omni 欧米智能

2021

SHARING BICYCLE PROJECT

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01 Composition of sharing bicycle projects

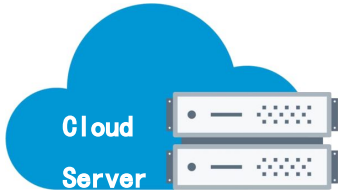
1.1 Composition of sharing bicycle projects

Bicycle

Smart Lock

User APP

Operational system software



02 Introduction and application of bicycle lock

2.1.1 Structure and size of bicycle lock

2.1.2 Structure and size of bicycle lock

Built-in sensor,
buzzer alarm

Waterproof

Can also be used normally in water

Drop

The material of aluminum alloy will not be easily broken

Polymer Battery,
Low Voltage Alarm

Low Power consumption, long standby time

2.2 version of the bicycle lock

NO.	Model	Picture	Function	Battery capacity	Features
1	OBL1		Bluetooth	8000mAh	1.Bluetooth connection&communication; 2.Low power consumption&cost.
2	OGG1		GPS&GPRS	8000mAh	1.GPRS connection&communication; 2.GPS rear time tracking. 3,built-in alarm sensor
3	OGB1		GPS&GPRS& Bluetooth	8000mAh	1. GPRS connection&communication; 2, unlock by GPRS & BLE (two options) 3. GPS rear time tracking. 4,built-in alarm sensor

2.2.1 version of the bicycle lock

Model	OBL1
Outside Size	196*150*65(+3mm)
Weight	1.2KG
Material	Al alloy shell, 10mm stainless steel circle, sealed plastic box inside
Unlock Method	Bluetooth
Lock Method	Manual to lock
BLE Frequency	2402-2480Mhz
Battery	8000mAh
External Power	Solar Penal
Power Consumption	2~3mA
Storage Temperature	-40° C to +85° C
Working Temperature	-20° C to +65° C
IP	IP67(completely dust-proof, rain-proof, soak 30min.)
Humidity	5%--95% non-condensing
LED Indicator[inside]	Red/ Blue

2.2.2 version of the bicycle lock

Model	OGG1
Outside Size	196*150*65(+3mm)
Weight	1.2KG
Material	Al alloy shell, 10mm stainless steel circle, sealed plastic box inside
Unlock Method	GPRS
Lock Method	Manual to lock
GPRS Band	GSM850Mhz, EGSM900Mhz, DCS1800Mhz, PCS1900Mhz
Battery	6000maH/ 8000mAh
External Power	Solar Penal
Power Consumption	2~3mA
Storage Temperature	-40° C to +85° C
Working Temperature	-20° C to +65° C
IP	IP67(completely dust-proof, rain-proof, soak 30min.)
Humidity	5%--95% non-condensing
LED Indicator[inside]	Red/ Blue

2.2.3 version of the bicycle lock

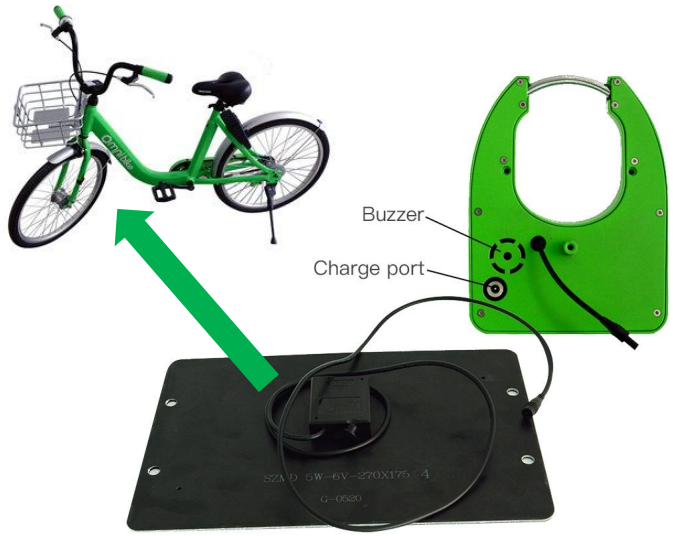
Model	OGB1
Outside Size	196*150*65(+3mm)
Weight	1.2KG
Material	Al alloy shell, 10mm stainless steel circle, sealed plastic box inside
Unlock Method	Bluetooth+GPRS
Lock Method	Manual to lock
GPRS Band	GSM850Mhz, EGSM900Mhz, DCS1800Mhz, PCS1900Mhz
BLE Frequency	2402-2480Mhz
Battery	6000maH/ 8000mAh
External Power	Solar Penal
Power Consumption	2~3mA
Storage Temperature	-40° C to +85° C
Working Temperature	-20° C to +65° C
IP	IP67(completely dust-proof, rain-proof, soak 30min.)
Humidity	5%--95% non-condensing
LED Indicator[inside]	Red/ Blue

2.3.1 bicycle lock charging method

European standard charger

American standard charger

Australian standard charger



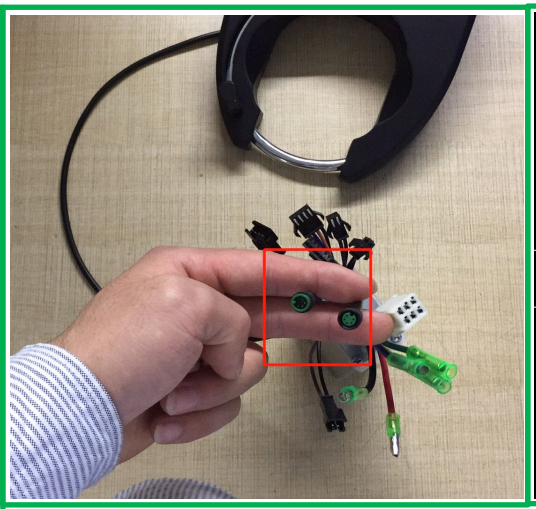
Solar panel

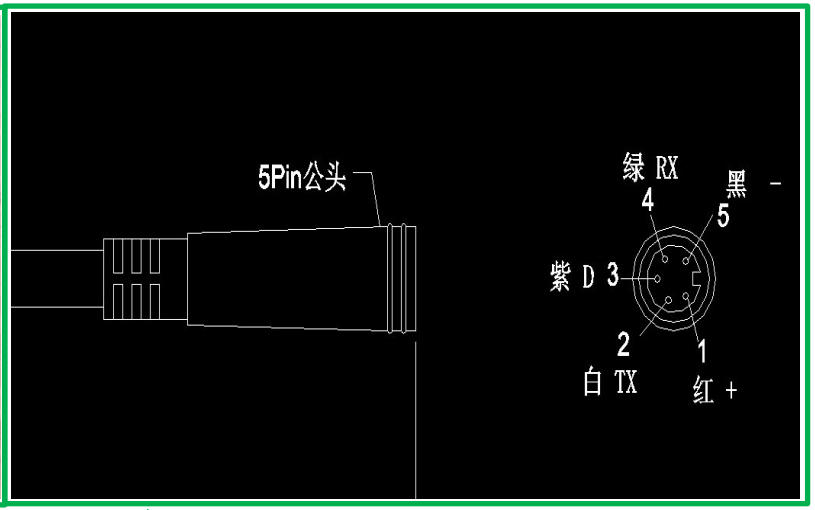
1	Adapter Charging

2	Solar Panel Charging with cable

2.3.2 bicycle lock charging method

① Smart Lock + ② Electric Bicycle +





The bicycle lock is connected to the controller of the electric bicycle through the 5-pin line, and the controller is used as an intermediary to obtain the electric energy of the bicycle battery through the BMS (battery management system) to perform charging.

3	**Electric bicycle docking bicycle lock for power supply**

2.4 Application scenario of bicycle lock

03 APP and Back-end management system

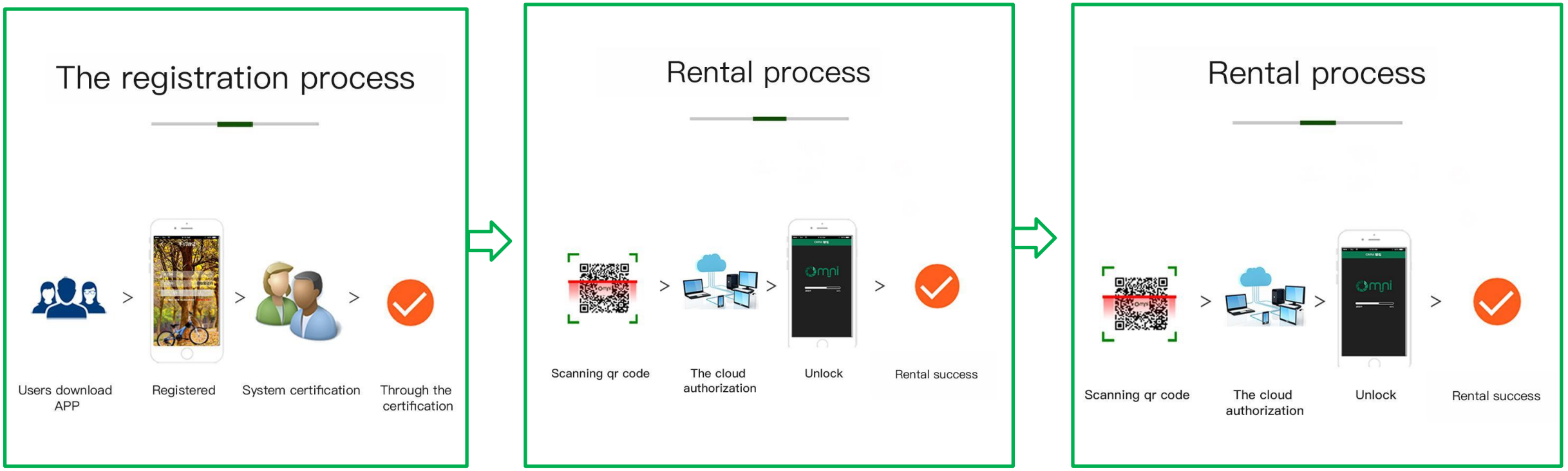
3.1.1 APP download

Android APP

IOS APP

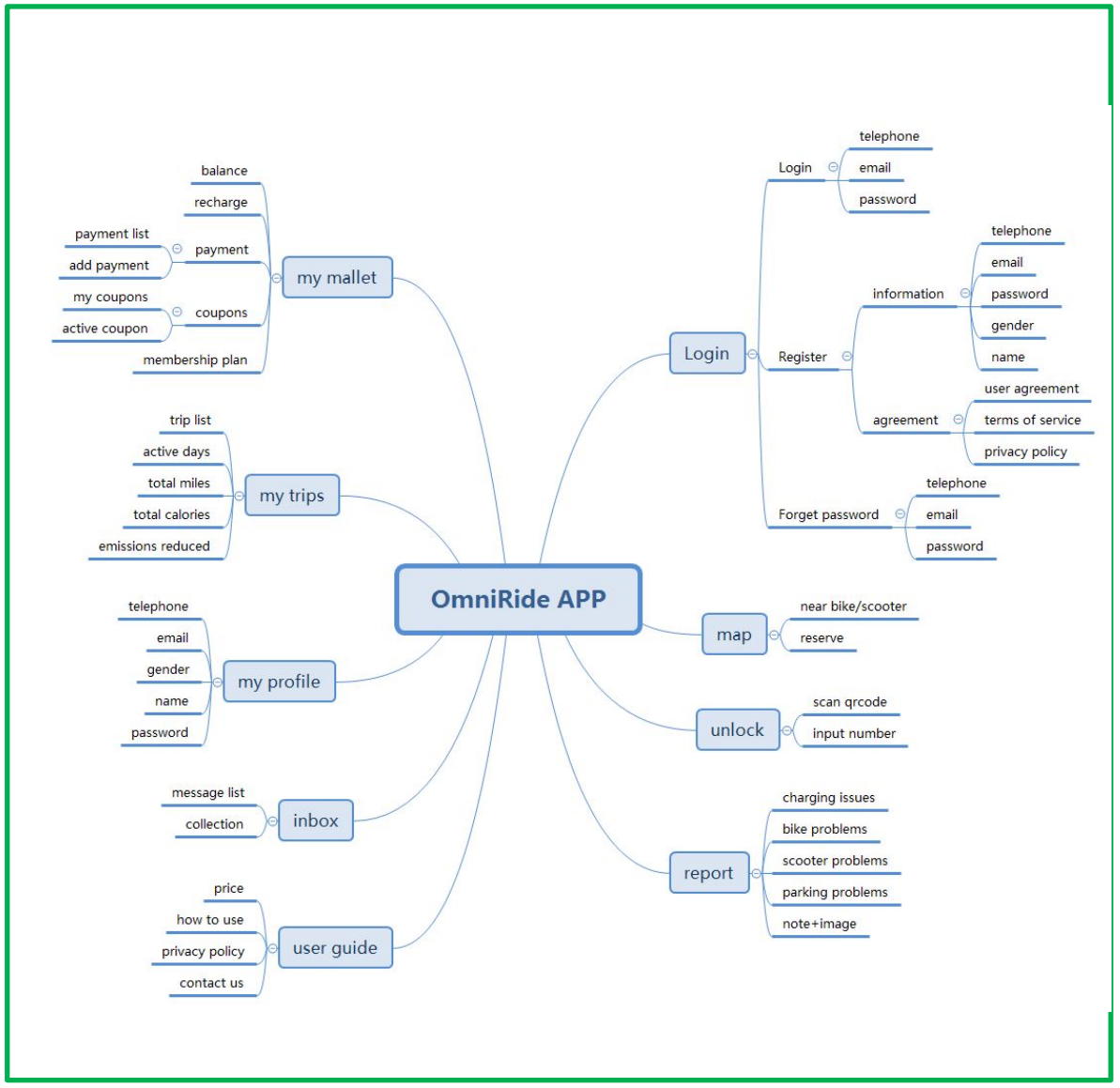
Scan the QR code above to download the app

3.1.2 Use of APP



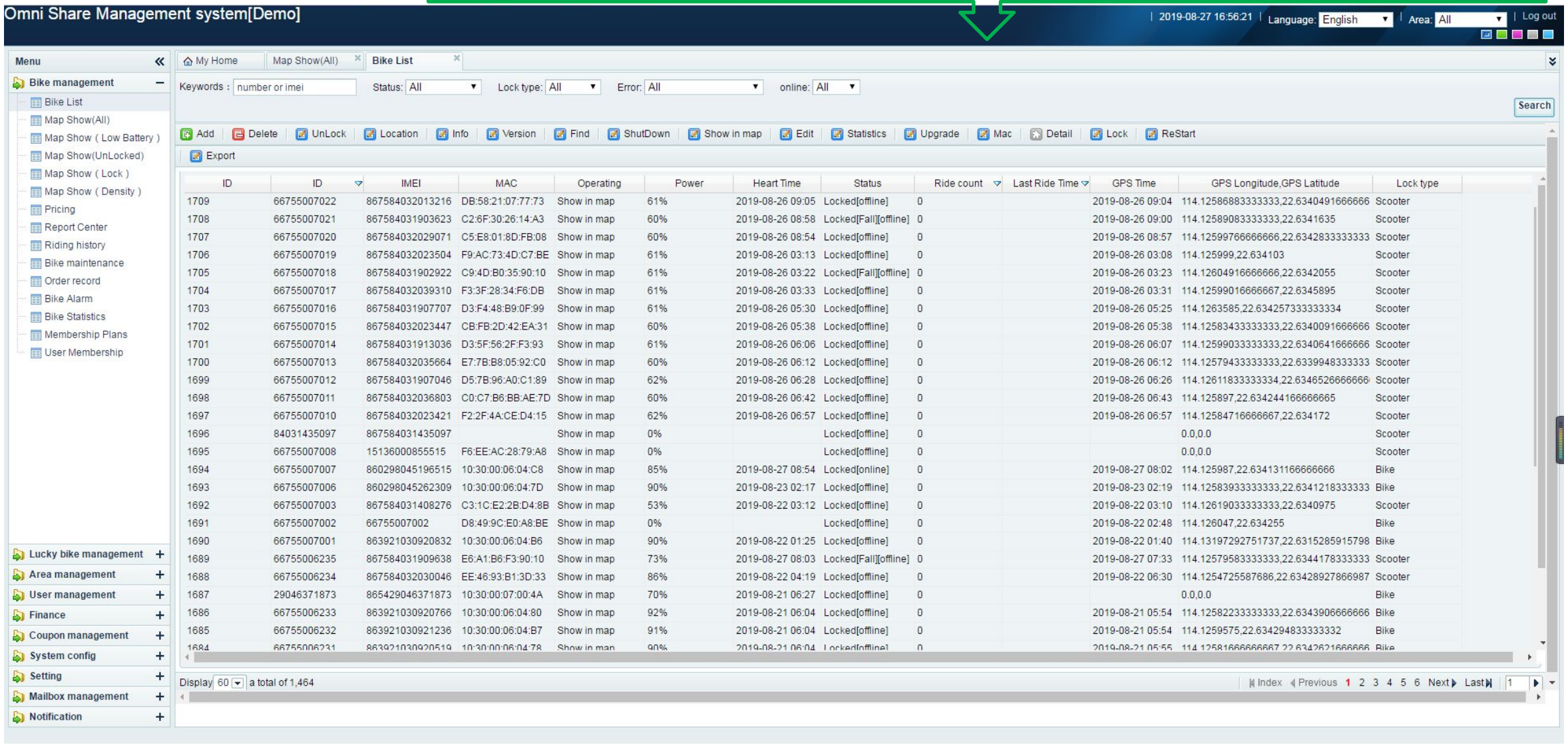
3.1.3 Function of the APP

Function List	
1	User login, registration, recharge (registered by mobile phone number, real name authentication required)
2	All free bicycles on the map (unused, unreserved bicycles)
3	Click on the bicycle on the map to get the path plan from the user's current location to the bicycle location.
4	Booking a bicycle (other users cannot unlock after making an appointment) can cancel
5	Unlock by scanning the QR code or entering the bike lock number
6	End of the ride, lock the billing
7	View historical cycling records (including information on each ride, time, cost, etc.)
8	User modify basic information (avatar, nickname, etc.)
9	Information feedback (bike unlocking failure, damage, dirt, etc.)
10	Share cycling data to social platforms and recommend them to friends.



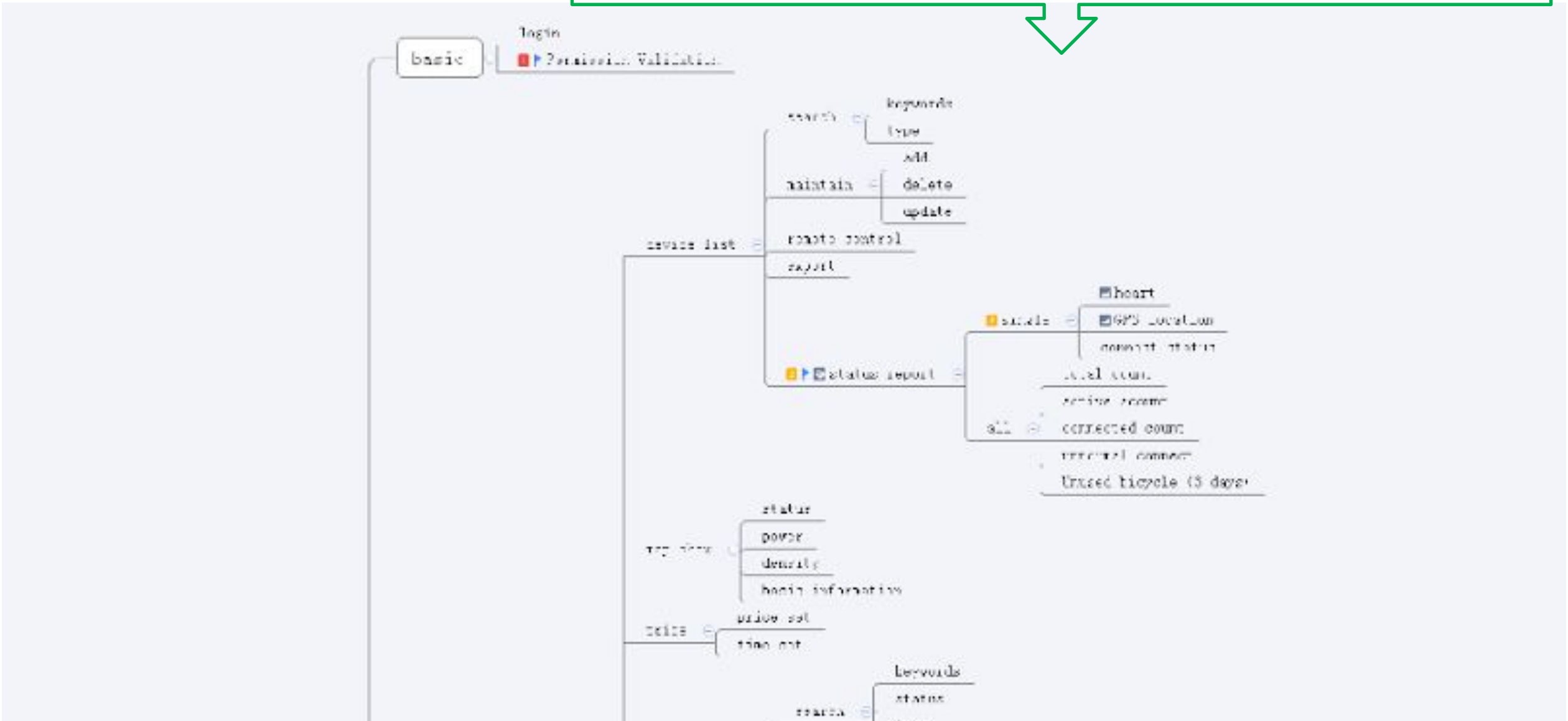
3.2.1 Demonstration of the backend management system

Omni backend server address http://server.omnibike.net:8088/OmniShareLock/admin

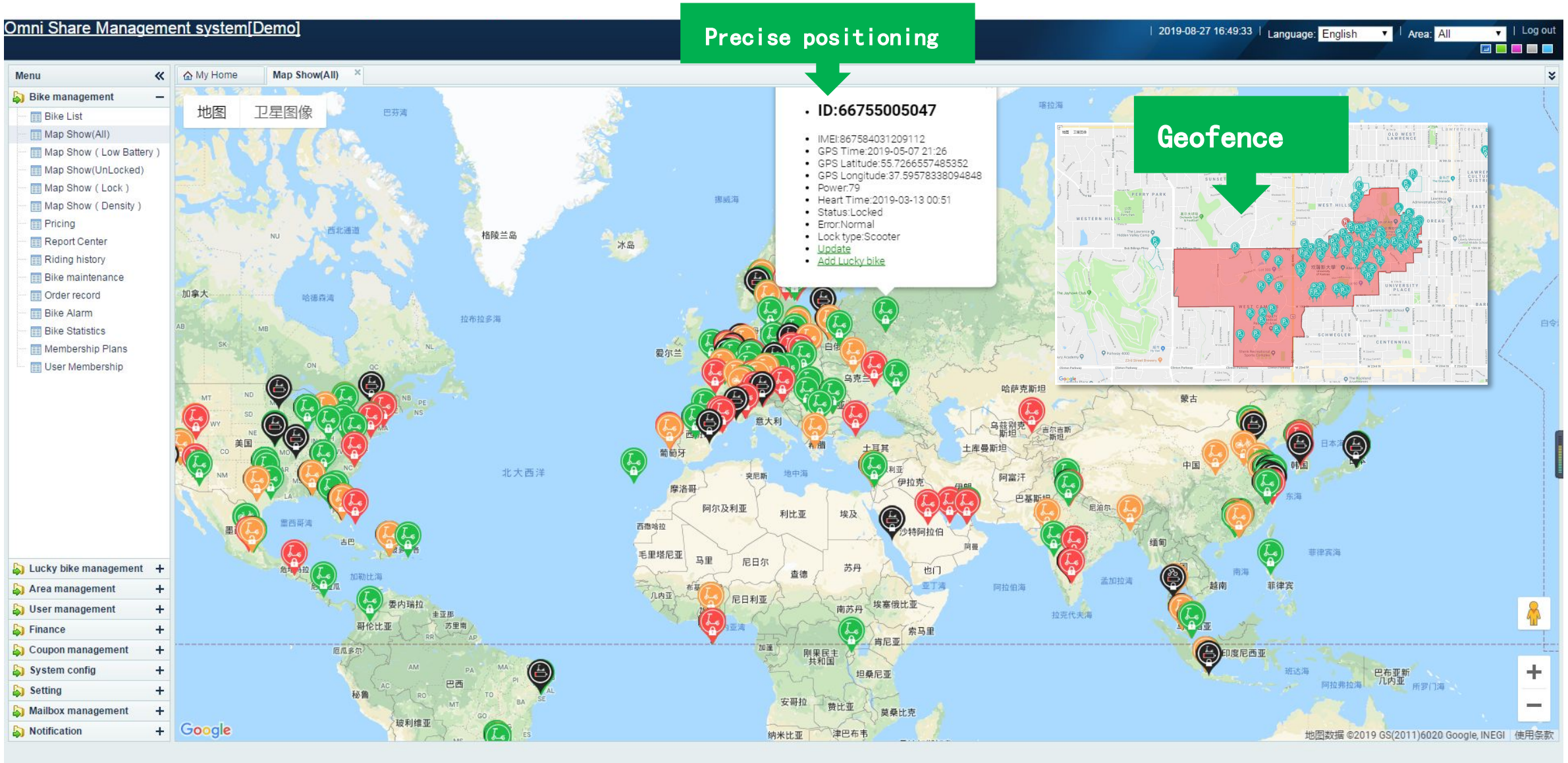


3.2.2 Backend management system function list

The back-end management system has a long mind map. Please exit the PPT full screen and pull down the entire content.



3.2.3 Map display of backend management system



04 Technical docking of sharing bicycle project

4.1 Technical docking of sharing bicycle project

Bluetooth Smart Lock Air interface Protocol

OBL1 bicycle lock<——>Software

Bluetooth smart lock Air Interface P

GPS+GPRS Smart Lock Air interface Protocol

OGG1 bicycle lock<——>Software

GPRS+GPS smart lock Air Interface P

GPS+GPRS+BLE Smart Lock Air interface Protocol

OGB1 bicycle lock<——>Software

GPRS+GPS+BLE smart lock Air Inter

2019

Thanks for watching

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