



▶ ▶ ▶ IoT Smart Lamp Sign Solution

Smart Led Sign Solution

Smart led lamp is the best entrance to smart city





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Smart Lighting

It can realize the refined management of street lights, enable the mobile phone or PC terminal to remotely turn on, off, and dim the street lights, and support timing tasks;

2

5G micro base station

5G micro base station is mounted on the smart light pole;

3

Public WIFI

Install the Wi Fi AP hotspot device through the lamp pole, and the surrounding users can realize Internet browsing by connecting the WiFi hotspot;

4

Camera

Built in high-definition camera, users can remotely monitor the road images 24 hours through the mobile phone or PC; People flow monitoring and vehicle violation monitoring;

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Broadcasting &Sounding

Built in broadcast speaker, which can remotely issue audio and realize remote intercom;

6

Environmental sensing

Built in a variety of weather sensors can detect air temperature, humidity, wind speed, wind direction, rainfall, UV intensity, noise intensity, illumination, etc;

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Outdoor LED sign

Support remote information distribution, such as publishing property management information in the park, displaying real-time weather information, advertising information, etc;

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5G smart light pole gateway

The IoT wireless intelligent light pole gateway uses public 4G/5G/wired/optical fiber networks to provide users with wireless long-distance big data transmission functions.

9

One key Alarm

The people in distress can quickly report the accident information through one click alarm. After receiving the information, the background management center can immediately arrange personnel to the site for handling.

10

Electric energy statistics

The software and hardware platforms used are widely used in industrial products such as smart meters, and are the smallest unit to realize electric energy measurement.

11

Demonstrations

Local case maps.



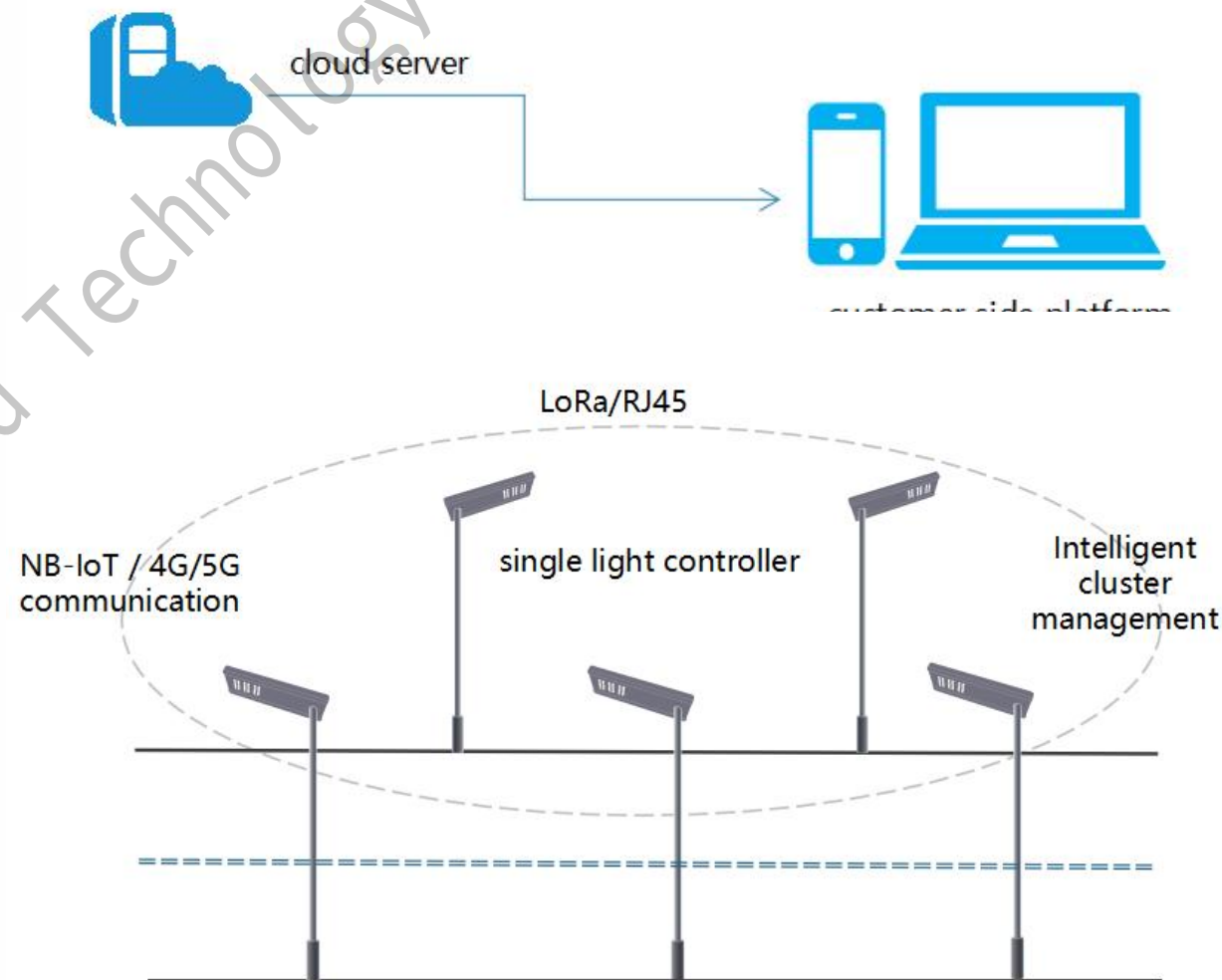
1

Smart Lighting

It can realize the refined management of street lights, enable the mobile phone or PC terminal to remotely turn on, off, and dim the street lights, and support timing tasks;

IoT Street Light System Instruction and Schematic

- Accurate to each street lamp switch, the brightness can be controlled.
- It can be controlled according to time plan, brightness and other ways.
- LoRa and NB IoT wireless communication modes can be customized.
- The industrial IoT gateway is specially designed for outdoor harsh scenes.



Light Functions



Record query statistics

- Accurately count the voltage, current, power, energy consumption and other parameters of each lamp.
- Switch, brightness status display statistics.



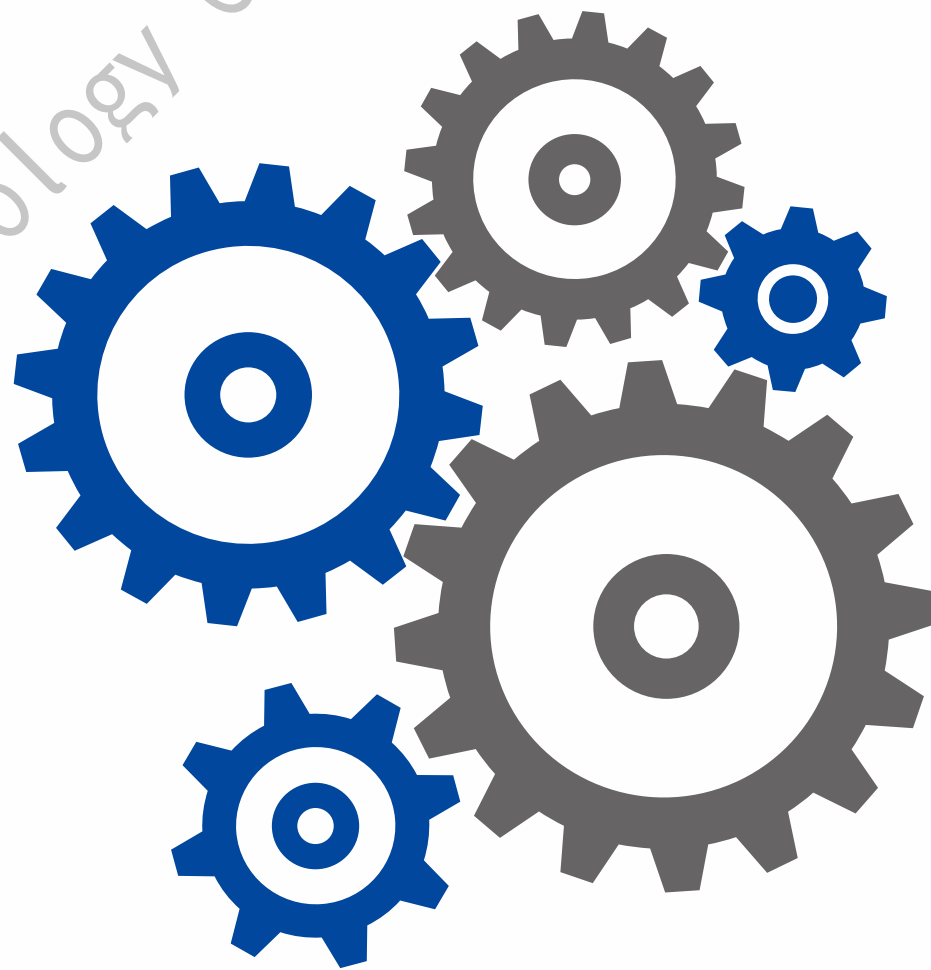
Easy operation and maintenance

- Real time fault alarm.
- Report to management personnel via SMS/email.
- Equipment status display.

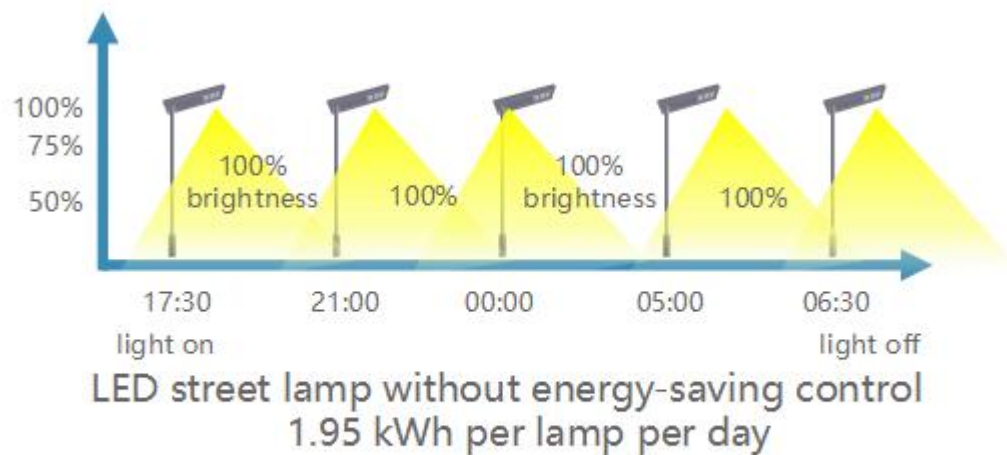


Precise control

- Remote manual control, single lamp, group control.
- Preset multiple work scheme combinations and automatically switch corresponding schemes.

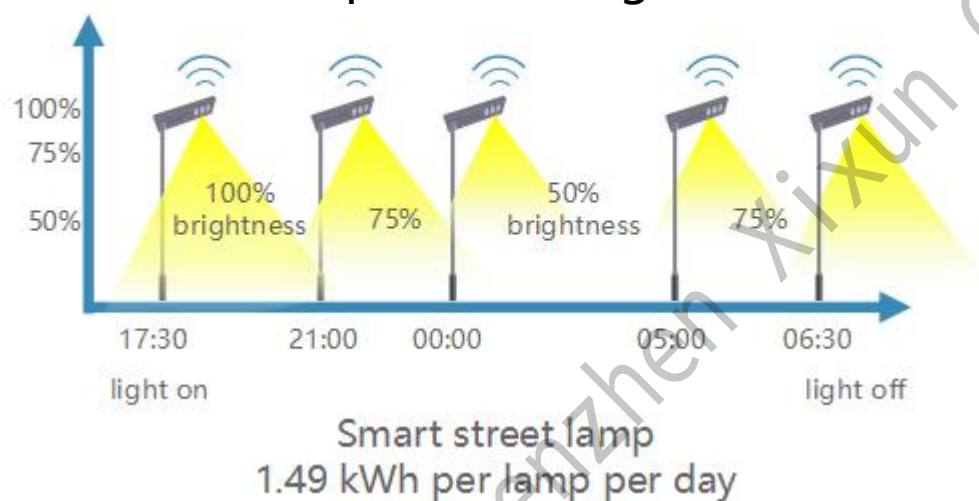


Benefit analysis



↓ 23.6%

Direct power saving 23.6%



Brightness gear	100%	75%	50%
Power dissipation	150W	110W	90W

- "Effectively control the intermittent lighting of smart street lights, greatly reducing power cost waste. "
- Up to 45% reduction in power consumption of street lamps.
- Through intelligent energy-saving control, each lamp saves 300 yuan of electricity every year.
- Reduce maintenance labor cost by nearly 100%.
- Cost recovery in 2-3 years.

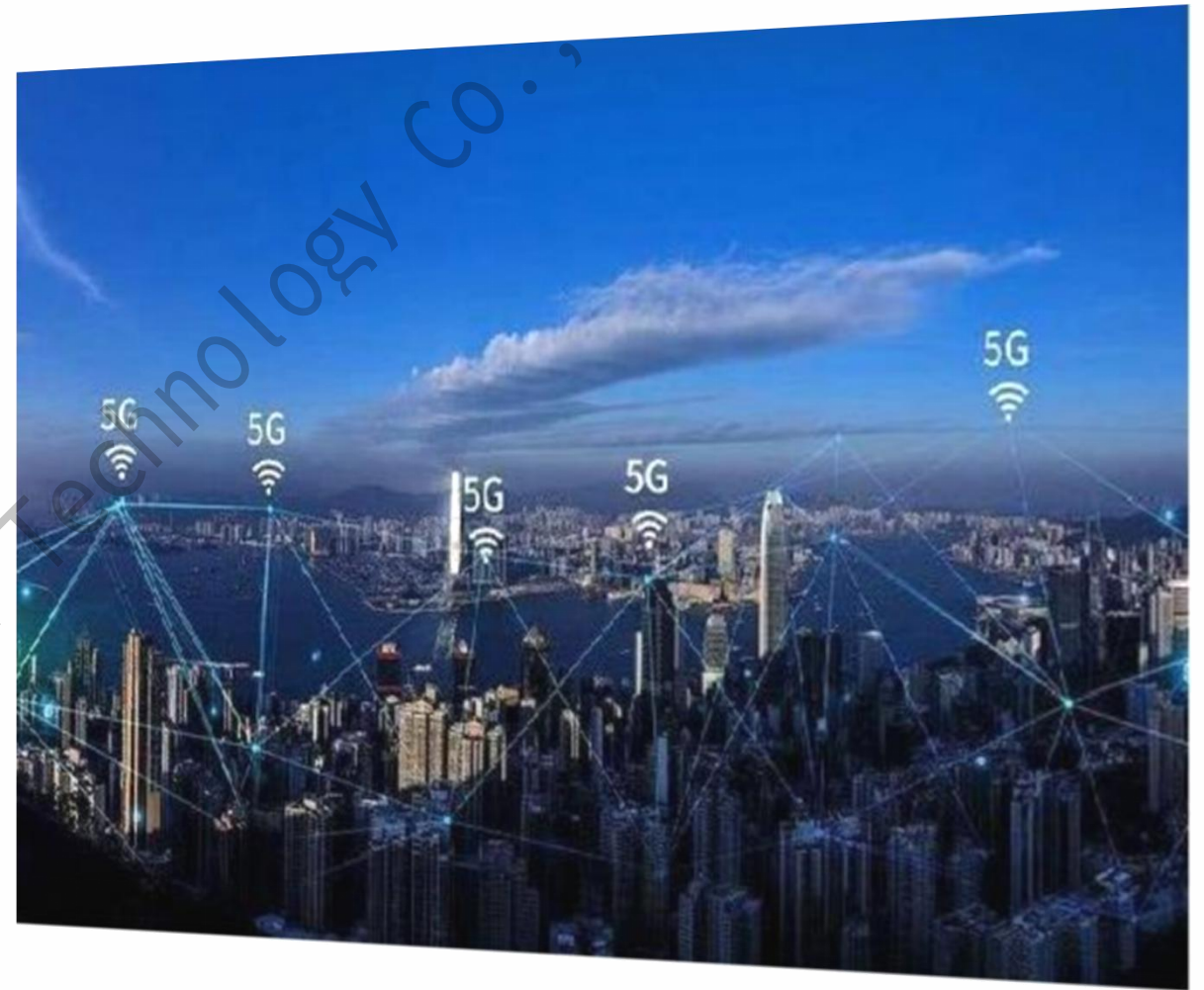
2

5G micro base station

5G micro base station is mounted on the smart light pole;

Functions&Solution

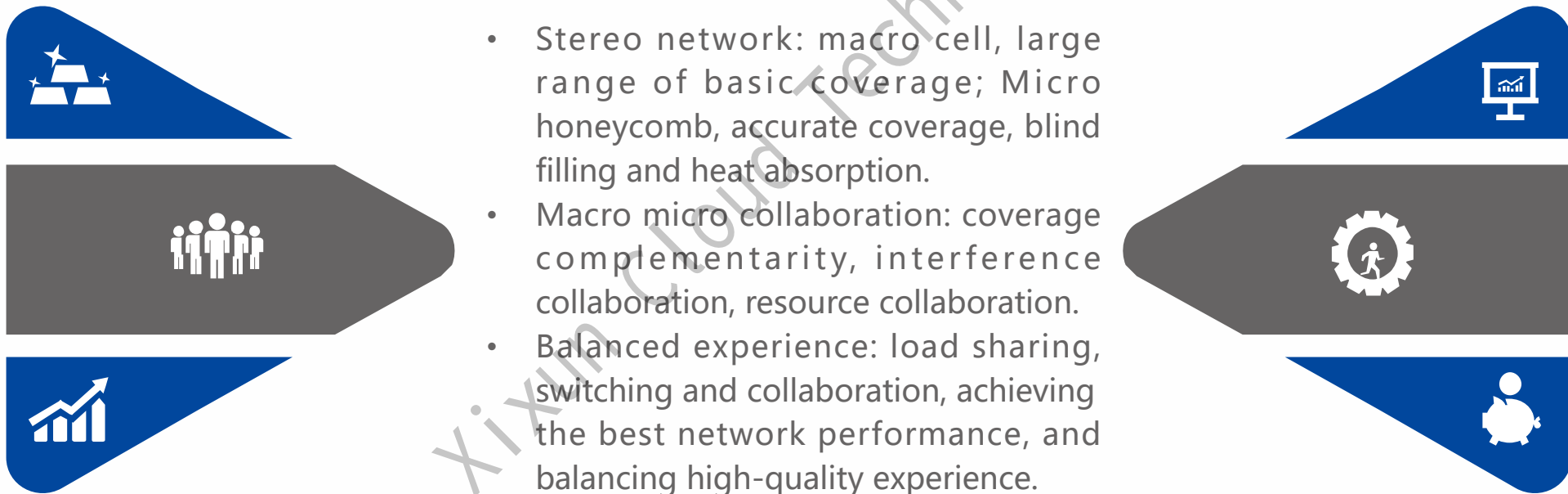
The smart light pole can carry 5G micro base station and wireless WiFi communication equipment to achieve communication and network signal coverage in specific areas, making up for the lack of macro station and public network coverage. Achieve more comprehensive, stable and smooth communication capability.



Communication Coverage

Smart light pole micro base station

Make up for the insufficient coverage of existing base stations and solve the communication blind zone



3

Public WiFi

Install the Wi Fi AP hotspot device through the lamp pole,
and the surrounding users can realize Internet browsing
by connecting the Wi Fi hotspot;

Public WiFi

WiFi hotspot coverage

Install the Wi Fi AP hotspot device through the lamp pole, and the surrounding users can realize Internet browsing by connecting the Wi Fi hotspot;

Provide the public with wireless network services in relevant areas;

The platform can be connected to AC to visually display and connect user data statistics.



4

Camera

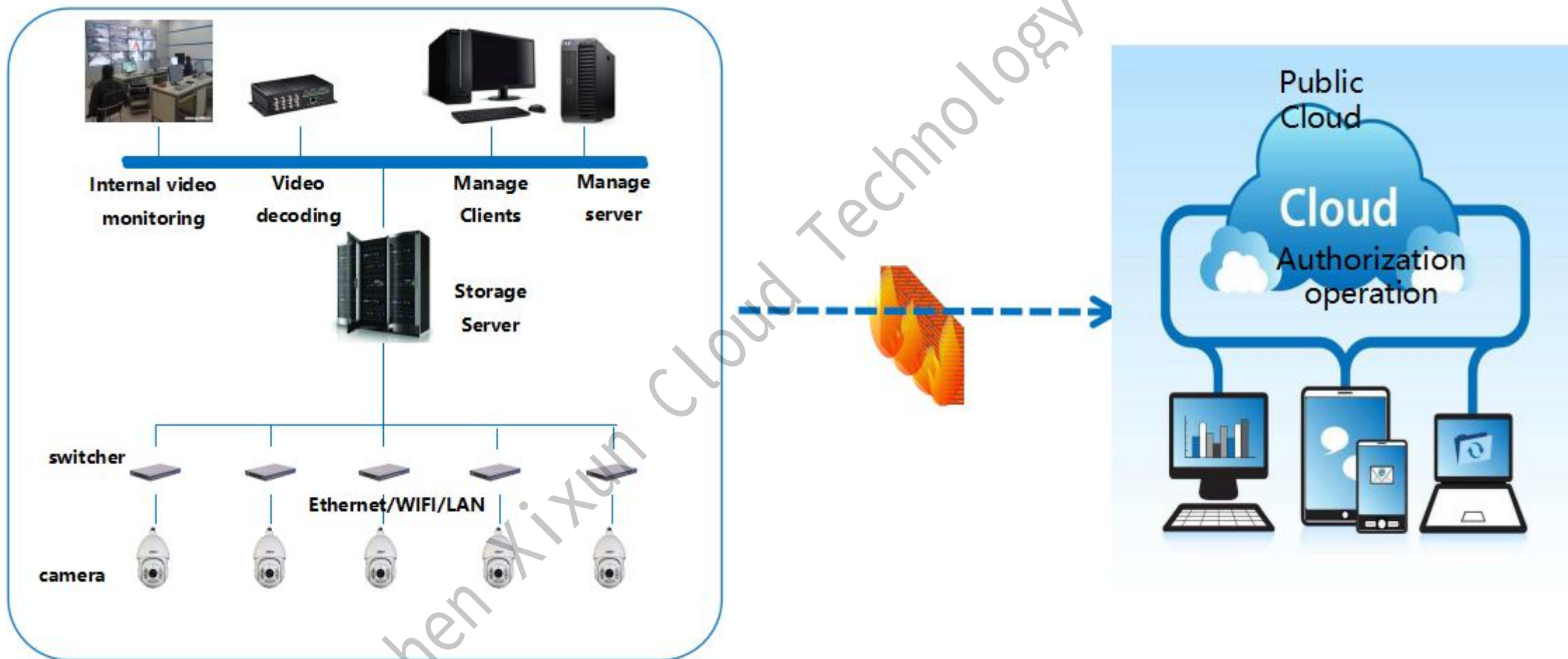
Built in high-definition camera, users can remotely monitor the road images 24 hours through the mobile phone or PC; People flow monitoring and vehicle violation monitoring;

Functions&Solution

The smart light pole is equipped with video monitoring for specific purposes and different functions, which can effectively implement the continuous monitoring records of traffic violations, traffic violations, traffic flow statistics, and security monitoring, judge events, actively give effective feedback, and timely assist the relevant responsible management departments and personnel to deal with them in a timely manner.



Overview of security function system



Scenario 1

Vehicle monitoring for parking violations, violations, speed and traffic flow



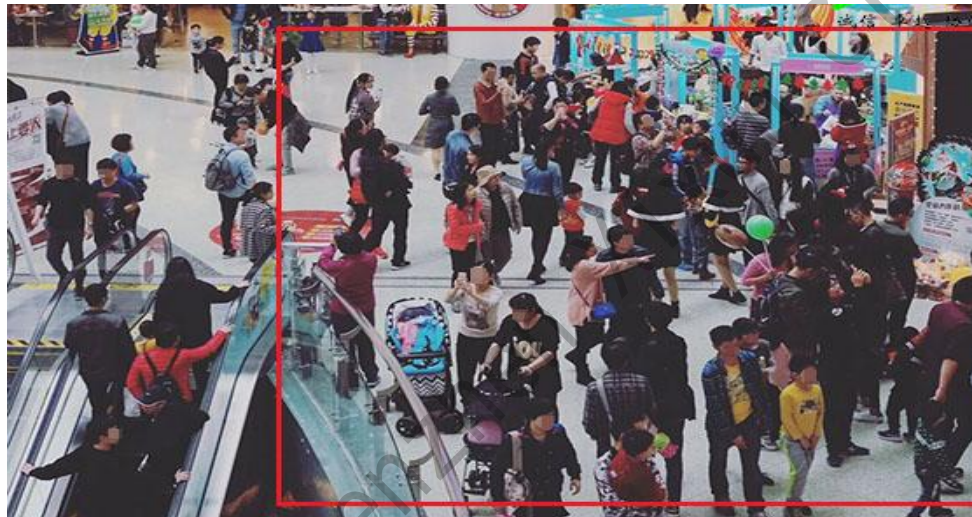
Scenario 2

People flow statistics

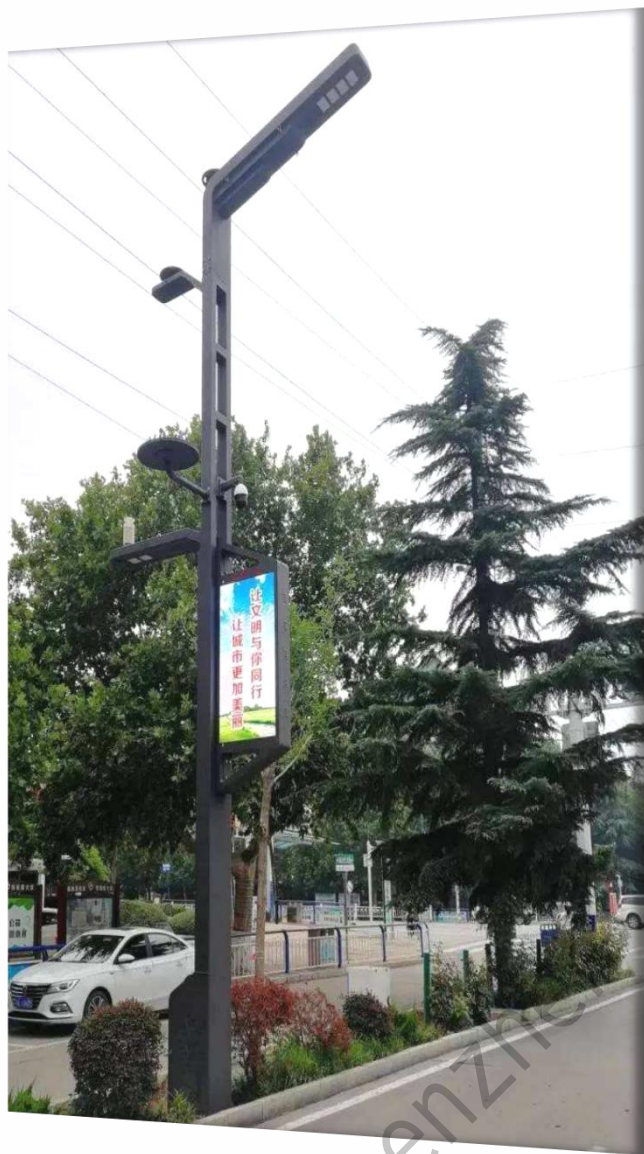


人流量统计管控看板

讯鹏客流量管控系统采用当前先进成熟的智能客流分析传感器，完成精准的人员数据采集。



Security monitoring



5

Broadcasting&Sounding

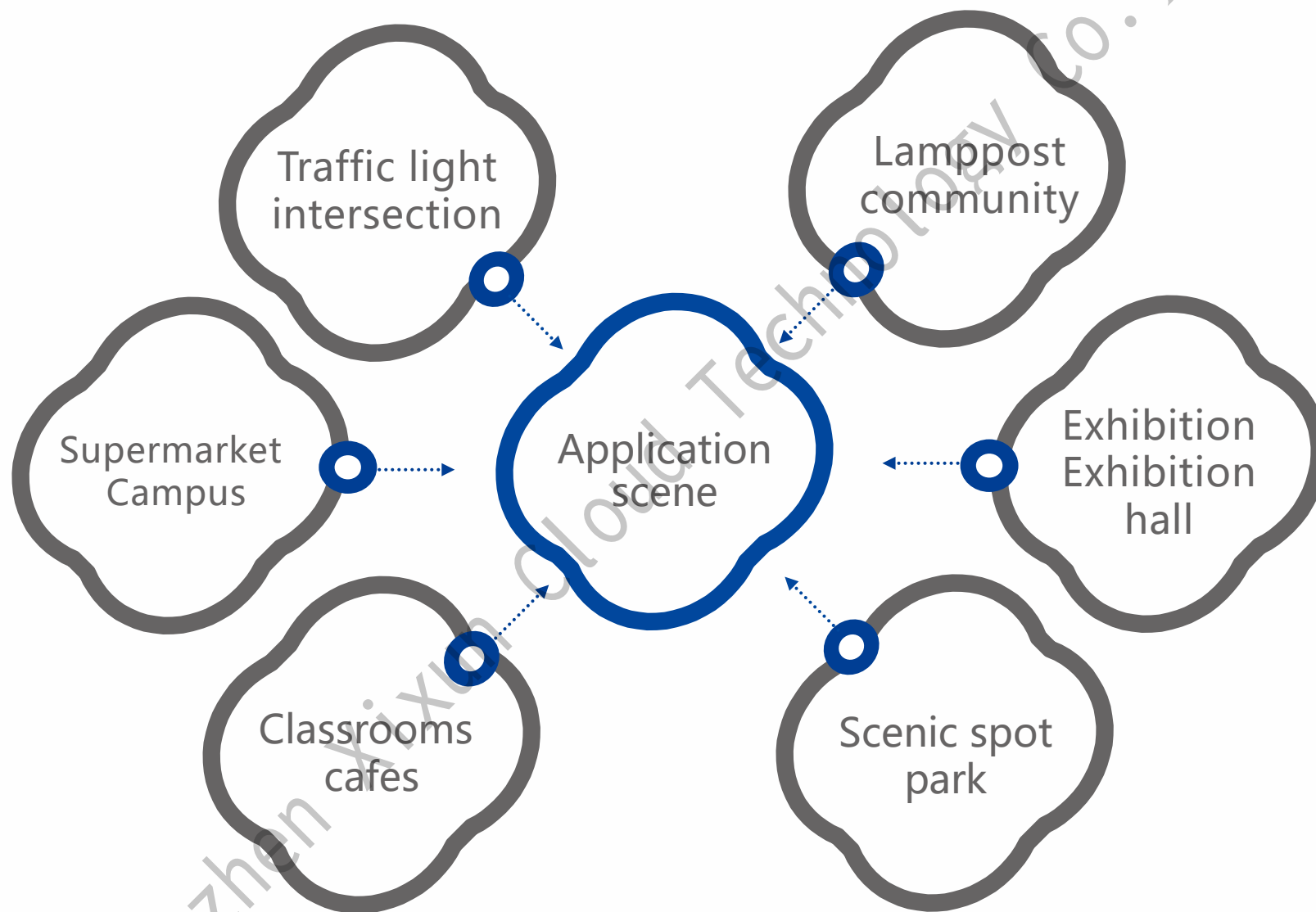
Built in broadcast speaker, which can remotely issue audio and realize remote intercom;

Functions

RG30 is an engineering IP sound pole. 4.5 High fidelity unit speaker, dual frequency unit configuration, high fidelity sound effect. It can be operated manually or online in the cloud, and it supports the AIPS4.0 cloud platform text to automatic voice function, remote cluster release MP3 audio task regular play, remote call, all aluminum alloy shell, aluminum alloy mesh cover, antifreeze, sunscreen, moisture-proof, rust proof and waterproof. It is applicable to a wide range of scenarios. Here are some common scenarios: traffic light intersections, lamp post communities, supermarkets and campuses, classrooms, cafes, parks, exhibition halls, etc.



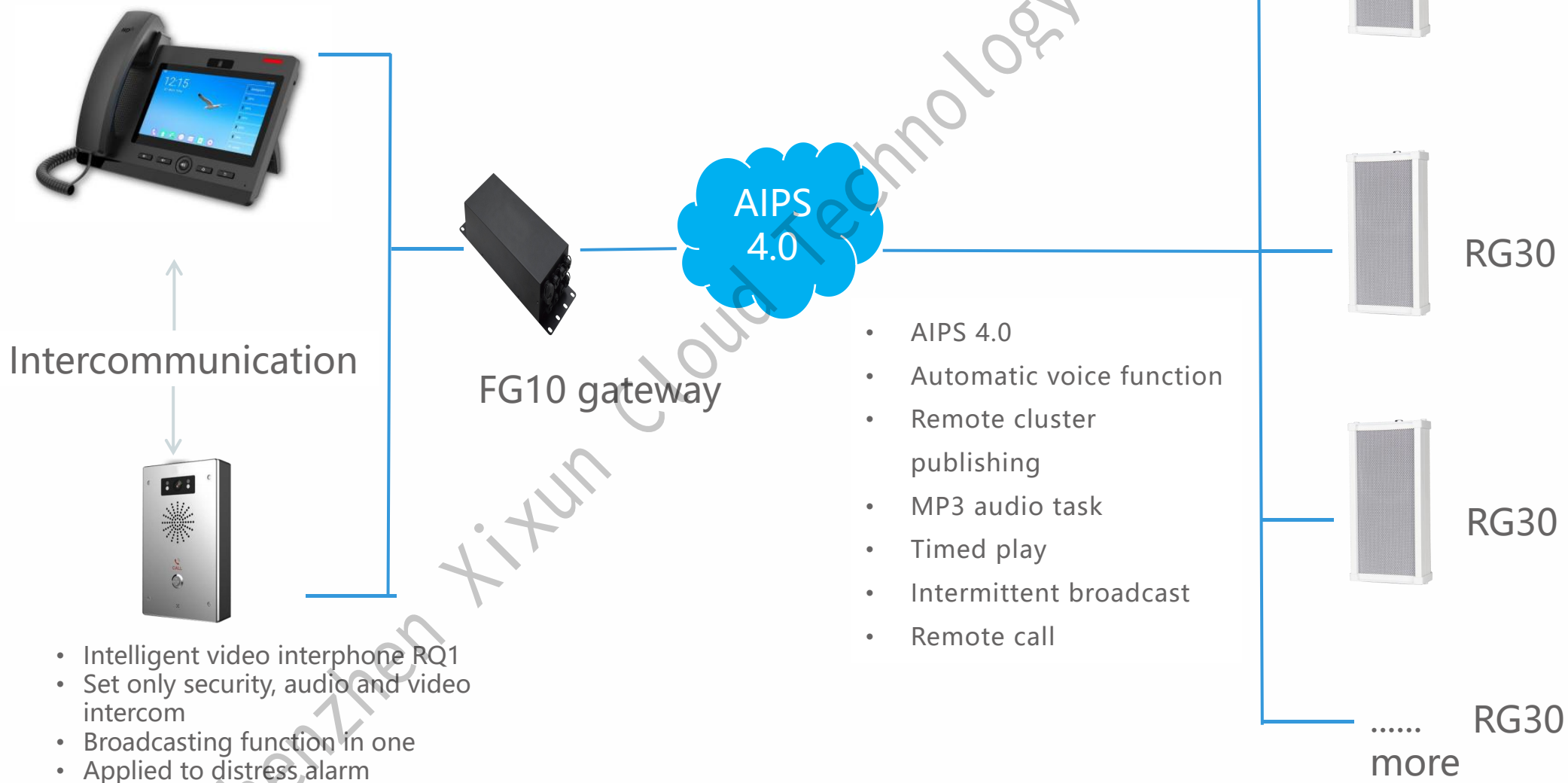
Application scenario



More and richer application scenarios,etc

Optional functions schematic

Optionals: RHH1, a desktop paging microphone for cloud broadcasting, enables remote calling.
Intelligent video interphone RQ1, distress alarm.



6

Environmental sensing

Built in a variety of weather sensors can detect air temperature, humidity, wind speed, wind direction, rainfall, UV intensity, noise intensity, illumination, etc;

Product

The intelligent light pole environment sensor can be used with a computer, a data collector or other collection equipment with RS485.

Relevant data can be automatically uploaded to AIPS4.0 smart cloud platform for reference and analysis.

Technical parameters: temperature, humidity, wind speed, wind direction, PM2.5, PM10, illumination, noise.

It is widely used in greenhouse, environmental protection, meteorological station, ship, wharf, aquaculture, municipal management, park management, scenic area management and other environmental measurements.

Standard interfaces are reserved on the platform, and other sensors can be connected as required.



Functions

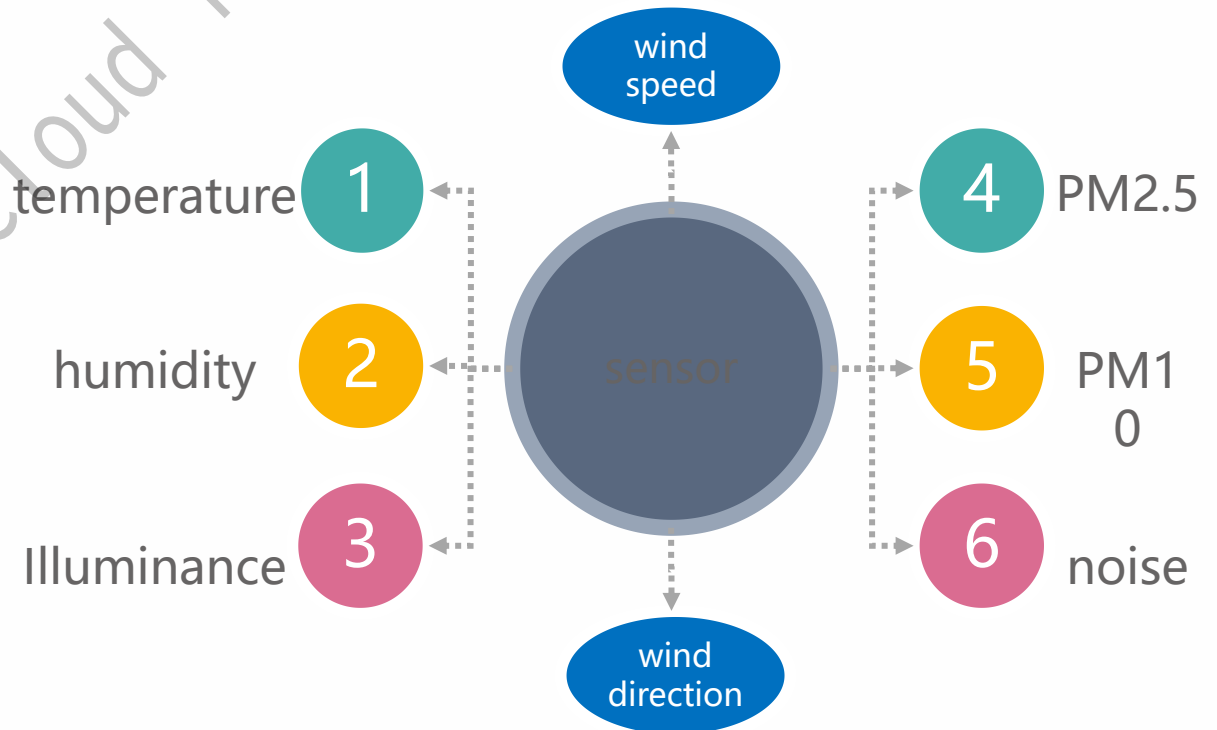
- No start wind speed limit, zero wind speed operation, no angle limit, 360 degrees, can simultaneously obtain wind speed and direction data.
- No moving parts, small wear and long service life;
- Adopt acoustic wave phase compensation technology, with high precision and fast response speed.
- Random error identification technology is adopted to ensure low discrete error of measurement in strong wind, making the output more stable.
- Engineering plastic shell, light in design, portable, easy to install and disassemble.
- Convenient signal access, supporting 485 RTU.
- No maintenance and on-site calibration are required.



Function and environment detection



The smart light pole is equipped with professional meteorological monitoring equipment, which can monitor and record the climate, temperature, humidity, wind speed, wind direction, PM2.5, PM10, illumination, noise and other environmental data in real time.



7

Outdoor LED sign

Support remote information distribution, such as publishing property management information in the park, displaying real-time weather information, advertising information, etc;

Product

LED light pole screen is welcomed by many media companies and government agencies because of its characteristics of multi-point delivery and synchronous display. It is mainly installed on street light poles on both sides of urban roads and streets. Because the light pole screen has the characteristics of synchronous reception and playback, no matter how far the vehicle is, there is always accompanied by high-definition street light screen. The light pole screen not only has unique advantages in road guidance, road condition broadcast, information release, advertising and promotion, but also plays a considerable role in alleviating the fatigue of automobile drivers on urban roads. LED light pole screen is made of die-casting magnesium aluminum alloy, which is integrally die-casting, without welding process, lighter, thinner and faster delivery. The integration function is more abundant and the use is more humanized.



Special features

Sync display

First wireless Lora synchronous playback

Brightness

Automatically adjust brightness without affecting traffic

Live display

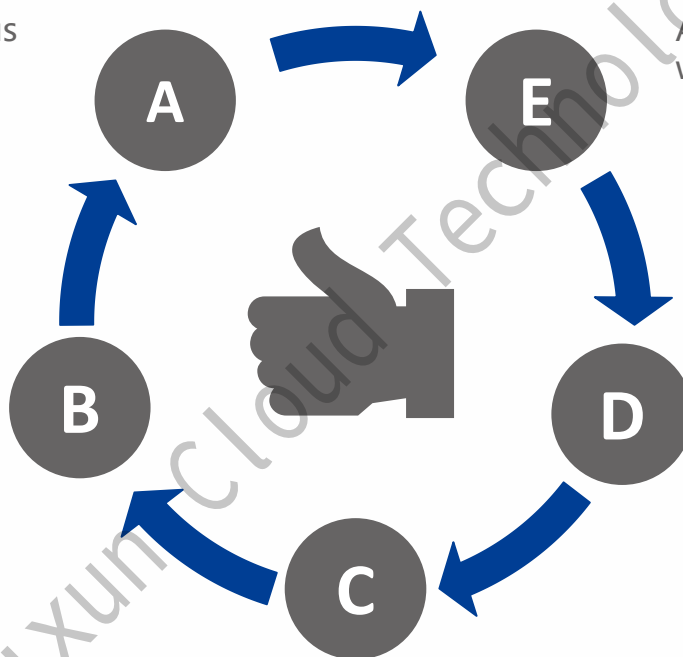
Live broadcast of any camera image

Security

Cluster unified cloud management, remote real-time monitoring

Stable

Qualcomm solution, dedicated to outdoorsolution, dedicated to outdoor



Cloud Platform AIPS4.0 Cluster

Multi lever screen LORA
wireless synchronization
screen (patent) .

Real time display of
professional meteorological
environment data.

Big data connection
(perators, urban big data) .



Real time statistics of the
number of people watching
the screen today and the
cumulative number of
people watching the screen.

Extended power amplifier
and loudspeaker, and the
screen body is used as IP
voice column broadcasting.

Open SDK (API, HTML5) to
support secondary
development and
integration of smart city
platform.

LED display publish—Unified mangement

home

Smart IoT

screen

broadcast

meteorological

Smart Lighting

Electricity

monitor

statistics

traffic

WIFI AC

Radar speed

system

AIPS4.0

Video Surveillance

device

Monitor playback

language

admin

Split Screen

1 x 1

PTZ control

▶

▲

◀

◀

▶

▶

+

zoom

−

+

focus

−

+

aperture

−

equipment

device name

tl

↓

枪机

↑ ↓

球机

↑ ↓

普通监控

↑ ↓

违停抓拍

↑ ↓

人流统计

↑ ↓

人群聚集

↑ ↓

11

↑ ↓

003

↑ ↓

002

↑

2022-11-30 11:44:41

消费

背包屏

轻巧便携

随着智慧

示屏，就是我

放，支持声音

WIFI/

广告屏

拼接式透明屏

门框屏

演绎真正的性价比传奇

M系列商显

S系列二合一视频控制器

同异步常规控制系统 CONVENTIONAL PRODUCTS

10.1

IP PTZ Camera

LED display publish—Release information remotely

IOT AIPS4.0



language



admin

home

Smart IoT

screen

broadcast

meteorological

Smart Lighting

Electricity

monitor

statistics

traffic

WIFI AC

Radar speed

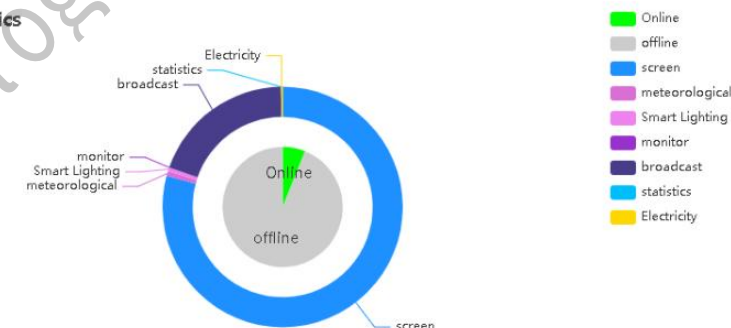
system

Announcement

Title	Content	create time
关于AIPS4.0...	尊敬的客户：因业务发展需要，我司拟自2022年10...	2022-07-06 09:23:35
aips4上线		2021-11-20 14:22:39

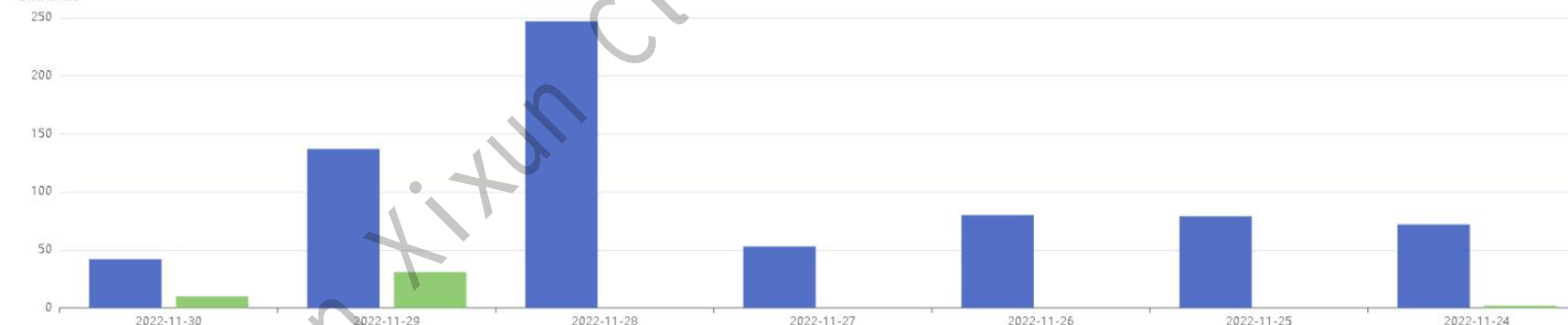
Equipment Statistics

unit: PCS

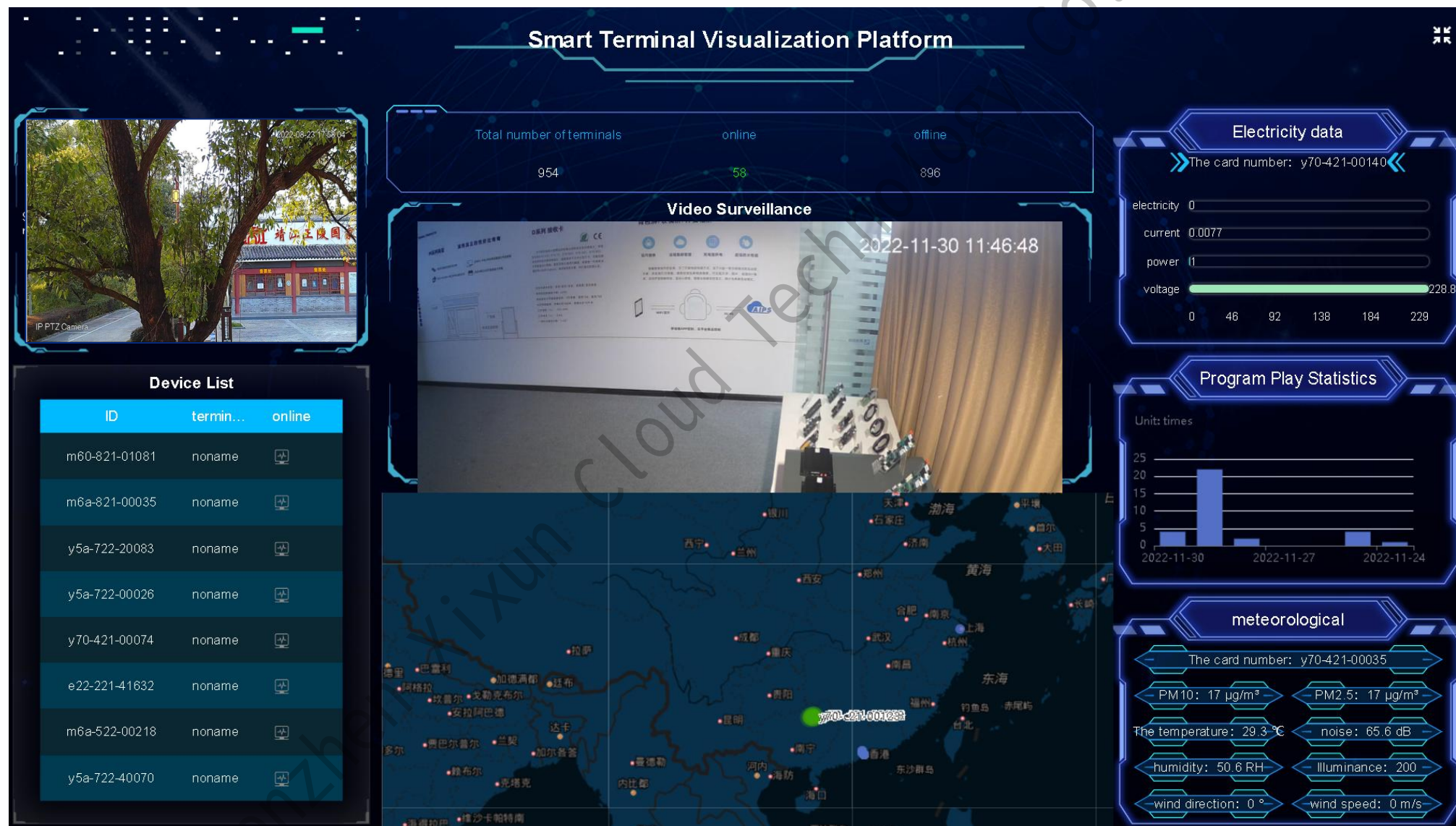


Control Statistics

Unit: times



LED display publish——Emergency linkage supporting



Client-side publish schematic



Mobile APP/AIPS cloud platform

Cluster control

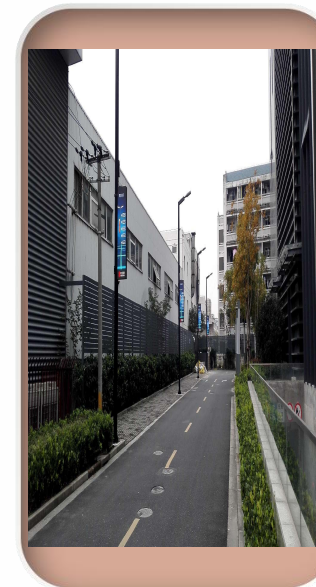
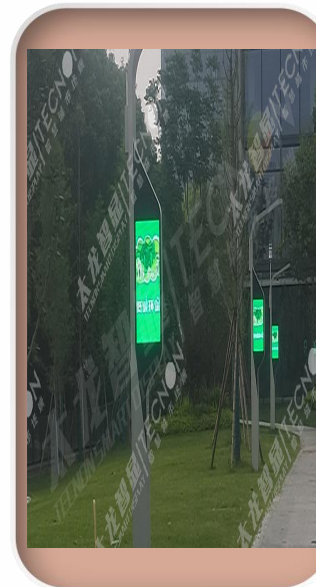
Program synchronization without delay



One to one control Precise release



Demonstrations



8

5G smart light pole gateway

The IoT wireless intelligent light pole gateway uses public 4G/5G/wired/optical fiber networks to provide users with wireless long-distance big data transmission functions.

Product

The Internet of Things wireless intelligent light pole gateway uses public 4G/5G/wired/optical fiber networks to provide users with wireless long-distance big data transmission functions.

The product adopts high-performance industrial 32-bit communication processor and industrial wireless module, and takes embedded real-time operating system as the software support platform. It also provides 1 channel AC input, 3 channels AC output, 2 channels DC output, 2 SFPs, 7 gigabit Ethernet LANs (including 4 channels supporting POE+), 1 gigabit Ethernet WAN/LAN, 2 RS485, WIFI interfaces, and can connect multiple serial port devices, multiple Ethernet devices, and WIFI devices at the same time.

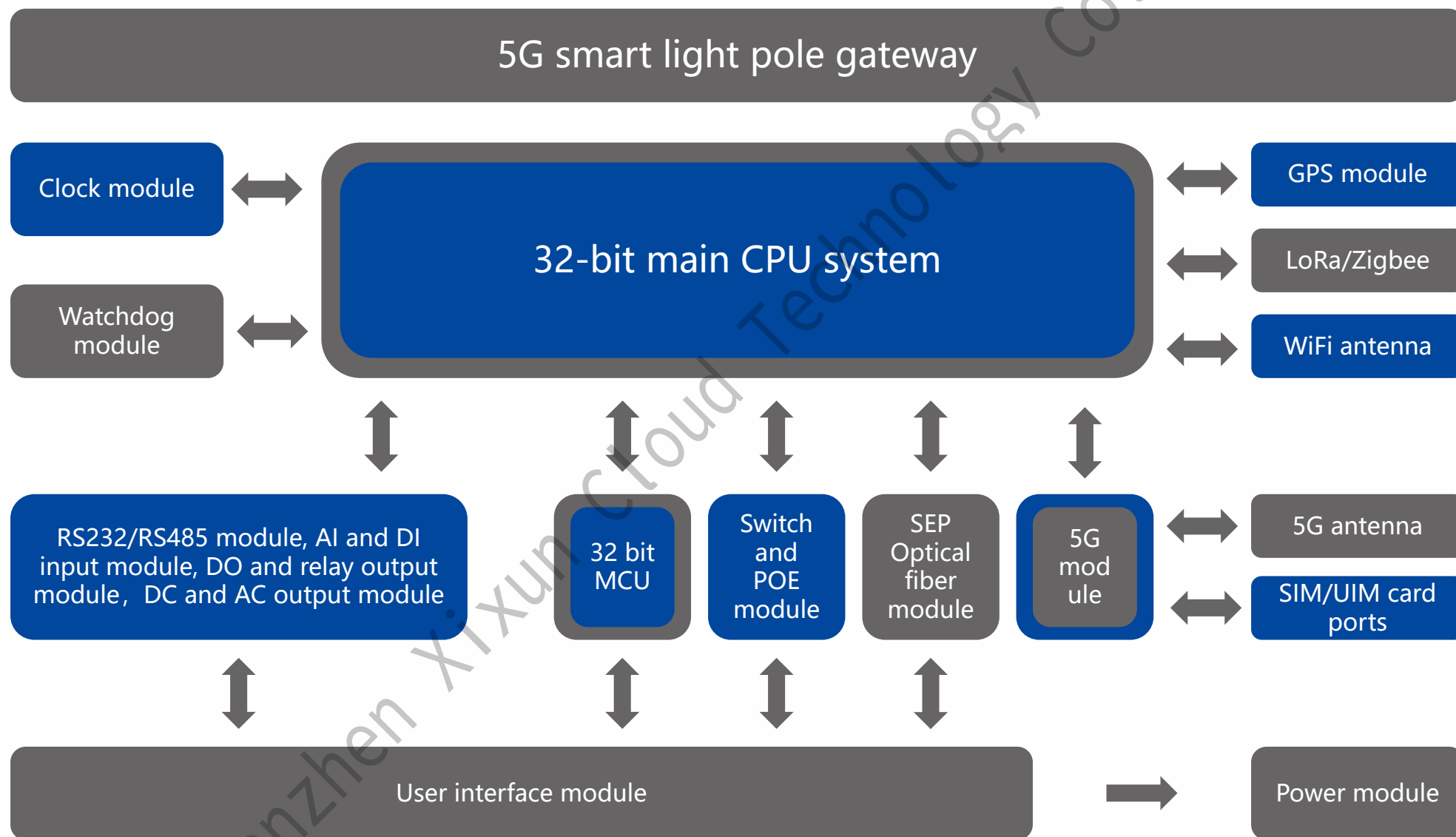


Functions & Link Schematic

5G smart light pole gateway is an intelligent gateway specially developed for 5G smart light pole, ubiquitous power Internet of Things and other scenario applications, with strong equipment access capability, communication protocol conversion, and computing processing capabilities. The gateway can interface with intelligent lighting, video monitoring, traffic indication, traffic monitoring, environment, weather monitoring, information release, public broadcasting, public WLAN, emergency help, information interaction, charging services and other functional equipment, and communicate through wired, optical fiber, 4G, 5G modes. This product has been widely used on various types of lamp posts in smart cities, municipal administration, highways, characteristic towns, scenic spots, parks and other occasions.



Working principle block diagram



9

One key Alarm

The people in distress can quickly report the accident information through one click alarm. After receiving the information, the background management center can immediately arrange personnel to the site for handling.

Product

RQ1 is a SIP video intercom product specially developed for the needs of users in the security industry. It has the advantages of high reliability, high quality audio and video. It integrates the functions of security, audio and video intercom and broadcasting. Its waterproof and dust-proof grade is IP65 and explosion-proof grade is IK10. It is suitable for outdoor scenes and can provide users with high-quality communication intercom services.



Parameters

- Built in high-definition camera and infrared fill light, using H.264 coding.
- Built in 3W speaker and AEC algorithm to achieve high-quality two-way handsfree call.
- Protection grade IP65.
- Aluminum alloy face shell, cast aluminum bottom shell, explosion-proof grade IK10.
- Anti disassembly design of the cover, and report to the control center when the anti disassembly alarm is triggered.

- Wide temperature operation - 40 °C to 70 °C.
- Built in 2-circuit short circuit input and 2-circuit short circuit output interface.
- Online management and upgrading of the system;
- High compatibility, compatible with mainstream SIP based IPPBX/Softswitch/IMS platforms, such as Asterisk, Broadsoft, 3CX, Metaswitch, Elastix, Avaya, etc.

10

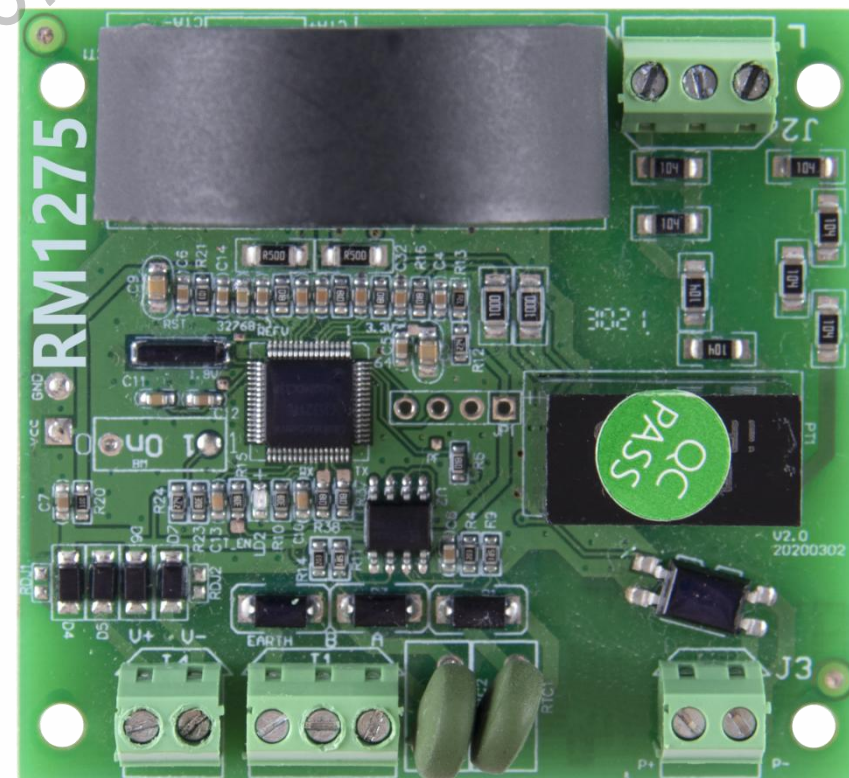
Electric energy statistics

The software and hardware platforms used are widely used in industrial products such as smart meters, and are the smallest unit to realize electric energy measurement.

Product

RM1275 single-phase AC power metering module is a new product released by Xixun Technology to adapt to various manufacturers' monitoring of their own product power consumption. Its software and hardware platforms are widely used in smart meters and other industrial products, and it is the smallest unit to realize electric energy measurement.

At present, RM1275 has been applied in many industries such as AC charging pile, street lamp monitoring, machine room, base station monitoring, energy-saving transformation, intelligent power management, dynamic environment, security monitoring, and equipment energy consumption monitoring. The accuracy of the module is superior to the national level 1 standard; It can measure 45~65Hz AC voltage, current, power, power factor, frequency and other electrical data; Its communication protocol complies with Modbus RTU Communication Protocol and DL/T645-2007 Multi function Watt hour Meter Communication, and it is convenient to connect with other microcomputers and ARM through corresponding interfaces to realize automatic data acquisition and monitoring functions.



Features

A single module collects single-phase AC parameters, including voltage, current, power, power factor, frequency, electric energy, temperature and other electrical parameters, with complete information.



It adopts industrial grade special power metering SOC chip with high measurement accuracy.

Standard 485 communication, the communication port is equipped with ESD protection, and the communication protocol supports DL/T 645-2007 and MODBUS-RTU dual protocols.



When the electricity is full, it will be overturned to start metering again, and the power failure protection of electric energy data will be carried out.

The adopted hole diameter is Φ
The 12.8mm current transformer can be threaded with a wire nose for the convenience of users.



When the load is powered, the PF pin will output the corresponding pulse. This pin can also be used to verify the electric energy metering of the metering module by the calibration station through pulse acquisition.



The product has obtained the test report from the metrology institute.

Features

Collect electrical parameters of LED display (see the figure below for specific) .



Voltage



Current



Power



Power Factor



Frequency



Electrical Energy

Widely used in energy-saving LED display monitoring, for monitoring electrical parameters and power consumption of AC equipment (see the following figure for specific application fields)



Intelligent Park display



Charging pile display



Mobile car screen



Outdoor large screen



Indoor small pitch
large screen

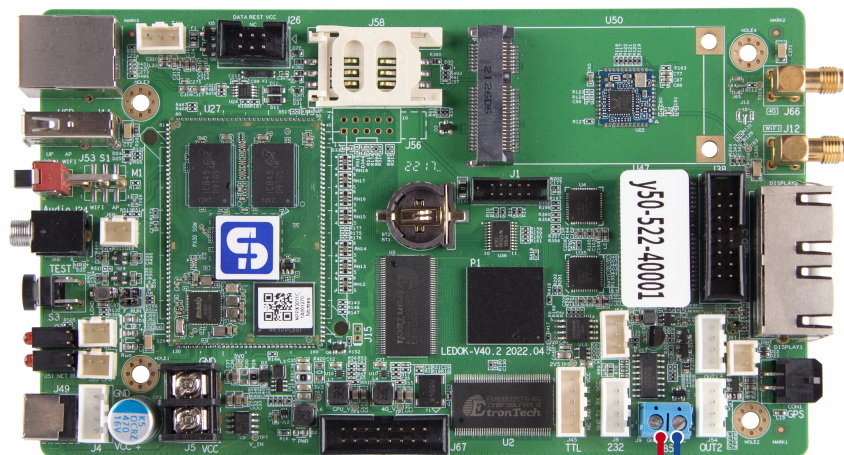


Traffic screen



Intelligent light pole screen

Application wiring diagram



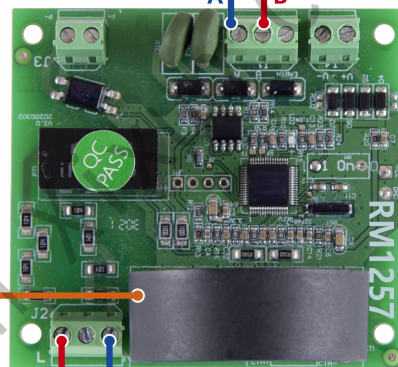
Y50 Control card

Power Meters RM1257

When using, the input neural wire needs to pass

L to live (Input live)

N to neural



AIPS4.0 Cloud platform

4G/Internet

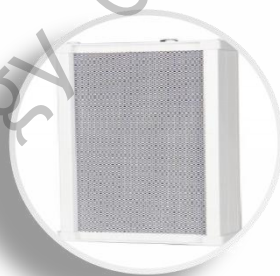
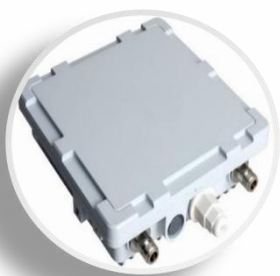
L/N connects to 220V power

220V power supply



Earth

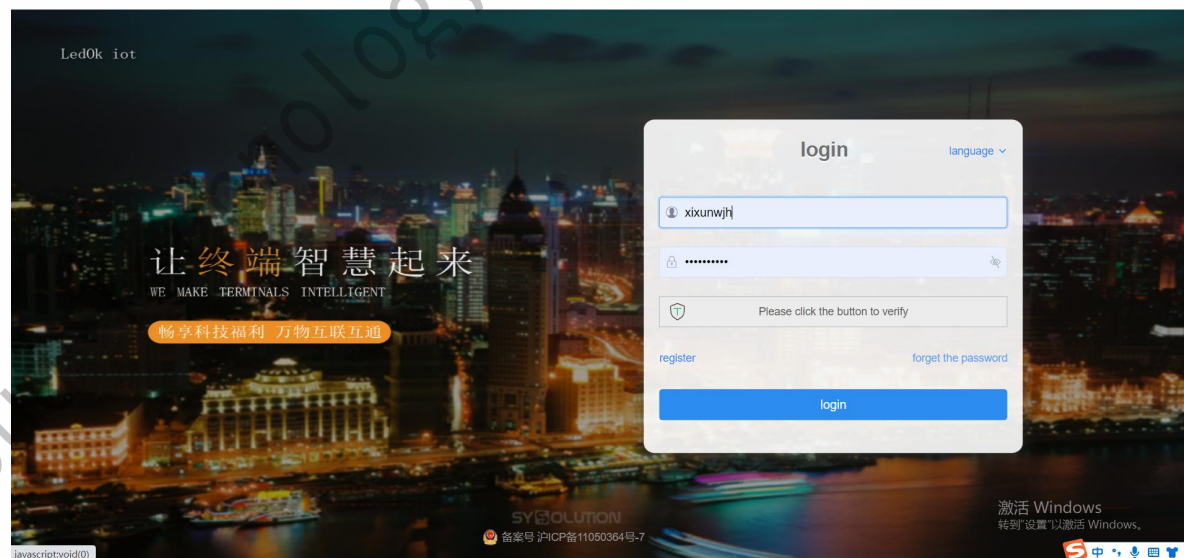
Module design, free combination



Each subsystem of the smart light pole can operate independently
Customers can integrate and choose according to the nature of their projects.

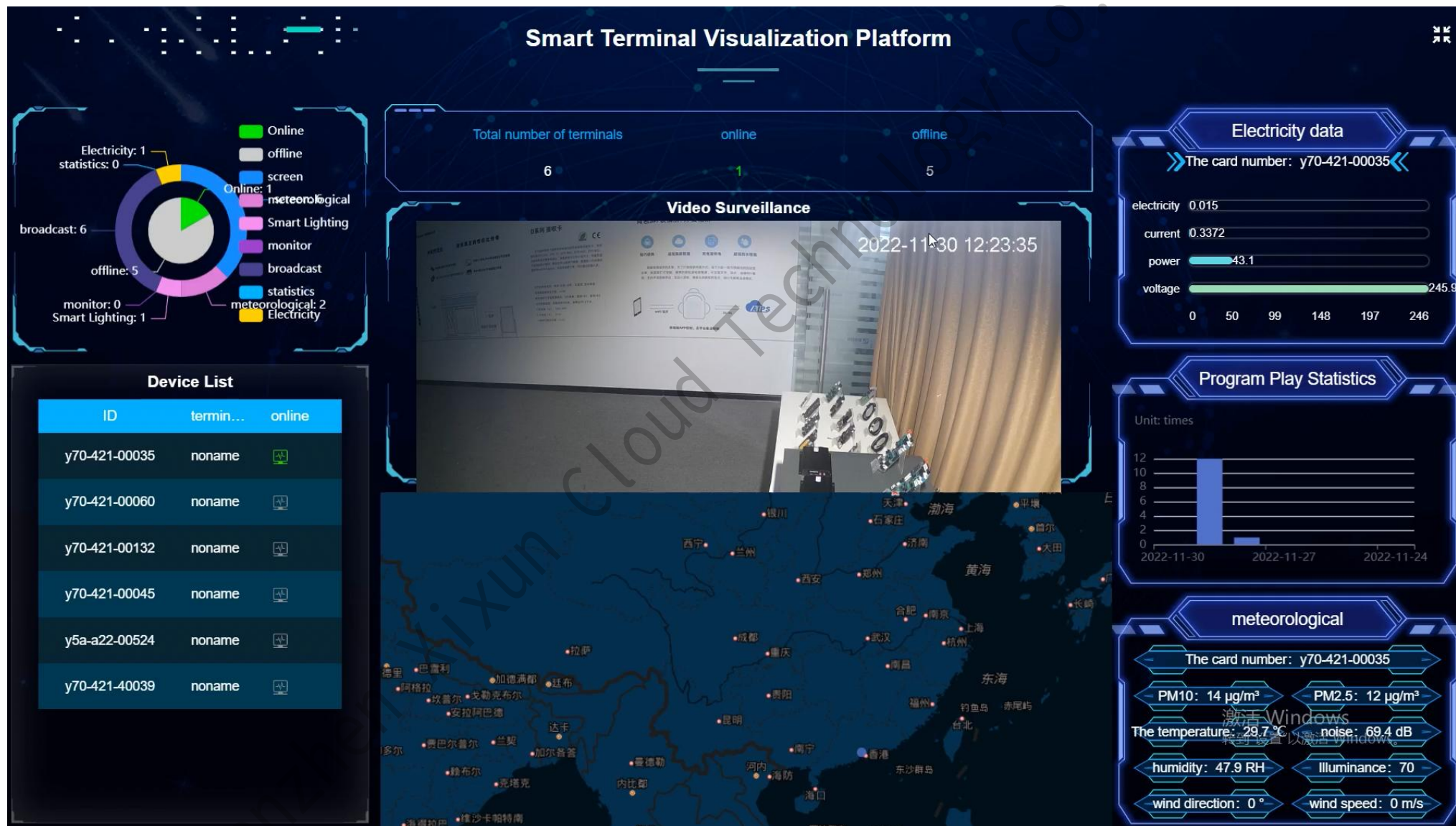


Platform operation design



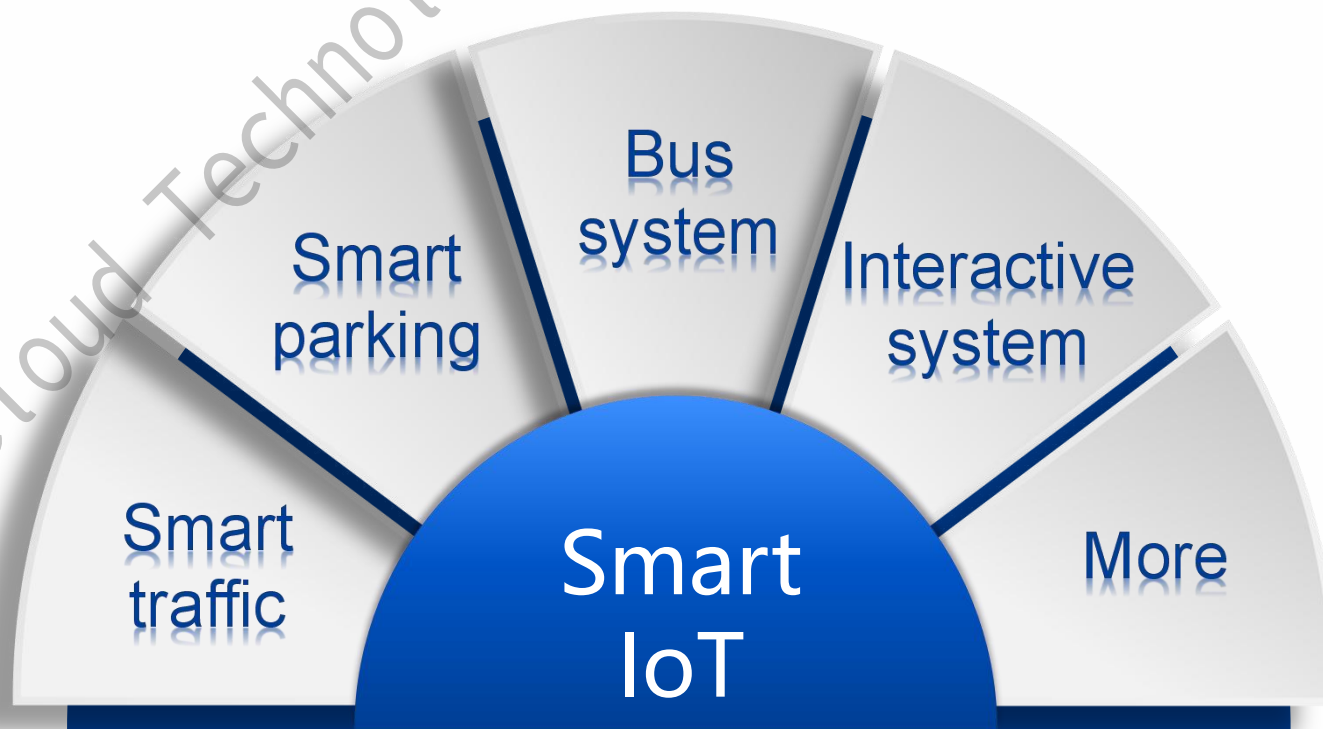
The intelligent light pole integration management platform is based on a secure and stable Windows service operating system and adopts the B/S architecture. Users can use the system on their browsers, and provide mobile control support. Users can also control the system on their mobile phones and tablets.

PC side web platform interface



Platform development, easy connection

Through the protocol docking between the platform software and each subsystem, multiple unrelated subsystems are managed and controlled uniformly under a common platform to realize the mutual communication and centralized management control of the unified standard protocol of multiple systems and multiple devices. It is a visual linkage management mechanism of WYSIWYG and real-time perception, real-time acquisition and real-time response of information.



11

Demonstrations

Demonstrations



Huoshulian Community in Dongguan city



Government park of Guangzhou

Demonstrations

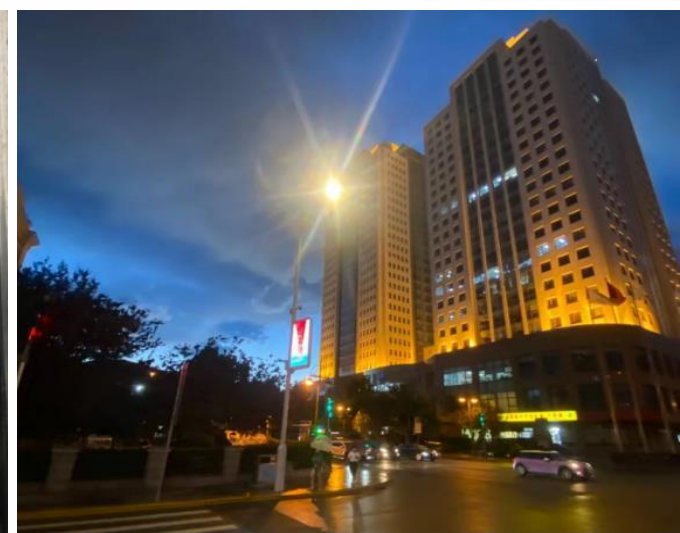


Huoshulian Community in Dongguan city



Government park of Guangzhou

Demonstrations





► ► ► **Thank You!**

Shenzhen Xixun Cloud Technology Co., LTD.

