62.30	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0110		2019-06-24 10:45:11	71.60	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0355	蔡耀	2019-06-24 10:45:09	64.40	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK9938		2019-06-24 10:45:05	75.30	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0305	葛军秋	2019-06-24 10:45:02	73.50	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0060	葛超平	2019-06-24 10:44:59	76.50	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0152	廖应兵	2019-06-24 10:44:57	63.30	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0505	黄超平	2019-06-24 10:44:52	71.90	宜春市出租车	超速报警开始
<input type="checkbox"/>	豫CK0357	魏高飞	2019-06-24 10:44:49	73.20	宜春市出租车	超速报警开始

运行时长: 00:19:12 | 在线数: 261 | 重车: 48 | 空车: 213 | 总数: 418 | 在线率: 62.44% | 重车率: 11.48%

## 3.9 Operational statistics

车联网用户管理平台

2019-06-23

选择日期 查询 导出至Excel

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	附加费总款(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

共 416 条 < 1 2 3 ... 418 >

电子围栏 驾驶行为分析 音视频管理 营收报表统计 普运报表统计 订单明细 普运统计 交易类型 日普运统计 月普运统计 年普运统计 服务评价 投诉登记 调度报表 电召订单 设备信息管理

首页 平台功能 报表统计 运营管理 查看市出租车 再次查询 退出

## 3.10 Alarm statistics

ICAR VISIONS

平台功能 报表统计 运营管理

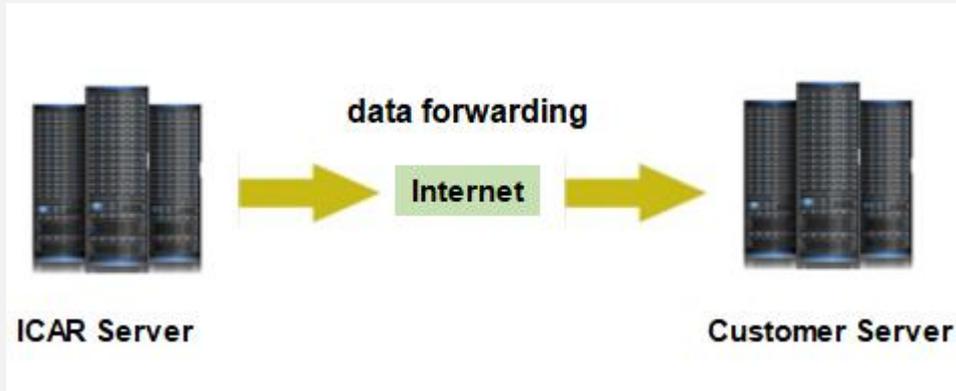
开始时间: 2019-04-22 00:00:00 结束时间: 2019-04-22 11:25:31 已选择: 45

选择日期 查看 导出Excel

序号	车牌号	开始时间	结束时间	ACC开锁 (次)	GPS信号丢失报警 (次)	紧急报警 (次)	移动报警 (次)	熄火报警 (次)	振动报警 (次)
1	鄂CX0289	2019-04-22 08:34:11	2019-04-22 10:33:17	2	1	0	0	2	0
2	鄂CX0519	2019-04-22 07:53:04	2019-04-22 11:04:05	5	3	0	0	0	0
3	鄂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	鄂CX0212	2019-04-22 00:21:42	2019-04-22 11:23:49	6	4	0	0	7	0
6	鄂CX9686	2019-04-22 03:04:14	2019-04-22 11:25:02	6	6	0	0	2	0
7	鄂CX0337	2019-04-22 00:27:19	2019-04-22 11:21:30	11	0	0	0	9	0
8	鄂CX0228	2019-04-22 06:35:28	2019-04-22 10:45:18	4	5	0	0	0	0
9	鄂CX1588	2019-04-22 00:03:05	2019-04-22 10:59:42	13	1	0	0	14	0
10	鄂CX0280	2019-04-22 06:24:14	2019-04-22 11:25:24	8	7	0	0	12	0

共 38 条 < 1 2 3 4 > 10 条/页 跳至 1 页

### 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.**

