VACRON

Project

Turn the technology into action and move forward step by step every day.

Daycare Surveillance Cloud System

We have built a Daycare Surveillance System to meet the needs, providing more thorough security and protection.

Advance prevention

Different from the common usage of checking the record after an incident has occurred, DSCS is equipped with AI analysis to conduct an "Anomaly Alert" before the incident.

Access Control with Face Recognition

The system will only be opened for incomer within the list to avoid the entry of outsiders while lowering the likelihood of possible gaps resulting in human patrol and the inability to check the security camera at all times.

Children and Toddler Stumble Recognition

When the ratio between the teacher and students is large, accidents could be hard to notice timely. DSCS will alert promptly when stumbles or other unsafe acts are detected, and lower the risk of being unable to notice timely or delay.

Human access alert at certain areas and during certain time

This could be applied at concerned areas and times such as nap time and after school. Give proactive alerts to inform staff to check and bring the child back before the incident takes place.

People recognition Children Stranded Alert

It could be applied in areas where children should not be staying or with no adults around, lowering the likelihood of loopholes caused by manpower and the pressure of patrol.

1. Empty classrooms after school:

Applying the AI camera in the classroom to track the movement of children to avoid them stranding in the classroom after school. Once children stranding is detected, the AI system will inform managers, lowering the chances of accidents.
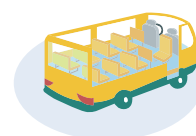
2. School buses:

To avoid the occurrence of the regretful event that derives from children lingering after arrival, the human detection system combined with vehicle surveillance systems to lower the chances of an accident.

Device Abnormal Alert

The DSCS will detect abnormal functioning, such as black screen and abnormal collating, and alert the staff to check.

Event Dealing

cloud device

Paired with Vacron Smart Cloud system - a data archive built by Vacron.
Automatic backup to Cloud for 30-days-storage.

Smart Search

The DSCS will leave a time mark whenever an abnormal or people are detected, it could effectively reduce the time of replaying and checking.

Effectively reduce the possibility of accidents, ensure the integrity of data storage, create a safer, more reliable, and friendly childcare environment, and ensure the health and safety of children.

Daycare Security Pick-up System

The VACRON Day Care Security Pick-up System is an unitary system that combines advanced monitoring techniques and professional back-end, parents can ensure that their children are safe on the way to and from kindergarten at all times

Data entering

State tracking

Prevent System

Clear route planning
The route plan can be arranged in advance, and viewed via application.

Exclusive pick-up list
Use code name only, give full protection to the child identity.

Real-time notification when boarding
Daycare will send the notification via applications, so parents who are far away can also feel at ease.

Driver rationing plan
The information of the driver is open for contact in emergencies or sudden checks.

Numbers of children to pick
Daily attendance could be accounted through the data.

Humanoid recognition keeps the child being safety secured

To avoid the occurrence of the regretful event that derives from children lingering after arrival, the humanoid detection system combined with vehicle surveillance systems to lower the chances of an accident.

Abnormal incident handling

When incidents take place, the system will alert the back-end rapidlywhen it is detected, and notify all parents.

Real-time condition of the school bus

When encountering unpredictable events such as traffic jams, the notification could be sent from the back-end to inform the parents for some time rearrangement.
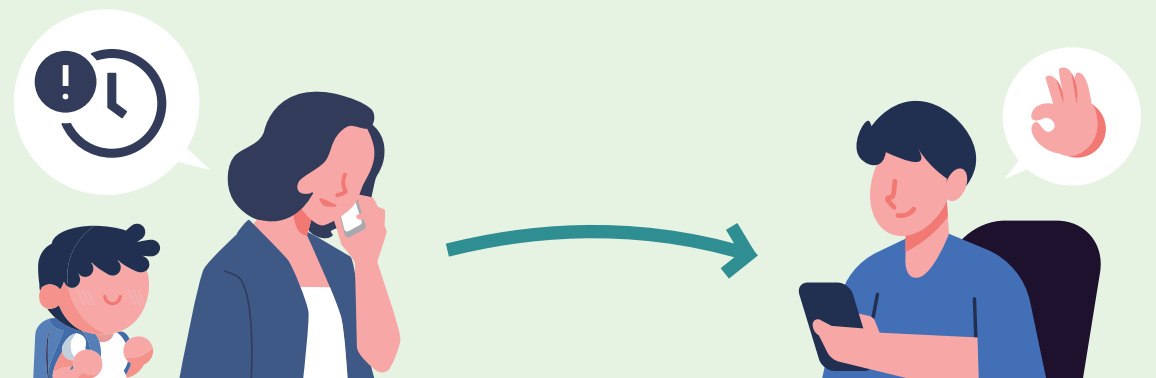
Route modification

The route can be re-planned from the GM Server when children take a day off, or a new child joins.

Match with GMS management backend

With the unitary system with the application, parents could check real-time information about the children and notifications from the daycare, and apply rolling adjustments.

Children Stranded Alert

A step for more safeguard to child safety.

The setting of Children Stranded Alert is to avoid the occurrence of regretful events that derive from children stranded after arrival. The system requires drivers to manually turn off the interior switch at the very end of the vehicle after patrolling, ensuring no child is being left in the vehicle.
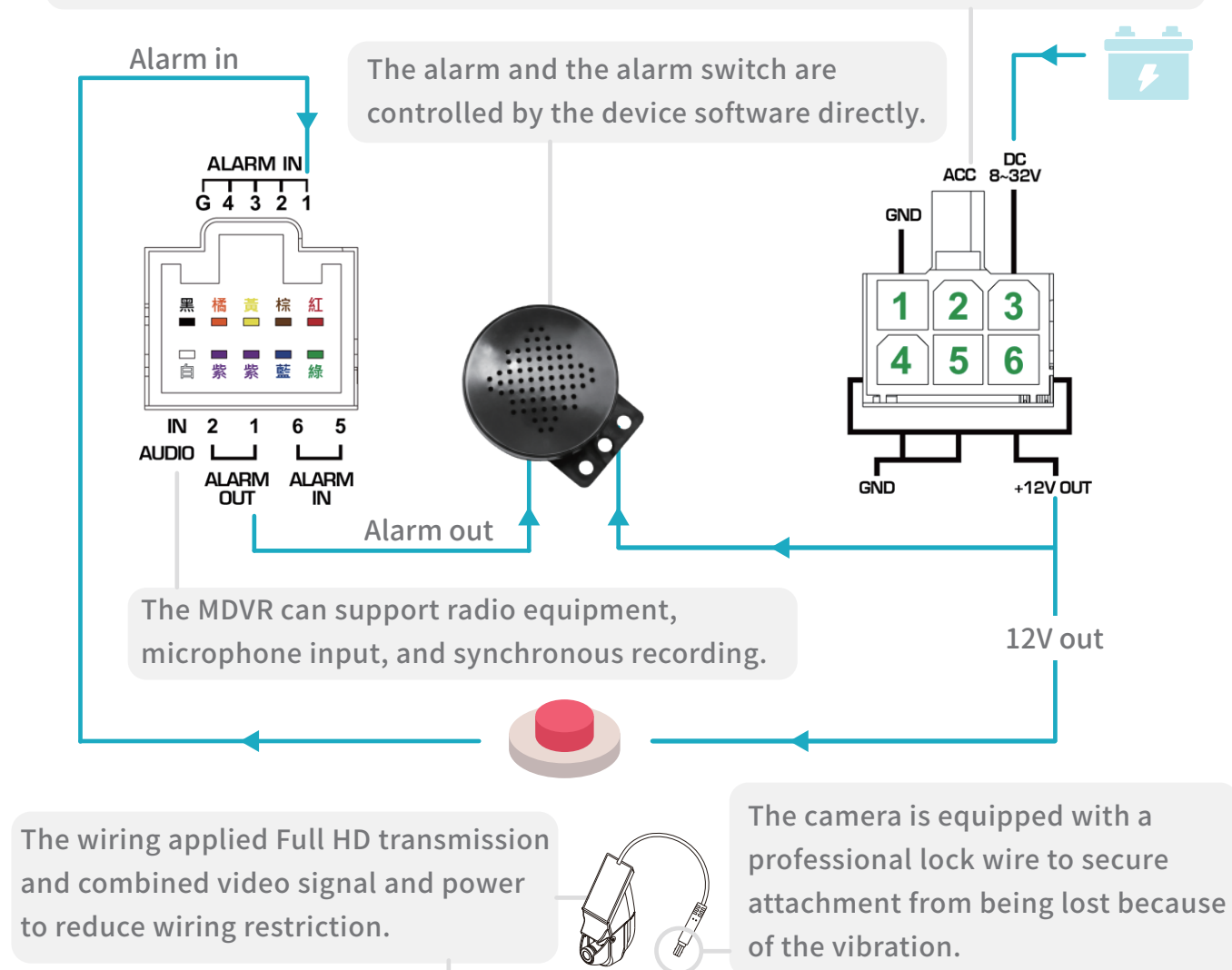
Monitor

Mobile DVR
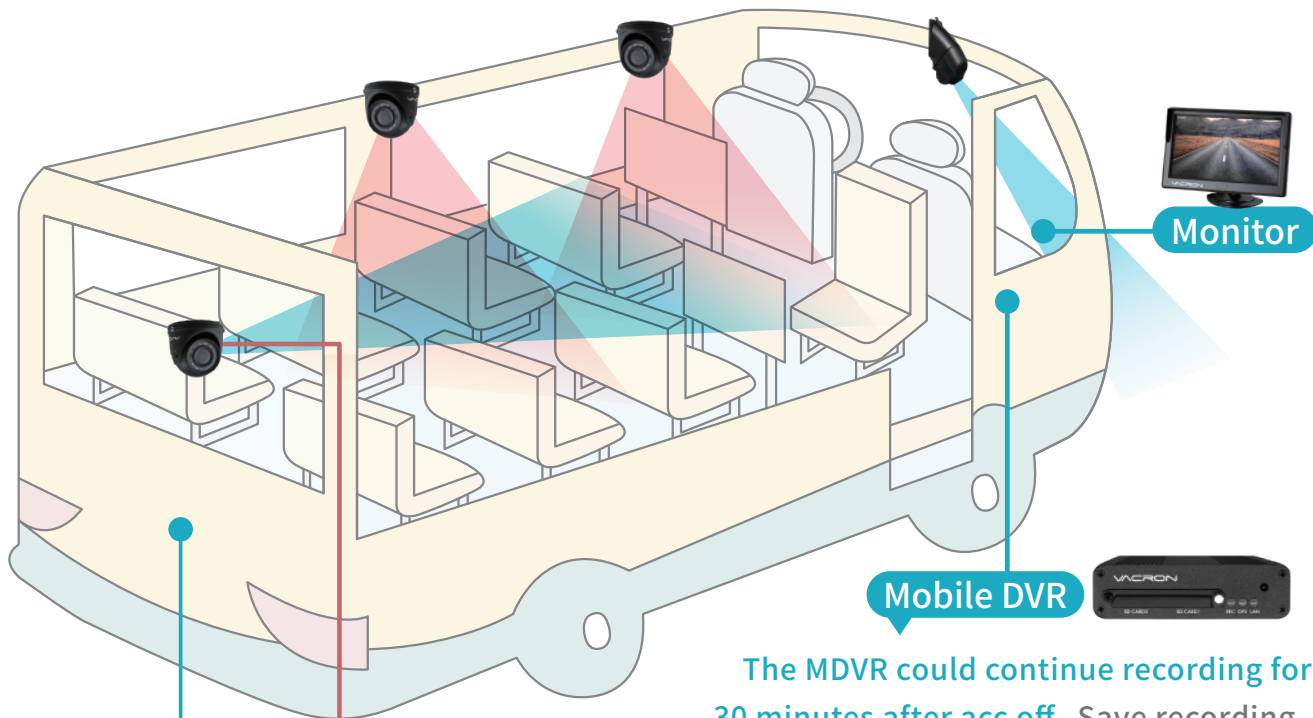
The MDVR could continue recording for 30 minutes after acc off. Save recording images to avoid disputes,ensuring child safety and their right.

Surveillance Cameras

Vehicle is equipped with four interior cameras: one at the front, two at the body part, and one at the rear side of the vehicle. In addition, a monitor is equipped to see the full view of the vehicle's interior state and the front view of the vehicle.

The safety button is built with a buzzer, the driver will have to push the button inserted at the end of the school bus within a finite amount of time to turn off the buzzer. Meanwhile, the DVR will capture the image of cameras and keep it for three months. The buzzer will sound if the button is not pushed, and inform the back end.

Installation Description

The device could directly connect with the vehicle's electricity port to reduce extra expenses for purchasing the battery. The MDVR is equipped with ACC control that can be operated simultaneously with the vehicle while the ACC ON is activated. The MDV is equipped with a Time-lapse record function that can be set up to 30 minutes.

Alarm in

The alarm and the alarm switch are controlled by the device software directly.

ALARM IN
G 4 3 2 1

黑 橘 黃 棕 紅

白 紫 紫 藍 綠

IN 2 1 6 5
AUDIO
ALARM ALARM
OUT IN

Alarm out

ACC DC 8~32V
GND

1 2 3
4 5 6

GND +12V OUT

12V out

The MDVR can support radio equipment, microphone input, and synchronous recording.

The wiring applied Full HD transmission and combined video signal and power to reduce wiring restriction.

The camera is equipped with a professional lock wire to secure attachment from being lost because of the vibration.

GPS SIM CARD WI-FI USB
ALARM IN
G 4 3 2 1
ACC DC 8~32V
GND
IN 2 1 6 5
AUDIO
ALARM ALARM
OUT IN
IR
GND +12V OUT

The MDVR is equipped with a voltage detection system; the information will be displayed on the screen.The system also contains a low voltage unload function, when the battery voltage is lower than the set voltage, the system will be unloaded to secure driving safety.

Smart Campus 2.0

Introducing AI analytics into campus security monitoring systems, replacing the traditional monitoring mode, and organizing the campus security protection system with three aspects: advance prevention, incident handling, and follow-up.

Vehicle Fleet Management System

Face Recognition & People detection System

LPR Systems

Advance prevention

Geo fencing

Through AI humanoid detection technology, "human abnormal intrusion/abnormal stay judgment" in monitoring/specific areas can be accurately detected to avoid the break in of strangers.

LPR Systems

Control the entry and exit of vehicles on campus strictly, entrance of vehicles will be allowed according to the white list of resident vehicles and visiting vehicles that can be updated daily or weekly.

The system could also be combined with a cloud system to built a cloud billing system, reducing the retrieval time spent on vehicle tracking.

Incident handling

Human detection

Provide settings for irregular warning areas with electric motorized lenses for monitoring units to remotely adjust the needs of the identification area.

Emergency SOS system

Equipped with emergency kiosks to call the police as soon as possible when the outbreak of an event in open areas. The module also introduces the AI face capture function to prevent triggers on purpose and assist in event recording.
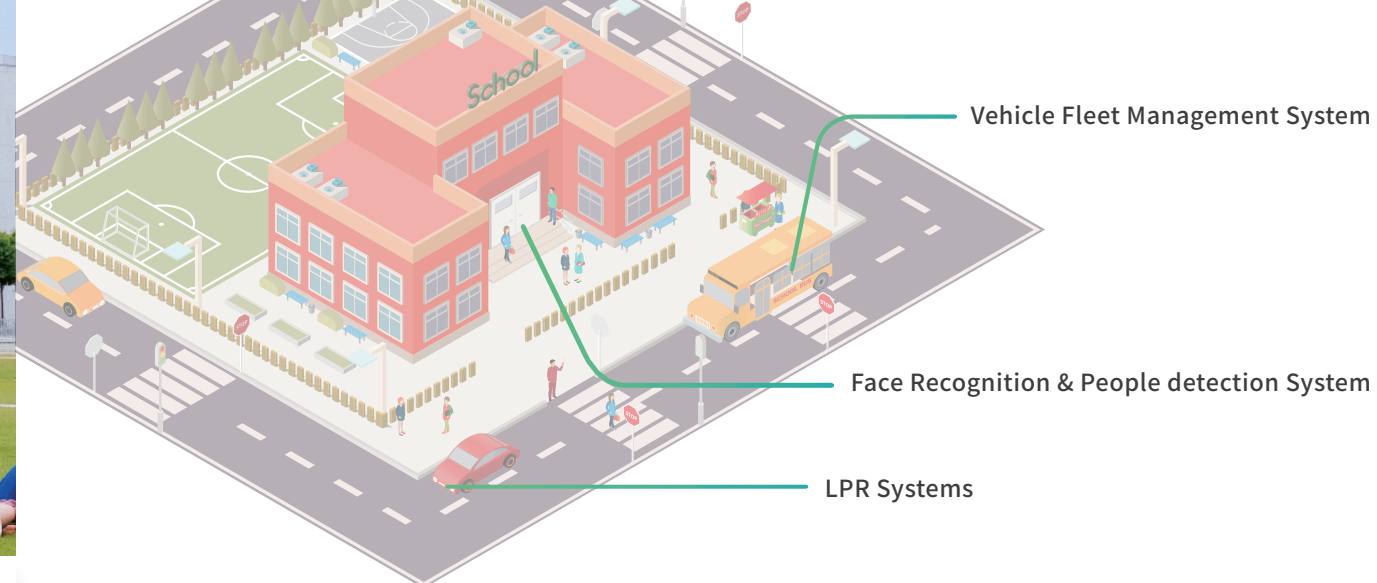
Follow-up

CMS central monitoring system

Through the integration of video images from all areas of the campus through the monitoring system, the system is highly compatible, can include thousands of camera images, and perform remote monitoring, access to images, playback, real-time warning and other management functions. You can set up hundreds of management accounts, set account management permissions, manage them hierarchically, and control the risk of image data scheduling.

Two-Way Audio

Independent transmission

Independent transmission

CMS

Two-Way Audio
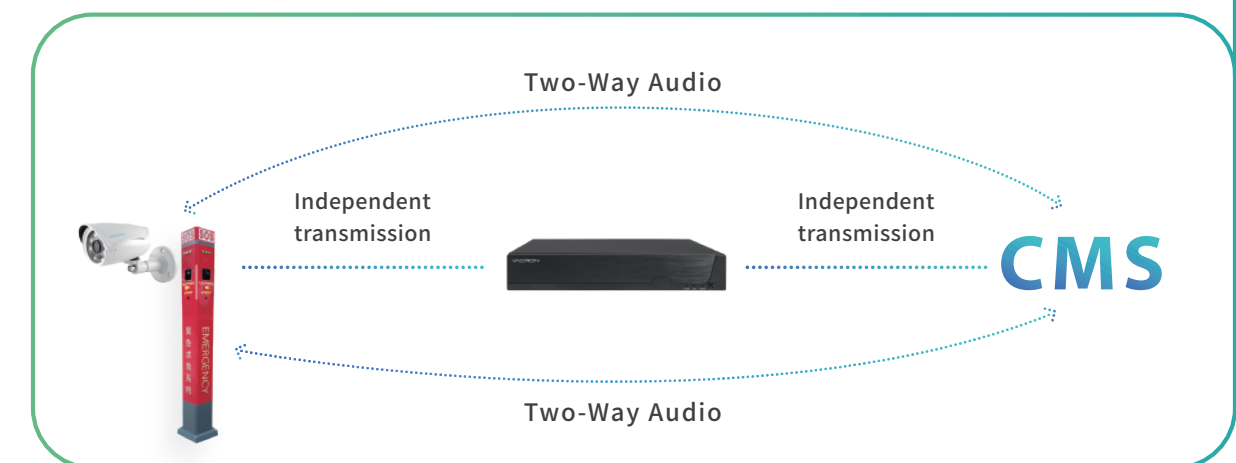
Introduced AI recognition technology into the campus security system, improving the security level, and obtaining relevant image data more effectively and quickly. Potential risks can be detected through accurate identification and analysis of images. Prevent in advance, providing fundamental solutions from the source of the incidents.

AI recognition Construction engineering applications

Project progress monitoring

Construction work is a tedious and time-consuming large-scale of engineering activity that requires a lot of manpower to complete, so there are a lot of uncontrollable factors. Delays in work will cause extra expenses, which in turn will affect profits and goodwill. Through AI recognition and cooperation with the module system, checking the progress of the project, recording the projects that cannot be completed in time, and then adjusting the manpower and schedule.

Workplace safety

Construction sites are hazardous working areas with high risk of accidents, so the carry out of industrial safety regulations must rely on manpower inspecting on-site. AI identification from surveillance images can reduce the loopholes caused by negligence.

Personnel safety specifications

Identify whether the personnel on site are wearing protective equipment following regulations.

Heavy machinery implement safety area

When personnel enter the area, the system will alarm and notify the supervisor timely, synchronously capture the event screen and back up to the cloud for tracking afterwards.

Hazard alerts and notifications

When personnel enter the area, timely alarm and notify the supervisor, synchronously capture the event screen, and back up to the cloud, to facilitate subsequent inspectors to record.

Damage Assessment and Restoration

AI recognition technology has greatly improved construction operations and is expected to be developed to simulate damage assessment in the future, through image analysis to software simulation, to determine the degree of damage in order to subsequent repair operations.

Applied AI to build smart cities and infrastructure intelligently

Intelligent Port
Security Surveillance Solution

The port is a transportation hub of international trade and logistics, and special attention needs to be paid to cargo security and personnel entry and exit control, but the characteristics of the vast area and complex access are not easy to manage due to the lack of image tracking, and the introduction of video surveillance technology can strengthen field security and implement data management.

Integrates multiple monitoring systems

The application of a DTV surveillance system with AI humanoid recognition offers the advantages of extensive monitoring and intelligent identification.

Introduce AI recognition to improve both safety and efficiency

License plates and facial recognition are used in entrances, exits, warehouses, and other spaces to ensure safety and improve operational efficiency.

Comprehensive security with both field and operational safety

Applying environmental and mobile monitoring in the port area, combined with the GMS platform to integrate video footage enables unified management of cargo and operation safety.

Integrating container number recognition with vehicle access control

Integrating automatic license plate recognition with container number identification to enhance vehicle access efficiency, while simultaneously verifying cargo information and ensuring accurate container delivery to the cargo collection area.

Personnel control and cargo handling

· Facial recognition for managing personnel access, and maintain cargo security.
·Wearing body-worn cameras to scan bar-codes, enabling cargo data tracking.

Port management and scheduling.

Through GMS, the management center manages AI recognition, DTV monitoring system, and other devices on an unified platform, comprehensively control the situation and improve real-time response and scheduling capabilities.

Facility work safety

Fuho mobile monitoring products can be applied in port operations to reduce the blind spot of driving vision. The mobile DVR and cameras are installed on the pilot ship and connected to GMS, provide vision assistance and video monitoring to establish a two-way communication with the management center.

Port Area Security Management

·High definition surveillance ensures the safety of the field.
·Introducing humanoid recognition to reinforce border control

Intelligent charging pile solution

With the trend of electric vehicles, a system combined with AI detection could provide a solution to cope with problems of charging piles being seized or the charging process being interrupted, securing the daily usage of drivers.

Double check with license plate and facial recognition to effectively keep the rights of usage of the charging piles, applicable for private or rental parking lots

Equipped with......

Vehicle identification

License plate recognition camera

Could identify the license plates and vehicle models from the camera end, and notify the owner or manager to check when an unauthorized or non-electric vehicle parks.

Confirmation of identity

Face Recognition Camera

Could identify the drivers, people who are on the white list will have the right to park.After the vehicle and identity are matched at the same time, it will be allowed to park, open the charging pile and the power on and use of related equipment.

Owner management

The owner of the private parking space could check the charging status by mobile devices, planning their schedule effectively.At the same time, provide the record of the charging pile to help verify the charging amount, time length, and bill.

Combined with the above-mentioned AI recognition functions, it ensures that the correct user and vehicle use parking spaces and charging piles, and at the same time helps vehicle owners to carry out intelligent management.

AI in-vehicle applications -
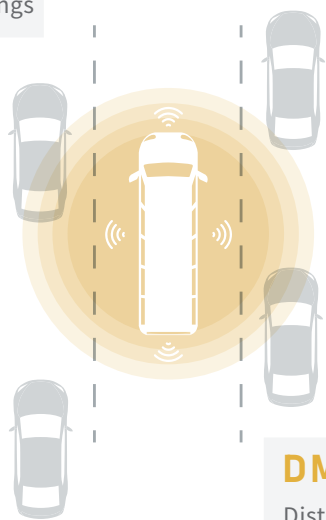## Advanced Driver Assistance System

AI technology is introduced into fleet management, driving safety is monitored at all times.

In addition to introducing advanced driver assistance systems to improve driving safety, large fleets collect the driving conditions of each regional fleet record them in the back-end database, andanalyze the operational benefits and costs of each route through data integration which is conducive to managers' planning and adjustment.

▶ Through data management, you can...

- Locate vehicle in real-time easy settings
- Expenses for fuel, toll fees, etc
- Route planning and stops
- Daily mileage and driving hours
- Driver behavior monitoring
- Reduce additional expenses

ADAS
Advanced Driver Assistance System

Pedestrian Collision Warning (PCW)

Forward Collision Warning (FCW)

Headway Monitoring Warning (HMW)

Lane Departure Warnings (LDWS)

BSD
Blind Spot Detection

People and cycles recognition in blind spots.

Proactive sound alert.

DMS Driver Monitoring System

Distraction warning (look up/down/look left/right)

Use of cell phones, smoking, fatigue drivin

Abnormal (driver leaving seat/blocking camera)
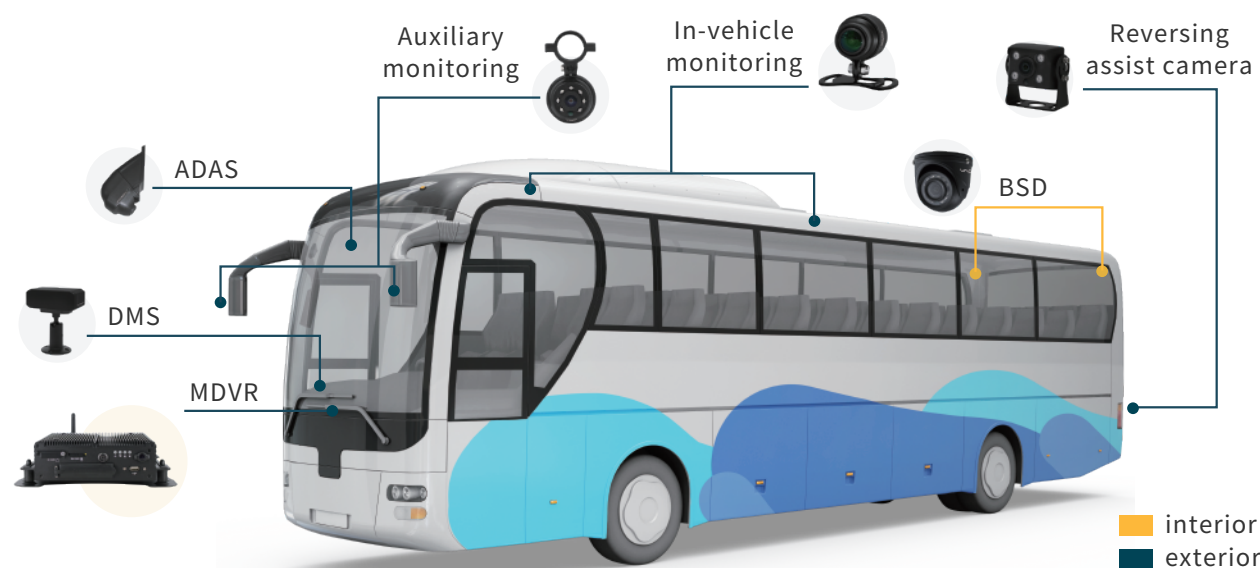
Not wearing a mask

Positioning, driving status, and driving screens can be monitored in real-time situations inside and outside of the vehicle through images.

Effectively manage driving routes and record vehicle entry and exit ranges

MDVR supports multiple cameras input, including AI Camera

Supports a number of optional functions.

Max. 8 cameras input, and automatically record after booting up, streaming multi-angle images.

Auxiliary monitoring · In-vehicle monitoring · Reversing assist camera · ADAS · BSD · DMS · MDVR

interior
exterior

Image integrate with AI algorithm

ADAS camera: real-time detection and warning of dangerous road conditions in front of the vehicle.
DMS camera: Real-time detection and warning of driver fatigue or distracted driving behaviors.
BSD camera: Assist with detecting the Blind spot of the side mirror.

Wireless network, remotely grasp vehicle location

Through LTE or WiFi module, directly connect to the back-end server.

The information is confidential and safe

Hidden file architecture, with exclusive playback player, provides AVI and MP4 conversion function.

Integrated G-sensor function and power management

Automatically detect anomalies, collisions and trigger forced recording.
Support parking mode monitoring, won't lose any important footage

Use G-Mouse to record vehicle trajectory and speed

A complete list of video records makes searching for video records quick and easy.

School bus management system

Secured the on-road safety of the driver and students from multiple levels, and promoted the management level of the whole process. Advance the fleet by boosting the merit of management and reducing the cost.

Vehicle tracking and scheduling

Connected to the GMS (Global Management System), view and check multiple camera images and the condition of the vehicles.

Two-way communication could be applied when there are problems with certain vehicles for timely adjustments, providing management with much more agility.

Improve managing efficiency

Verify students' identity

Equipped with APC(Automatic Passenger Counting) system, instant track and calculate the number of people getting on and off of the vehicle. Instant verification of the name list and notify when the numbers does not match, keeping the condition of students in check meanwhile avoid human omission and improve management efficiency.

GMS multi-task management

Optimal Route — Cost-saving by planning and supervising the optimal route.

Abnormal event setting — Real-time alert and notification of incidents according to devices and driving routes.

Complete record of images — Detect and record incidents, provide a complete list of incidents.

Performance management — Learning the performance of the driver and promote the quality of service

Road side safety assistance

AI driver assistance system(with ADAS, BSD, and DMS)

ADAS — According to the time, distance and speed, remind the driver to brake in time or get too close to the car in front.
Give warning when the vehicle is not running within the lane.

BSD — Will detect both pedestrians and two-wheels in blind spots and the area of radius differences between inner wheels.

DMS — Will alert the driver for dangerous performances such as yawning, eyes closing, talking on the phone, smoking, and notify the back-end.

Access Control
with Face Recognition

Access control and monitoring are 2-in-1,
making personnel access management easier and more secure

List setting

A white list setting is available, the list could be modified
as needed,and could also be united as a Door Security System,
and keep the record as attendance.

Proactive notification

The system will notify the back end immediately when
the identification is successful and the personnel enter,
and grasp the identity of the personnel and the access status.

Operation of APP

Settings, operations, and record-checking of the system can be easily
done via mobile devices.
It's fast, convenient, and environment-agnostic.

**Excellent recognition ability,
masks and glasses do not affect recognition.**