

Intelligent School Bus Platform



Zhongtong Bus



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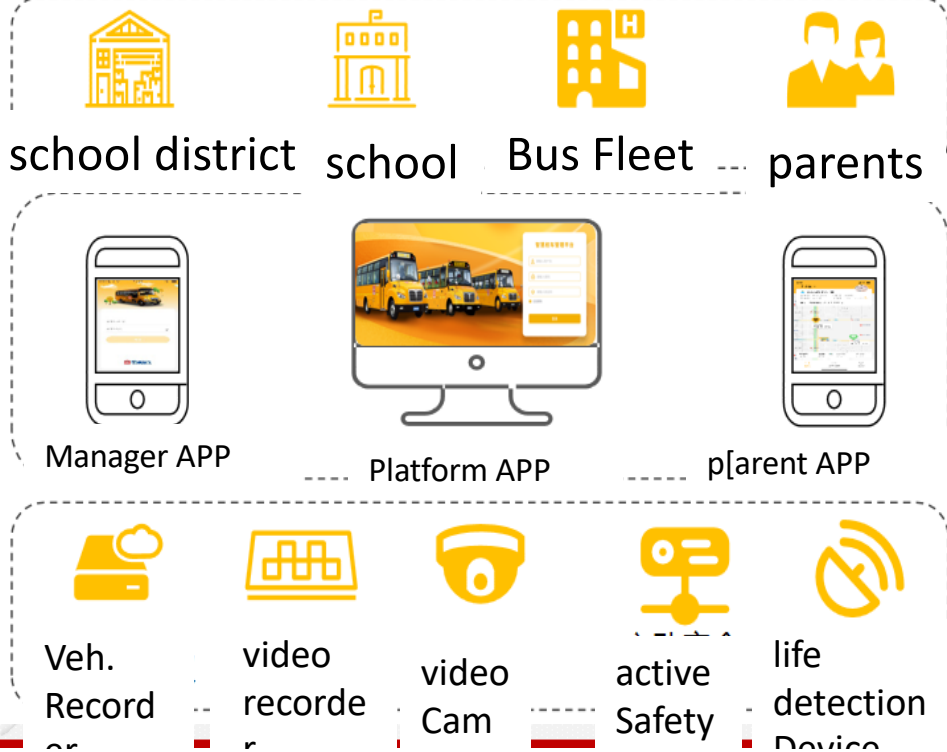
01

Introduction

Platform Intro



By Regulations、 school、 and parents demands , Using Uniform intelligent school bus platform , provide the vehicle real time monitoring、 in-vehicle video real time monitoring、 driving behavior monitoring、 on-off bus status information transmission、 stay vehicle monitoring etc. , ensure multi-channel communication、 realize school bus safety、 ensure students safety

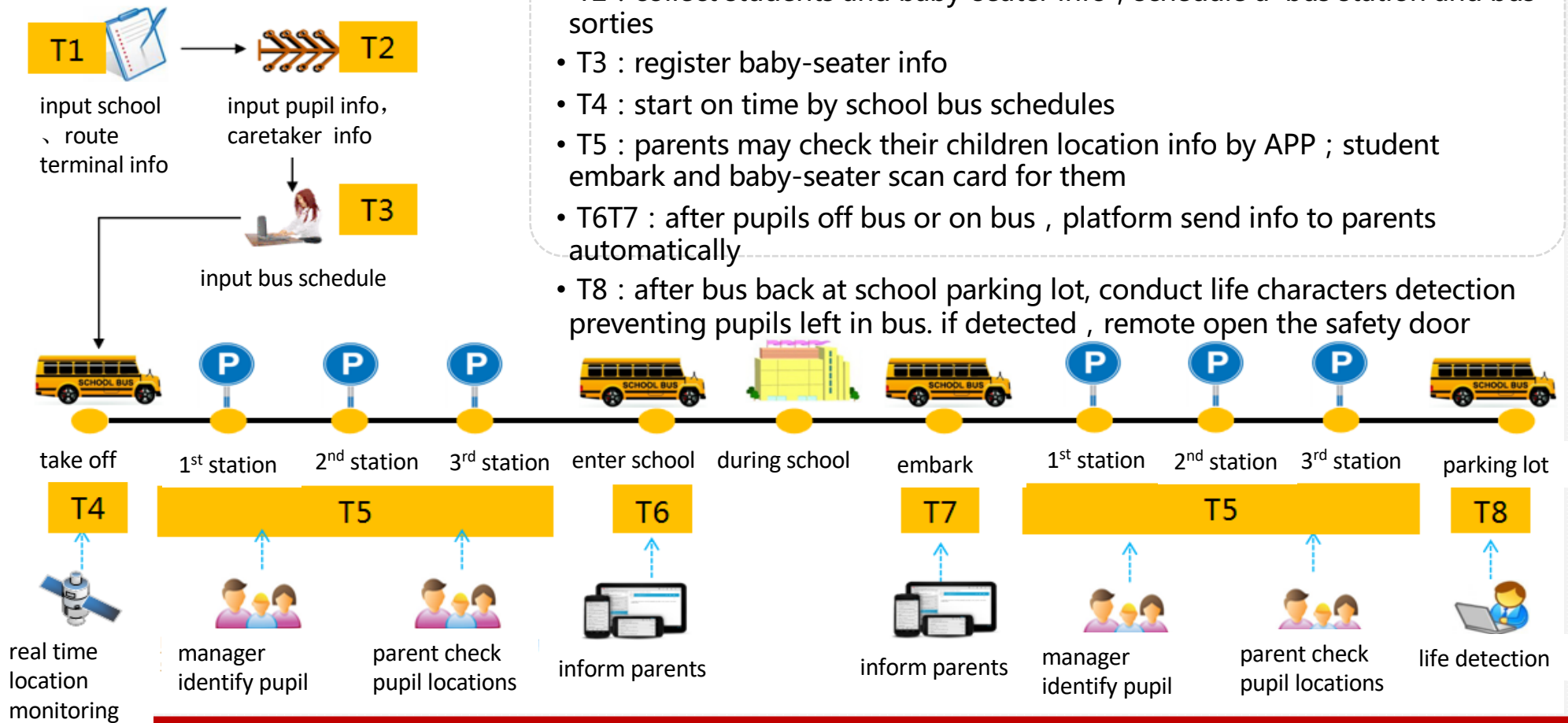


Scenario characteristics

- 1、 face recognition、 substitute card scanning 、 student card scanning, 3 id checks , accurately knowing students on and off bus information ;
- 2、 APP inquiry and info transmission , check the real time status for students and vehicle locations at any time, anywhere ;
- 3、 Inside and outside HD video, multiple angles, monitor in-vehicle status and driver' s behaviors ;
- 4、 when bus is locked, in-vehicle millimeter grade radar automatically check if there is a student left in bus.

Platform Operating procedure

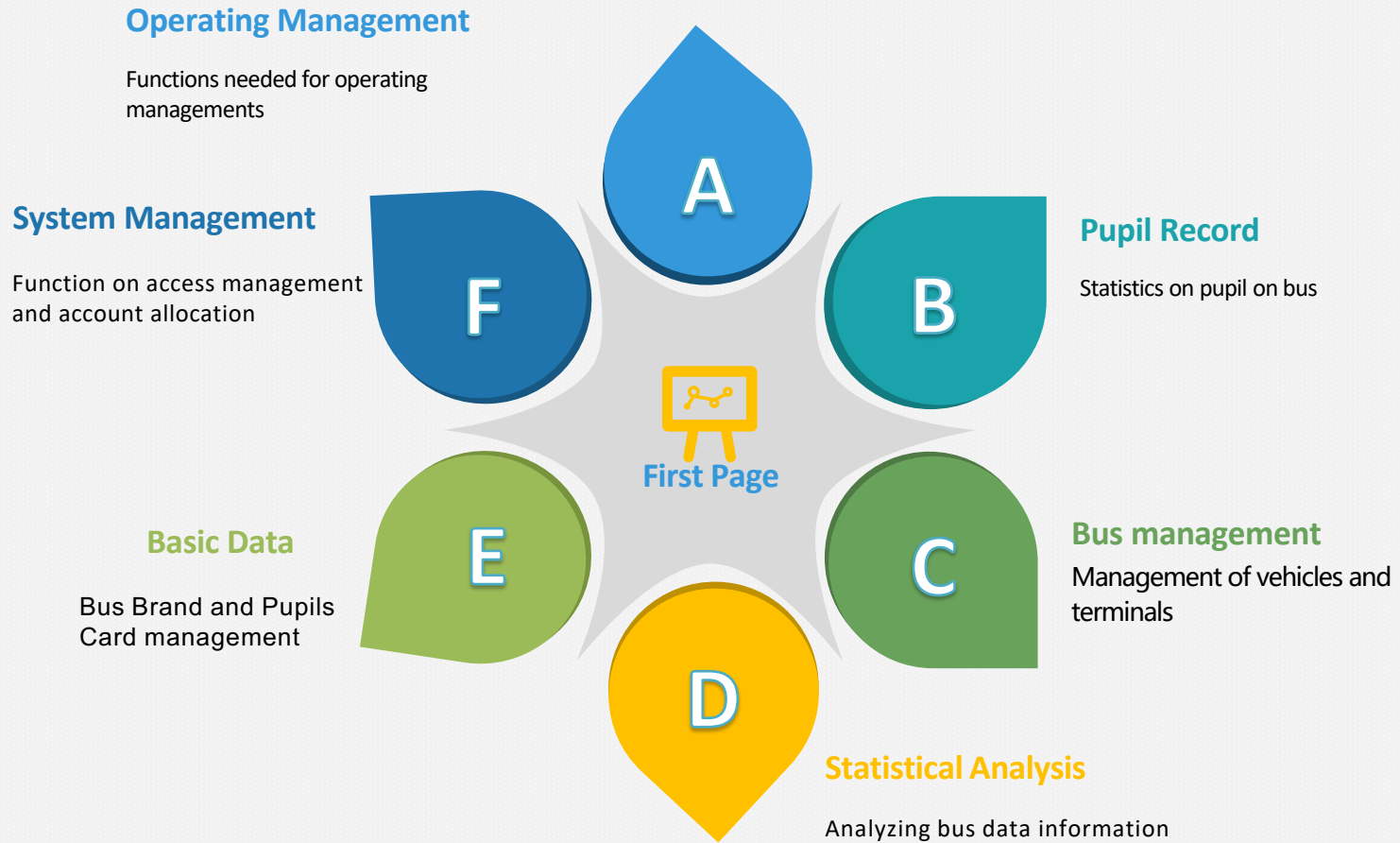
- T1 : register bus route and station information
- T2 : collect students and baby-seater info , schedule a bus station and bus sorties
- T3 : register baby-seater info
- T4 : start on time by school bus schedules
- T5 : parents may check their children location info by APP ; student embark and baby-seater scan card for them
- T6T7 : after pupils off bus or on bus , platform send info to parents automatically
- T8 : after bus back at school parking lot, conduct life characters detection preventing pupils left in bus. if detected , remote open the safety door



02

Platform Contents

Platform Contents



03

Highlights

First Page Data Board



Display of Operating Situation

Intel. platform

1st page

data board

real time monitoring

Operating Manage.

Embarking Manage.

Bus Manage.
Sta. Aid.

system manage

99+

data board

30 辆
number of bus

1422.70 km
total mileage

5 个
of pupil served

0 辆
of faulty

快乐上学 安全回家

usage rate within 7 days

total mileage within 7 days

of bus

mileage

Date	# of bus	total mileage (km)
2021-07-29	1.5	300
2021-07-30	0.5	300
2021-07-31	0.5	300
2021-08-01	0.5	300
2021-08-02	1.5	300
2021-08-03	0.5	400
2021-08-04	0.5	300

Safety Management



Video & Trajectory Real Time Monitoring、Vidoe & Trajectory History Rewind

The screenshot displays the 'Real Time Monitoring' interface of the Zhongtong Bus system. On the left is a navigation menu with options like 'Intel. platform', '1st page', 'data board', 'real time monitoring', 'Operating Manage.', 'Embarking Manage.', 'Bus Manage.', 'Sta. Ana.', and 'system manage'. The main area is divided into several sections:

- Vehicle List (车辆列表):** A search bar for license plate numbers and a 'Query' button. Below it, a list of vehicles is shown, including '冀D09615/未识别' which is checked.
- Map Mode (地图模式):** A map showing the real-time location of bus 冀D09615 in the Daxing County area.
- Video Mode (视频模式):** A 2x2 grid of video feeds from different cameras on the bus. The top-left feed shows the driver, and the bottom-right feed shows the road ahead. Each video has a timestamp of 2021年08月05日 星期四 14:03:34 or 14:04:00.
- Vehicle Details (冀D09615):** A pop-up window showing real-time data: Time: 2021/08/05 14:02:32, Speed: 47 km/h, Mileage: 9683.9 km, Device ID: 93, VIN: LDYEC5744M0016991, SIM Card: 001558127006. It also includes options for 'Real-time video', 'Photo', 'Intercom', 'Voice monitoring', 'TTS voice', 'Alarm settings', and 'Vehicle details'.
- Status Summary:** At the bottom, a summary bar shows: 行驶(1) (Driving: 1), 离线(29) (Offline: 29), 静止(0) (Stationary: 0), 熄火(0) (Engine off: 0), 无信号(0) (No signal: 0), 报警(120) (Alarms: 120).

Safety Management



Vehicle Faulty Real Warning & History Warning Statistics

warning info management

1st page warning time 今日 昨日 近3天 近7天 2021-08-05 ~ 2021-08-05

op. manage. warning stat. no dealt dealt warning type 请选择 plate # 请输入车牌号进行搜索 搜索

Embarking Manage.

Fleet manag.

bus manag.

warning manage

fleet manage.

driver manage.

elec. fence

remote control

Sta. Ana.

system manage

Bus lisc. #	Driver	warning contents	warning location	attach #	starting time	ending time	operating actions
IN00001		空挡滑行	河北省邯郸市大名县...	0	2021/08/05 14:18:32	-	详情 眼
IN00001		空挡滑行	河北省邯郸市大名县...	0	2021/08/05 14:17:52	-	详情 眼
IN00001		空挡滑行	河北省邯郸市大名县...	0	2021/08/05 14:17:32	-	详情 眼
IN00001		空挡滑行	河北省邯郸市大名县...	0	2021/08/05 14:14:32	-	详情 眼
IN00001		空挡滑行	河北省邯郸市大名县...	0	2021/08/05 14:13:32	-	详情 眼
IN00001		空挡滑行	河北省邯郸市大名县...	0	2021/08/05 14:12:52	-	详情 眼
IN00001		空挡滑行	河北省邯郸市大名县...	0	2021/08/05 14:12:32	-	详情 眼
IN00001		空挡滑行	河北省邯郸市大名县...	0	2021/08/05 14:10:52	-	详情 眼
IN00001		空挡滑行	河北省邯郸市大名县...	0	2021/08/05 14:08:52	-	详情 眼
IN00001		空挡滑行	河北省邯郸市大名县...	0	2021/08/05 14:07:32	-	详情 眼

Safety Management

Bus Operating Zone Electronic Fence

Intel. platform

1st page

op. manage.

Embarking Manage.

Fleet manag.

bus manag.

warning manage

fleet manage.

driver manage.

elec. fence

remote control

Sta. Ana.

system manage

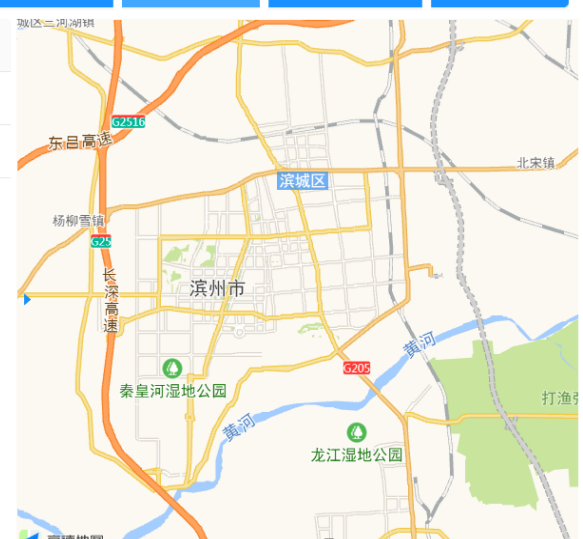
报警信息管理 x 电子围栏 x

friendly remind draw a rectangular in map

fence name 请输入围栏名称 fence type 选择围栏类型 查询

fence name	busi. type	fence type	start time	end time	establish time	operat ing act
+ 围栏2	终端围栏	矩形区域	00:00:00	23:59:00	2021/08/...	更多
+ 围栏1	终端围栏	圆形区域	00:00:00	23:59:00	2021/08/...	更多

设置圆形围栏 设置矩形围栏 设置多边形围栏 设置线路围栏



高德地图 © 2021 AutoNavi - GS(2019)6379号

Safety Management



Life Safety Detection

left out pupil alarm : equipped with millimeter grade radar detection device to check if there is a pupil left out in bus , if any , inform platform , alarming.

The screenshot displays the Zhongtong Bus management system interface. On the left, a sidebar menu lists various management functions. The main area shows a search and filter section for bus status, followed by a table of bus data.

Sidebar Menu:

- 1st page
- op. manage.
- Embarking Manage.
- Fleet manag.
- bus manag.
- warning manage
- fleet manage.
- driver manage.
- elec. fence
- remote control
- Sta. Ana.
- system manage

Search and Filter Section:

请输入vin lisc. plate 入车牌号 终端号: 请输入终端号 订单号: 请输入订单号

Bus status 车... last commend time 开始日期 ~ 结束日期 查找

Table:

序号	bus VIN	lisc. plate	# end	Bus status	end type	manufact	last comment	op. action
1	LDY4GS9E1M0021234	鲁P11234	1252011174	在线	视频一体机			开启安全门 历史命令
2	LDY4GS9E3M0017152	鲁A17152	1559815108	离线	行车记录仪			开启安全门 历史命令
3	LDYEC5746L0014352	桂G11139	1481824431	离线	行车记录仪			开启安全门 历史命令
4	LDYEC5745L0014357	桂G02707	1481824493	离线	行车记录仪			开启安全门 历史命令
5	LDYEC5743L0014356	桂G01528	1481824476	离线	行车记录仪			开启安全门 历史命令
6	LDYEC5746L0014366	桂G03258	1481824492	离线	行车记录仪			开启安全门 历史命令
7	LDYEC574XL0014368	桂G01509	1481824437	离线	行车记录仪			开启安全门 历史命令
8	LDYEC5740L0014363	桂G02878	1481824462	离线	行车记录仪			开启安全门 历史命令
9	LDYEC5741L0014369	桂G00278	1481824479	离线	行车记录仪			开启安全门 历史命令

Operating Management



covering school、 pupil (incl. parent) 、 station、 route、 sorties、 driver、 caretaker , satisfy operating management req. by fleet company

智慧校车平台

1st page

op. manage.

school info management

pupil info manage.

station manage.

route manage.

caretaker manage.

sorties manage.

trajectory rewind

video rewind

embark manage.

fleet manage.

stats. anal.

报警信息管理 x 电子围栏 x 班次管理 x 站点管理 x 线路管理 x 学生信息管理 x 车辆工况统计 x 视频告警 x 整车告警统计 x 学校信息管理 x

学校名称: 请输入学校名称 学校类型: 请选择学校类型 学校地址: 请输入学校地址 搜索

序号	school name	school type	school location	school district	pioneer	establish ed time	修订人	修订时间	操作
1	中通小学	小学	山东省聊城市东昌府区中通...	聊城		2021-08-03 16:06:27		2021-08-03	编辑

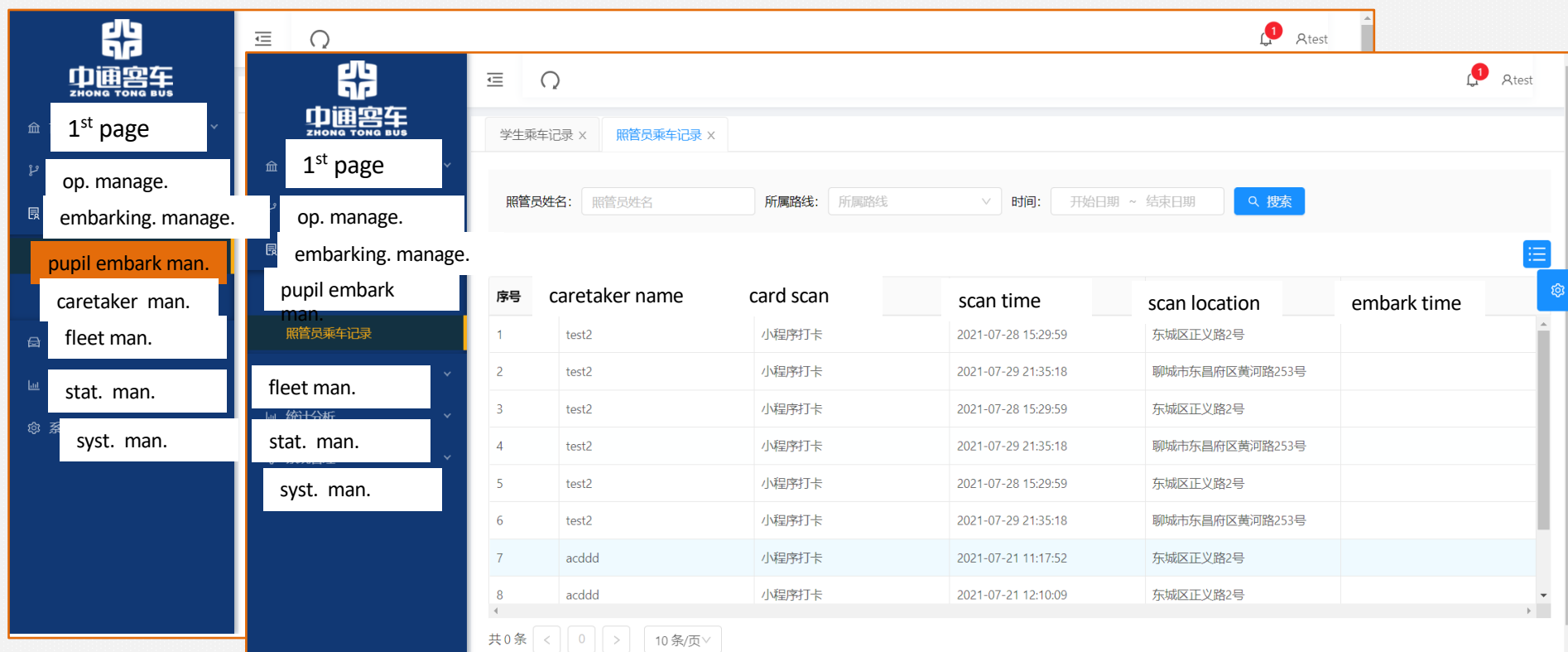
共1条 < 1 > 10条/页

Embarking Management

打卡方式多样化：

学生打卡：人脸识别设备打卡、刷卡机打卡、照管员代打卡

照管员：小程序打卡



The screenshot displays the management interface for bus embarking. On the left is a sidebar menu with the following items: 1st page, op. manage., embarking. manage., pupil embark man. (highlighted in orange), caretaker man., fleet man., stat. man., and syst. man. The main content area shows a search filter for 'Caretaker Record' (照管员乘车记录) with fields for name, route, and time. Below the filter is a table with the following data:

序号	caretaker name	card scan	scan time	scan location	embark time
1	test2	小程序打卡	2021-07-28 15:29:59	东城区正义路2号	
2	test2	小程序打卡	2021-07-29 21:35:18	聊城市东昌府区黄河路253号	
3	test2	小程序打卡	2021-07-28 15:29:59	东城区正义路2号	
4	test2	小程序打卡	2021-07-29 21:35:18	聊城市东昌府区黄河路253号	
5	test2	小程序打卡	2021-07-28 15:29:59	东城区正义路2号	
6	test2	小程序打卡	2021-07-29 21:35:18	聊城市东昌府区黄河路253号	
7	acddd	小程序打卡	2021-07-21 11:17:52	东城区正义路2号	
8	acddd	小程序打卡	2021-07-21 12:10:09	东城区正义路2号	

At the bottom of the table, it indicates '共 0 条' (Total 0 items) and a pagination control for '10 条/页' (10 items/page).

Statistics Report out



Statistical analysis function , statistics on bus status、 video warning & bus warning info , forming graphs , intuitive.



04

Values

Value Display



01

High Safety

real time video & history monitoring, Video alarming, electronic fence alarming, bus alarming etc., real time monitor school bus, can be used as a base for driver's evaluation to enhance school bus safety



02

meet government regulations

increase school bus safety and decrease school bus accident chance, decrease the social effects of bus accidents, and satisfy government regulations.



03

High Operation Efficiency

the platform increases the bus efficiency and increases the after-sale service efficiency via bus faulty warning and understand the bus operating situations



04

High Economy

convenience for parents to take their children by a variety of real time information for their kids on, during and off the bus, can promote the parents' satisfaction and confidence, and willingness of using the bus operation



THANK YOU

