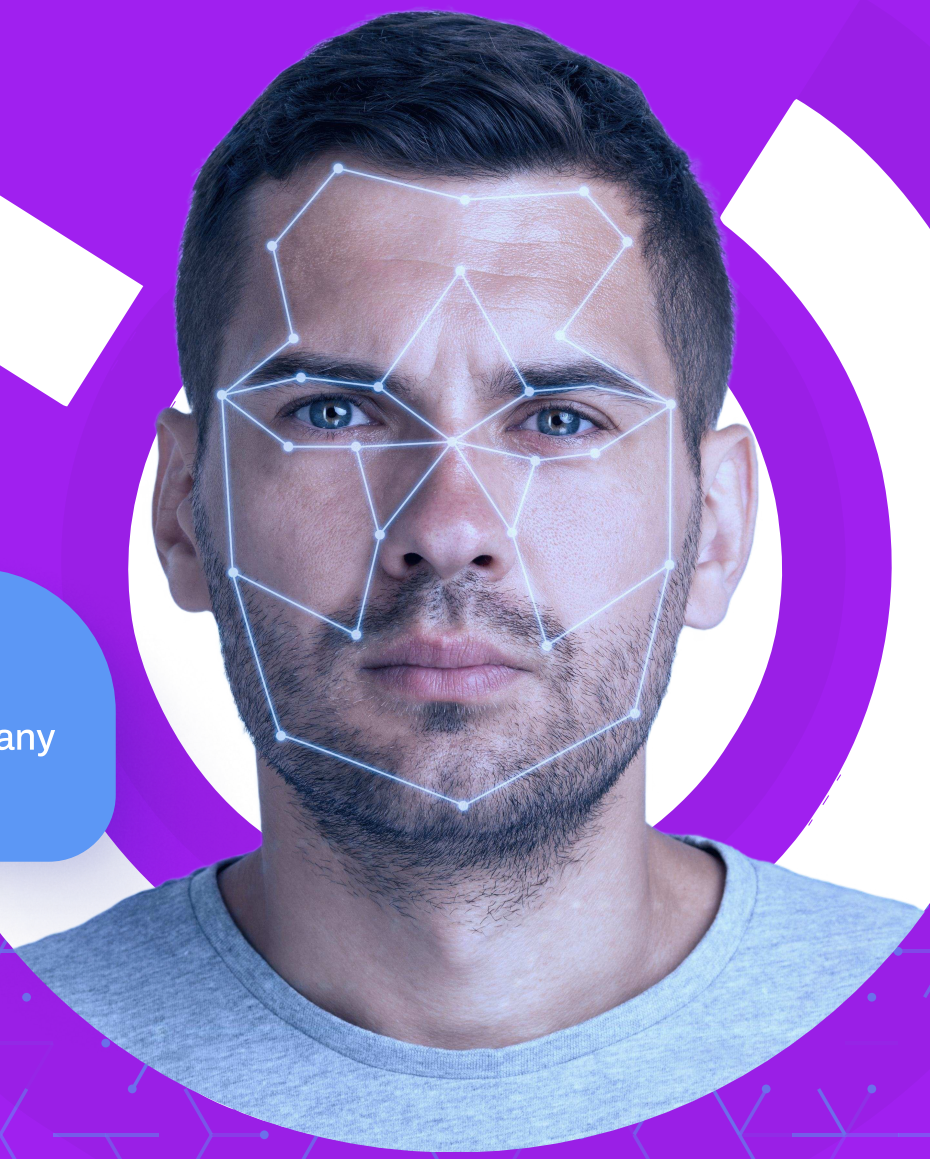
AI GPS/BD MDVR

Driver & Passengers Control



Company Profile

IDOM Idea of mind

www.idom.co info@idom.co idom.ae

Table of Content

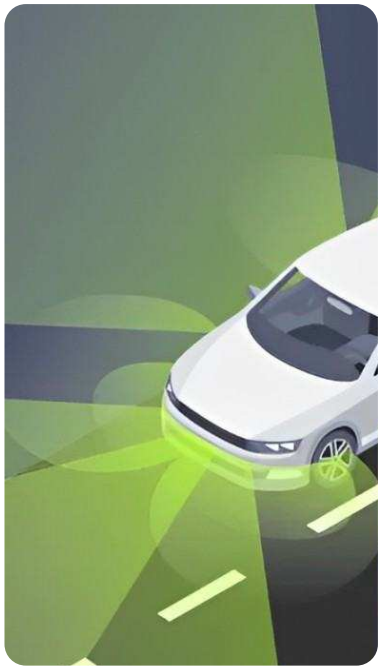
AI GPS MDVR

Table of Content

AI GPS MDVR

AI Function

Know about AI function



ADAS: (Advanced Driving Assistance System)

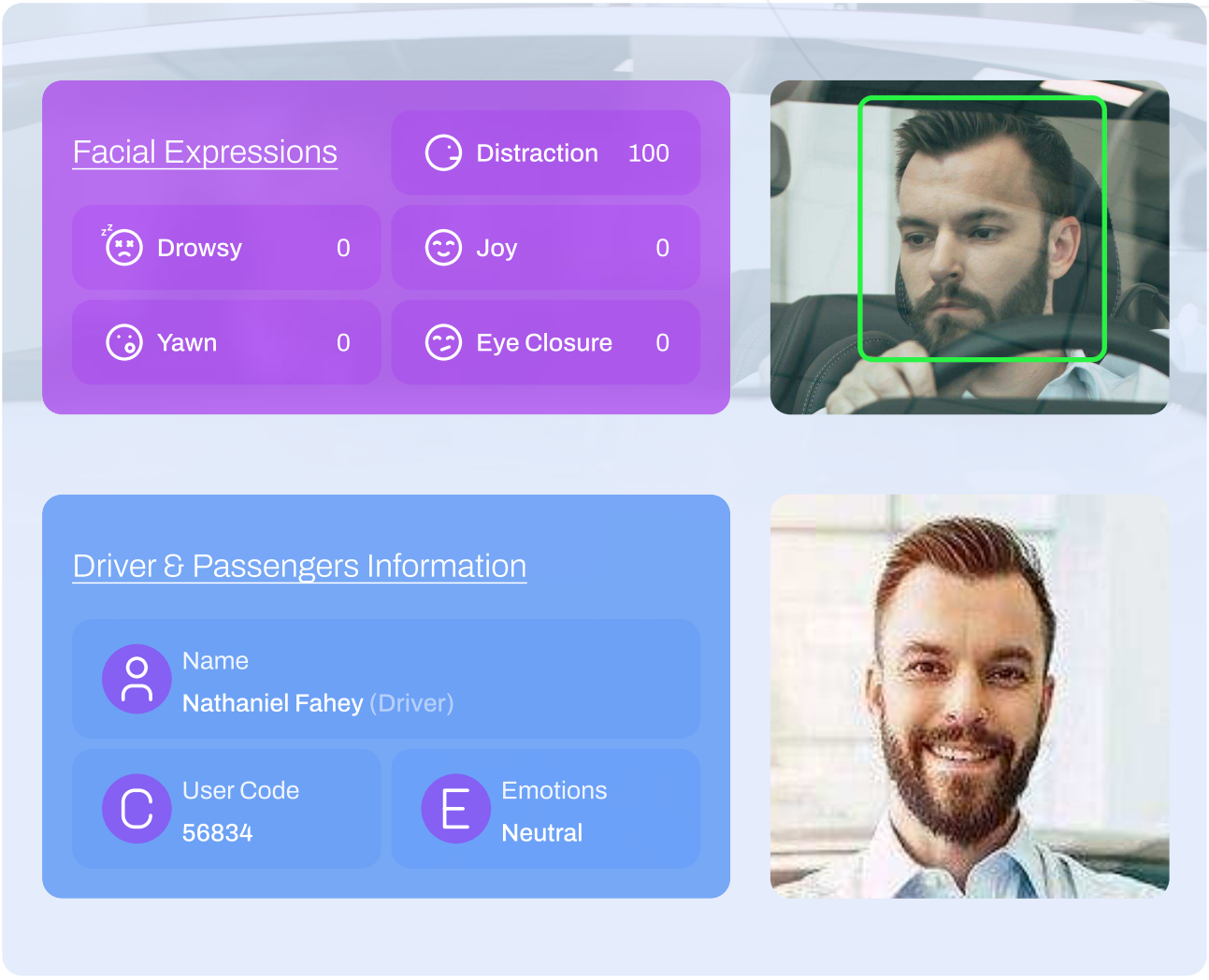
Know about AI function

Advanced Driving Assistance System uses the camera installed on the car to sense the surrounding environment at any time during the driving process of the car, collect data, identify, detect and track static and dynamic objects, and perform system calculation and analysis, so as to let the The driver is aware of possible dangers, effectively increasing safety of driving.
The system records the driver and passengers' facial features in real-time and provides an alert if the detected features do not match normal conditions.

Advanced Driving Assistance System including LDW(Lane Departure Warning), FCW (Forward Collision Warning) and HMW (Headway Monitoring & Warning
Additionally, this system can be integrated with the ERP system and connected within the system.

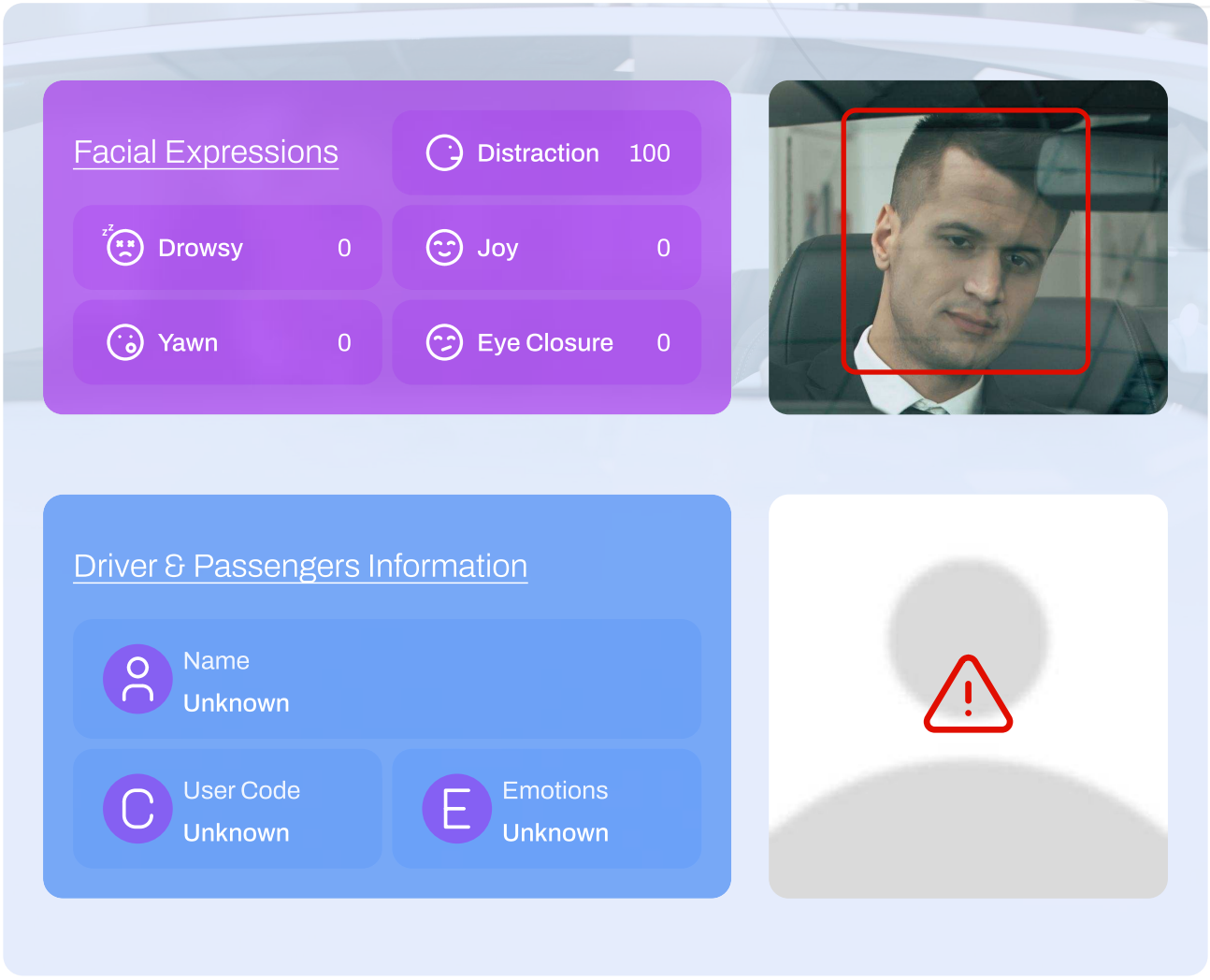
Driver And Passengers State Monitoring

Driver & Passengers



Driver And Passengers State Monitoring

Driver & Passengers



Know about LDW, FCW, HMW

LDW(Lane Departure Warning)

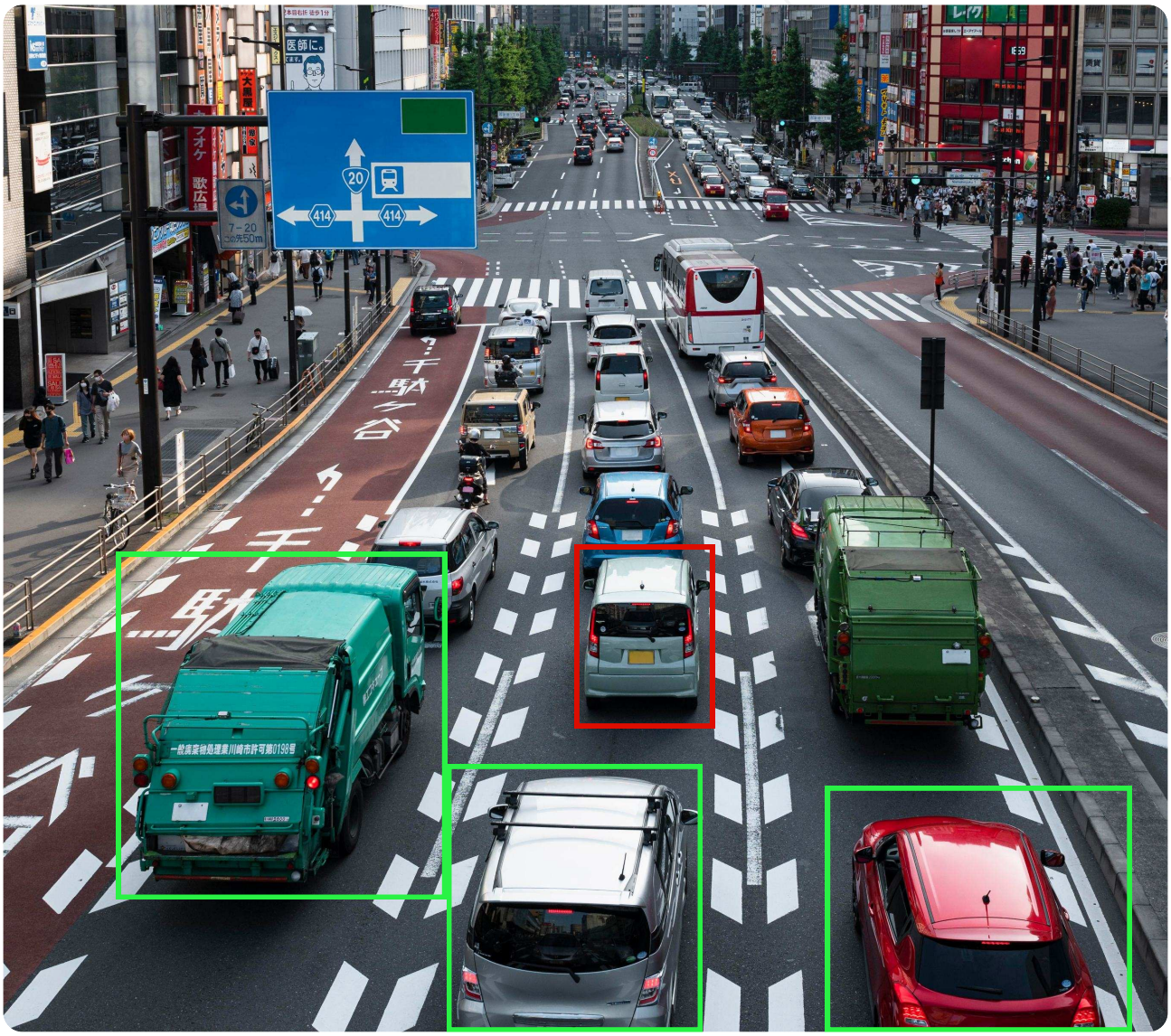
When the lane departure system is turned on, the camera will always collect the marking lines of the driving lane, and obtain the position parameters of the car in the current lane through image processing. When the car is detected to deviate from the lane and the turn signal is not turned on, the terminal will trigger the lane If the driver turns on the turn signal and changes lanes normally, the lane departure warning system will not give any prompts.

FCW (Forward Collision Warning)

The system monitors the vehicle in front at all times through the camera, judges the distance, orientation and relative speed between the vehicle and the vehicle in front, and warns the driver when there is a potential collision risk. The FCW system itself does not take any braking action to avoid a collision or control the vehicle.

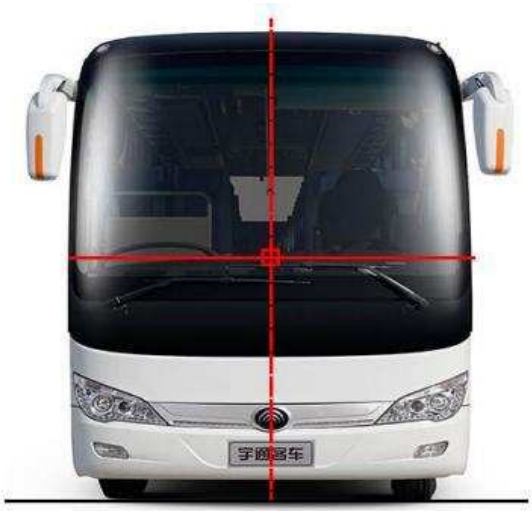
HMW (Headway Monitoring & Warning)

When the speed of the vehicle reaches a certain speed, calculate the time required for the vehicle to travel to the current position of the vehicle in front. When the real-time distance monitoring function finds that the real-time distance between the vehicle and the vehicle in front (in the same lane) is less than the set distance (0.1-2.5s), the system will issue a warning to the driver



Applications

ADAS Application



DSM: (Driver State Monitoring)

The system uses the camera to monitor the driver's face, judges the level of attention, whether there are signs of dozing off, and uses the driver's eye opening and closing frequency to identify the safety level and provide appropriate warnings (such as alarm sounds), to reduce accidents.

The DSM system includes functions such as physiological fatigue alarm, distracted driving alarm, smoking alarm, answering and calling alarm, abnormal driver alarm, etc.

Driver State Monitoring

Look Around Alarm

Trigger rule: when driving, the driver didn't look straight for a long time, and the the angle is bigger than 30 degrees, lasting for 4-5 seconds, will trigger the alarm.

Driver State Monitoring

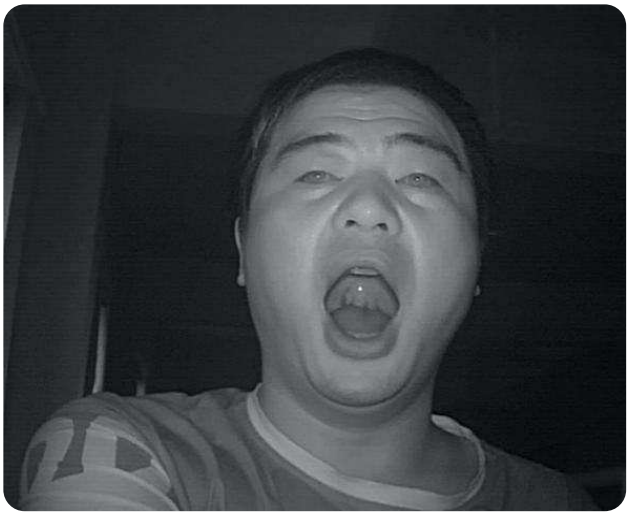
Phone Call Alarm

Trigger rule: having a phone call when driving, lasting for 3-4 seconds, will trigger the alarm.

Driver State Monitoring

Smoking, Fatigue Alarm

Smoking trigger rule: when driving, smoking lasts 3-4 seconds, will trigger the alarm.
Fatigue trigger rule: close the eyes, yawn during the driving process, and lasts 3-4 seconds, will trigger the fatigue alarm.

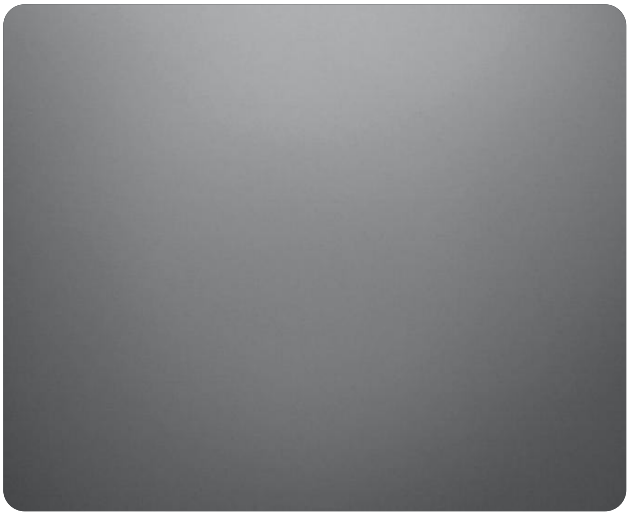


Driver State Monitoring

Driver Abnormal , Cover Camera Alarm

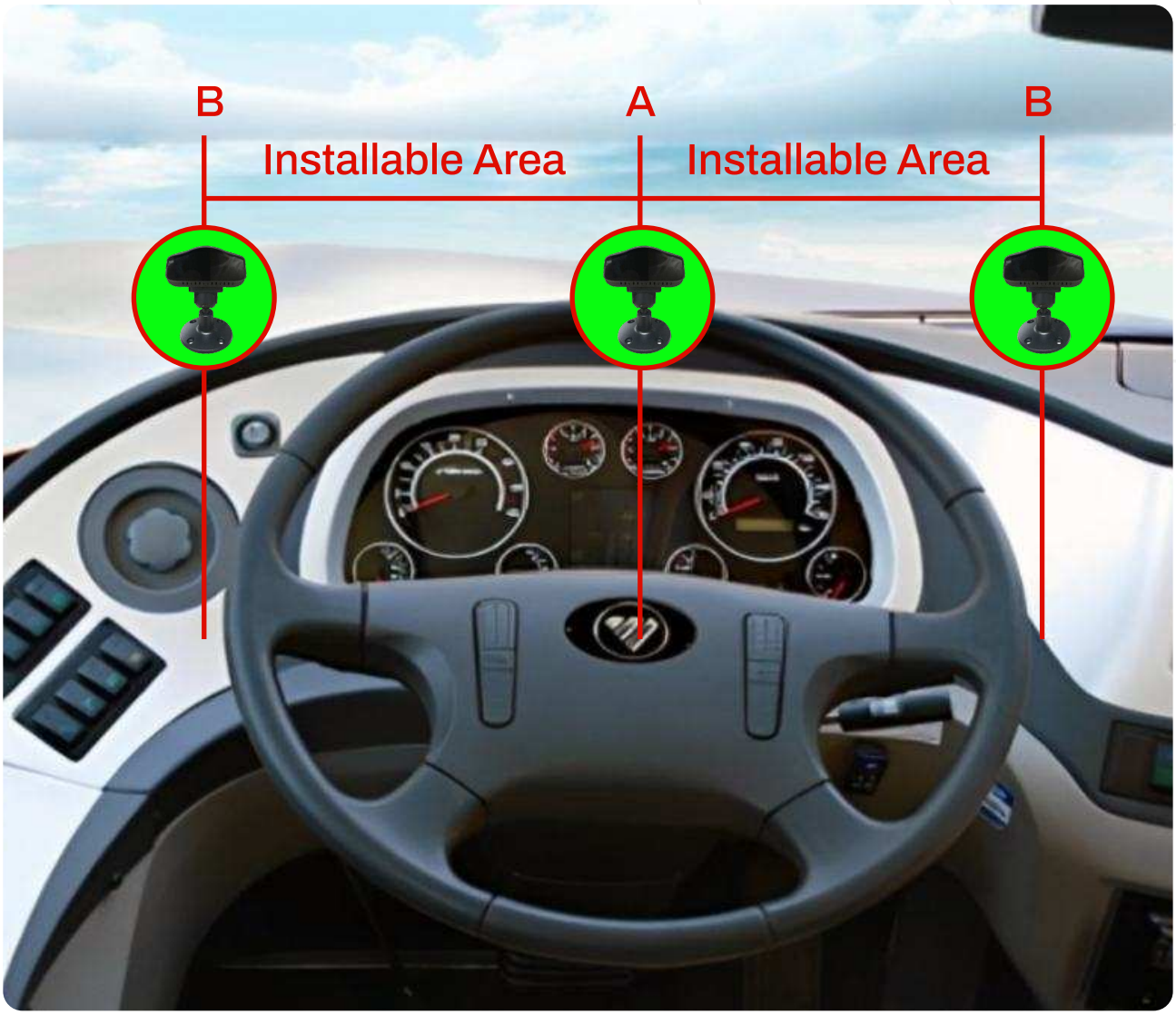
Driver abnormal trigger rule: driver leaves his seat/cover his face during the driving process, lasts 5 seconds, will trigger the alarm.

Cover camera trigger rule: the driver cover the camera by his hand/towel/plastic packets during the driving process, lasts 5 seconds, will trigger the alarm.



Driver State Monitoring

DSM Application



Driver State Monitoring

DSM Camera

Driver State Monitoring

Alarm Parameters

Alarm Description					
NUM	Types	Alarm	Definition	Voice	File
1	DSM	Fatigue Alarm	Yawn More Than 3-4s	Please Take A Rest	3 Pictures+1 Video
2			Drivers Squint And Close Their Eyes For More Than 3-4s	Please Take A Rest	3 Pictures+1 Video
3		Phone Call Alarm	Drivers Hold Cell Phones To Their Ears Or Make Calls On Speakerphone For More Than 3-4s	No Call Please	3 Pictures+1 Video
4		Smoking Alarm	The Driver Lights A Cigarette And Smokes For More Than 3-4s	No Smoking Please	3 Pictures+1 Video
5		Look Around Alarm	The Driver Turns His Head, Head Up And Head Down More Than 4-5s From Left To Right	Please Don't Look Around	3 Pictures+1 Video
6		Driver Abnormal Alarm	The Driver Left The Lens Range And Covered His Face With Foreign Body For More Than 5s	Driver Anomaly	3 Pictures+1 Video

Driver State Monitoring

Alarm Parameters

Alarm Description					
NUM	Types	Alarm	Definition	Voice	File
7	DSM	Cover Camera Alarm	The Obstacle Completely Blocked The Lens For More Than 5s	Please Don't Cover The Camera	3 Pictures+1 Video
8	ADAS	LDW	Lane Offset, Cross Lane	Lane Shift	3 Pictures+1 Video
9		HMW	Lead Distance Less Than 0.8s (Adjustable) Times Current Speed	Please Keep Your Distance	3 Pictures+1 Video
10		FCW	Lead Distance Less Than 2.0s (Adjustable) Times Current Speed	Collision Risk	3 Pictures+1 Video
11	BSD	BSD Alarm	Human And Non-Motor Vehicle Trigger Alarm Detected Within One Meter Of The Car Body, Highest Priority	Danger Please Keep Away	3 Pictures+1 Video

Driver State Monitoring

Alarm Parameters

Alarm Description					
NUM	Types	Alarm	Definition	Voice	File
12	BSD	BSD Alarm	Within 1~2 Meters Of The Car Body, Trigger Alarm Is Detected For People And Non-Motor Vehicles, With The Second Priority	Danger Please Keep Away	3 Pictures+1 Video
13		BSD Alarm	Within 2 To 3 Meters Of The Car Body, Trigger Alarm Is Detected For People And Non-Motor Vehicles. Lowest Priorty	NA	3 Pictures+1 Video

MDVR

Know about MDVR(Mobile Digital Video Recorders)

MDVR(Mobile Digital Video Recorders)

Know about MDVR(Mobile Digital Video Recorders)

MDVR adopts high-performance H.265 encoding standard, integrates 4G wireless communication technology, GPS/BD global satellite positioning technology, and video surveillance technology. It is a new generation of wireless vehicle-mounted video surveillance solution. The core product of the solution supports maximum 8-channel 1080P resolution video capture, and supports SD card and hard disk storage. With powerful audio and video collection, driving data storage and transmission functions, it is especially suitable for harsh vehicle moving environments such as high-speed movement, severe vibration, unstable power supply, serious interference, and dust. It is widely used in buses, subways, trains, and long-distance Various mobile video surveillance fields such as passenger cars, taxis, logistics vehicles, private cars, and special vehicles (such as cash transport vehicles).

Know about MDVR

Features:

- Single chip design, integrated ADAS, DSM, BSD
- Support O&M debugging
- H.265 encoding, high compression ratio
- Supports 4/8 CH 1080P/720P AHD
- AHD/TVI/CVI/IPC/ Analog video inputs
- Built-in G-sensor, monitoring of vehicle driving behavior
- Support reversing image ranging assistance
- Support image horizontal and vertical mirror adjustment
- Unique GPS drift suppression algorithm
- Input pulse automatic calibration algorithm

Power Supply:

- Professional vehicle power supply 9-36V DC wide voltage
- Low voltage, short circuit, reverse connection and other protection
- Support intelligent power management identification, low power automatic shutdown, flameout low power consumption

Data Storage:

- Built-in super capacitor prevents data loss and disk damage
- A special file management adopted to encrypt data to effectively protect data security
- Supports HDD and SD cards, 512 GB SD card max

Know about MDVR

Wireless Module:

- Built-in GPS/BD/GLONASS module, high sensitivity, fast positioning
- Built-in 4G module, support LTE/HSPA/WCDMA
- WIFI module (optional), frequency 2.4ghz

Active Safety Early Warning System:

- Built-in ADAS (LDW, HMW, FCW)
- Built-in DSM (fatigue, distraction, smoking, phone calls, infrared blocking sunglasses, abnormal driver, occlusion, driver comparison and other alarms)
- Built-in BSD (level 3 alarm)

Intense Driving Assist:

- Support speedup, slowdown, sharp turn alarm and upload platform
- Support rollover, collision alarm and upload platform

Parameters

Know about MDVR(Mobile Digital Video Recorders)

Parameters		
Types	Parameters	Performance Indicator
System	System	Embedded Linux Operating System
	Language	Chinese/English Etc...
	Interface	Graphical Menu Operation Interface, Mouse Operation
Audio And Video	Video Input	4/8 CH 1080P AHD/TVI/CVI/CVBS
	Video Output	VGA+CVBS
	Audio Input	4/8 CH
	Audio Output	2 Analog Output
	Video Formats	PAL/NTSC
	Video Compression	H.264/H.265
	Video Resolution	1080P/720P/960H/D1/CIF
	Video Quality	Grades 1 To 6
	Audio Format	G711A G711U G726
Video And Playback	Storage	HDD & SD
	Video Query	Search By Channel, Video Type And Alarm Type
	Video Playback	Local 4/8 CH
	Local Backup	Supports SD Cards And USB Drives

Parameters

Know about MDVR(Mobile Digital Video Recorders)

Parameters		
Types	Parameters	Performance Indicator
Physical Interface	Upgrade Mode	Manual Upgrade, Automatic Upgrade, Remote Upgrade
	Upgrade Way	USB , SD Card, Network
	Audio/Video Output	One VGA Port And One CVBS Port
	Power Interface	Power/Ignition Signal
	Alarm Input	4 Digital Input
	Alarm Output	2 Outputs
	The Speed Pulse	1
	RS232	2
	TTS Interface	4PIN MIC/SPK
	TTL	NA
	RS485	1
Other Interface	LED Light	PWR/RUN
	ETH	1*100MB ETH(Optional)
	SD Card	1* SD Card Interface (Can Be Extended Another SD)
	Disk Lock	1

Parameters

Know about MDVR(Mobile Digital Video Recorders)

Parameters		
Types	Parameters	Performance Indicator
The Wireless Interface	GNSS	GPS/BD/GLONASS
	WIFI	Optional WIFI Module, 2.4GHz
	3G/4G	4G Netcom
Active Safety Interface	ADAS Interface	1 CH ADAS, 1080P/720P
	The DSM Interface	1 CH DSM, 1080P/720P
	BSD Interface	1 CH BSD, 1080P/720P
Other	The Power Input	DC: 9 V ~ 36 V
	Storage Capacity	1080P 622MB/H/CH H 1080P 1.2G/H/CH H.264
	Typical Power Consumption	Power Consumption: AVG 4.8W (Excluding Peripherals) Static Power Consumption: 2.4mA
	Power Output	5V@500mA
	Length* Width* Height	187 Mm * 154.9 Mm * 55.55 Mm

Platform

Know about Platform (Vehicle Management System)

Platform (Vehicle Management System)

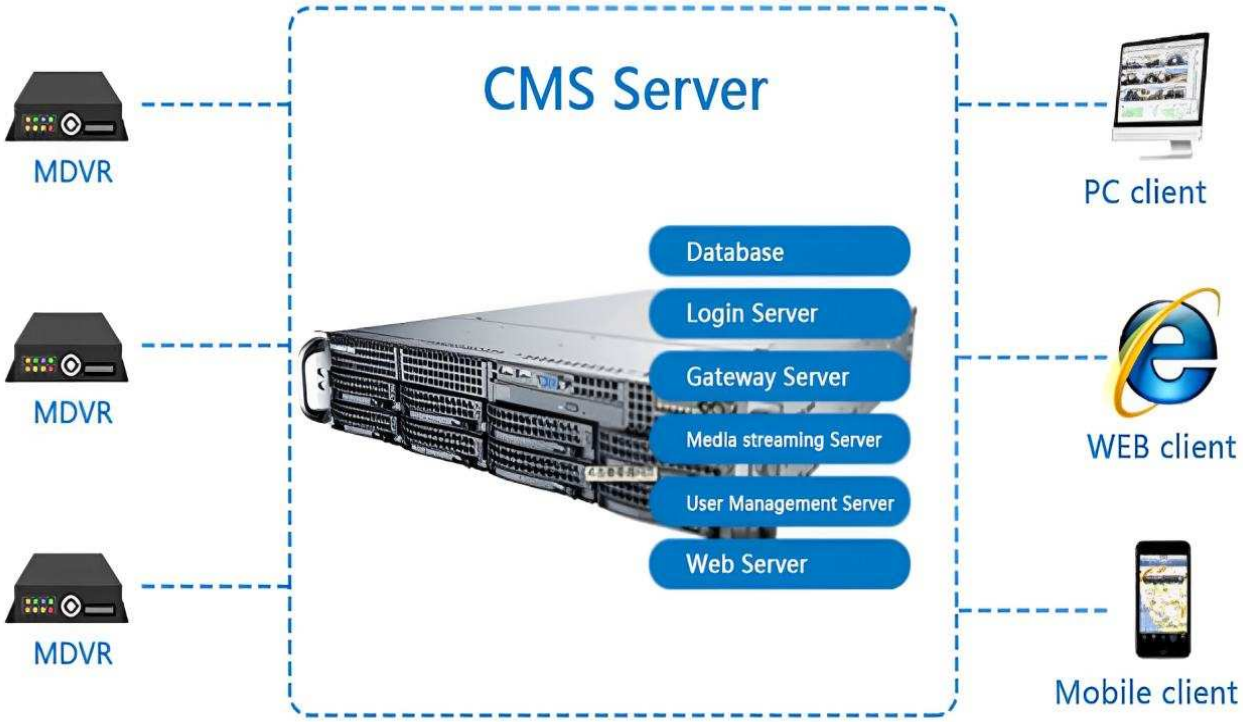
Know about Platform (Vehicle Management System)

The software system is based on wireless network for centralized management and monitoring of all kinds of vehicles. Based on the architecture of high quality, high efficiency centralized, distributed network management, and based on the network transmission of multimedia information such as video, audio, data and soon, the security prevention work of real-time monitoring, GPS positioning, video storage, vehicle scheduling and Alarm early warning is vehicle ried out for users to meet the real-time monitoring of vehicles on the map by vehicle users, and the search of historical track data is provided to manage Alarm and alarm in a unified manner. Analyze and present all kinds of reports that users need.

Know about Platform (Vehicle Management System)

Platform (Vehicle Management System)

Through ADAS vehicle front collision prevention early warning system, blind region monitoring and early warning system, face recognition fatigue detection system, 4G network real-time upload system and other hardware Device, using driver and fleet safety management platform to vehiclery out big data statistical analysis, combined with fleet safety management consultation and training, it can effectively improve drivers' irregular driving behavior, improve the level of enterprise safety management, and prevent accidents. Provide transport safety for drivers and enterprises, effectively reduce accident rate, reduce vehicle insurance and transportation costs



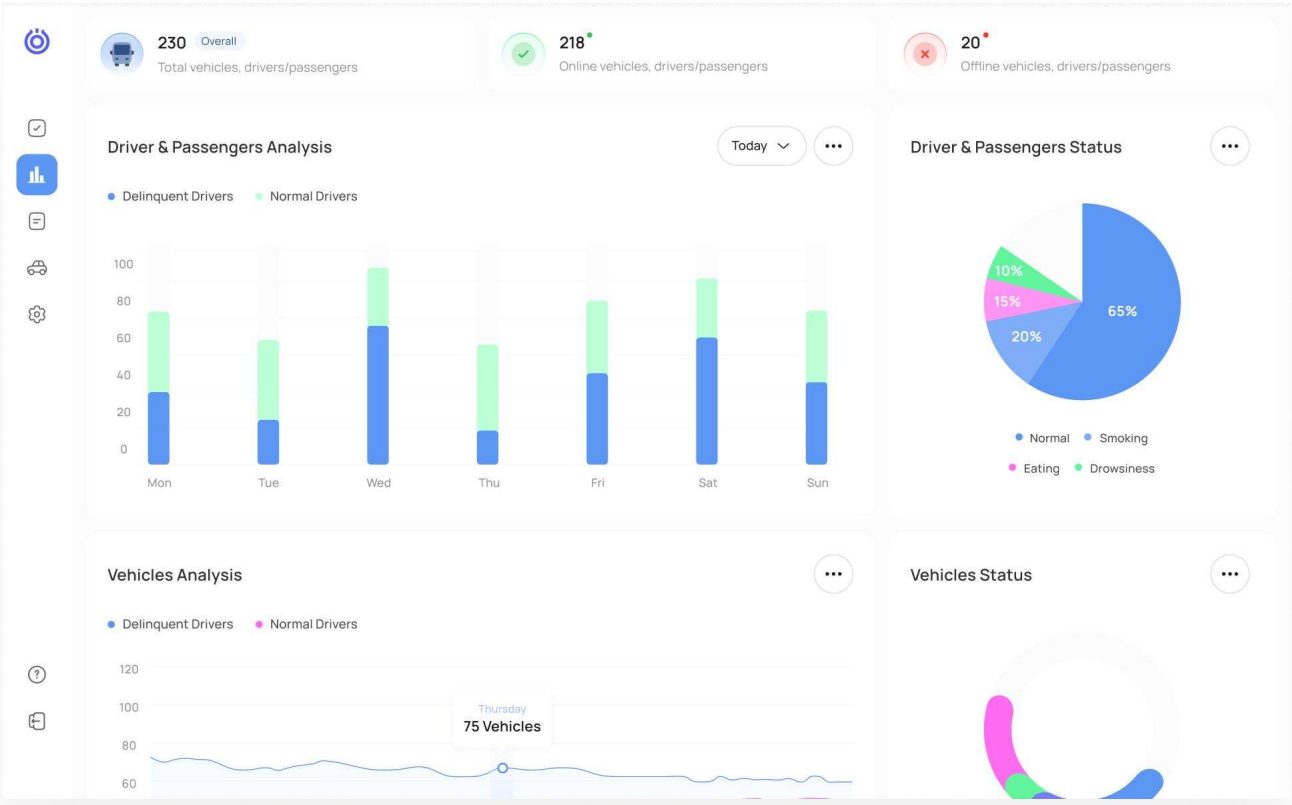
Know about Platform (Vehicle Management System)

Risk Monitoring System

Daily Dashboard: Overall display of data such as vehicle usage, terminal device online status, and active safety alarm status.

AI Dashboard: Real-time statistics and analysis of the current number of vehicle alarms and the distribution of alarm types. According to the number of different vehicle alarms, the driver's safe driving assessment is conducted, and the potential dangerous driving behavior is analyzed according to the current alarm. The driver is educated on safe driving, fundamentally prevent and reduce accidents.

Data Dashboard: Real-time statistics of the current vehicle online rate and positioning rate, assisting in understanding the vehicle usage and terminal equipment usage

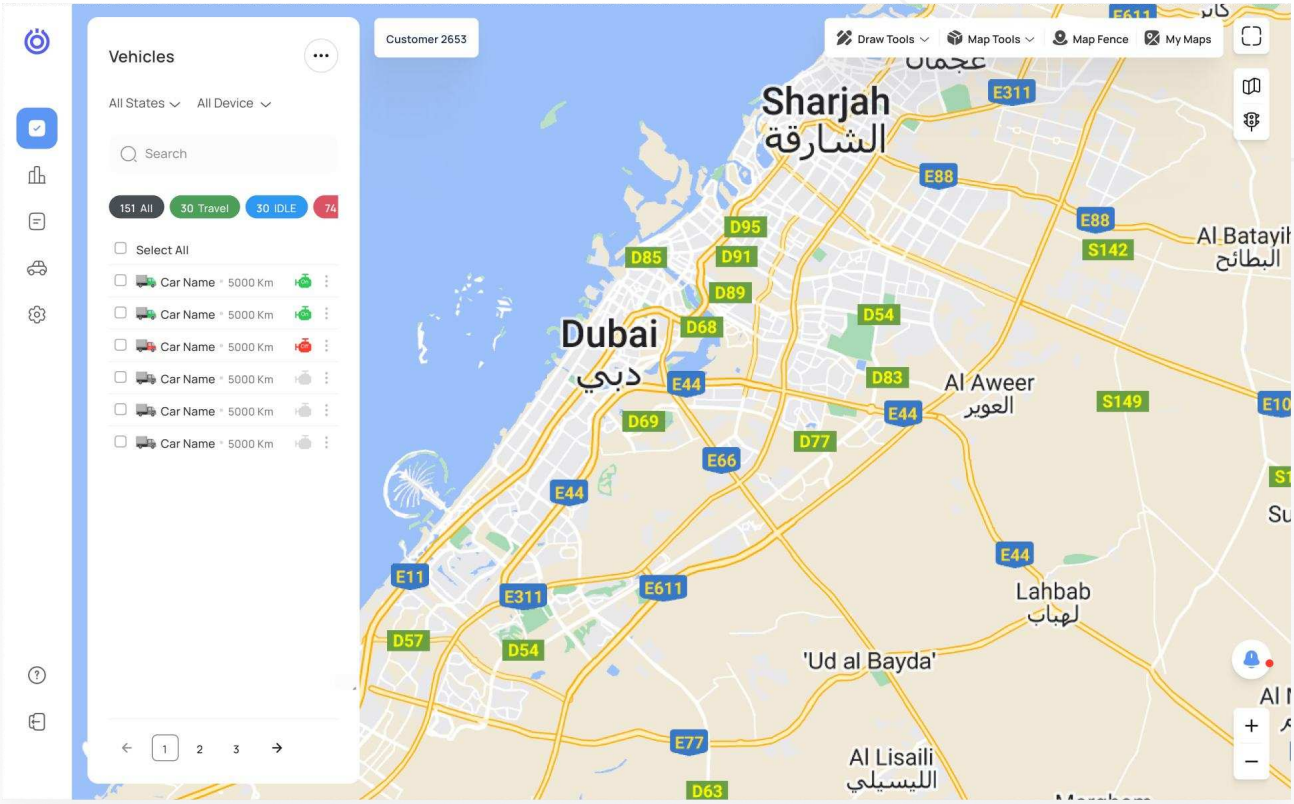


Know about Platform (Vehicle Management System)

MAP

- Real-time positionin :

Real-time tracking device positioning latitude and longitude, speed, mileage, ACC and other real-time status, and display on the map

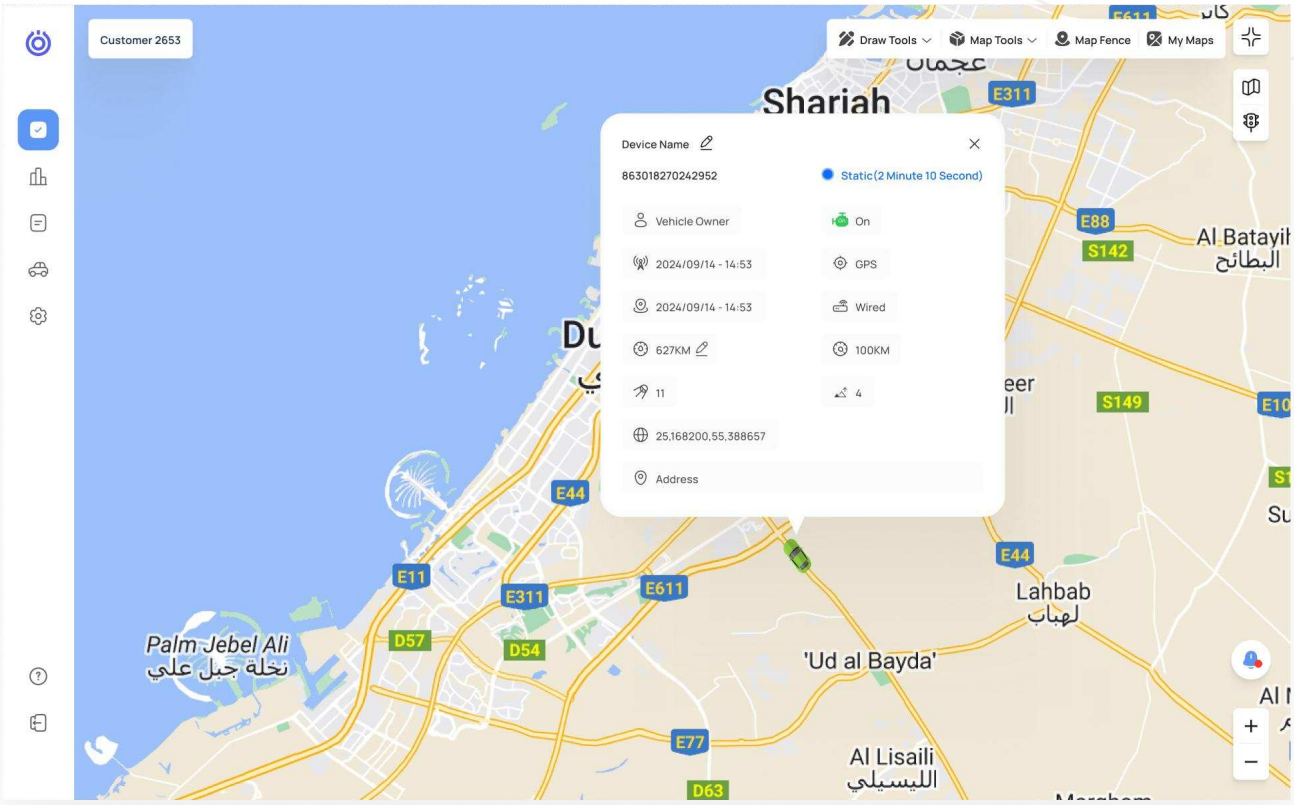


Know about Platform (Vehicle Management System)

MAP

- Historical track :

Support querying vehicle trajectory, which can be queried according to vehicle and time. During playback, the vehicle status of each track point (including speed, latitude and longitude, GSM/GPS signal and alarm status) can be displayed, and mileage data can be counted according to time. Track points Support for exporting reports.

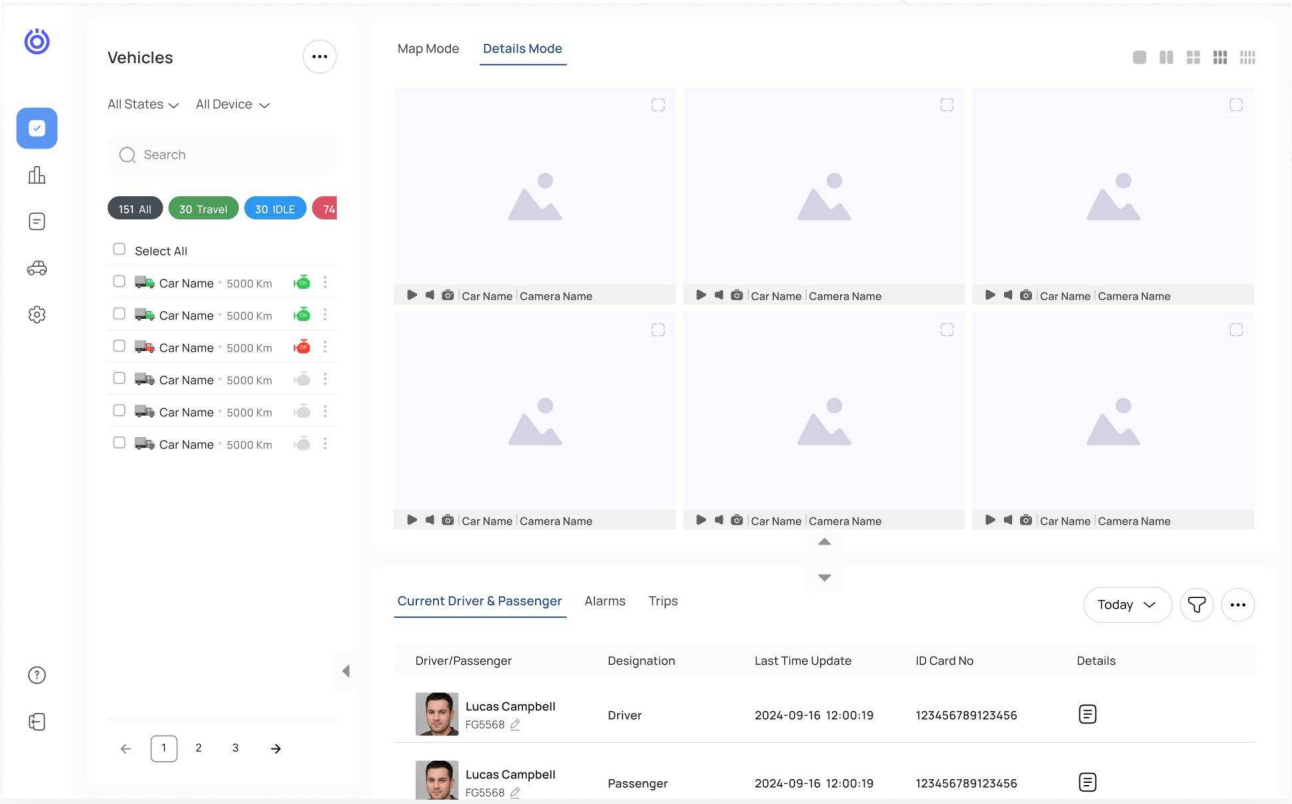


Know about Platform (Vehicle Management System)

Video

- Live video :

The platform can retrieve the real-time video of the vehicle and display it in split screens as needed. When calling real-time video, you can quickly take pictures and save pictures.

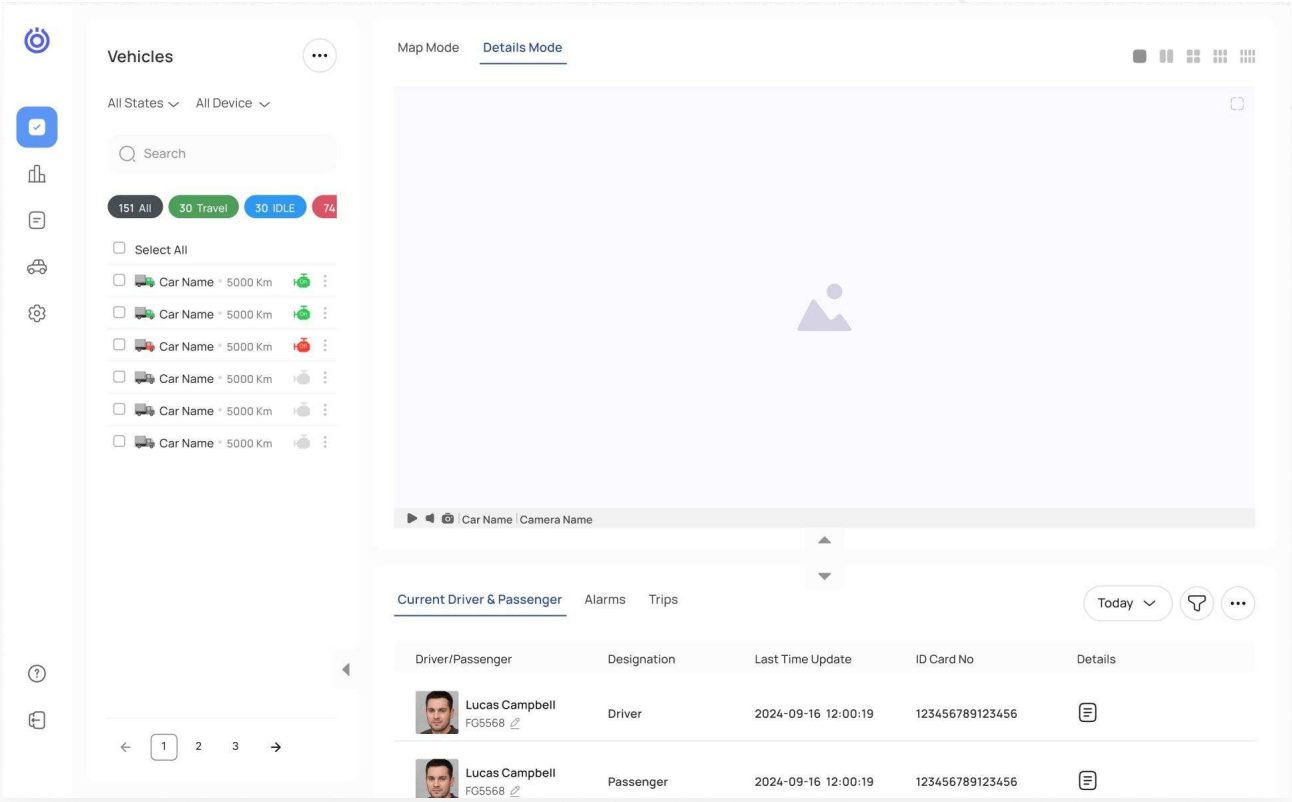


Know about Platform (Vehicle Management System)

Video

- Video playback and download :

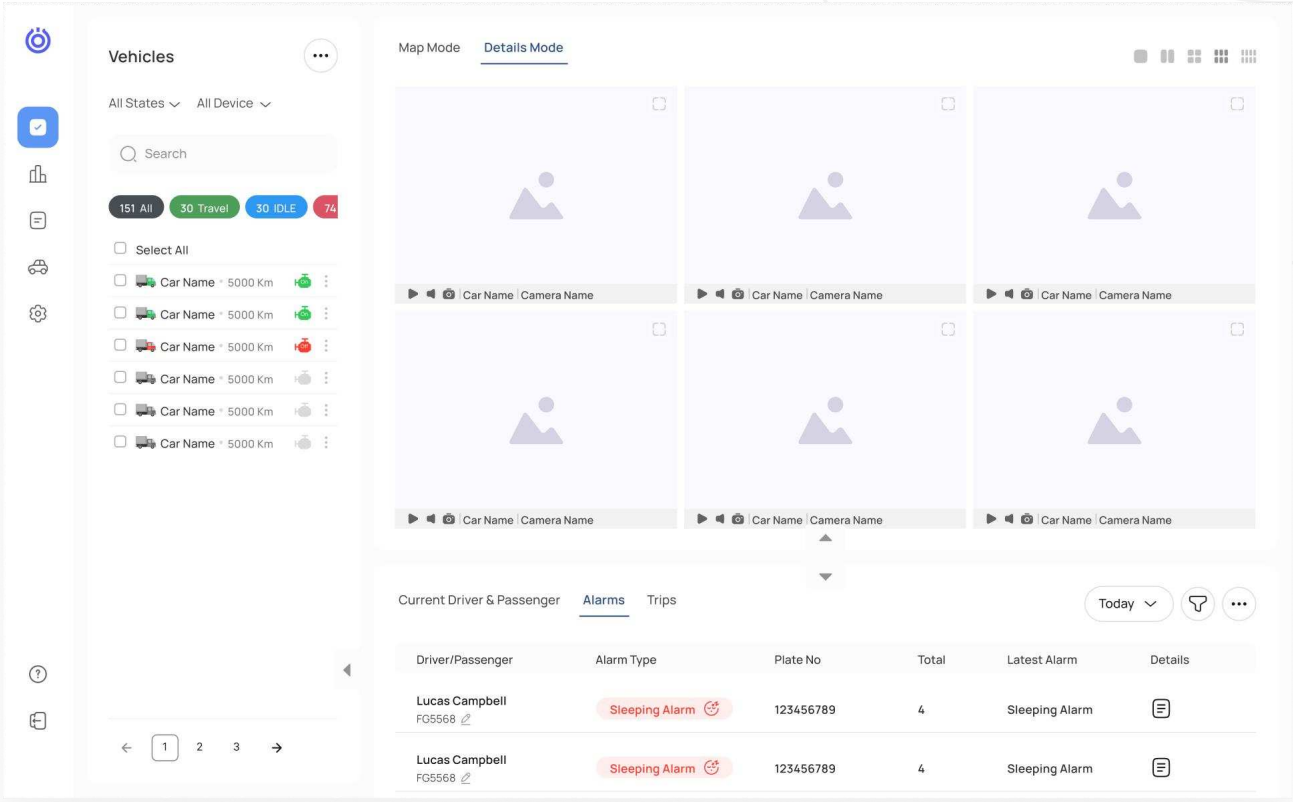
Support remote query of device recording, query according to time and license plate, playback device status information including each track point, track point support export.Recordings can be retrieved through the timeline.Supports remote downloading of recordings for selected time periods.

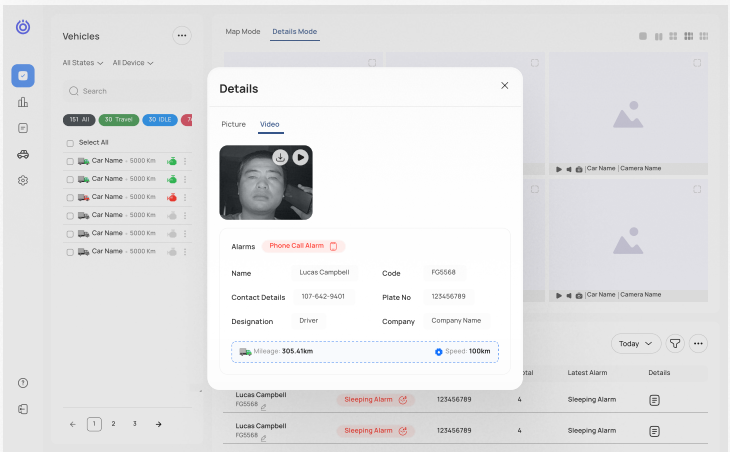


Know about Platform (Vehicle Management System)

Alarm

After the device triggers the ADAS and DSM alarm, it will upload the event and attachments (3 photos and 1 video) to the platform, and the platform can retrieve the alarm attachments.





Pioneering the Future of **Intelligent Mobility**

Contact Us

We’d love to hear from you

Company Mail

info@idom.co

Sales Mail

sales@idom.com