Grasp the 5G era, develop AI pulse
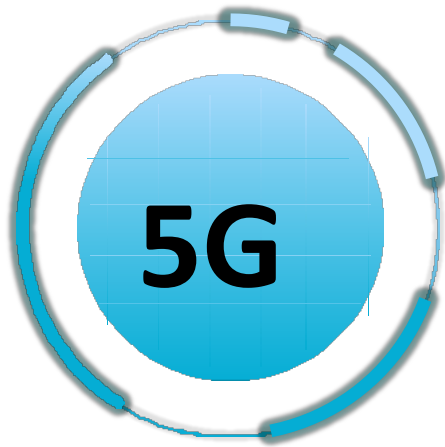
SUNSEA AIOT
智 慧 连 接 万 物
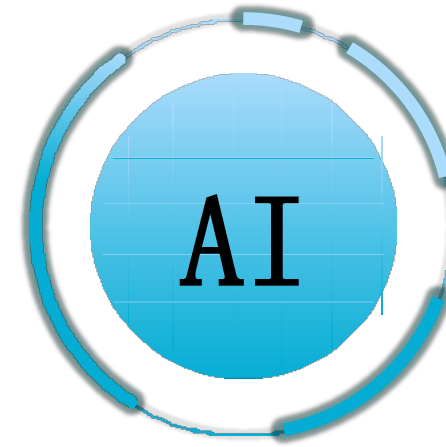
2019 We are witnessing a great change

Extremely fast network, lower access delay, massive device connectivity, technical drive and demand traction

Continuous breakthroughs in machine perception, cognition, big data processing, and motion control.

5G

AI

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日 海 智 能

Why is 5G so popular?

5G is a fundamental change in the basic logic of communication from voice to video, which has led to the rapid explosion of massive HD video content.
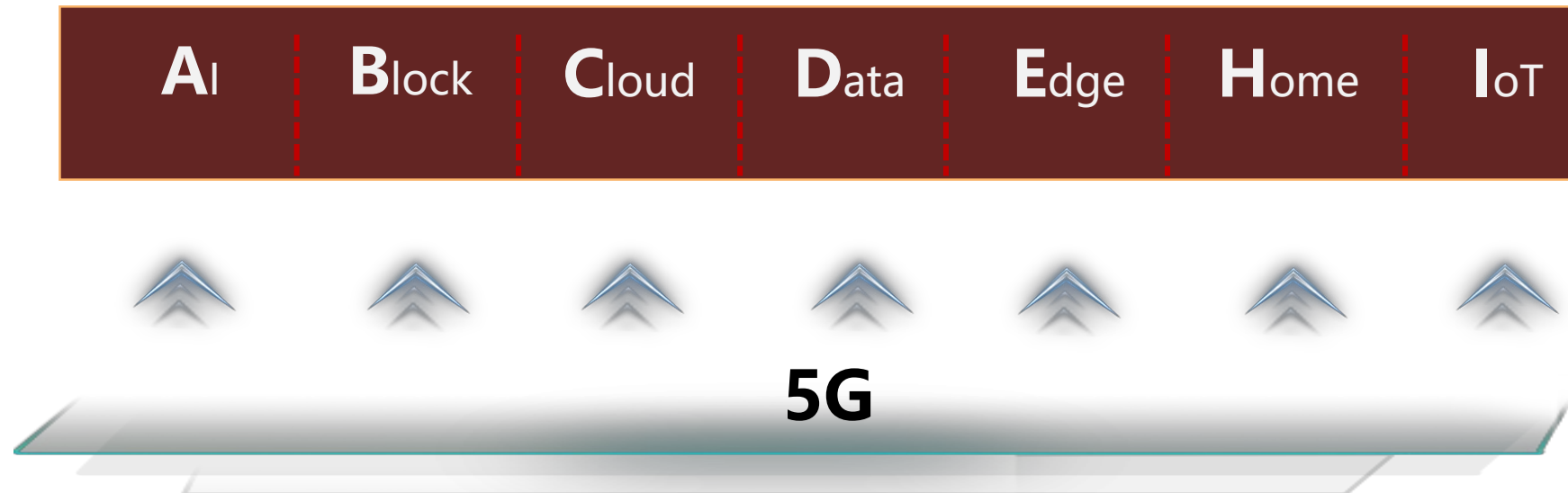
The market scale of mobile broadband surpasses fixed-line broadband for the first time under the blessing of 5G technology, and 5G technology is the basis for the outbreak of the Internet of Things.

5G technology enables the use of edge computing AIOT to take the application stage behind the scenes. In the 5G era, there will be a lot of applications beyond our imagination.

5G is coming for AIoT

5G —— Empower ment ——→ AIoT —— open ——→ The era of intelligence

A_I	B_{lock}	C_{loud}	D_{ata}	E_{dge}	H_{ome}	I_{oT}

5G
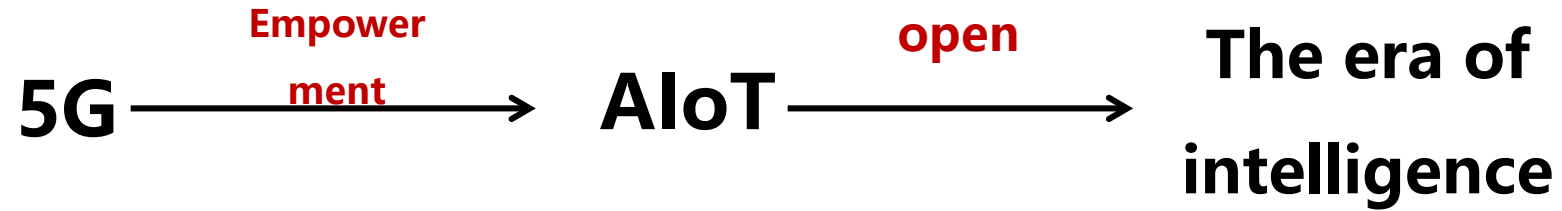
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SUNSEA AIOT-Definer of 5G modules

LONG SUNG

EX510

CMIIT ID:
S/N:123456789012345678901
IMEI:123456789012345

龙尚科技（上海）有限公司 中国制造

Multi-Band	FOTA	M.2
VoNR	Compact Size	GNSS
TCP/IP	USB 3.1	SSL
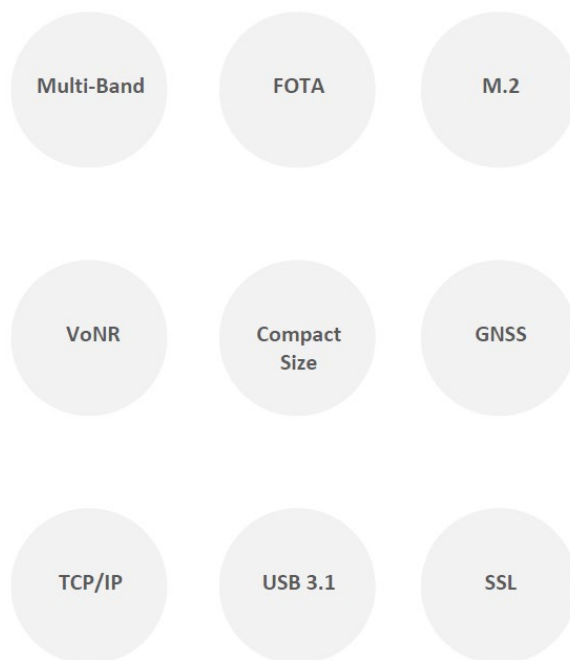
Standard M.2 interface

throughput data communication

The AT commands of the SIM8200EA-M2 are mainly compatible with the SIM7912G / SIM7920G series modules.

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SUNSEA AIOT--5G+Industry promoter

Smart city
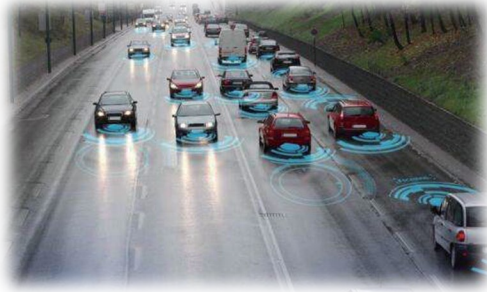
Car networking
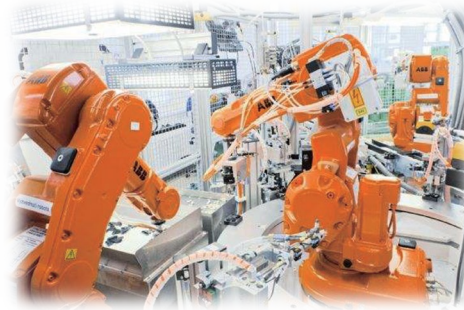
Smart manufacturing

VR/AR

Smart medical

Smart security

Drone

Ultra high definition video

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AIoT-The general trend

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The AI market is growing rapidly

Global artificial intelligence market size (100 million US dollars)

AI+medical

Smart traffic

security

finance

Car networking

Edge computing, storage, supercomputer, deep learning

Sale

Smart manufacturing

agriculture

Smart home

Smart city

2015	2016	2017	2018E	2019E	2020E
1684	1941	2307	2700	4285	6800
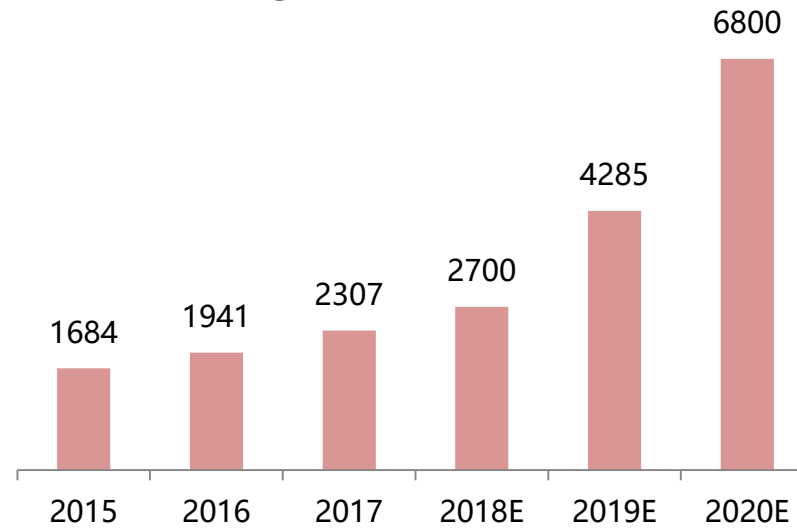
China's artificial intelligence market scale (100 million yuan)

2015	2016	2017	2018E	2019E	2020E
112	142	217	339	500	710
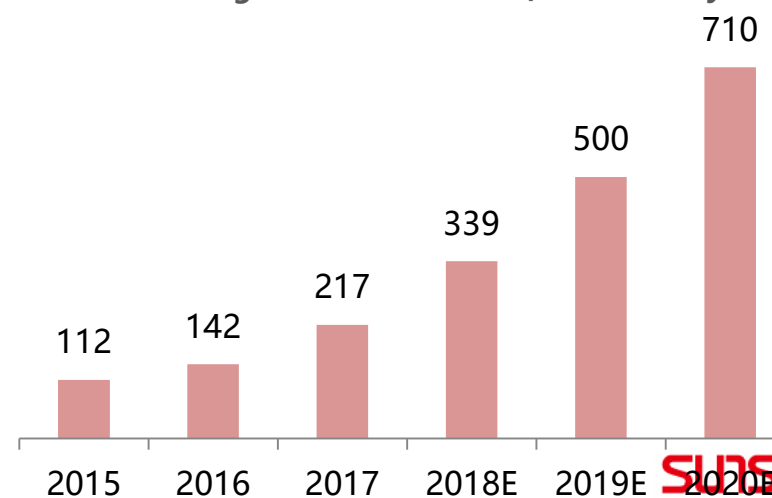
SUBSEA AIOT
日 海 智 能
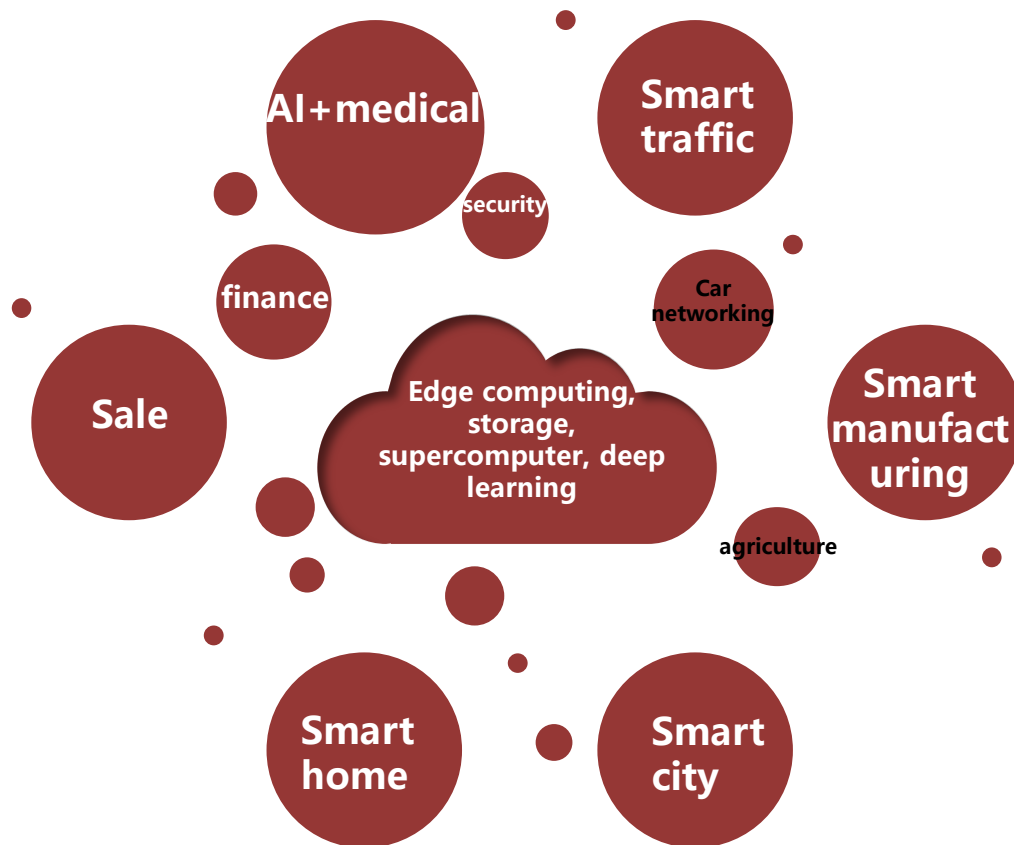
SUNSEA AIOT cloud+edge, AI-Empowerment

The AI Internet of Things requires synergy between the edge and the cloud platform:

- data synchronization
- Distribution
- Model update
- Keep training
- Reverse search
- Data analysis

Camera

sensor

Video CPU

DeepStream

Smart gateway

Edge calculation

kafka

DeepStream

APACHE **Spark**™

Flow calculation analysis

Video CPU

Video CPU

Cloud platform

3D View

Dashboard

Reverse search and business analysis

APP

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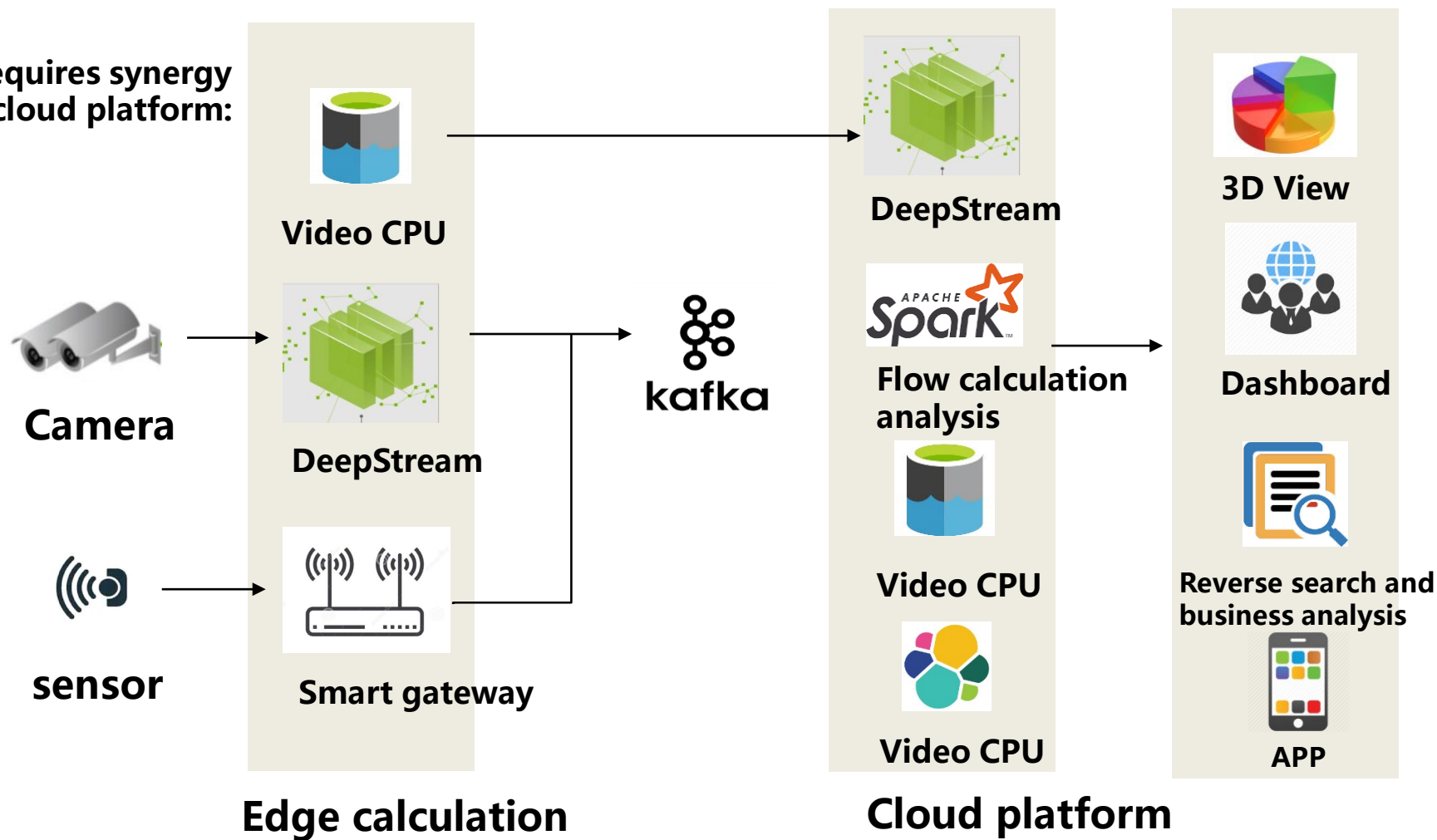
The new AIoT nerve center of city

| Urban unified operation management platform | Global view | Emergency Command | decision making | Planning assistance |
| | Global analysis | Automatic warning | Decision making | Continuous optimization |

Cloud

AIoT city nerve center

Body of city
| Smart government | Smart traffic | Smart environment | Smart agriculture | Smart water management | Smart trip | .. |

| Open service capability | Open data capability |

Center platform
| Data base | Container management | Common components (/process engine/message middleware/application middleware/search/information synchronization/log) |
| Microservice orchestration | Hybrid cloud management | Big data structure | AI model & algorithm | Blockchain service |

Big data platform
| Data collect | Data translate | Data save | Data service |

IoT sense platform
| Connect management | Devise management | Data management | Interface management |

management

Sense transmission
| optical fiber | Traditional cellular network | WiFi | NB-IoT | 5G |

Edge

Smart edge
| Smart gateway | AI edge computing terminal | Distributed edge computing center |

Devise

Smart devise
| Position sense | ID sense | Environment sense | Metering sense | Media sense |
| Module | Phone | Wearable device | Sensor | controller |

日海智能 AI边缘计算终端

多种Cam接入模式

n*USB Camera/8 *IP Camera/ 6*AHD Camera

深度学习 → 8通道1080P*30fps深度学习

音视频编码 → 250Mbps

音视频解码 → 500Mbps

AI car edge computing terminal
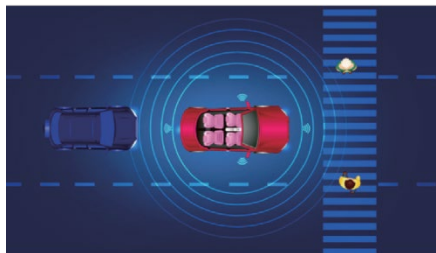
DMS

ADAS

Face recognition

Item left

AI edge computing terminal

Pedestrian identification

Face identification

Human gait recognition

Car identification

Two/three wheelers identification

AI video edge computing terminal

Up to 8 channels of video/image

Multiple analytical recognition algorithms

community

garden

patrol

Traffic

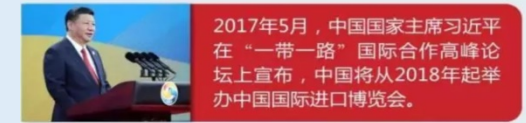manufacture

monitor

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shanghai jingan 151 project /qingpu smart community project

**Smart jingan 151 project
National Development and Reform
Commission 2018 Digital Economy
Construction Major Project
Pilot project of "Shanghai New
Metropolitan Area IOT Network"**

**qingpu smart community project
The first "China International Import
Expo" supporting construction project**

SUNSEA AIOTparticipated in the construction of smart city in Shanghai from Jing'an 151 project "Shanghai New Metropolitan Area IOT Network" and Qingpu "Smart Security Community" project. The scene products expanded from fire geomagnetism, smart manhole cover and water level monitoring to independent smoke and intelligence. Bracelets, electric vehicle management, smart street lights, high-altitude parabolic, smart trash cans, environmental monitoring, etc.。

**Smart
parking**

**Water
level
monitorin
g**

**smart
manhole
cover**

**smart fire
hydrant**

**smart
wristband**
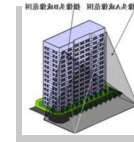
**High altitude
parabola
management**

**Smart
lighting**

**Electric vehicle
management**

....

**Smart trash
can**

Jiangxi National Reserve Copper Case

The pledge of movable property in the warehousing segment of the supply chain financial scenario is mainly through the related Internet of Things technology. The pledge party, the treasury manager and the bank supervisor can simultaneously understand the status of the asset inventory and confirm the issuance and recovery of the loan.

Wireless camera

01 Supply chain financing bank

Pledge confirmation

03 Supervised warehouse

Tracking software/tag reader

Movable property pledge identification tracking system — Ayla

Location tracking

Tamper alarm

Vibration alarm

RFID

Install

02 Dealer

buy

04 manufacturer

02 Asset purchase 04

02 Movable warehousing / control of goods 03 Movable property pledge 01

01 Loan 02

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China-Europe Train Logistics

Provide a complete solution for the whole process and full-process container monitoring of CEIBS cross-border transportation from terminal to SaaS platform software

Container monitor

- Remote location monitoring
- Vibration detection / safety detection
- Temperature and humidity detection
- Asset status management

- User Management
- Log management
- Key data
- Key data collection, filtering
- Statistical analysis
- Card number management
- SMS notification

- Asset registration / change management
- State management
- Maintenance records
- Yard management
- Inbound and outbound management

- Critical data reporting
- Log information
- Alarm/event

Container tracking service

Ayla IOT cloud platform

Container assets and status management

- Alarm/event data collection
- Key data acquisition configurable features
- Targeting/map services and impressions
- BI analysis / statistical report
- Base station database docking
- Terminal/card and traffic management

Key information is uploaded regularly

diagnosis

Event/log upload

devices

...

- Reusable use, low power consumption, low cost
- Supports up to 300 days of uninterrupted work hours
- Cross-border roaming
- Meet timing reporting and key location reporting
- Meet the low temperature requirement of minus 35 degrees

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Hazardous chemicals car and bus solutions

Smart car terminal

Rigid control

Full chain manage ment

People and cars match

Smart management

1、 **Valve Rigid Control: Blockchain Smart Contract + Electronic Fence Rigid Sealing Valve**

2、 **Warehouse-goods-road matching full chain management: warehouse supervision, vehicle driving, oil station supervision end-to-end**

3, **person-car matching: face recognition, human and car matching, real-time supervision**

4, **intelligent management: edge calculation, AI algorithm edge real-time analysis of dangerous driving behavior**

Smart devise **License Plate Recognition**

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Thanks !