

# User Manual of IoTBus Cloud APP



Scan QR code to download IoTBus Cloud APP

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## Abstract

### Instruction of product

IoTBus cloud app is a cross-platform industrial IOT cloud platform. It supports PC, ipad, Android, IOS, and other platform terminals. There are some features:

- [Cloud integration](#)

Using IoTBus cloud app can realize the remote view and control of HMI easily.

Supporting communication ways to send alarm messages by IoTBus app. Its powerful alarm mechanism reassure user who stay in home.

- [Remote management](#)

You can visit on-site equipment, remotely monitor and maintain HMI and PLC from a thousand miles away. The system can realize remote programming, firmware upgrades, monitor and diagnosis, etc.

- [Careful security communication mechanism](#)

IoTBus app provide safe communication mechanism to user. It uses 128 bits SSL encryption mechanism, which ensure the data transmission is stable. It also set A-key and B-key or password check mechanism in the device terminals to ensure the safe and stability of the process that access to device from far away.

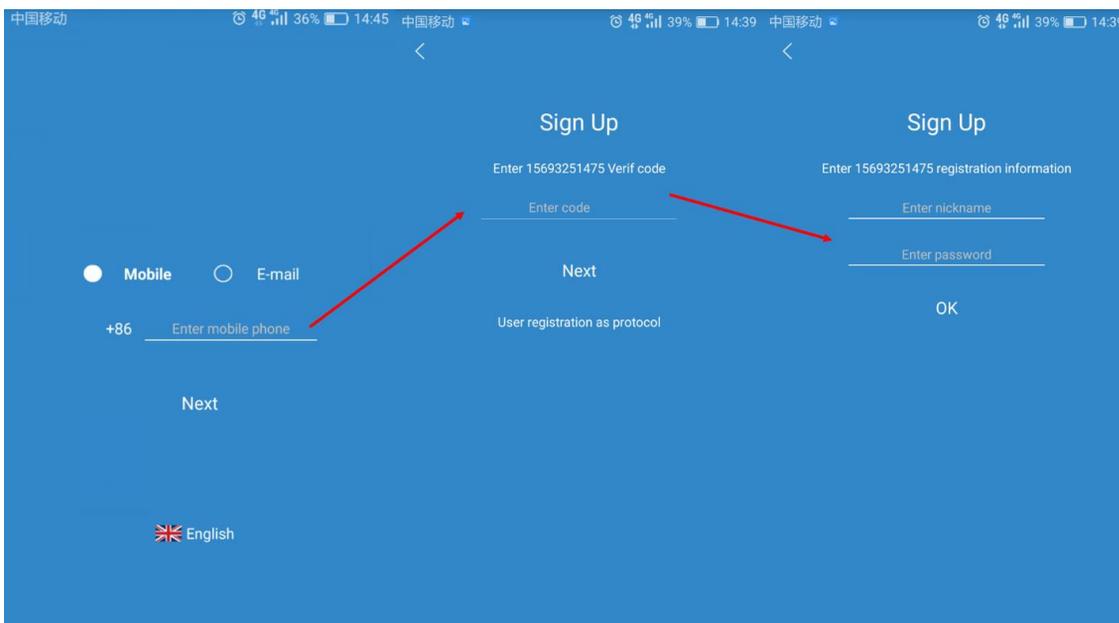
## Instruction of Software

### 1. User login/register

#### 1.1. Register

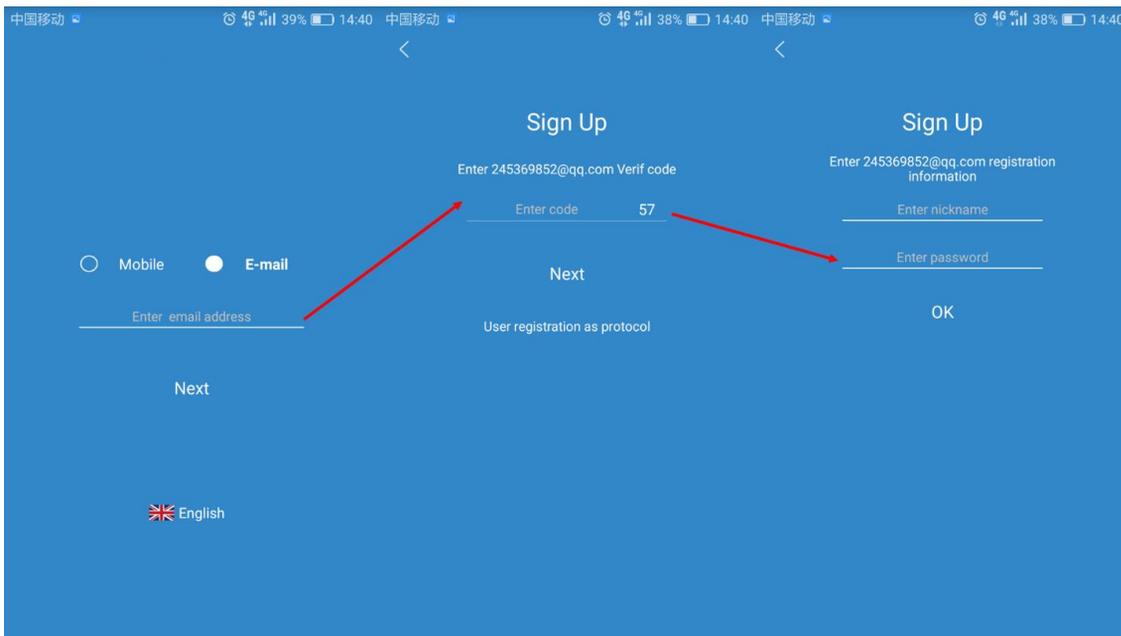
- [Register by phone number](#)

Enter into home page by mobile phone, select [Mobile], input your phone number and click [Next]. If current phone number have not a corresponding account, the page will jump to the register page automatically. After receiving a verification code, you can input it in [enter code] and click [next]. Then the page will jump to a page that you need to input your personal information. After finishing input, click [OK].



- Register by email

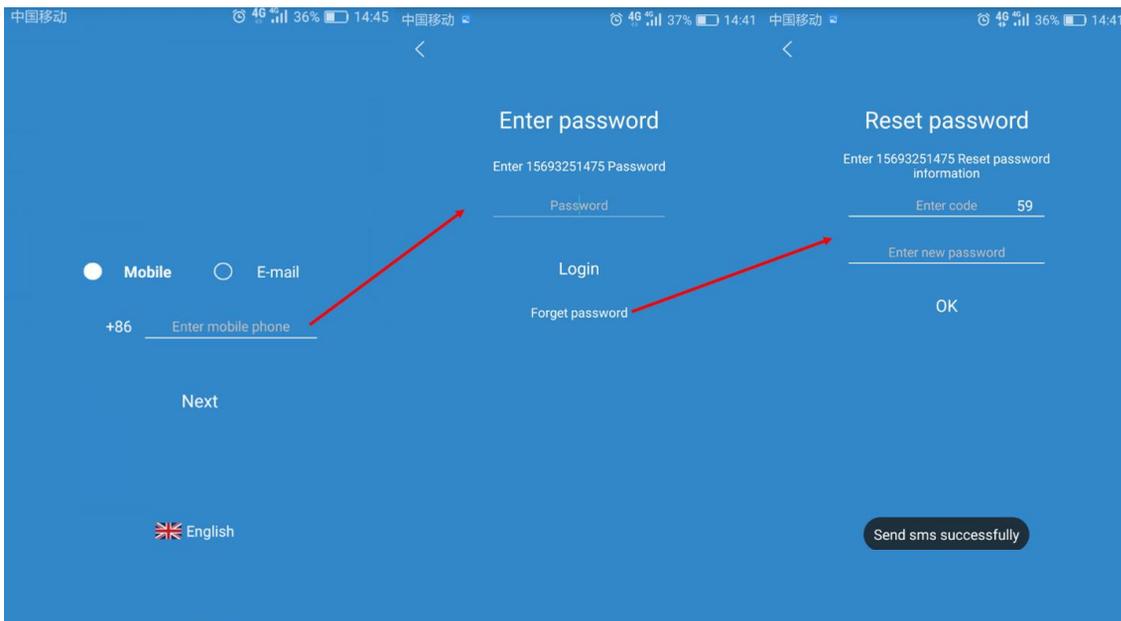
Enter into home page by mobile phone, select [E-mail], input your E-mail address and click [Next]. If current E-mail address have not a corresponding account, the page will jump to the register page automatically. After receiving a verification code, you can input it in [enter code] and click [next]. Then the page will jump to a page that you need to input your personal information. After inputting all information into this page, you can click [OK] to finish register.



## 1.2 Login

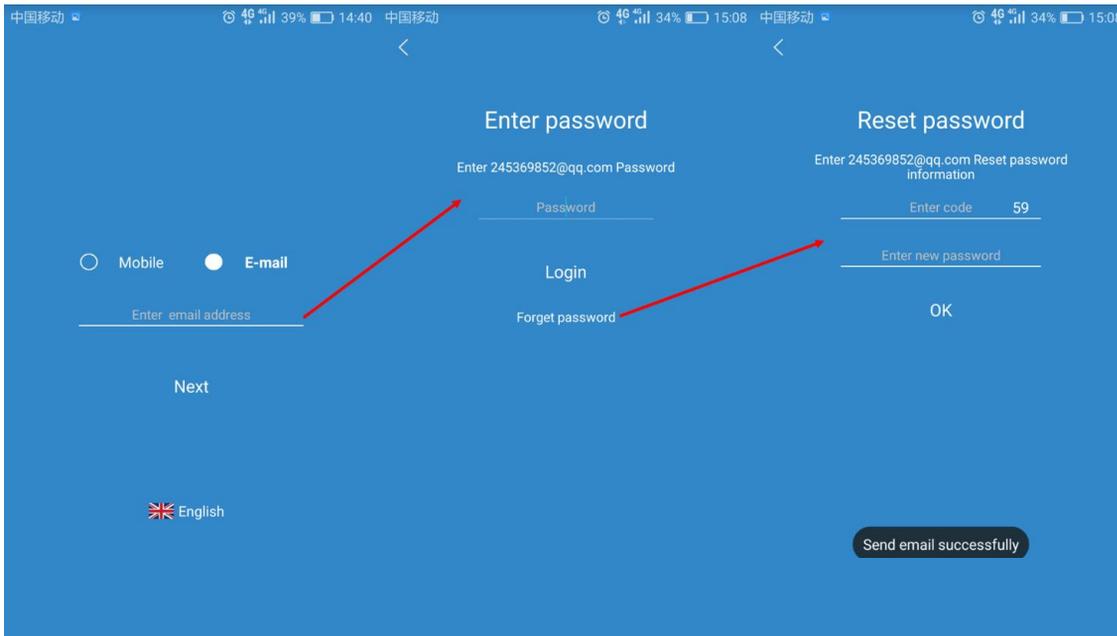
- Login by phone number

Enter into home page by mobile phone, select [Mobile], input your phone number and click [Next]. If current phone number already have a corresponding account, the page will jump to the login page automatically. Then Input password and click [login] to enter into the home page of application. Hint: if you forgot password, click [forgot password]. Then your phone will receive a verification code. You need to input it into [enter code] and input new password in [enter new password]. Then click [OK] to enter the login home page.



- Login by E-mail

Enter into home page by mobile phone, select [E-mail], input your E-mail address and click [Next]. If current E-mail address already have a corresponding account, the page will jump to the login page automatically. Then Input password and click [login] to enter into the home page of application. Hint: if you forgot password, click [forgot password]. Then your E-mail will receive a verification code. You need to input it into [enter code] and input new password in [enter new password]. Then click [OK] to enter the login home page.



## 2. Device home page

After login the APP, you will see a default navigation which display home page of device. You can find functions in the home page, such as add, view and management devices (SCADA, HMI and IPC). What's more, you also can control touch-screen remotely (HMI, IPC). Then we use the adding and management of HMI as an example to illustrate some basic operation of HMI.

### 2.1 Add device

- Open HMI Cloud Switch

Long press the right upper corner of HMI touch-screen to enter backstage setting interface. Click [Cloud] to enter the cloud setting interface and wait for popped-up QR code and machine code.

- Scan QR code to add device

Use app to enter the home page and click the  button in upper left-corner. Scan QR code of HMI and confirm the hint that you want to bind owner. Then click [OK].

- Bind owner

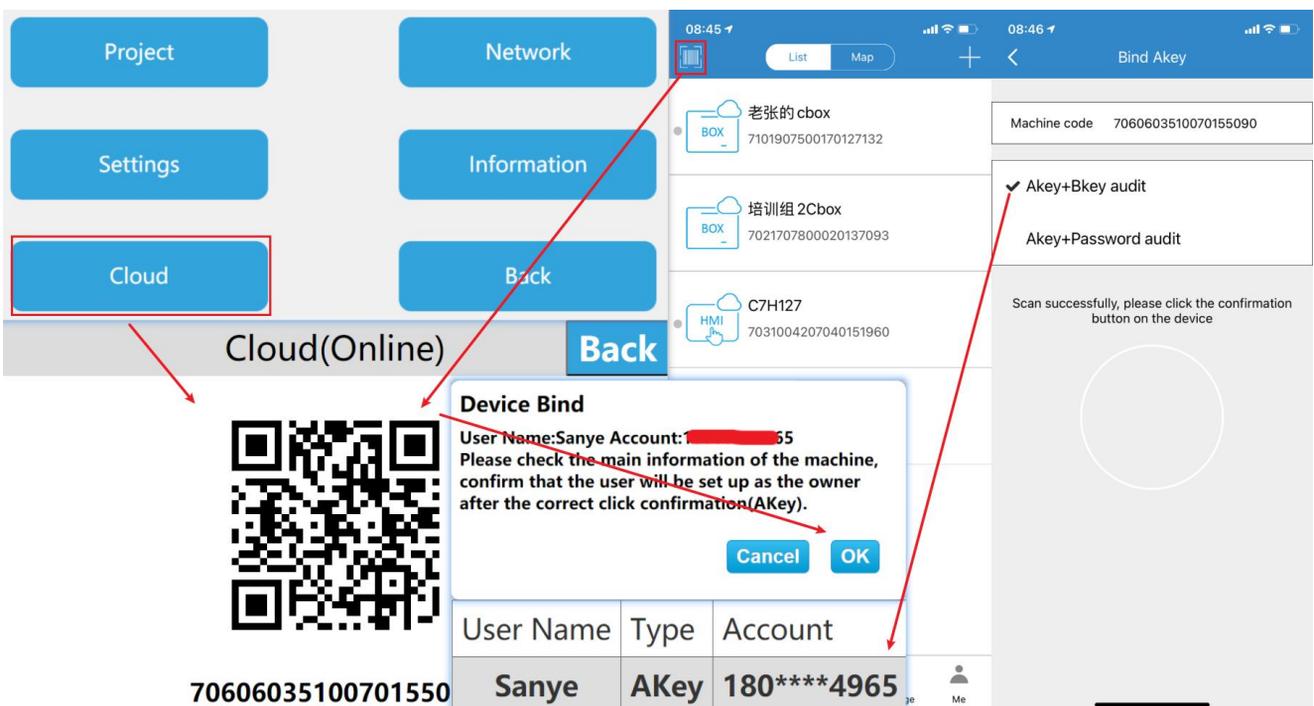
After scanning the QR code to binding device, the mobile phone APP will pop up the confirmation prompt of the binding machine owner. You need to set the auditing mechanism of the currently bound device. The security mechanism support two ways: "owner + admin audit" and "password audit". After the audit mechanism is set, the current user becomes the owner of the HMI device. The owner has the highest authority that can upgrade the visitor to the administrator, downgrade administrator to the visitor, implement the device transfer and delete the member. Hint: "owner + admin audit" and 'password audit' are two different review mechanisms. The differences are as follows:

① "AKey + BKey Audit" (Owner + admin Audit)

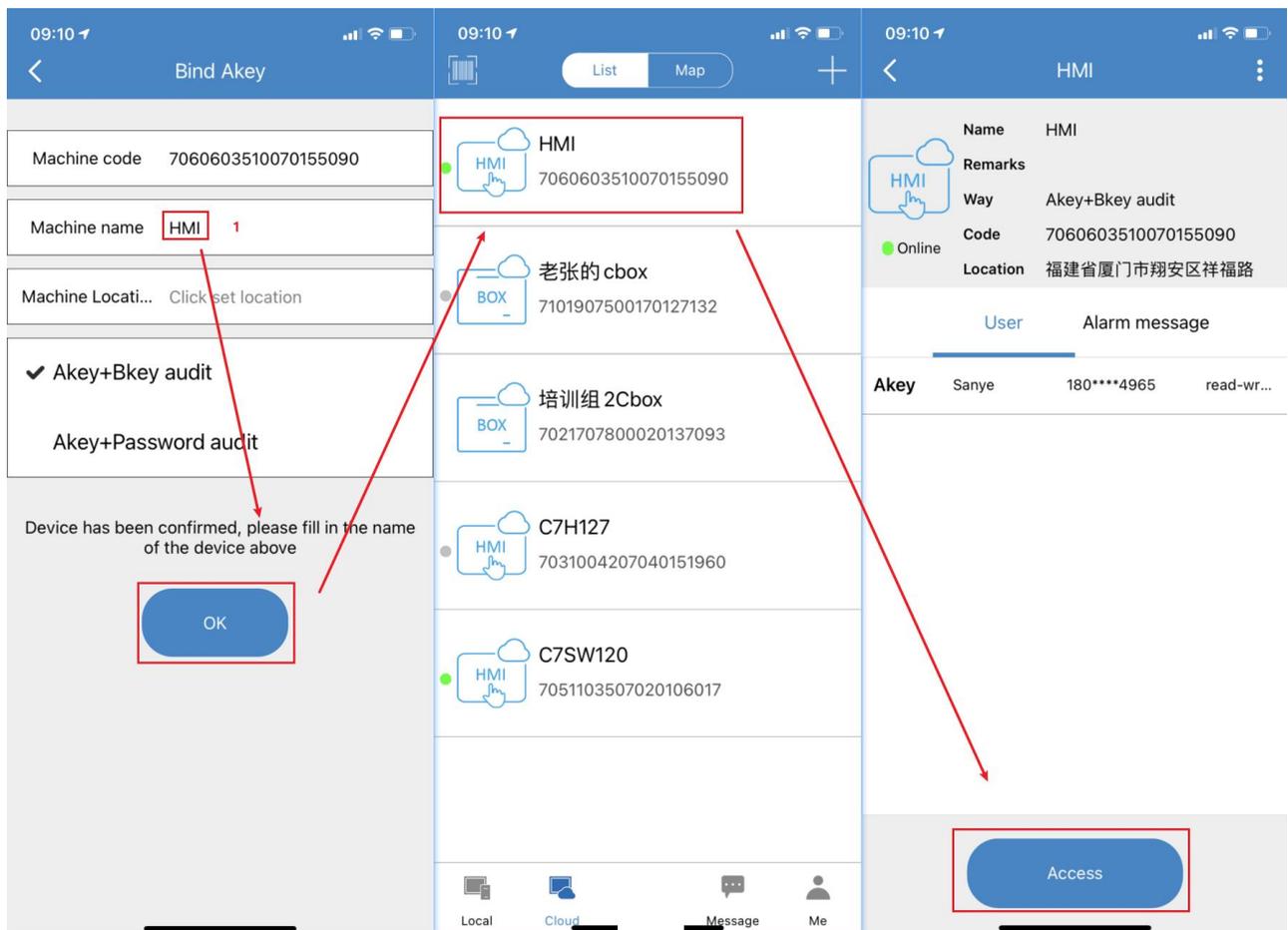
When the auditing mechanism of the HMI device is "owner + administrator audit", the HMI device has three types of membership - the owner, the administrator, and the visitor. On the HMI, the owner is called AKey, the administrator is called BKey, and the visitor is called Visitor. The premise of remote control of HMI through APP is that the owner must be bound, but

administrators and visitors are not required members. User permissions will vary with the composition of the members.

- HMI only has owner
    - The owner has the highest authority that manage, view and control remotely HMI.
  - HMI has owner, administrators and visitors at the same time
    - ✓ If user apply for binding HMI device, he/she need to get audit of owner and admin. If owner or admin do not agree this operation, the binding will be failed.
    - ✓ Owner can upgrade the visitor to the administrator and downgrade admin to the visitor
    - ✓ If visitor apply for binding HMI device, he/she need to get audit of owner and admin. The access period will be set by owner or administrator.
- ② "AKey + password Audit" (Password Audit)
- ✓ When the auditing mechanism of the HMI device is "password audit", user need to input right audit password for binding device. The device can be successfully bound when the password is verified.
  - ✓ Visitor need to input right audit password when he/she want to access to HMI device. The device can be successfully accessed when the password is verified.



After successfully binding the device, user can enter into the device home page and view the device information (including member information, alarm information, device name, notes, mechanism, and machine code).



## 2.2 Member information management

### ● Add device

#### ① Scan QR code to add device

Enters the home page of device by mobile APP, click the button  in the upper left corner of the page, scan the HMI QR code. The system will pop up the prompt box for confirming the binding device. Then click [Bind].

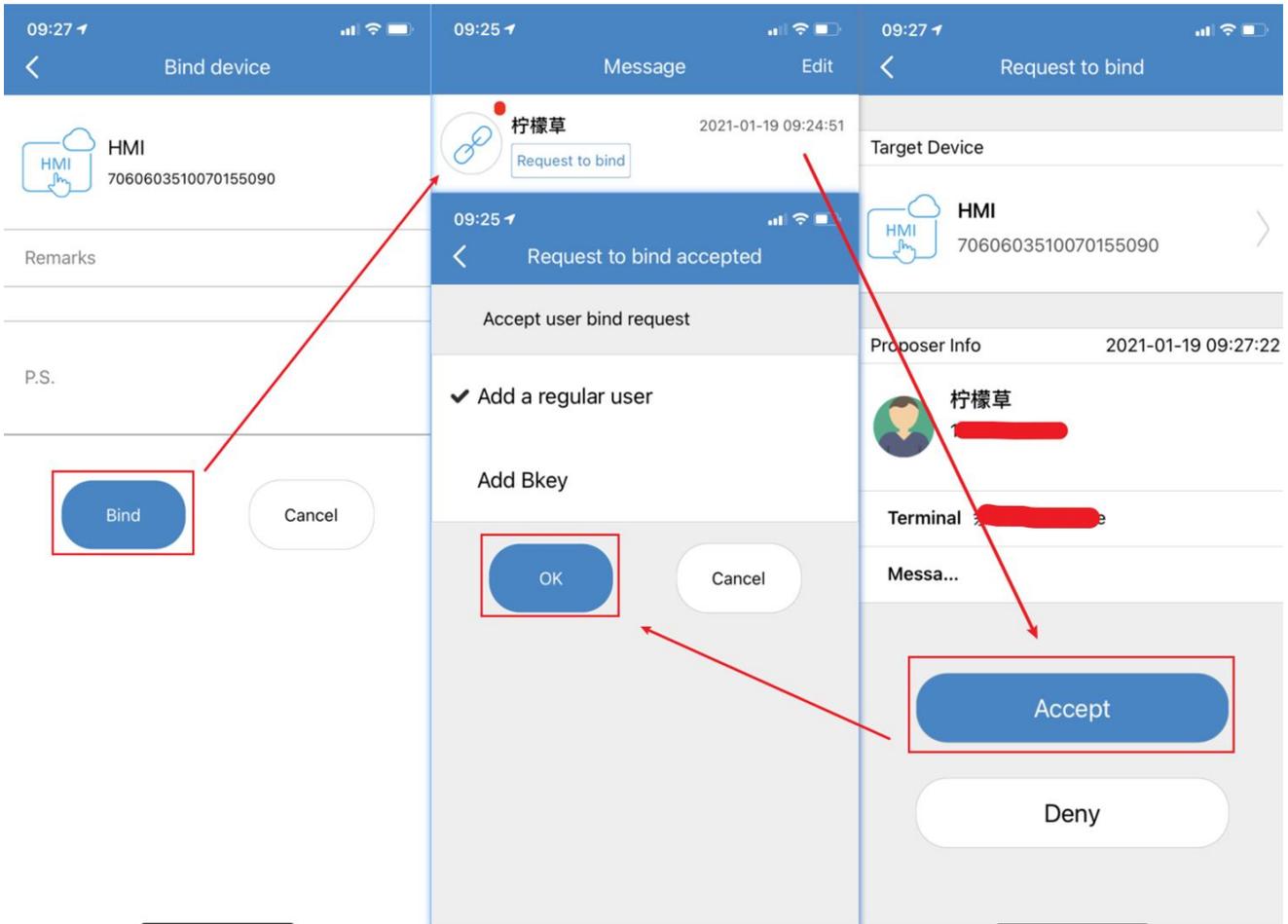
#### ② Enter the machine code to add equipment

Enters the home page of device by mobile APP, click the button  in the upper right corner of the page, scan the machine code, click [Next] and click [Bind].

After clicking [Bind], you can submit a binding application:

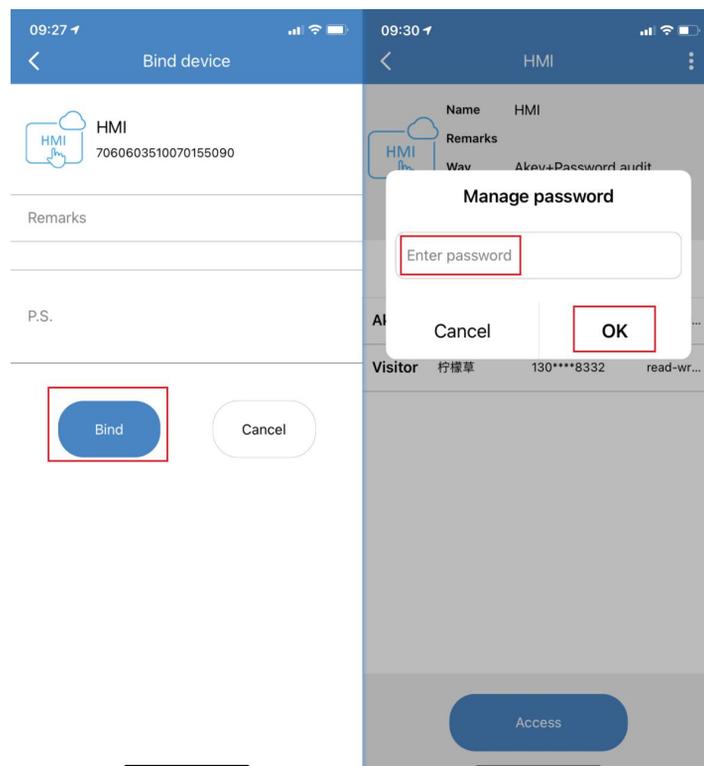
#### ③ When the auditing mechanism is "owner + admin audit":

System will pop up binding information for owner and administrator. Owner and administrator can view information and click [pass]. The user can be successfully bound after passing the audit of the owner and the administrator; the owner can set the user as the administrator or the visitor. Tip: When the auditing mechanism is "owner + administrator audit" - if the device has no administrator, the accessing request of user only through the owner's audit. If the device is already bound to the administrator, the accessing request of user need to through the owner's audit and any administrator audits; When user apply for access, administrator only have authority to set the user as a visitor, and owner can set users as administrators or visitors.



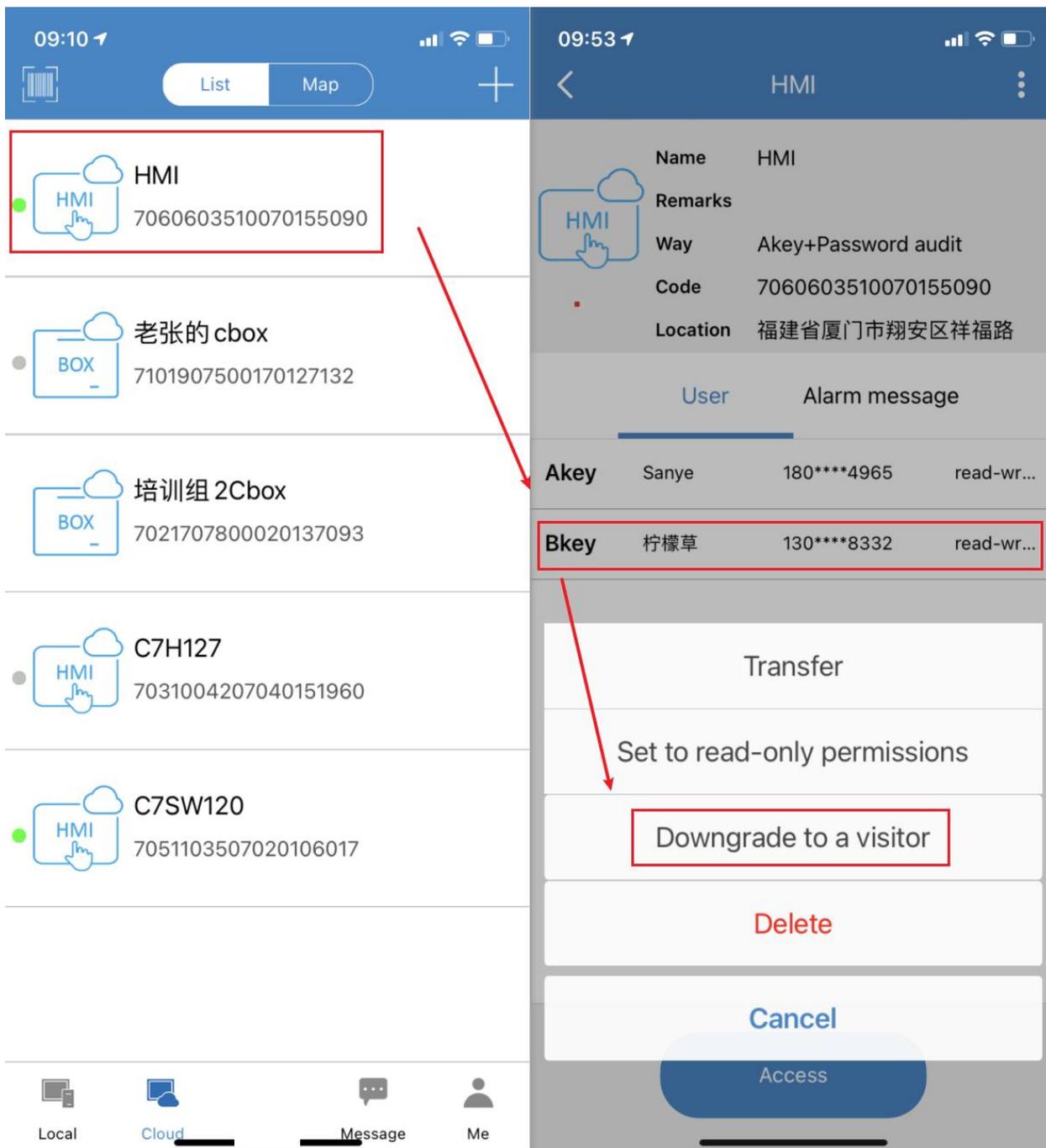
④ When the auditing mechanism is “owner + admin audit”:

The user applies for binding, the user agrees and sets the user to an administrator or visitor. When the user access the device, and need to input password, if the password is correct, user can access to device successfully.



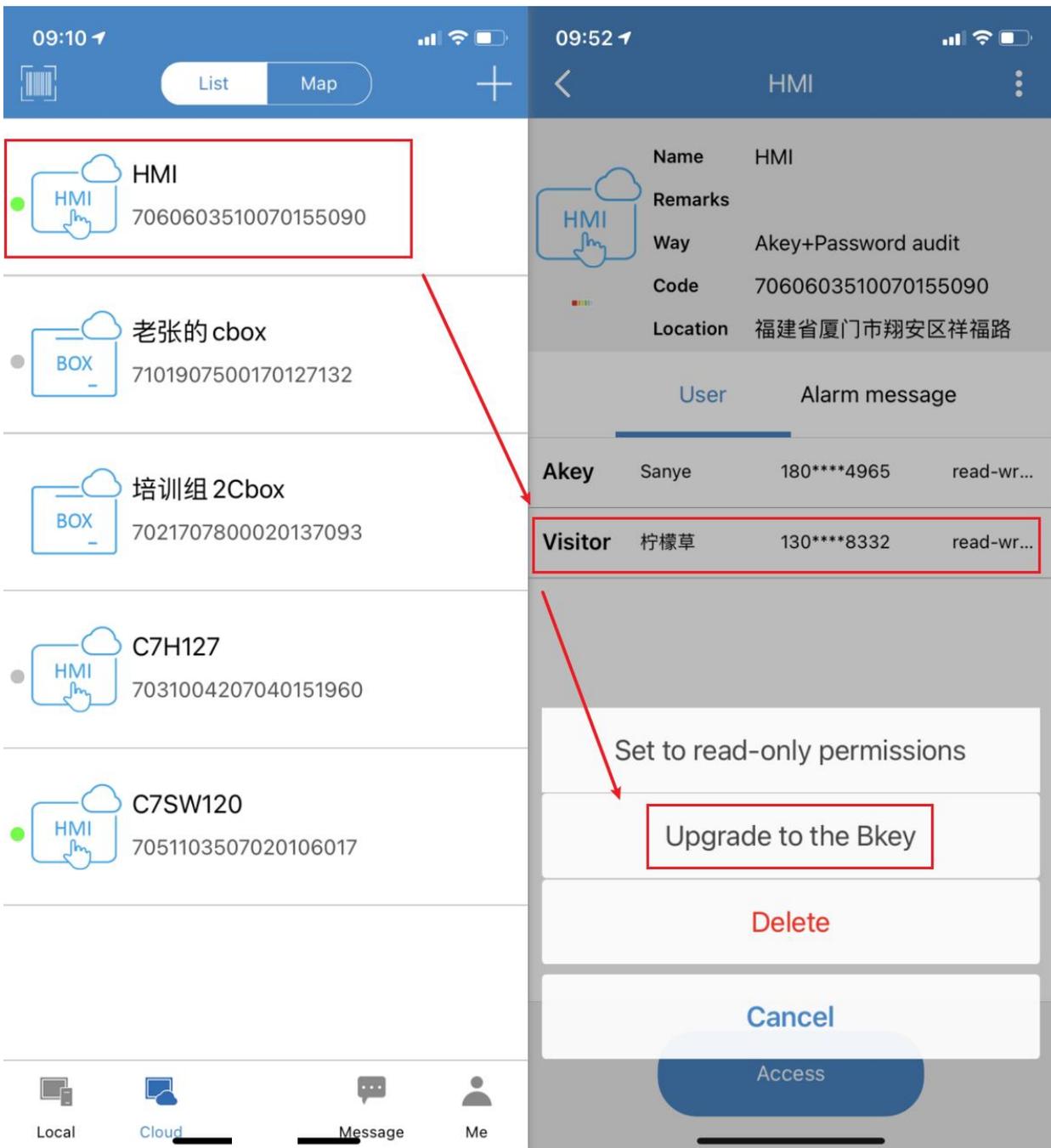
#### • Downgraded administrator to visitor

Enter into the home page of application by mobile phone, select device and view information of device; click the administrator account that needs to be downgraded. The system will pop up an option box, and owner need to select [downgrade to the visitor] to downgrade the administrator.



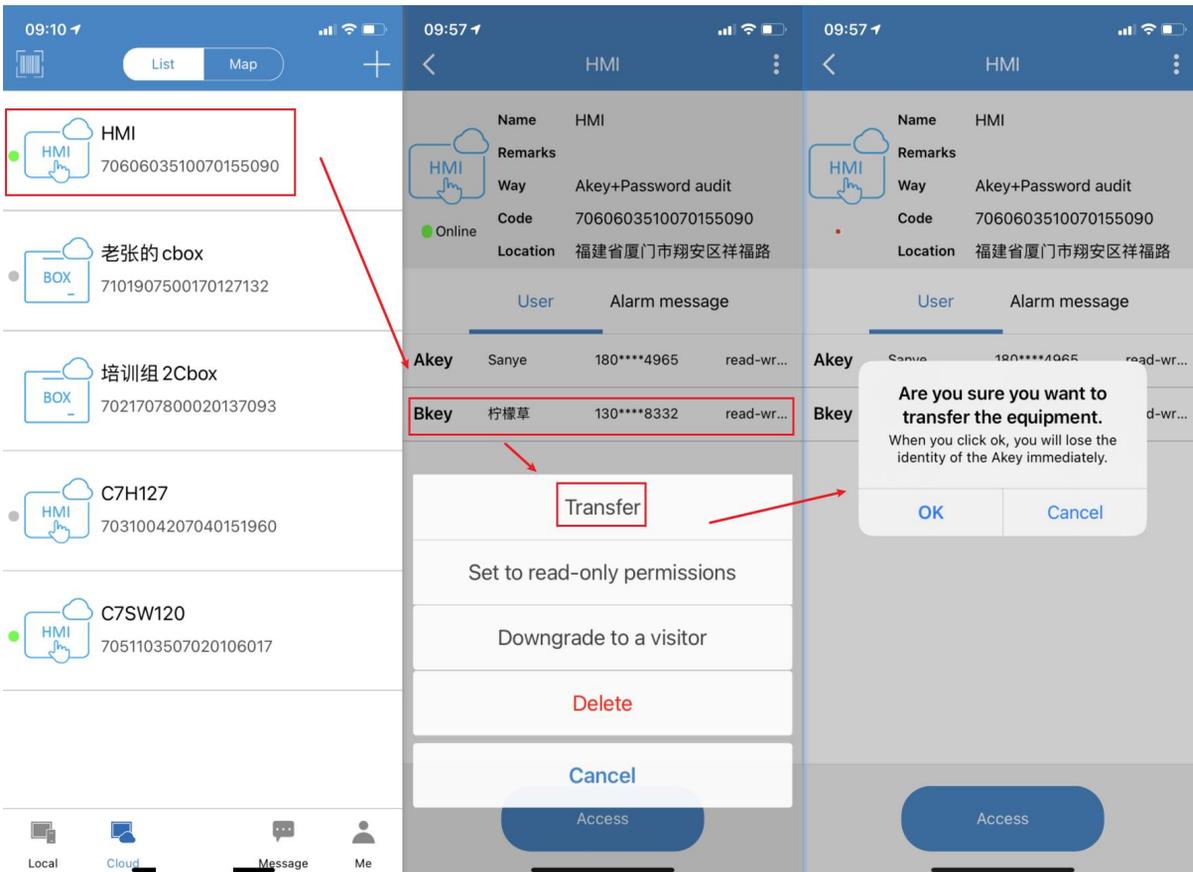
#### • Upgraded visitor to administrator

Enter into the home page of application by mobile phone, select device and view information of device; click the visitor account that needs to be upgraded. The system will pop up an option box, and owner need to select [upgrade to the administrator] to upgrade the visitor.



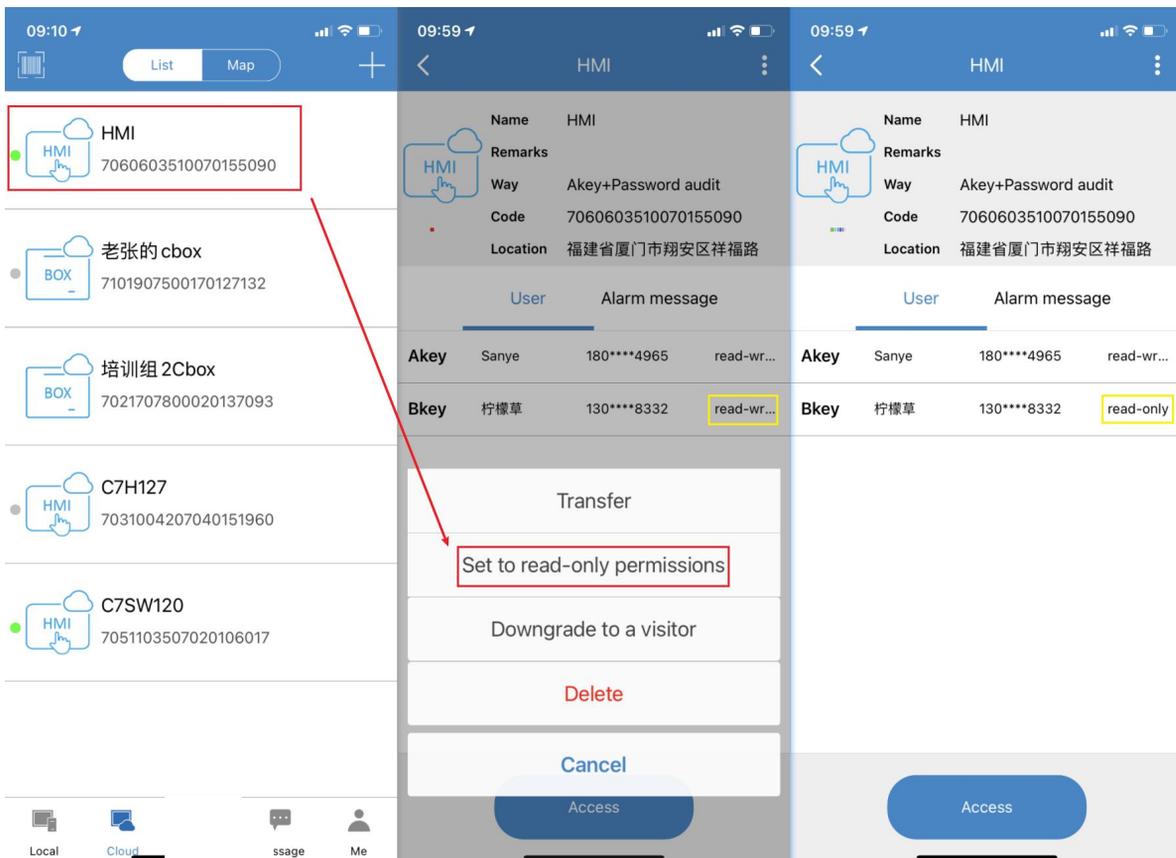
● Transfer owner's permission

Enter into the home page of application by mobile phone, select device and view information of device; click the administrator account that needs to be transferred. Then owner need to select [Transfer] in popped-up option box and click [confirm] in popped-up box that is used to confirm transferring. Hint: The owner can only transfer the owner's identity to the administrator. To transfer the owner's identity to the visitor, owner need to upgrade the visitor to the administrator first.



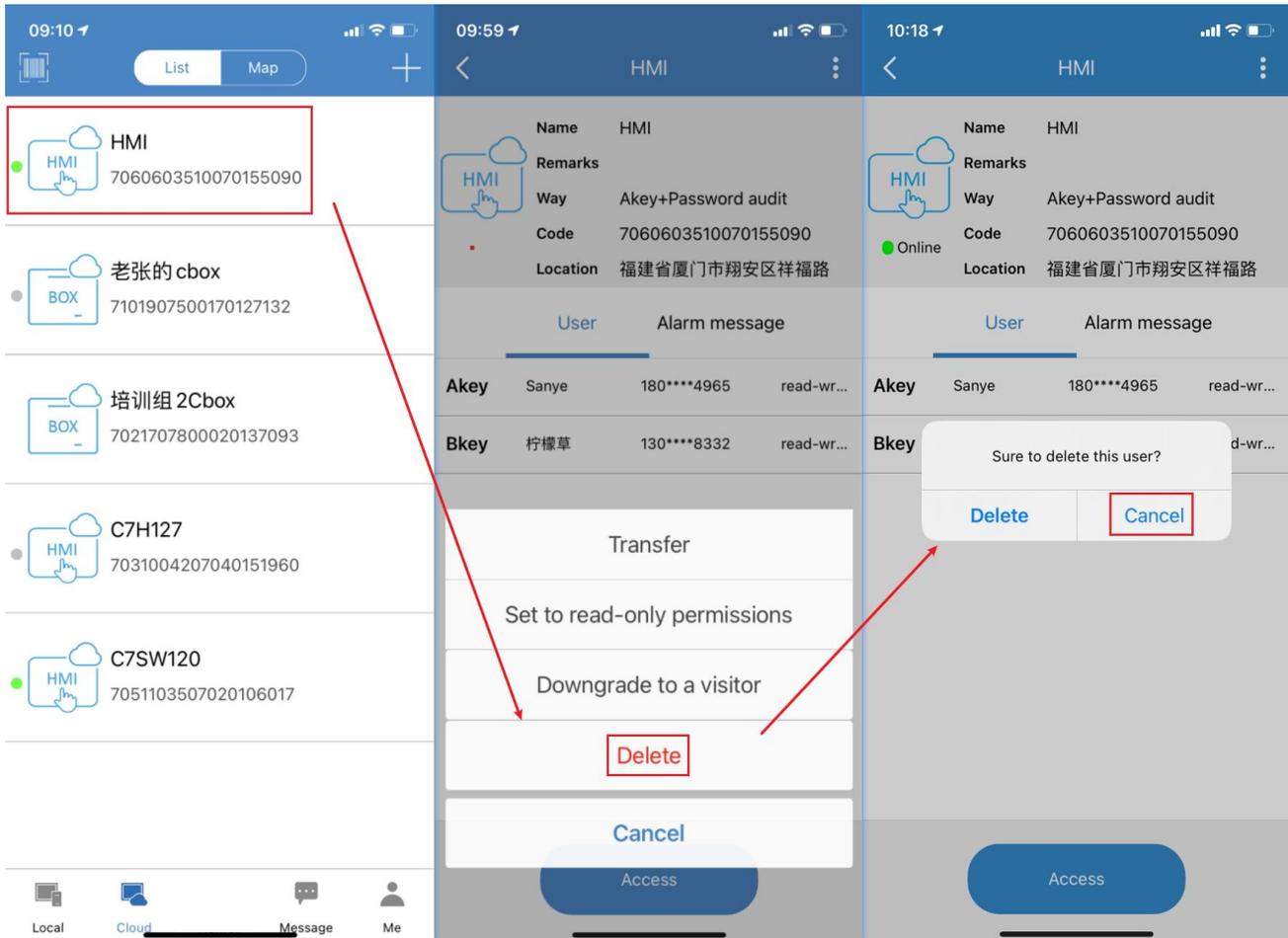
● Set read-wr... permissions

Enter into the home page of application by mobile phone, select device and view information of device; click the member account that need to set permissions, set to read-only or read-write.



### ● Delete user

Enter into the home page of application by mobile phone, select device and view information of device; click the member account that needs to be deleted. Then owner need to select [delete] in popped-up option box and click [confirm] in popped-up box that is used to confirm delete.



### ● Access to device

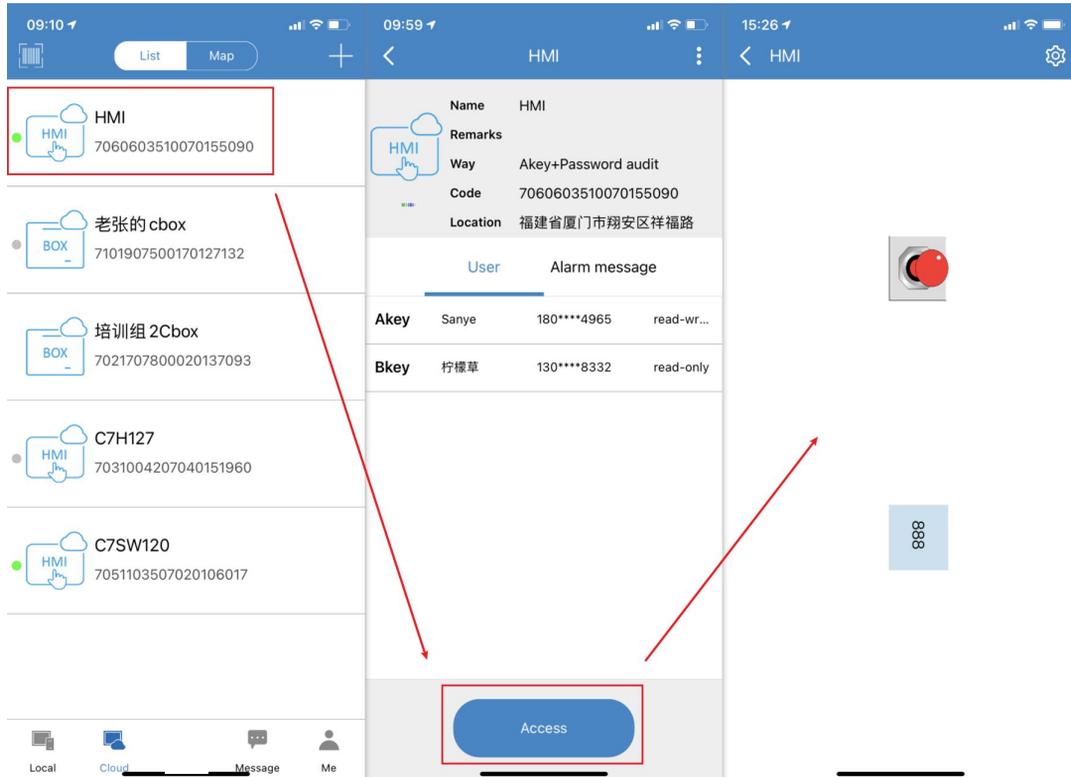
Enter into the home page of application by mobile phone, select device and view information of device; When user is the owner or administrator of device, click [access]. When user is the visitor, user need to apply for access.

①When the auditing mechanism is “owner + admin audit”:

System will send message to owner and administrator when user click [access]. Either owner or administrator agree the apply and set period of access time, user can get the permission to access to HMI.

②When the auditing mechanism is “password audit”:

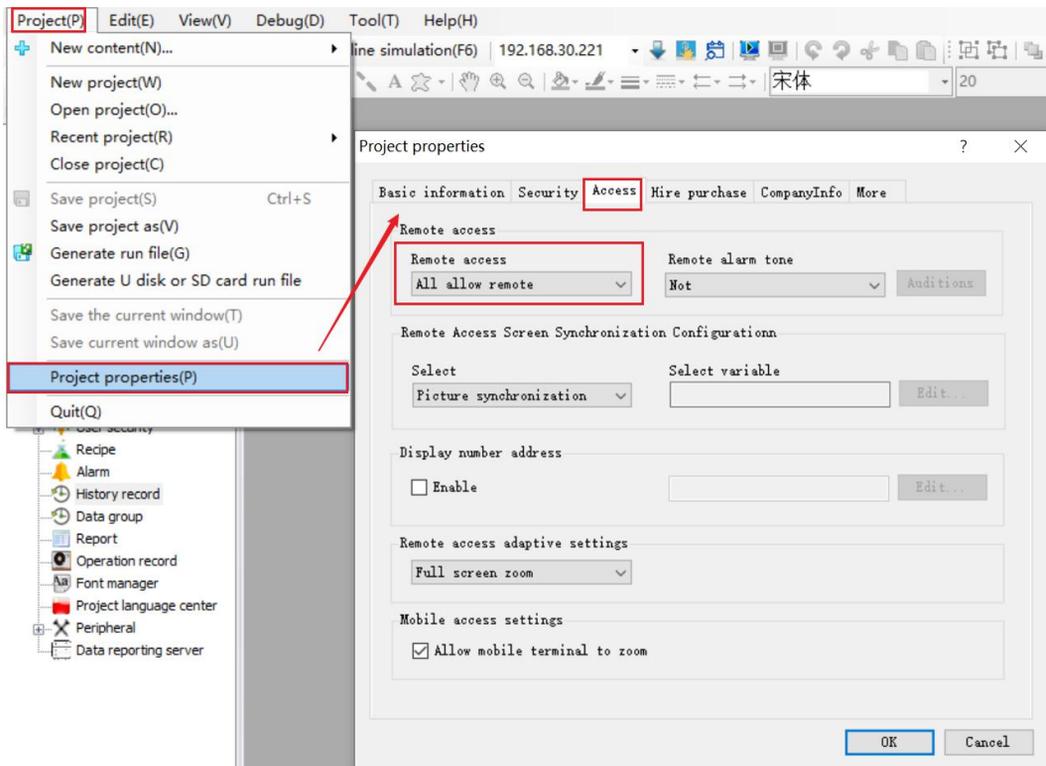
System will pop up a message that require an audit password to user when user click [access]. When password is correct, user can get the permission to access to HMI.



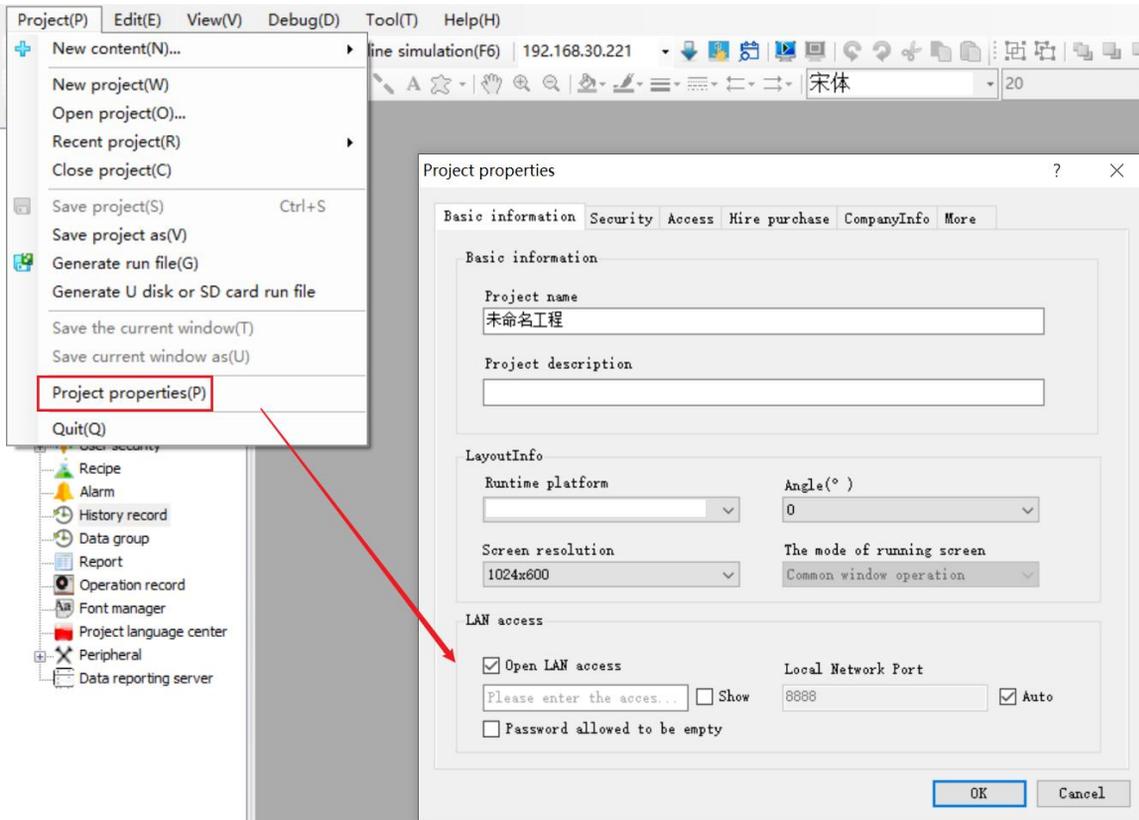
Hint: Accessing the HMI through the APP requires that the project must be a network project; Accessing and remote controlling the HMI through the APP requires that the project must be a network project and allow remote operation. If the downloaded project of HMI is not allowed remote operation, you need to set the project to allow remote operation in the configuration; if the downloaded project of HMI is in a local network, you need to set the project to be in a network engineering in the configuration; After the conditions was set, you can download the project to the HMI.

Steps are as follows:

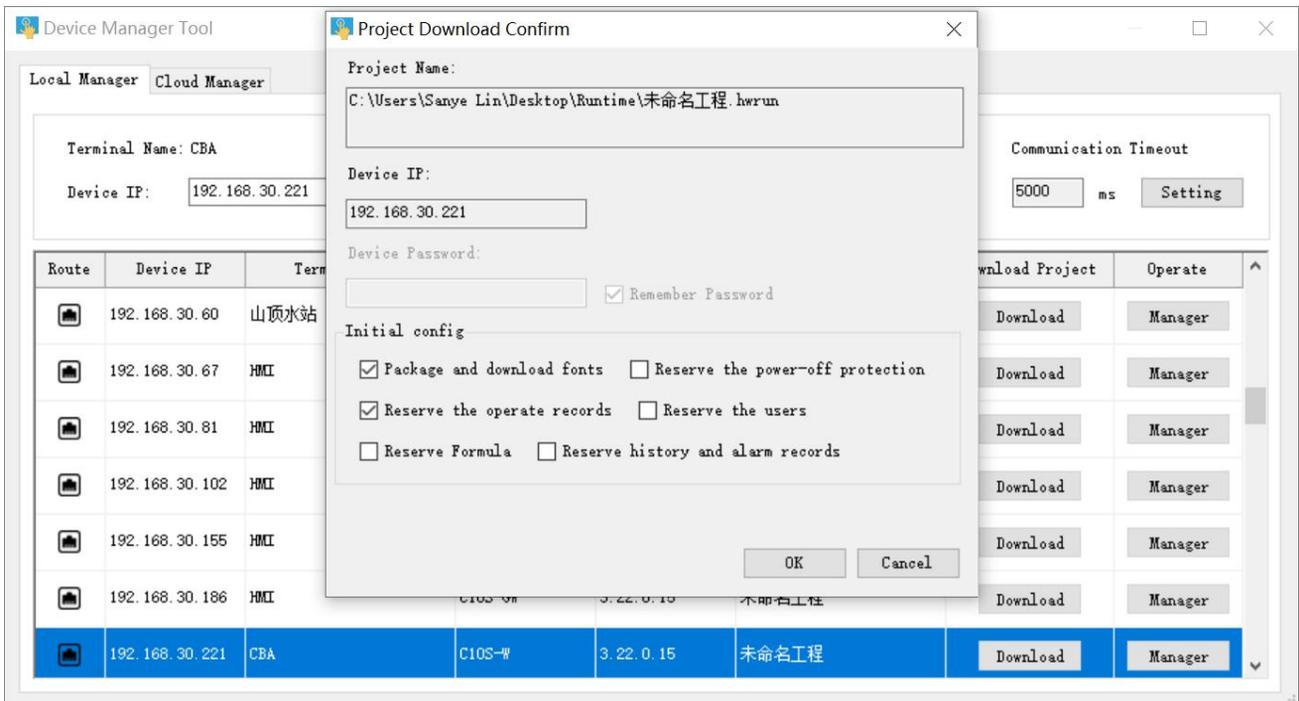
- ① Enter the project from toolbar - Project properties - Access – Remote access, set the project to [All allow remote].



- Enter the project from the toolbar - Project Properties – Basic information – LAN access, check [Open LAN access] and set the access password.



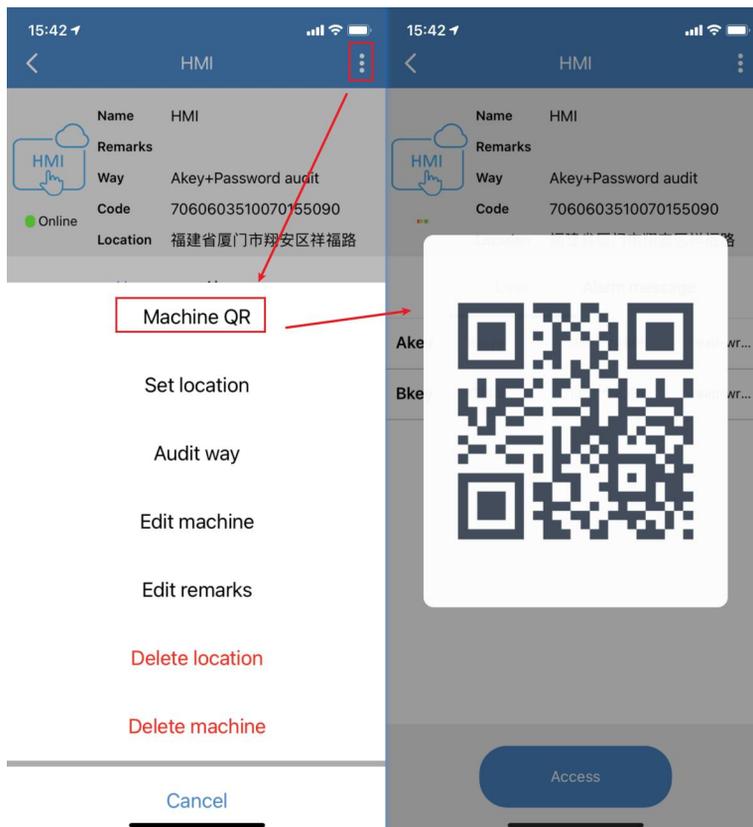
- Open the Device Manager Tool and click Download Project to download the project to the HMI via Local Management/Cloud Management.



### 2.3 Device management

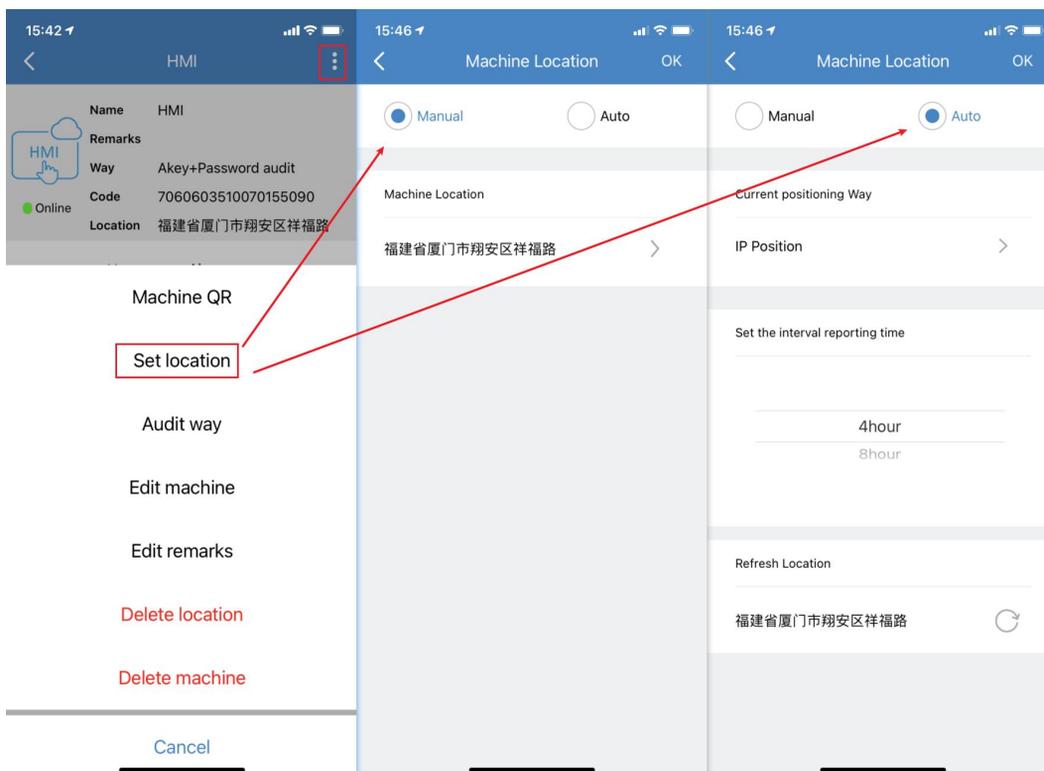
- View QR code of device

Enter into the home page of application by mobile phone, select device and view information of device; Click the button  in the upper right corner of the device information interface to pop up the device management option, select [Machine QR]; After system popping up the QR code of device, you can scan it and bind device.



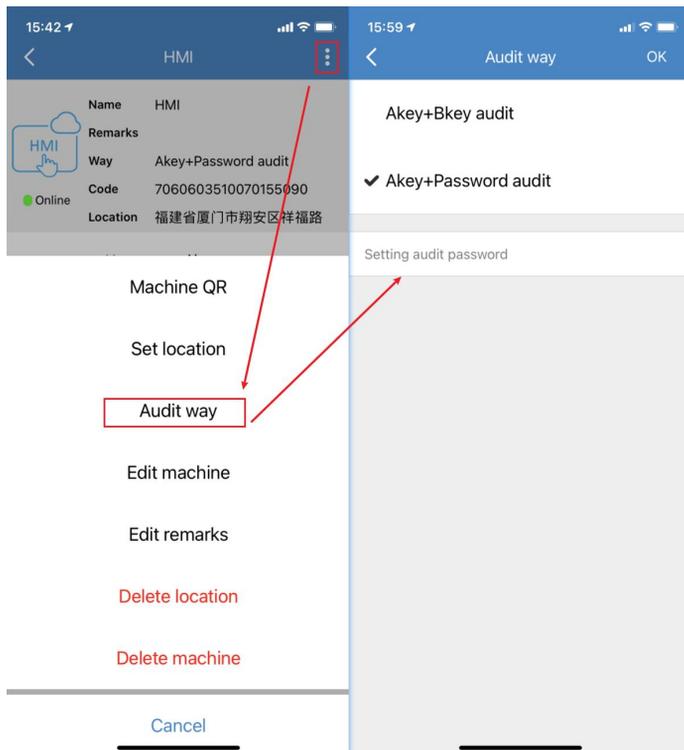
● Set location

Device location setting can be divided into manual positioning and automatic positioning, which can be set according to requirements.



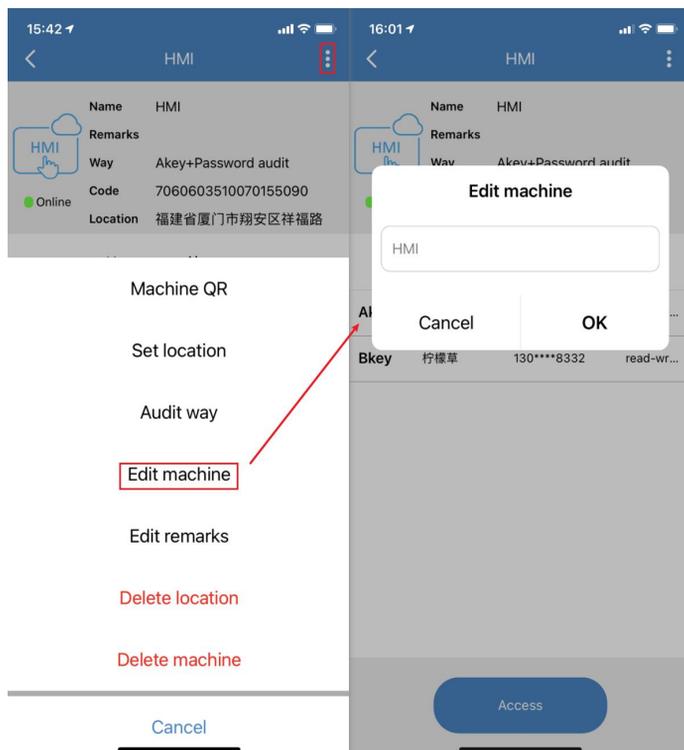
● **Setting auditing mechanism**

Enter into the home page of application by mobile phone, select device and view information of device; Click the button  in the upper right corner of the device information interface to pop up the device management option, select [Audit Way] to enter the modify audit mechanism interface. Then select [Owner + Admin Audit] or [Password Audit].



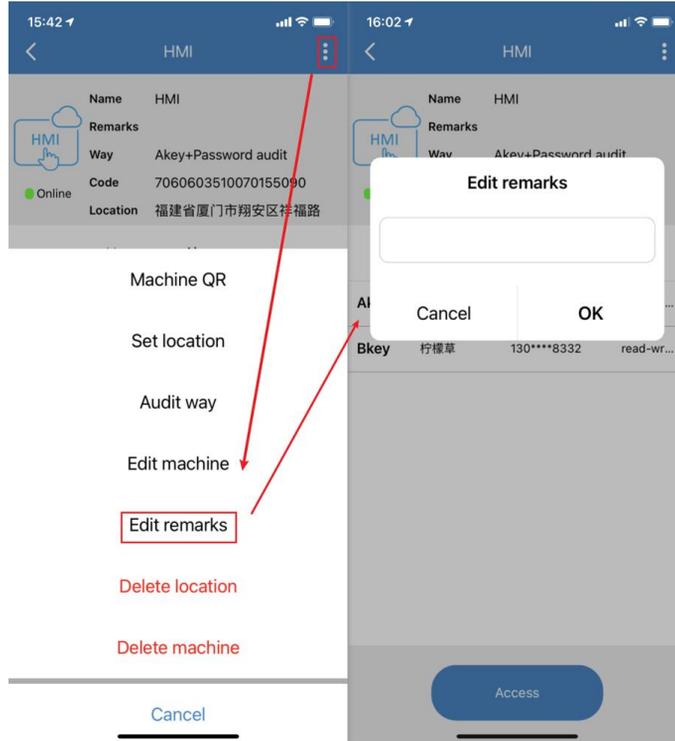
● **Edit name of device**

Enter into the home page of application by mobile phone, select device and view information of device; Click the button  in the upper right corner of the device information interface to pop up the device management option, select [Edit machine] to enter the edit mechanism interface. Then input new name.



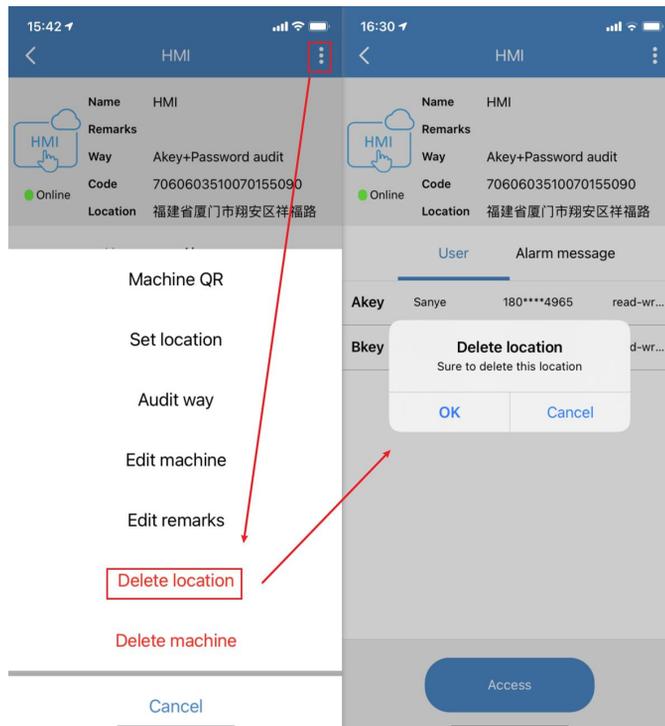
● Edit remarks

Enter into the home page of application by mobile phone, select device and view information of device; Click the button  in the upper right corner of the device information interface to pop up the device management option, select [Edit remarks] to enter the edit remark interface. Then input remarks.



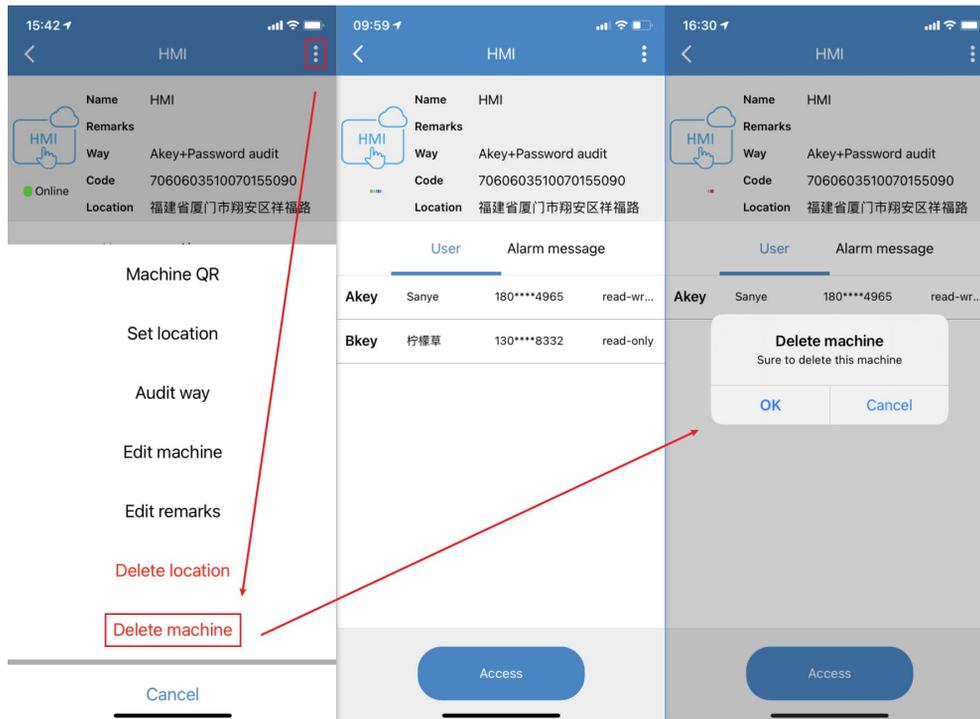
● Delete location

Enter into the home page of application by mobile phone, select device and view information of device; Click the button  in the upper right corner of the device information interface to pop up the device management option, select [Delete location] and click [confirm].



● Delete device

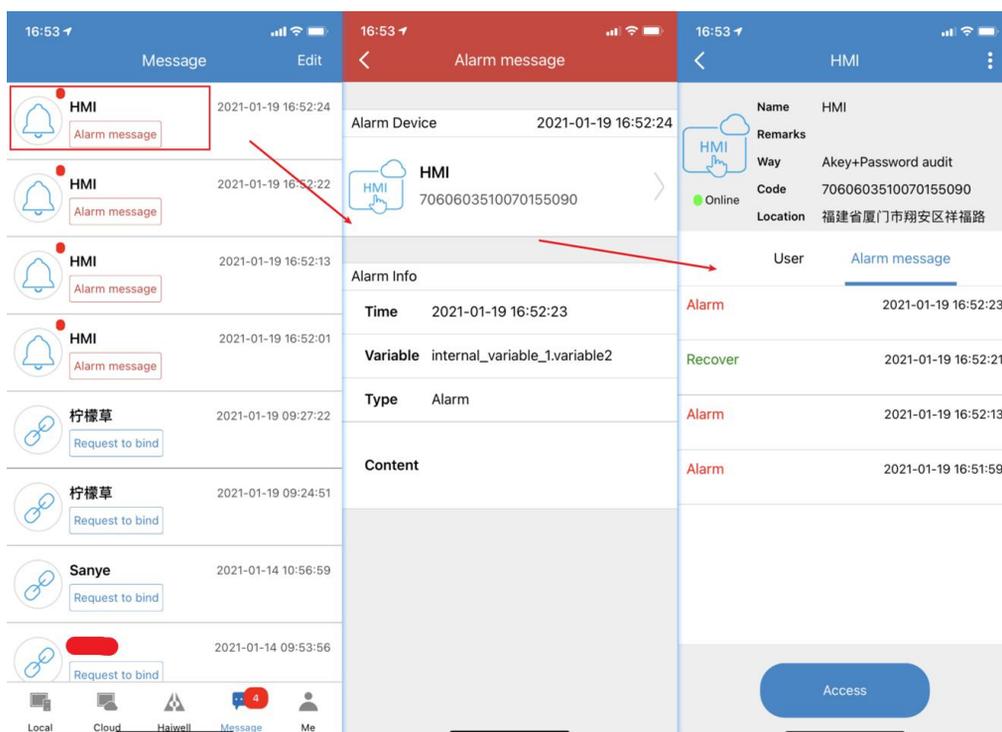
Enter into the home page of application by mobile phone, select device and view information of device; Click the button  in the upper right corner of the device information interface to pop up the device management option, select [Delete machine] and click [confirm]. Hint: Administrators and visitors can delete devices directly; the owner must delete all users before deleting the device.



2.4 View alarm information

● View alarm equipment

Enter into the message interface of application by APP, click [alarm message] to enter into alarm message interface, click [alarm device] to view detailed information of device;



Hint: The prerequisite for APP to view the alarm message is that the downloaded project of HMI already added a cloud alarm variable. Steps are as follows:

① add alarm variable

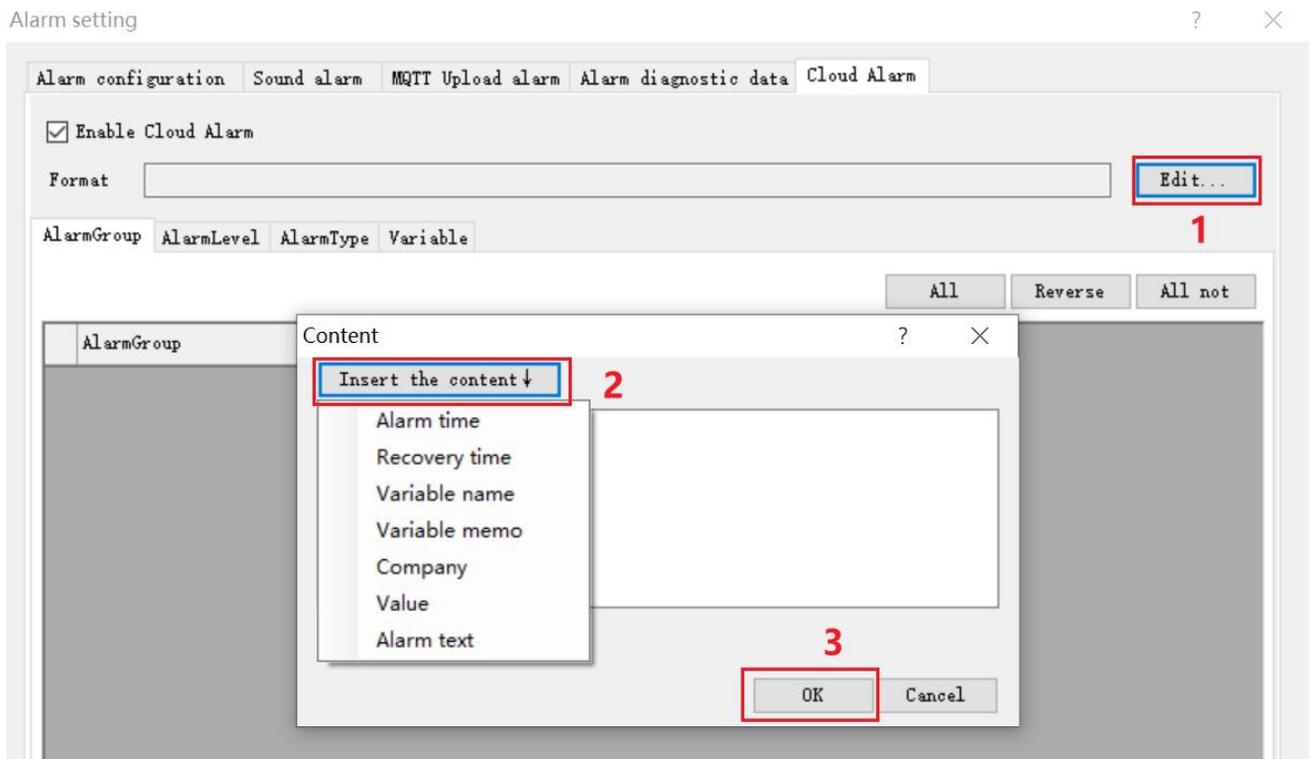
Enter the project browser, open alarm interface and add alarm variable (Add the variable that has been associated with a graphics)

②start cloud alarm

Enter into the [alarm configuration], click [cloud alarm]; enter into the cloud alarm setting interface and enable cloud alarm.

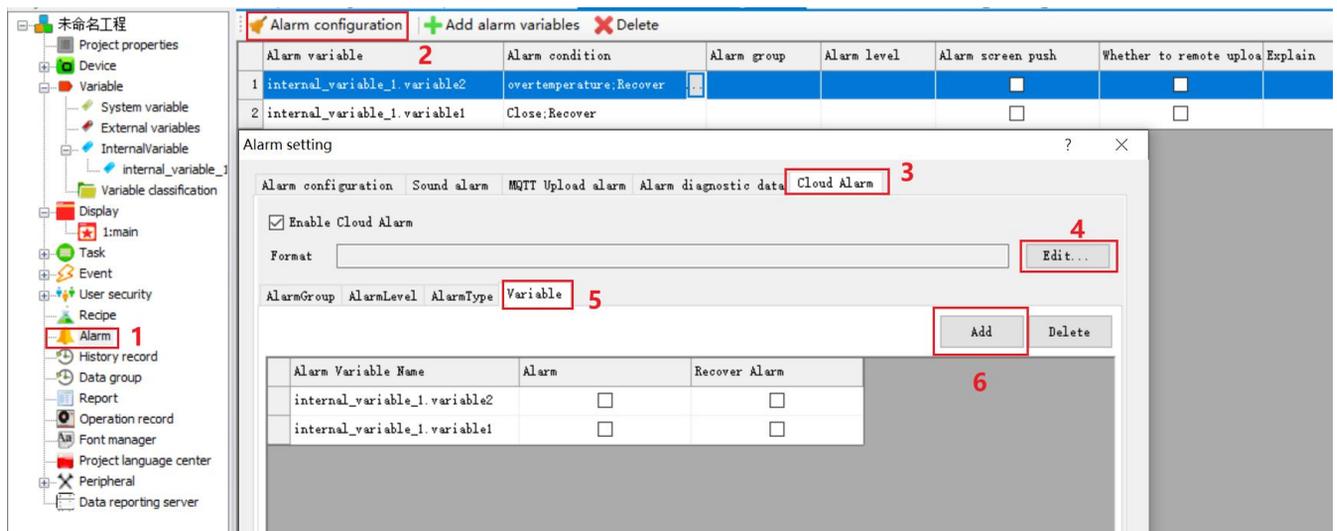
③add alarm content

Select [edit] in alarm format bar, click [insert the content], select content that need to be alarmed and click [ok].



④add cloud alarm variable

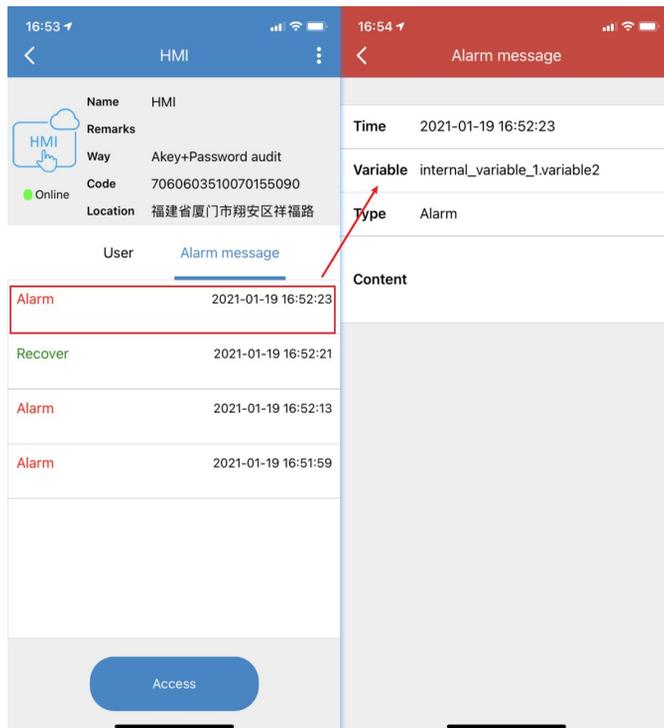
Select [variable] and click [add].



● View alarm content

Enter into the home page of application by APP, select device and view information of device; click [alarm message] to enter

into alarm message interface. Then you can view alarm information (include time, variable, type and content).



### 3. Cloud map

#### 3.1 Map display

Login to the APP, click the [Map] tab, enter into the device map page. The map interface is used to view the geographical location of the device.



### 3.2 View device details

Enter into the device map page, find the corresponding location of the device, click the icon, enter to view device details.



- **View information of device location**

Enter into the device details interface, and view information of device location.

<b>Name</b>	HMI
<b>Remarks</b>	
<b>Way</b>	Akey+Password audit
<b>Code</b>	7060603510070155090
<b>Location</b>	新店路 2009 人力资源大厦 3楼

① **View complete information of device location**

Enter into the device details interface, click the information of device location of the device details interface, the complete information of device location will pop up.



## ② Copy information of device location

Enter into the device details interface, press the information of device location of the device details interface, the complete information of device location will pop up, click [copy]



### 3.3 Set the device geographic location

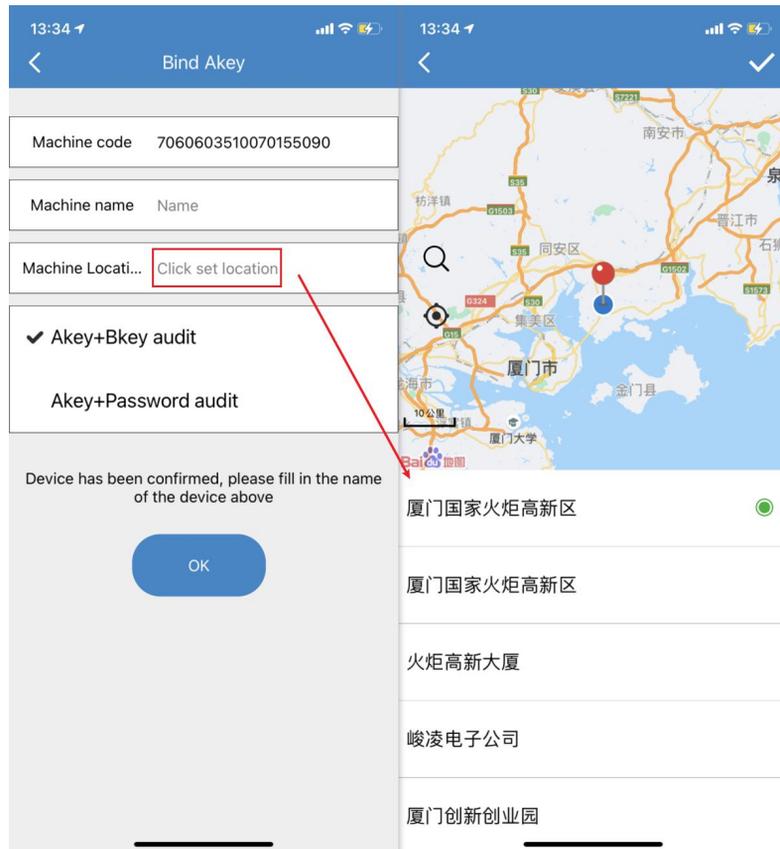
Enter into the interface of setting device location, after locating the appropriate device geographic location, click [OK] to set the device location. The following sections will describe how to enter into the interface of setting device location and how to locate the device geographic location.

#### ● Enter into the interface of setting device location

First, enter into the interface of setting device location, the following sections will provide two methods to enter into the interface of setting device location:

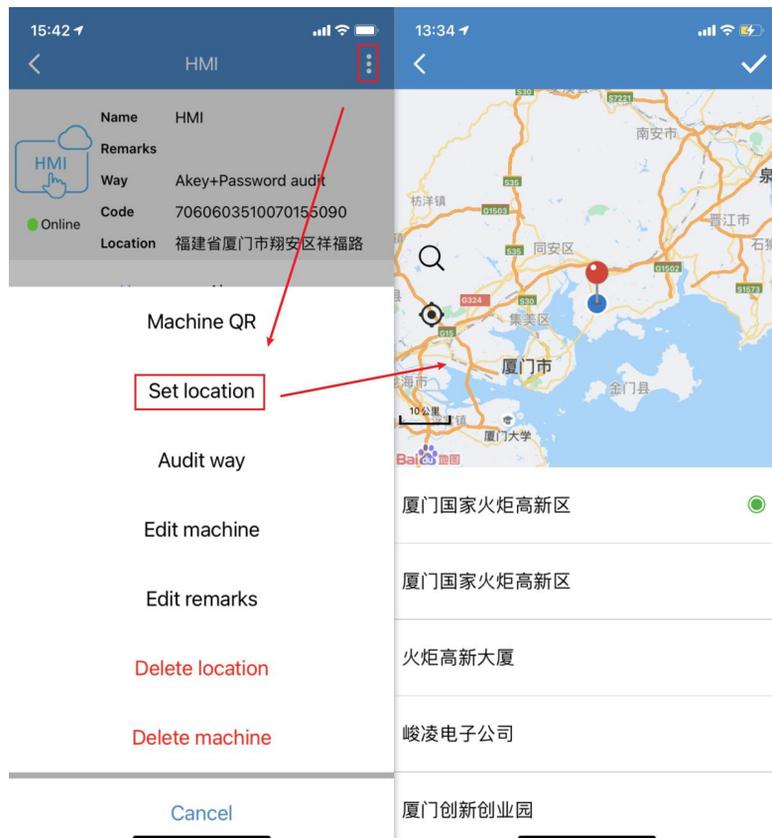
##### ① Enter into the interface of setting device location from the main interface of binding Akey

When user applies to bind the owner of the device, find [Machine Location] tab on the interface, click it to enter the interface of setting device location.



② Enter into the interface of setting device location from device management interface

Enter the device details interface, click the upper right corner  button, select [Set location] to enter into the interface of setting device location.

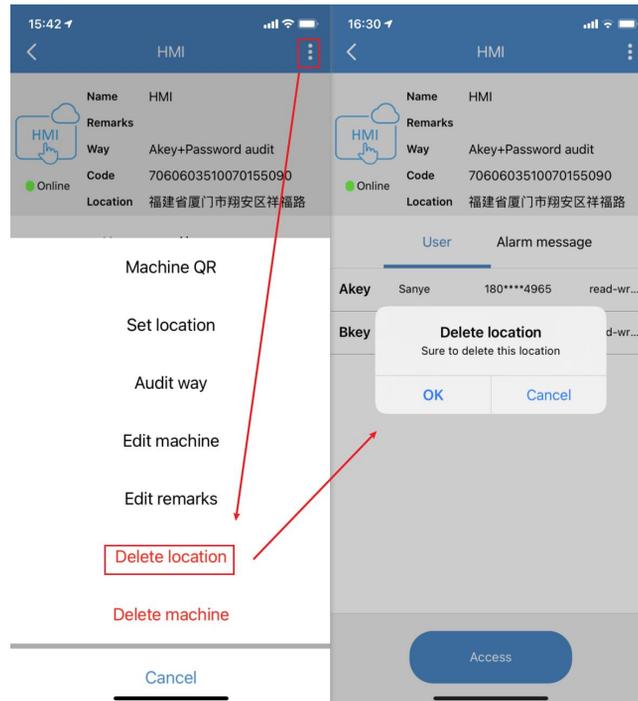


- **Save the device geographical location**

After locating the appropriate geographic location of the device, click [OK] in the upper right corner of setting location interface to set the location of the device.

### 3.4 Delete the device geographical location

Enter the device details interface, click the upper right corner  button, select [Delete location] and click [OK] to delete the device location.



## 4. Message

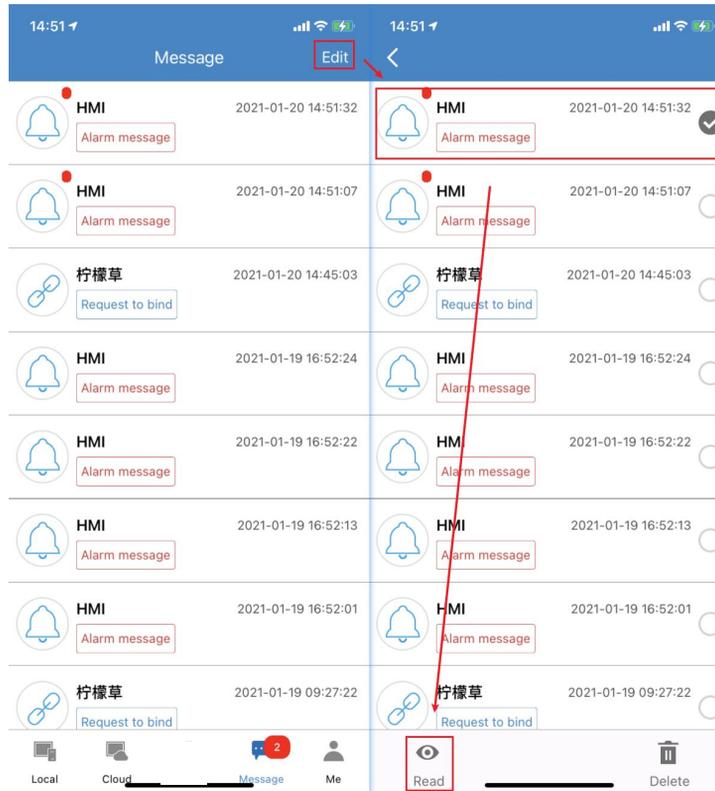
### 4.1 View device message

Enter into the home page of application by APP, click message record to enter the detailed message interface; user need to know which device sent current message, and click target device to view detailed information.

### 4.2 Message management

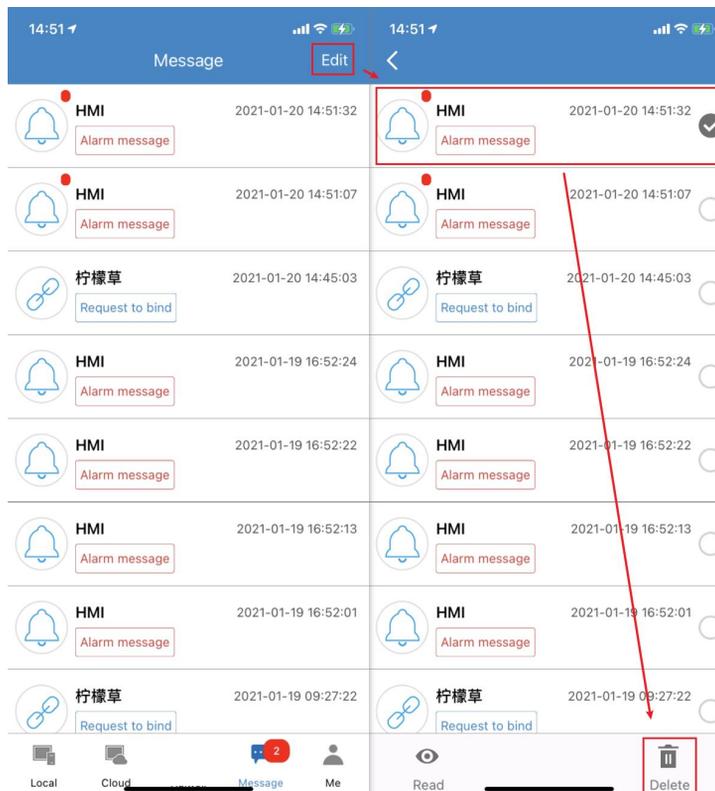
- **Mark the message as read**

Enter the device message page through the mobile APP; click [Edit] in the upper right corner of the interface to enter the message editing interface; select the message record and mark it as read.



● Delete message record

Enter the device message page through the mobile APP; click [Edit] in the upper right corner of the interface to enter the message editing interface; select the message record and click [delete].

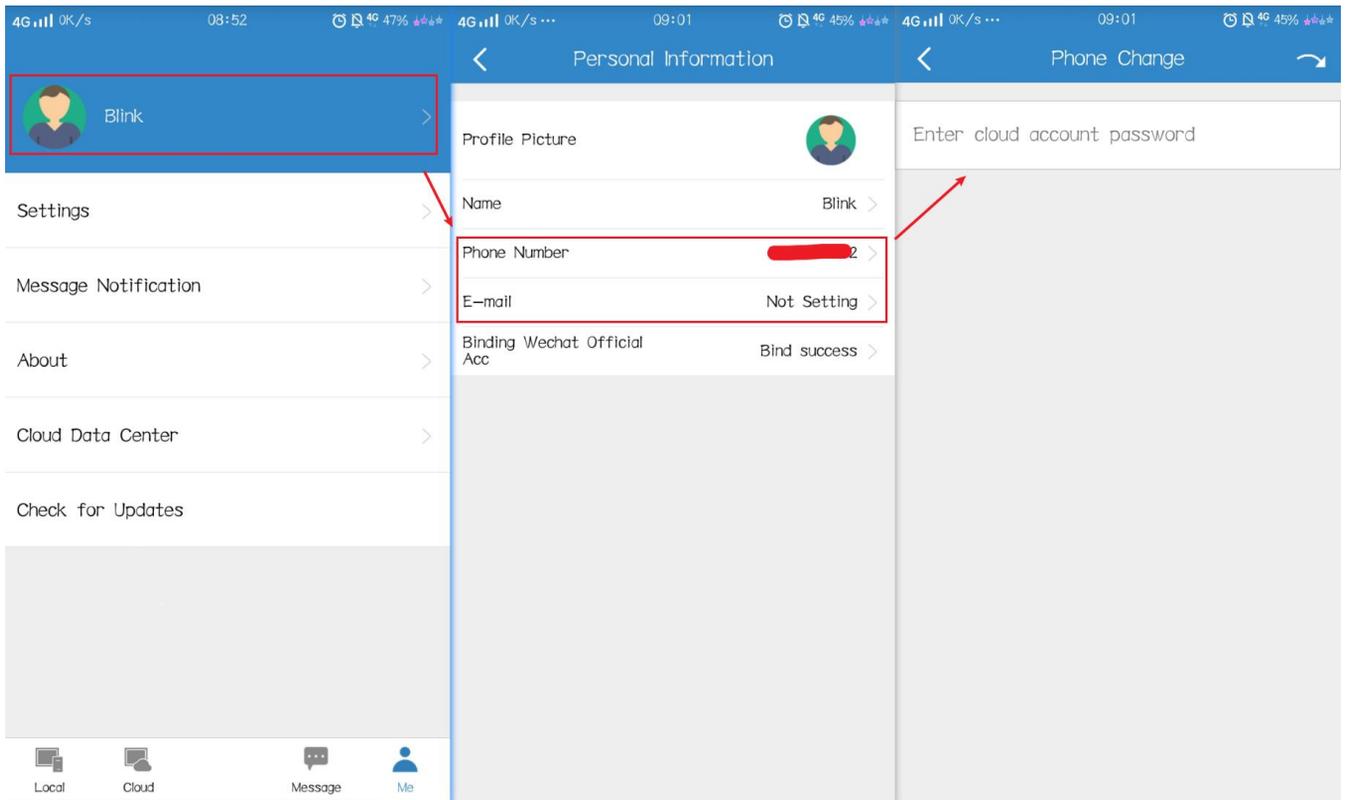


## 5. User Center

### 5.1 Switch account

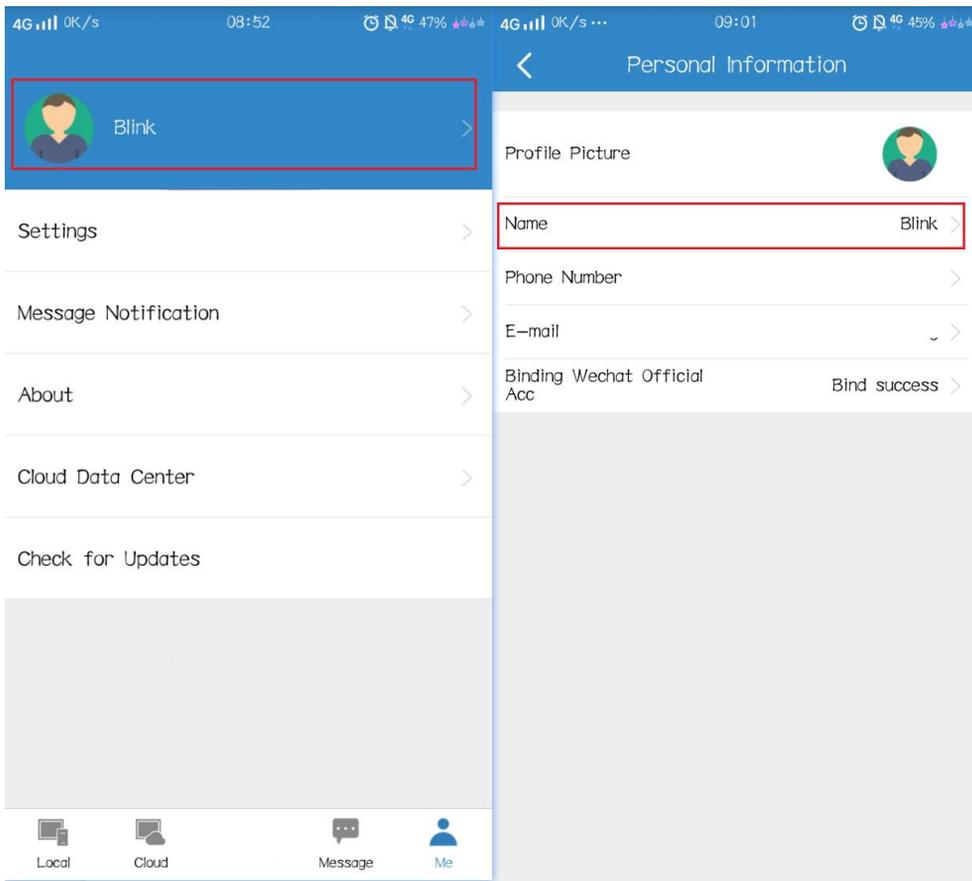
Login APP by using mobile phone and enter the [me] personal center;

- ① If account is registered by phone number, you can click [phone] to change phone number or click [E-mail] to bind email account;
- ② If account is registered by E-mail, you can click [E-mail] to change phone number or click [Phone] to bind phone number;



### 5.2 Modify user information

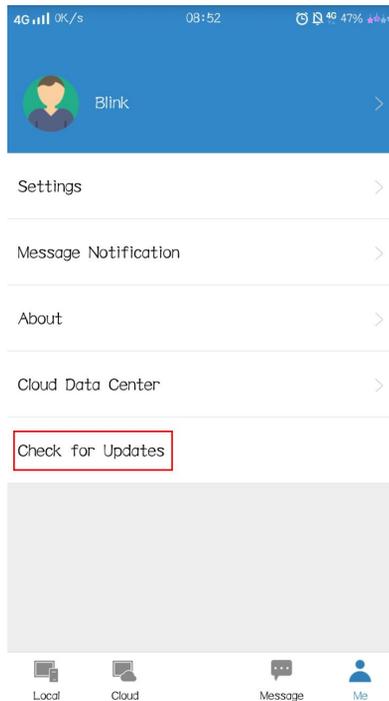
Login APP by using mobile phone and enter the [me] personal center; Click profile photo to enter modifying interface; Input nickname and click [save].



### 5.3 Update version

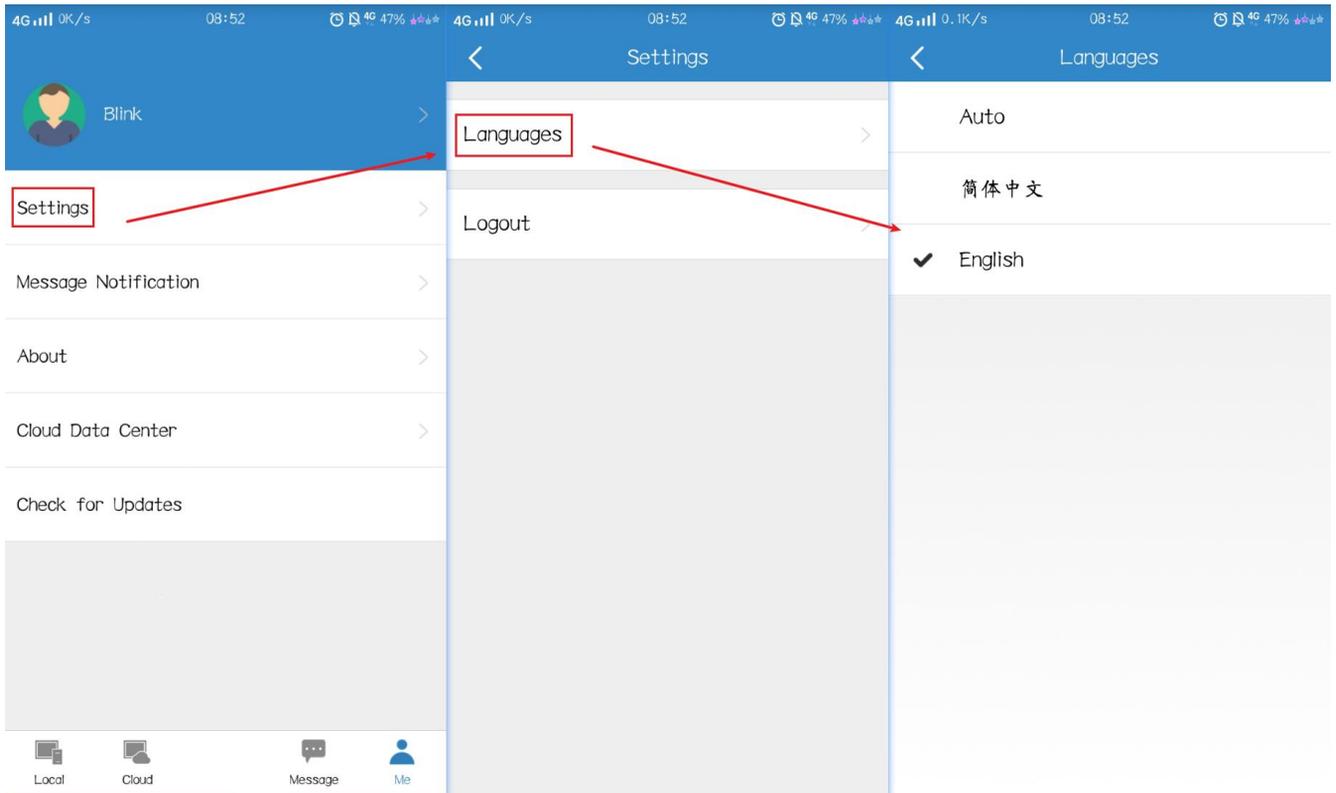
Login APP by using mobile phone and enter the [me] personal center; click [check for update] in this interface.

- If current software is already the latest version: system will give hint: [This is the latest version].
- When there is an updateable package: enter the download interface of new version software, click [Download] to download and install the latest software version.



## 5.4 Setting

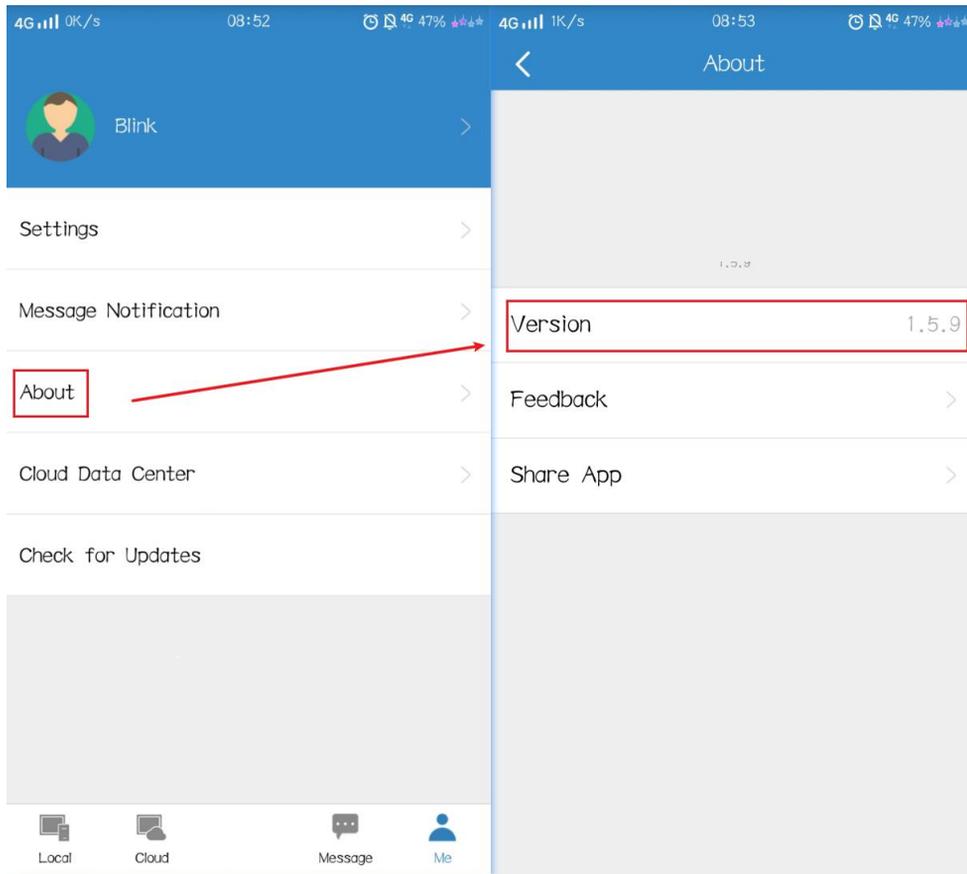
Login APP by mobile phone and enter the [me] personal center; click [setting] in this interface to enter setting interface; click [Language] to enter language setting interface; you can change language according to your need or follow the language of mobile phone system.



## 5.5 About

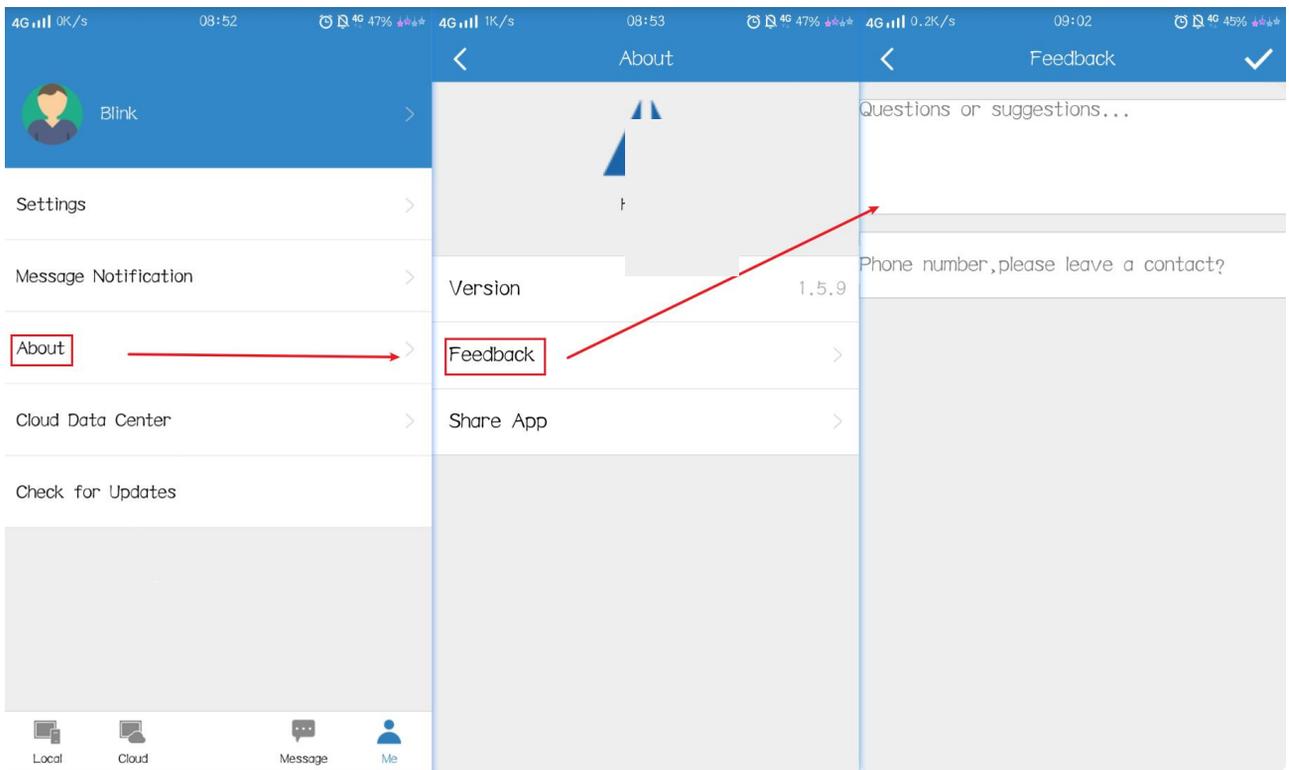
- View version

Login APP → enter [Me] personal center → about → version.



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