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***ZigBee™- Integrated Wireless Smart Home Controller***

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# **User Manual**

**Integrated Wireless Smart Home Controller**

**Model: Z203**

20140722

For firmware V.154 and later

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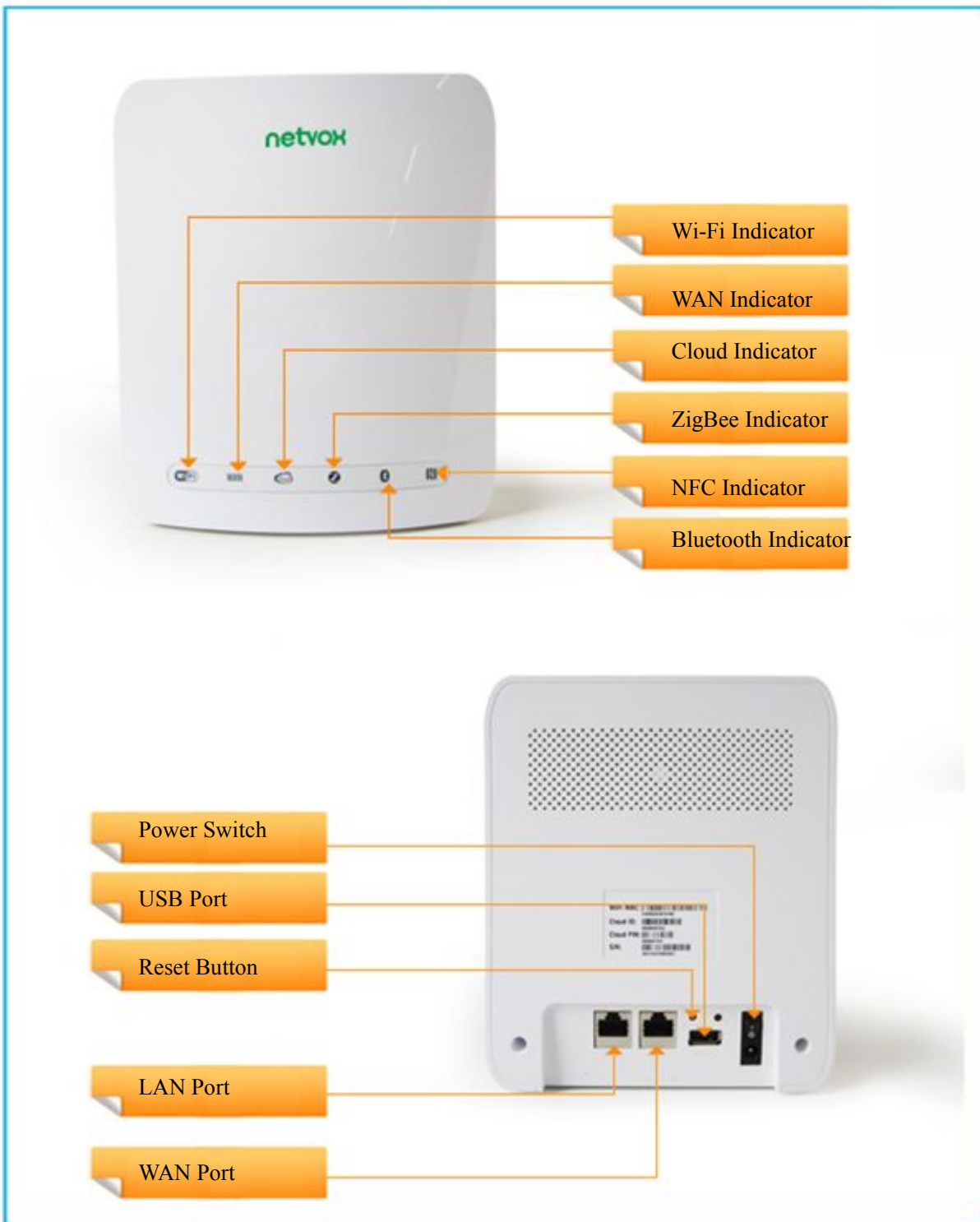
## 1. Introduction

Netvox Z203, a Cloud-Based Wireless Smart Home Controller (CWSH), acts as a Coordinator in ZigBee network. Z203 is also equipped with Wi-Fi technology. It is the main character of Netvox Smart Home Cloud Platform. Z203 provides Cloud services, Wi-Fi connection, and ZigBee network communication. Via Wi-Fi connection, users are able to control the ZigBee network devices through mobile app. Furthermore, Netvox Smart Home Cloud service allows users to remotely manage the devices, like lighting, curtain, or IP Camera, anytime and anywhere.

### *What is ZigBee?*

ZigBee is a short range wireless transmission technology based on IEEE802.15.4 standard and supports multiple network topologies such as point-to-point, point-to-multipoint, and mesh networks. It is defined for a general-purpose, cost-effective, low-power-consumption, low-data-rate, and easy-to-install wireless solution for industrial control, embedded sensing, medical data collection, smoke and intruder warning, building automation and home automation, etc.

## 2. Product Appearance

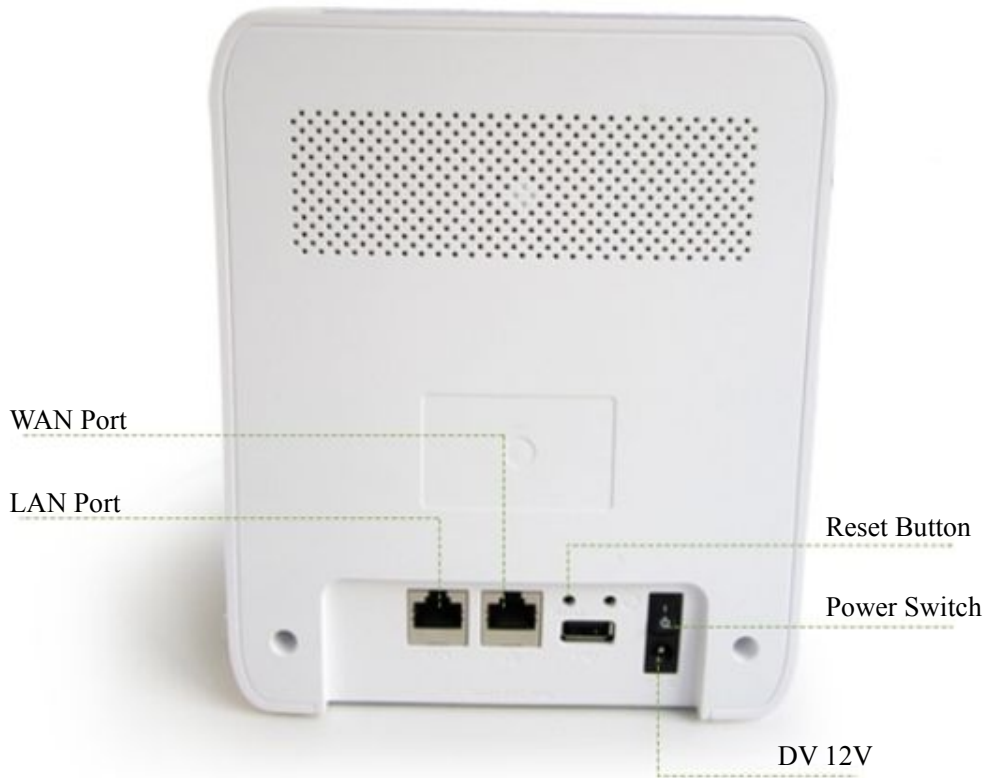


### 3. Specification

- ZigBee: fully IEEE 802.15.4 compliant (ZigBee Pro); utilizes 2.4GHz ISM band; up to 16 channels
- Wi-Fi: IEEE 802.11 b/g/n; channel 1~11
- 2 x RJ-45 ports: 10/100Mbps WAN x 1; 10/100Mbps LAN x 1
- Power supply: DC 12V
- Up to 300Mbps Wi-Fi speed
- Up to 250 meters ZigBee transmission range in non-obstacle space
- Bluetooth dongle supported
- Internet of Things
- Cloud services
- Easy installation and configuration

## 4. Installation and Preparation

### 4-1. Installation Diagram

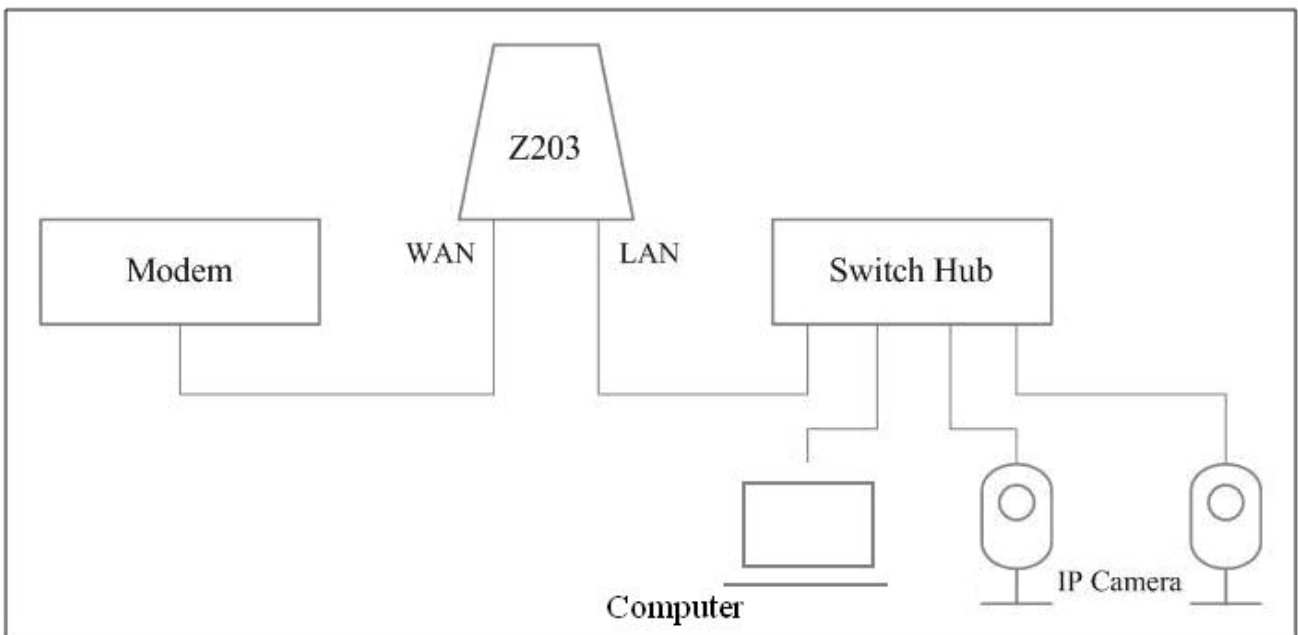
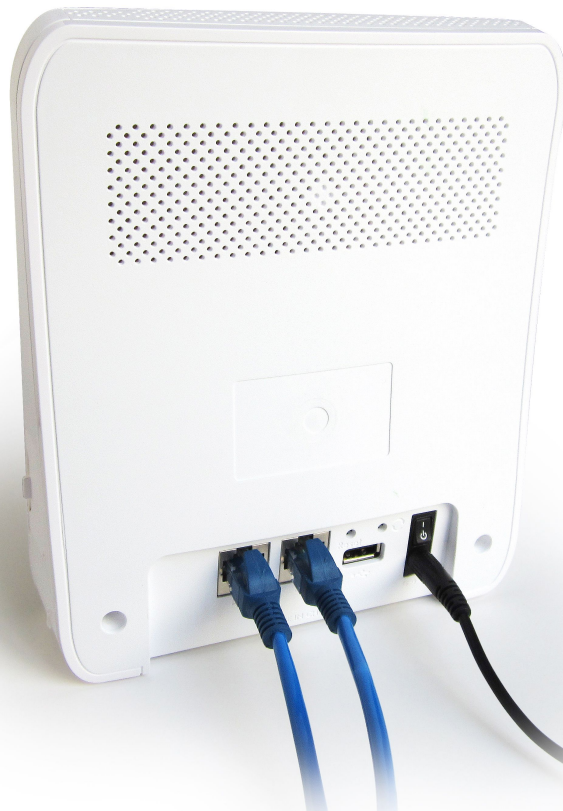


Step1. Connect the Internet connection to the WAN port.

Step2. Connect the computer/IP Camera to the LAN port.

(Please connect the LAN port and the computers/IP cameras to a switch when users would like to use more computers/IP cameras.)

The installation diagram is as below:



#### 4-2. Power on Z203

Power on Z203 using 110V~220V AC to 12V DC/1.5A power adapter. The power indicator will stay on.

### 4-3. Reboot Z203



To reboot Z203, please click the  button using a pin.

## 5. Setting up Z203

### 5-1. Enter Into the Login Page

Connect the computer to the LAN port of Netvox Z203 using a RJ-45 cable.

(Windows XP)

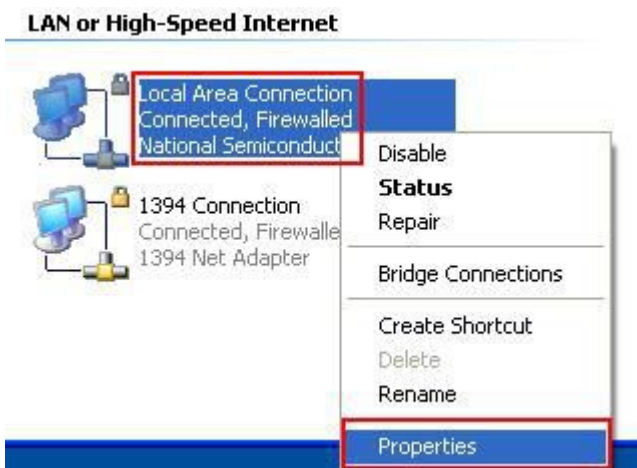
Click Start.



Click Network Connections.

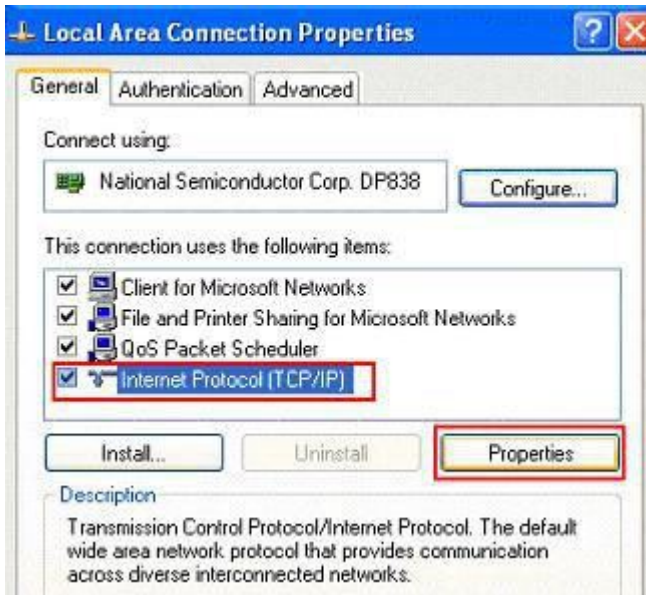


Right-click on the Local Area Network, and then click Properties.

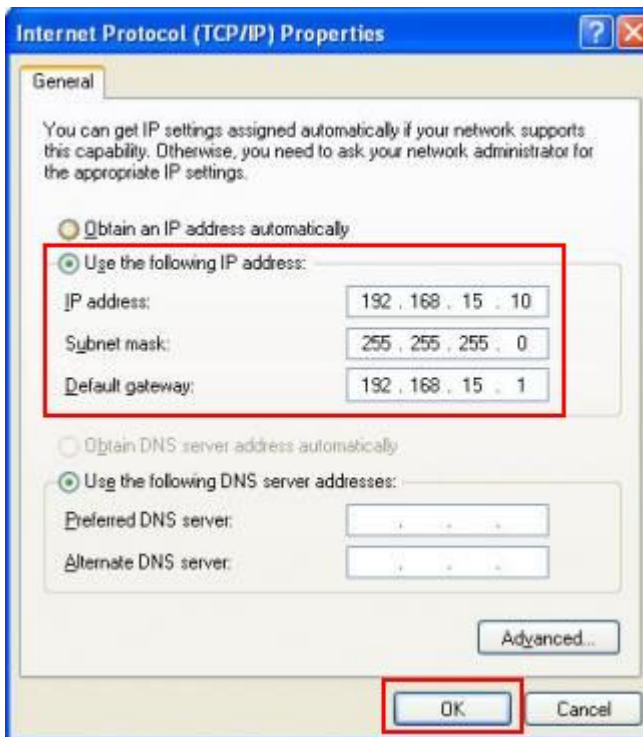




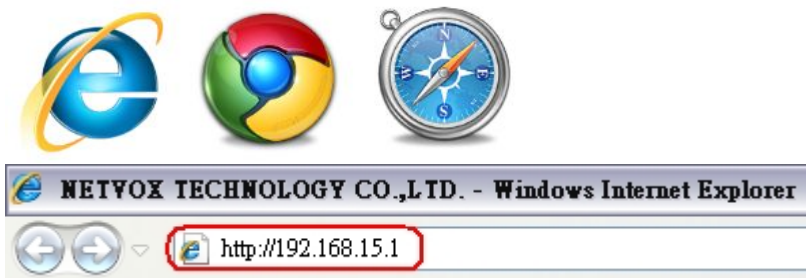
Click Internet Protocol (TCP/IP), and then click Properties.

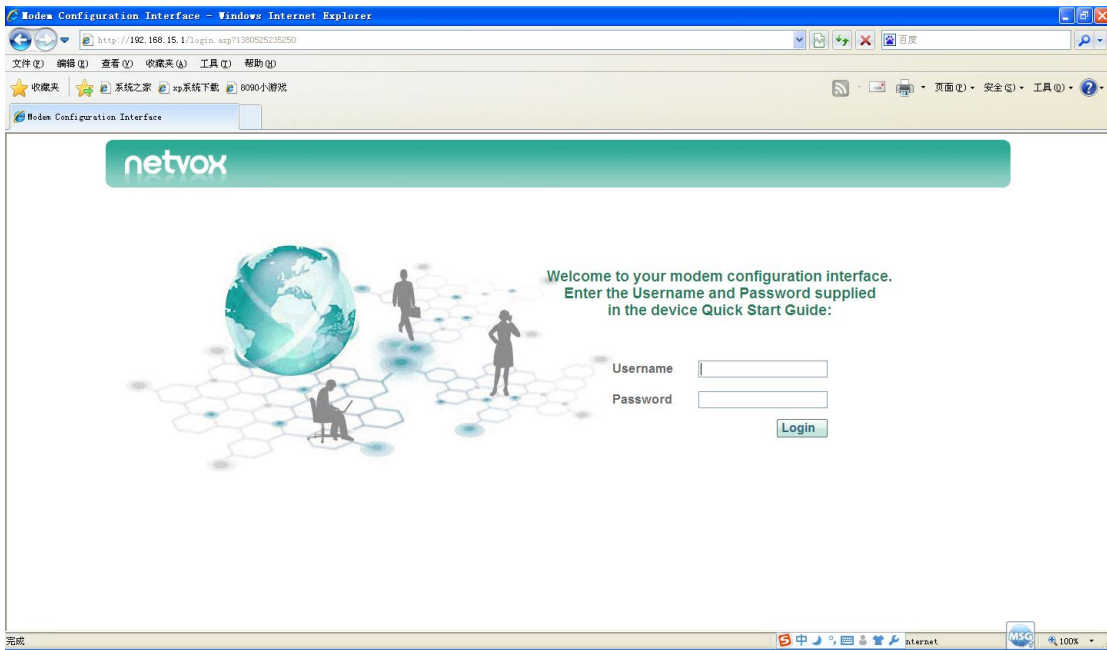


Key in the IP address and subnet mask as below.

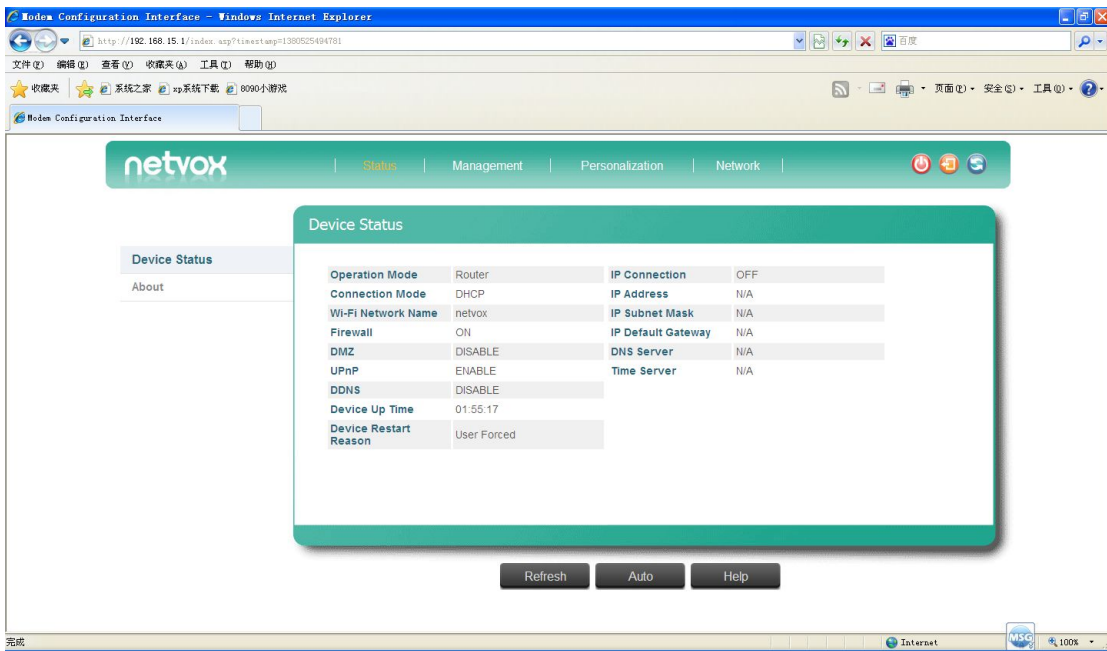
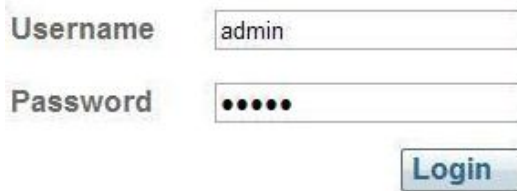


Open the web browser and enter <http://192.168.15.1> to go into the login page.



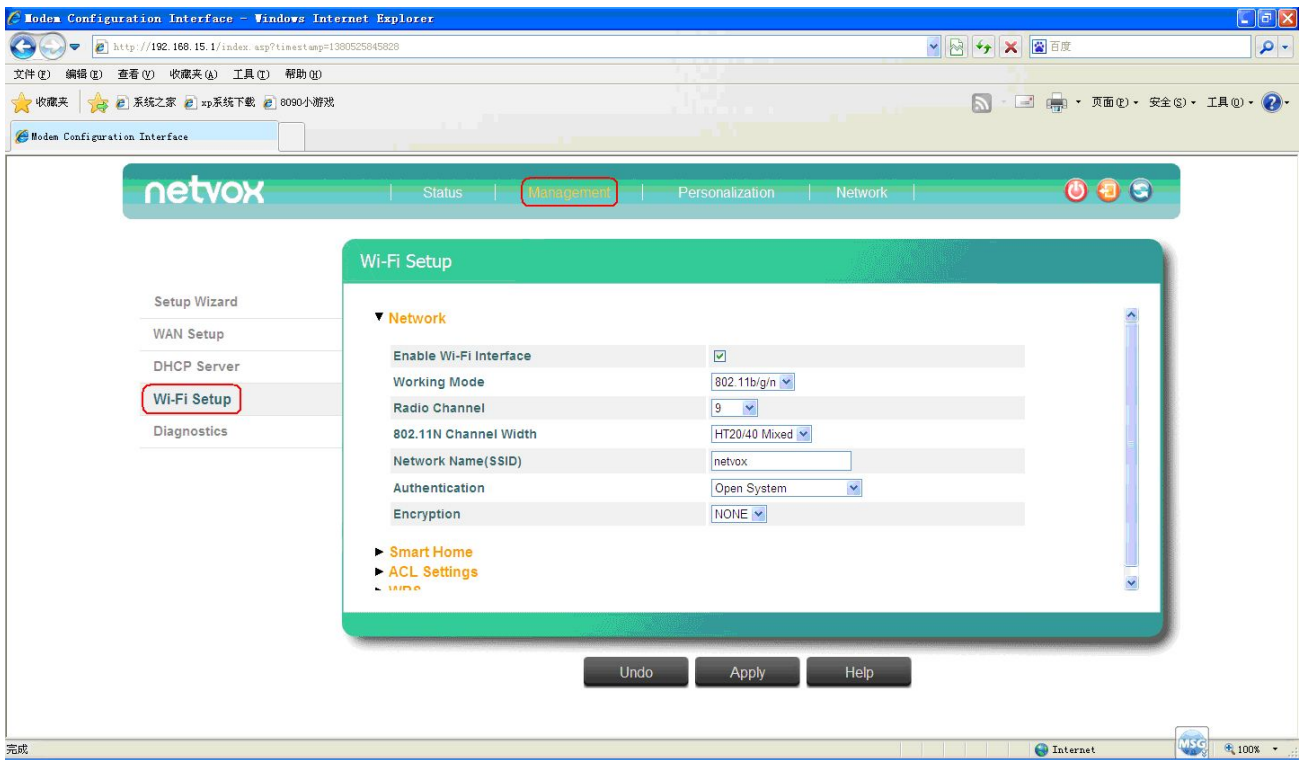


Key in the Username & Password (default: admin/ admin) and login the management system.



## 5-2. Modify the Wi-Fi Name and the Security

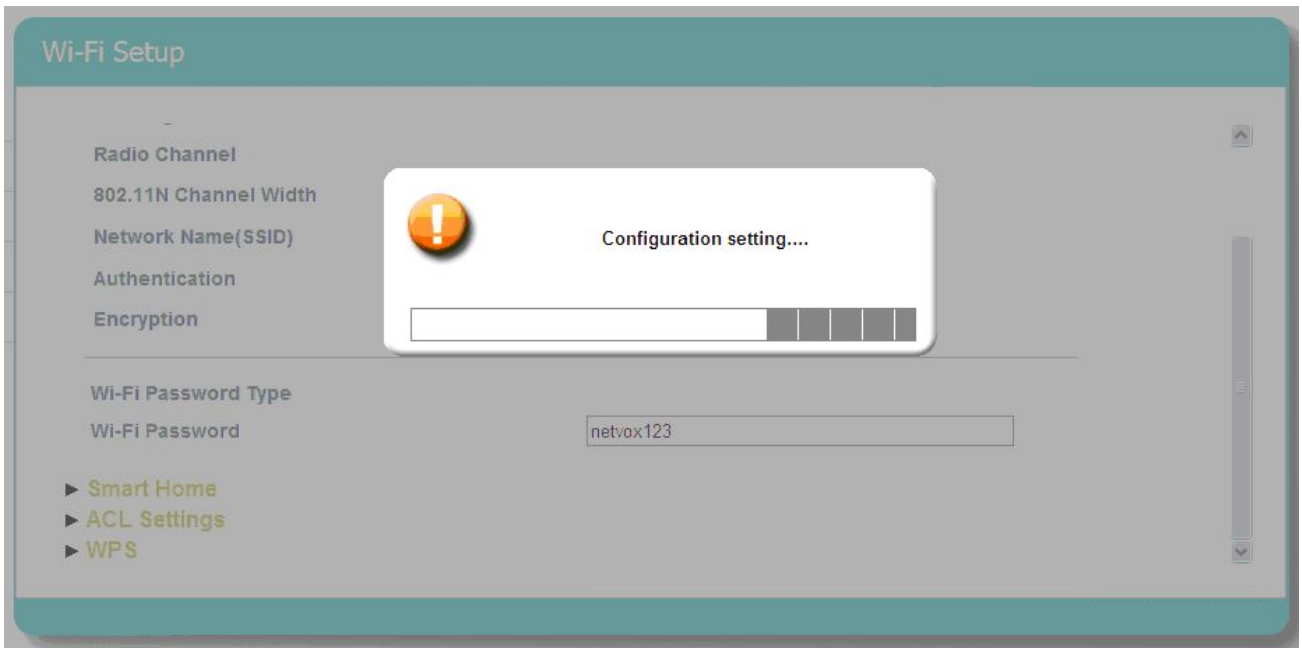
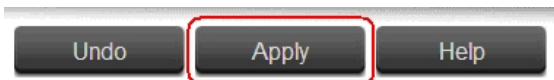
Go to **Management** → **Wi-Fi Setup**.



Modify the **Network Name (SSID)** (default: NetvoxSmartHome). Choose **WPA2 PSK** for **Authentication** and setup the **Wi-Fi Password** (at least 8 letters/numbers; default: 12345678).

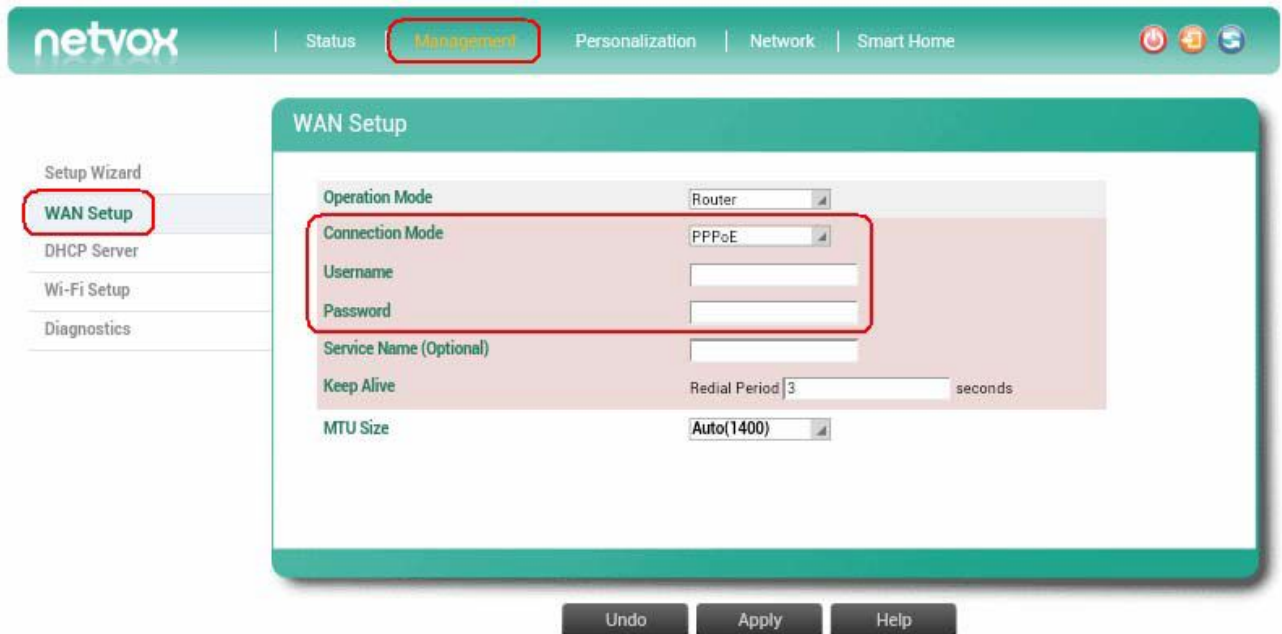


Click **Apply** and wait for 10 seconds to complete the settings.



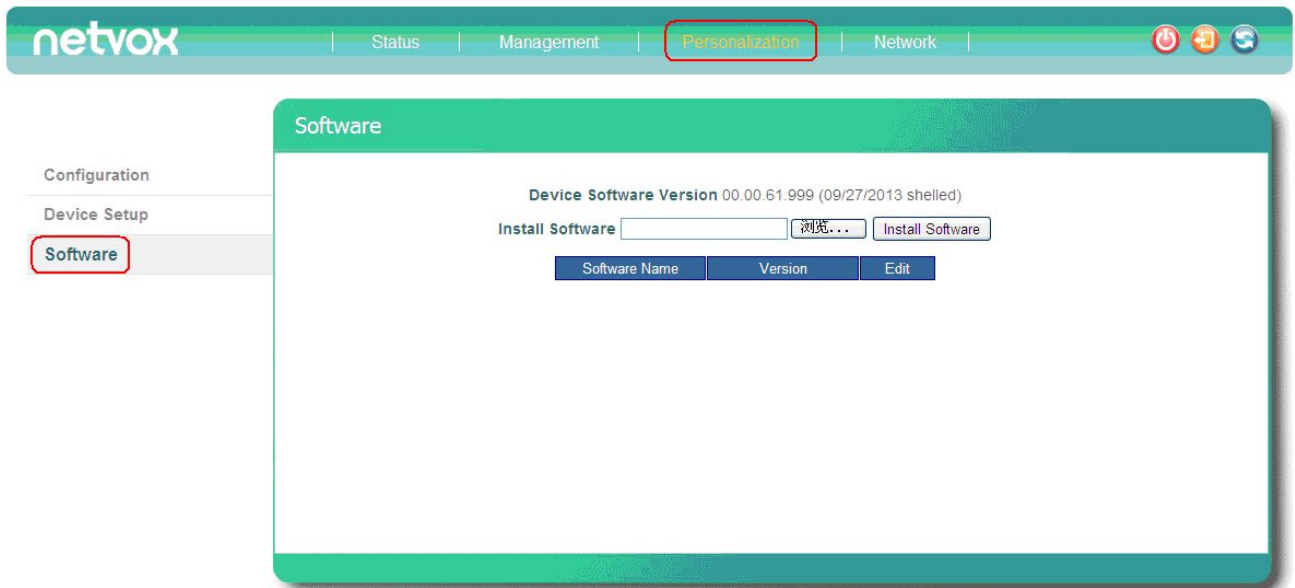
### 5-3. WAN Setup

Go to **Management** → **WAN Setup**. Choose **Connection Mode** and enter the data which ISP (Internet Service Provider) provided when necessary. Click **Apply** to complete the setting.

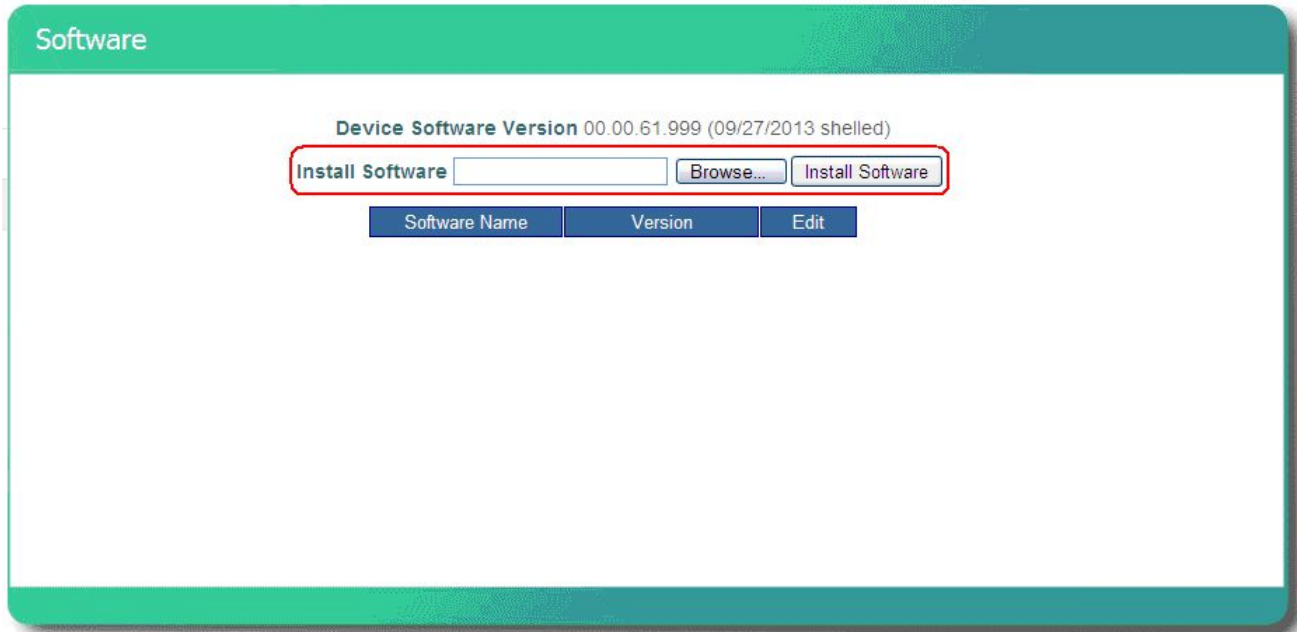


## 5-4. Firmware Update

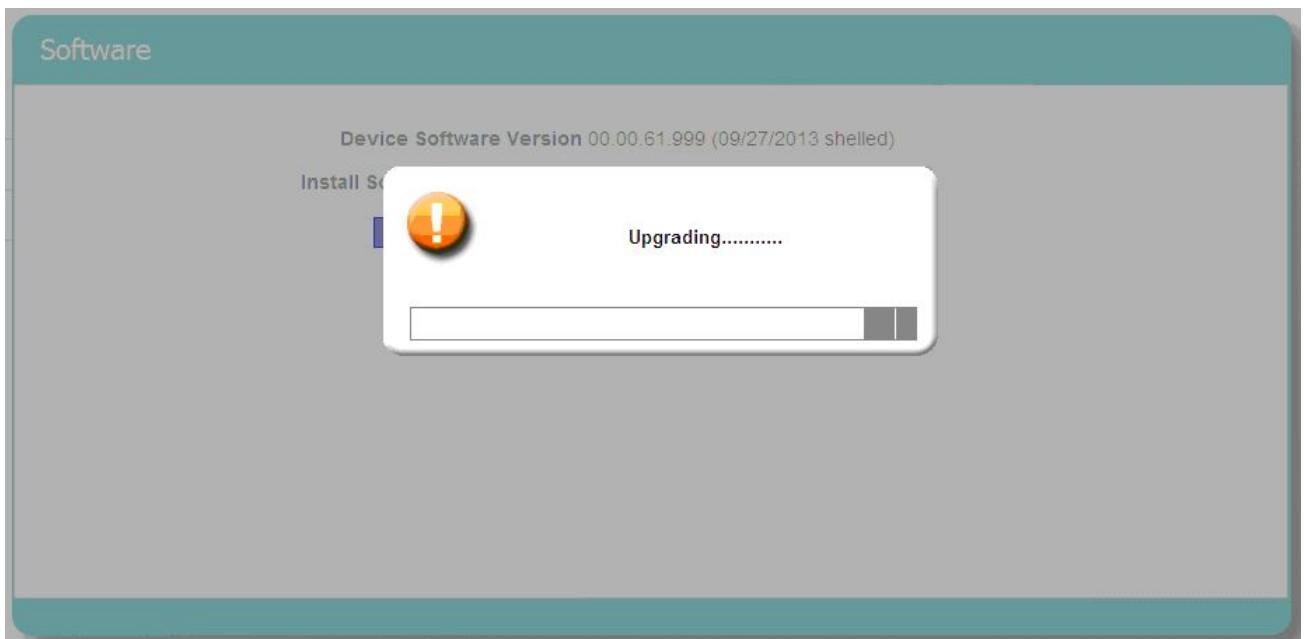
Go to **Personalization** → **Software**.



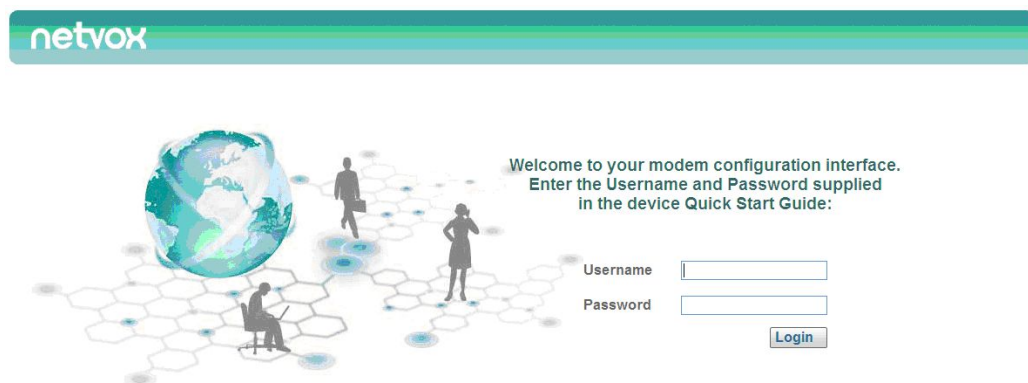
Click **Browse**, select the firmware, and click **Install Software** to update Z203.



Please DO NOT power off Z203 while updating.



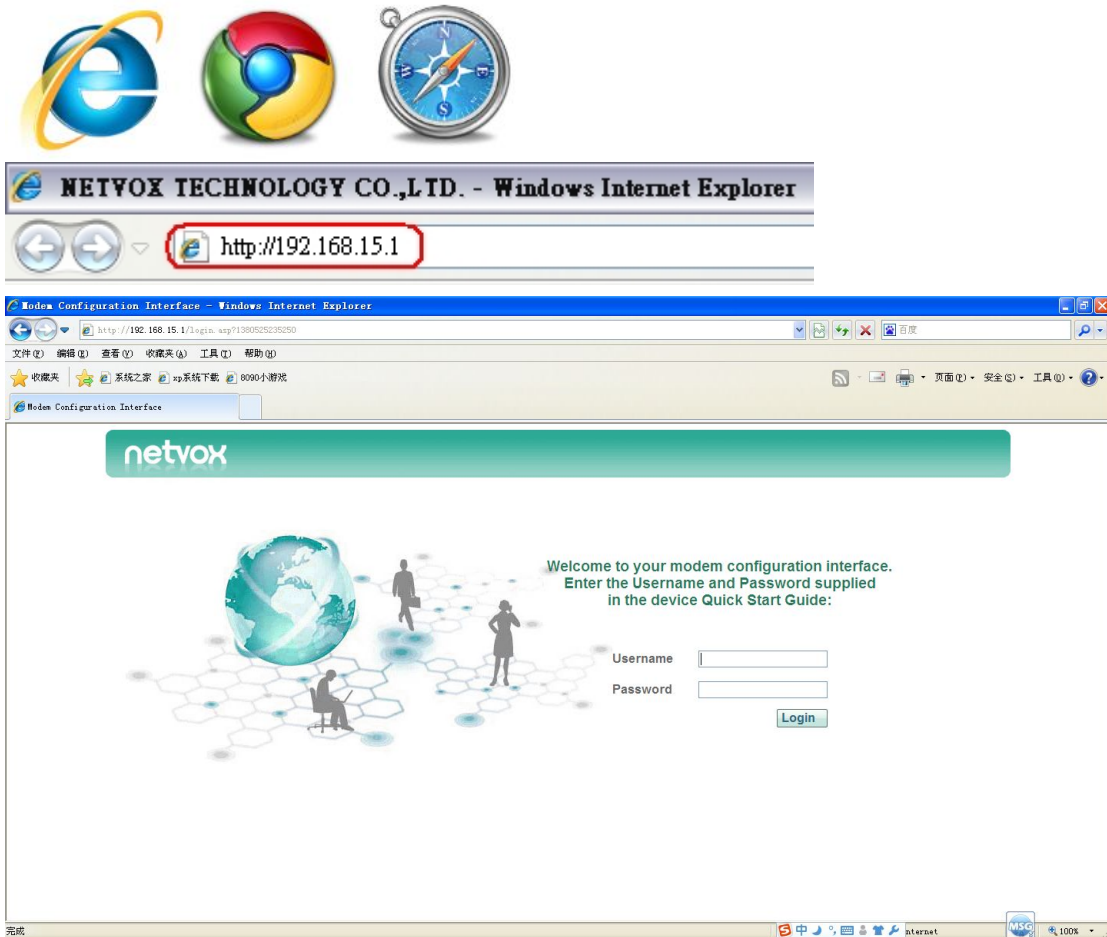
After it returns to the login page, the update is completed.



## 6. Setting up ZigBee Smart Home

Connect the computer to the LAN port of Netvox Z203 using a RJ-45 cable.

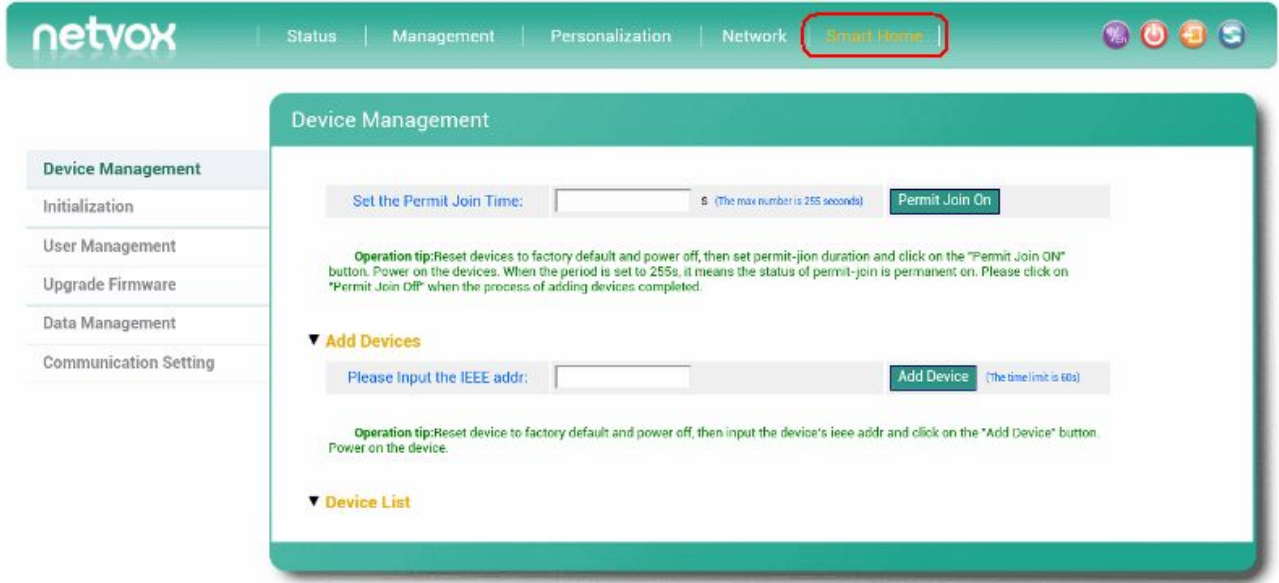
Open the web browser and enter <http://192.168.15.1> to go into the login page.



Key in the Username & Password (for advanced settings, please use **operator/ operator**) and login the management system.

Username	<input type="text" value="operator"/>
Password	<input type="password" value="••••••••"/>
	<input type="button" value="Login"/>

Go to **Smart Home** for Smart Home settings.

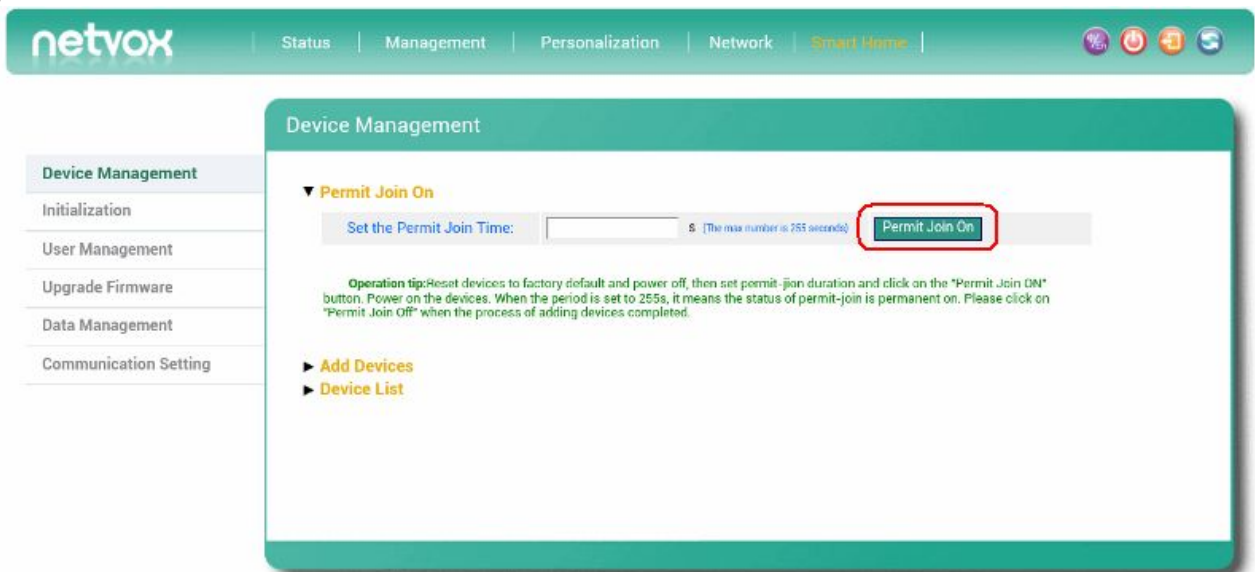


## 6-1. Device Management



### A. Permit-Join On

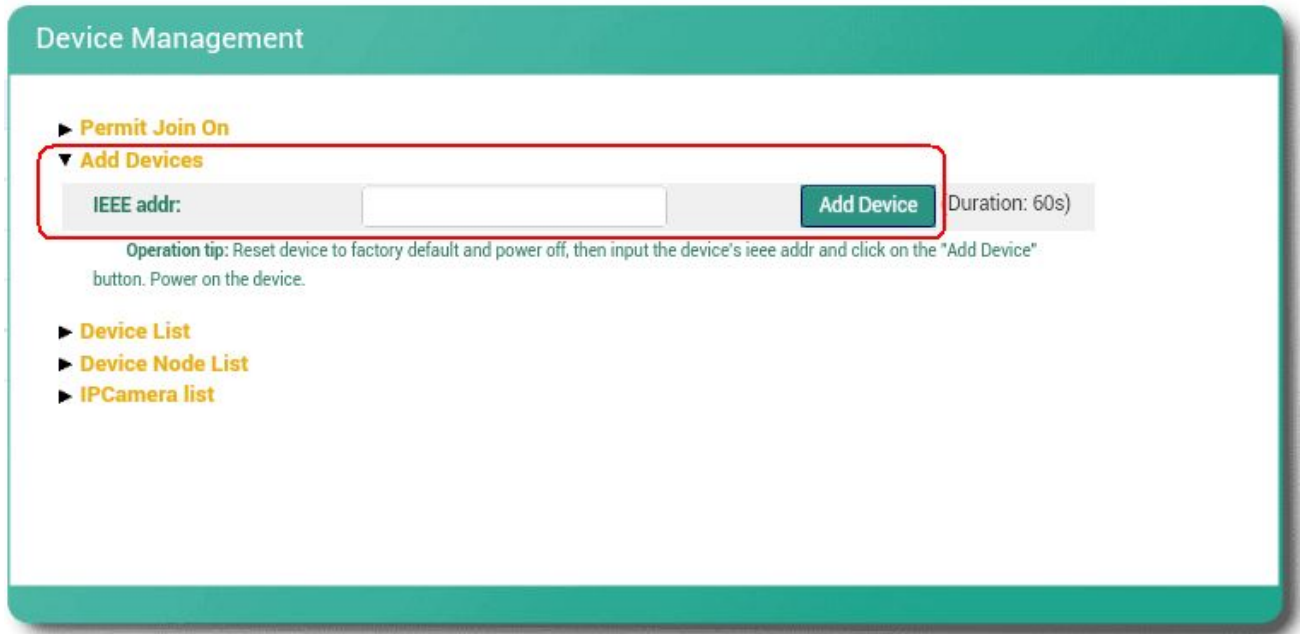
To add new devices to the network, we need to turn the Permit-Join feature on. After turning on Permit-Join, power on the devices users would like to add to the network.





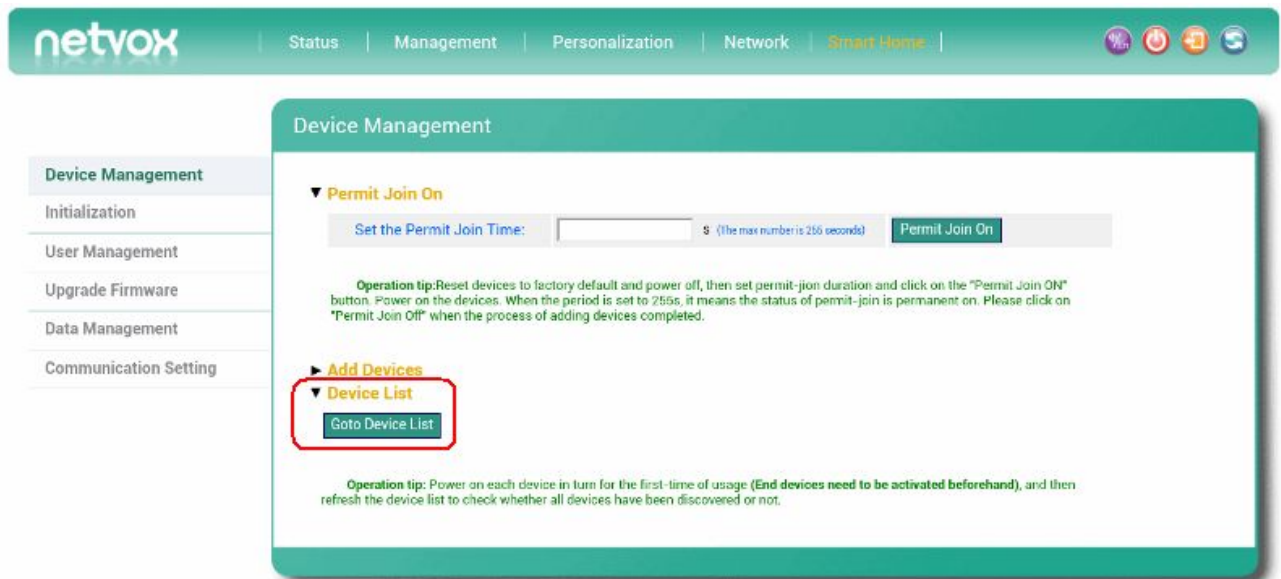
## B. Add Devices

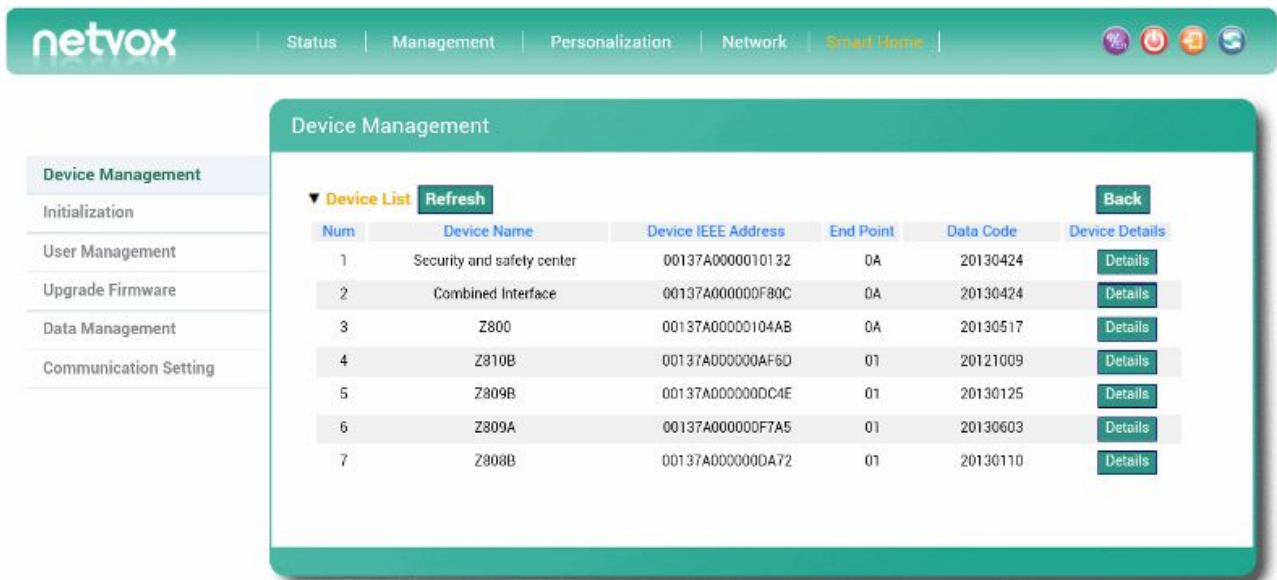
Users could also add the devices manually using device's IEEE number.



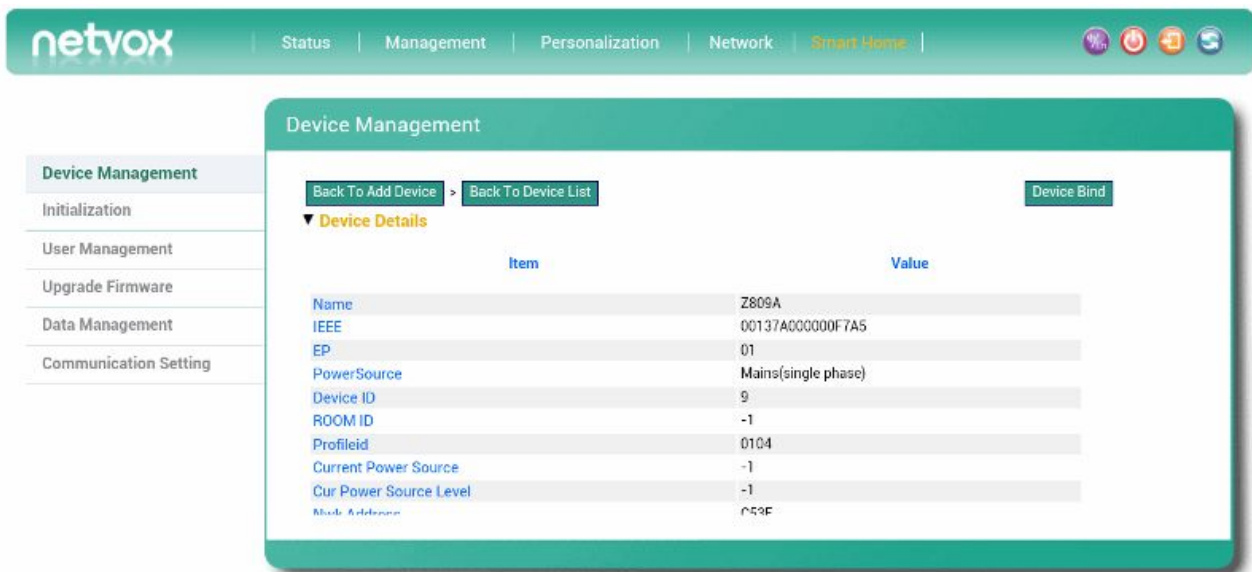
## C. Device List

For checking the device status of the network.





Click **Details** to check device's detailed status.

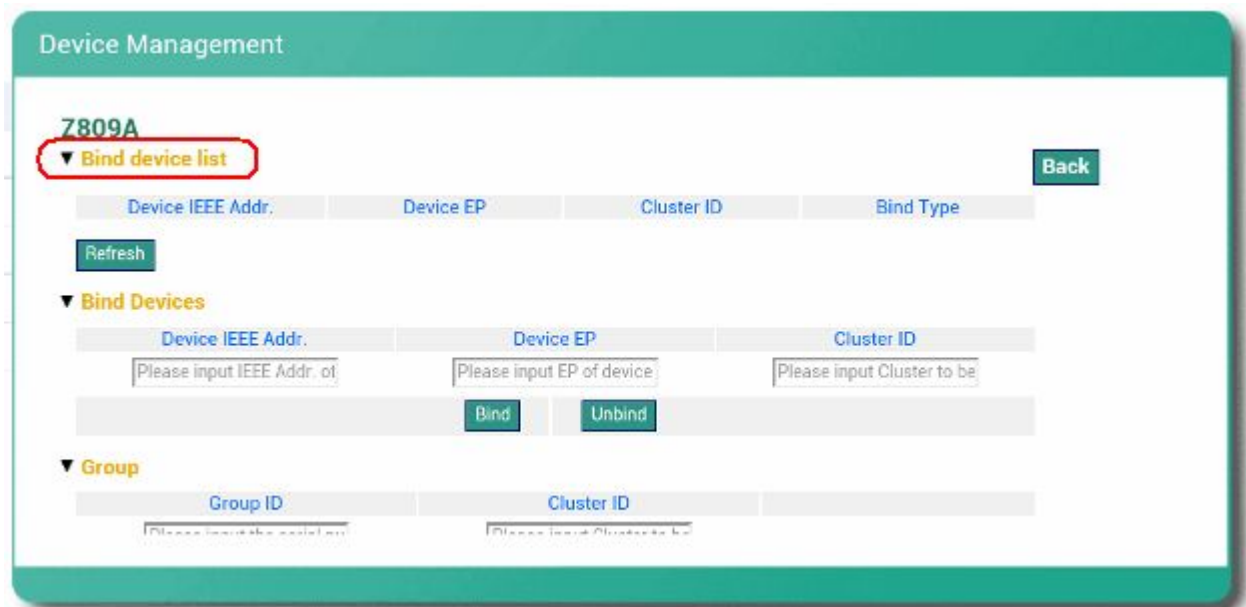


For binding, please click **Device Bind**.



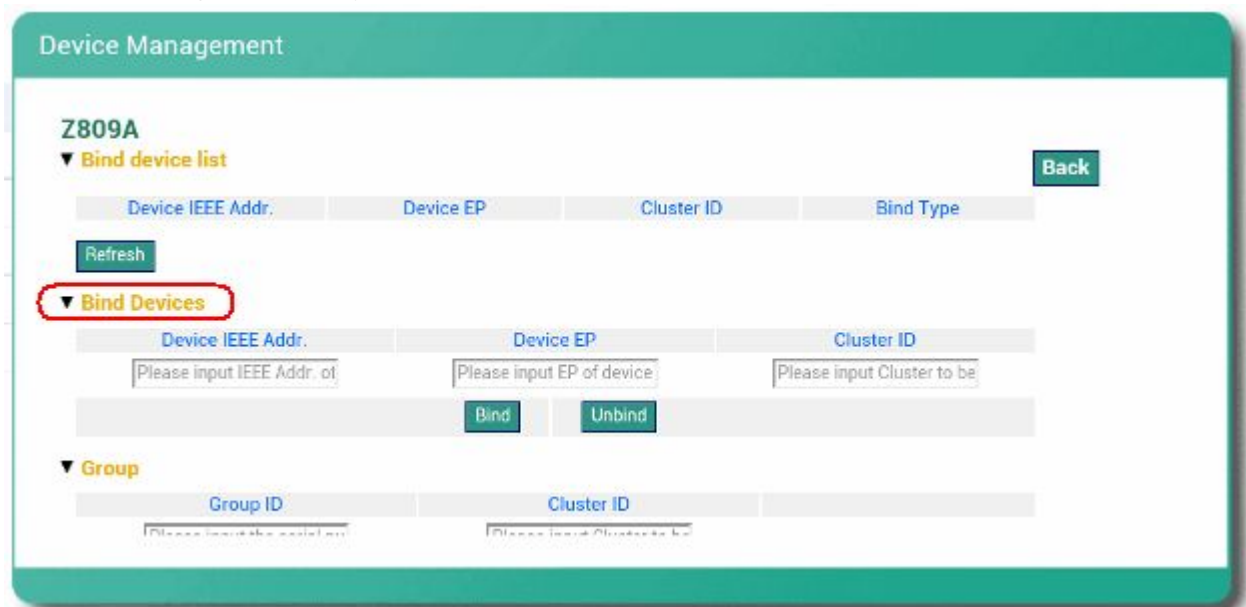
### i. Bind Device List

It shows the binding devices.



## ii. Bind Devices

[Advanced setting] To manually bind with other devices.



## iii. Group

[Advanced setting] To manually bind with a Group.

## Device Management

Z809A

▼ Bind device list

Back

Device IEEE Addr.	Device EP	Cluster ID	Bind Type
-------------------	-----------	------------	-----------

Refresh

▼ Bind Devices

Device IEEE Addr.	Device EP	Cluster ID
-------------------	-----------	------------

Please input IEEE Addr. of

Please input EP of device

Please input Cluster to be

Bind

Unbind

▼ Group

Group ID	Cluster ID
----------	------------

Please input Group ID

Please input Cluster ID

## D. Device Node List

For checking the node list of the devices.

The screenshot shows the Netvox web interface. The top navigation bar includes 'netvox', 'Status', 'Management', 'Personalization', 'Network', and 'Smart Home'. The left sidebar lists 'Device Management', 'Initiate Smart Home', 'User Management', 'Upgrade Firmware', 'Data Management', and 'Communication Setting'. The main content area is titled 'Device Management' and contains a list of options: 'Permit Join On', 'Add Devices', 'Device List', 'Device Node List', and 'IPCamera list'. The 'Device Node List' option is expanded, and a 'Check Device Node List' button is highlighted with a red box. Below this button is an 'Operation tip: Power on each device in turn for the first-time of usage'.

The screenshot shows the Netvox web interface with the 'Device Node List' table displayed. The table has columns for ID, Name, MAC, and IP. Each row includes 'Detail' and 'Delete' buttons. A 'Refresh' button is located above the table, and a 'Back' button is in the top right corner of the table area.

ID	Name	MAC	IP	Detail	Delete
8	Z815I	00137A000000EF42	01 20130629	Detail	Delete
9	Z825J 1	00137A000000A023	01 20140318	Detail	Delete
10	Z825J 2	00137A000000A023	02 20140318	Detail	Delete
11	Z825J 3	00137A000000A023	03 20140318	Detail	Delete
12	Z825J 4	00137A000000A023	04 20140318	Detail	Delete
13	Z825J 5	00137A000000A023	05 20140318	Detail	Delete

Click **Details** to check device's detailed status.

▼ **Device Node List** [Refresh](#) [Back](#)

8	Z815I	00137A000000EF42	01	20130629	<a href="#">Detail</a>	<a href="#">Delete</a>
9	Z825J 1	00137A000000A023	01	20140318	<a href="#">Detail</a>	<a href="#">Delete</a>

netvox | Status | Management | Personalization | Network | **Smart Home** |

**Device Management**

[Back To Add Device](#) > [Back To Device List](#) [Device Bind](#)

▼ **Device Details**

Item	Value
Name	Z809A
IEEE	00137A000000F7A5
EP	01
PowerSource	Mains(single phase)
Device ID	9
ROOM ID	-1
Profileid	0104
Current Power Source	-1
Cur Power Source Level	-1
Mac Address	C53F

For binding, please click **Device Bind**.

[Back To Add Device](#) > [Back To Device List](#) [Device Bind](#)

▼ **Device Details**

**E. IPCamera List**

This shows the list of IP camera.

netvox | Status | Management | Personalization | Network | **Smart Home** |

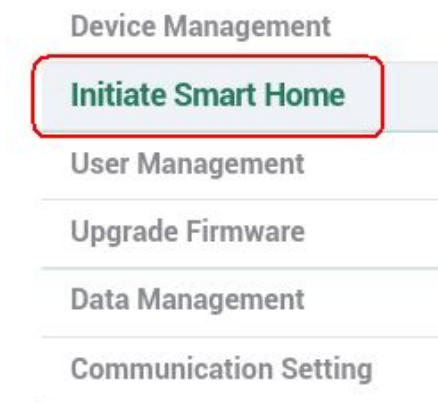
**Device Management**

- ▶ Permit Join On
- ▶ Add Devices
- ▶ Device List
- ▶ Device Node List
- ▼ **IPCamera list**

The current number of online web camera for four1The mapping list as follows:

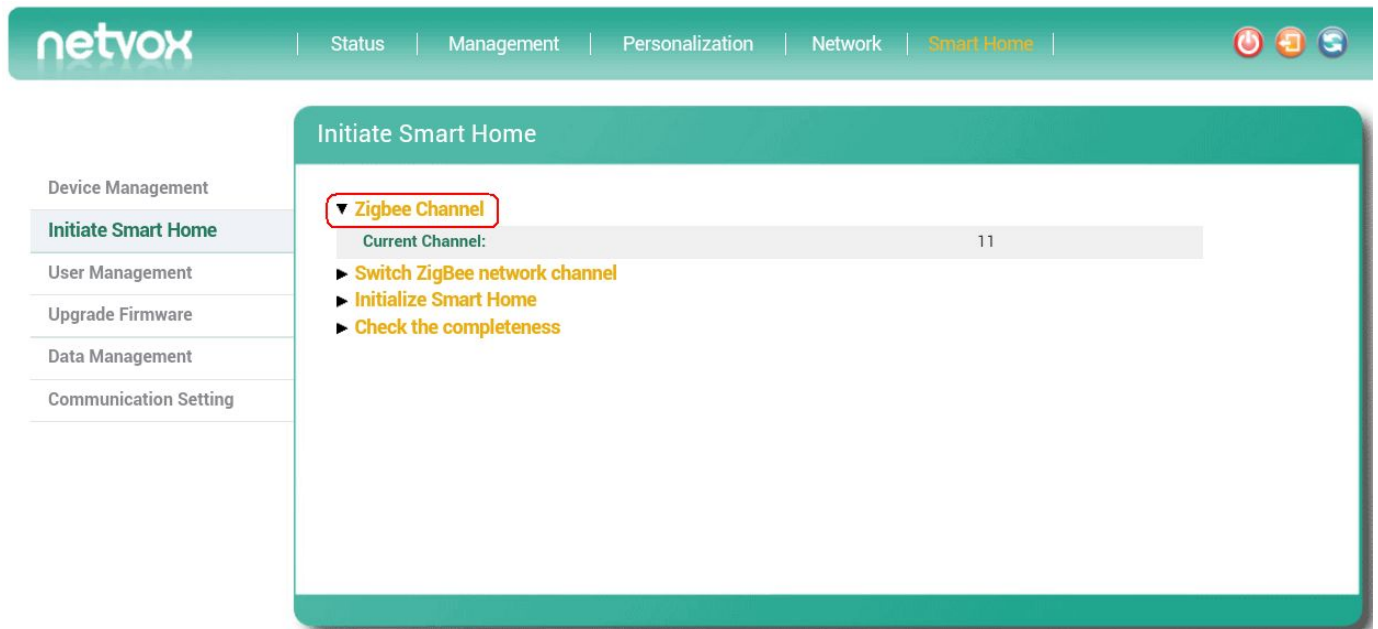
Name	Room Name	MAC Address	IP Address	WAN Address
ipcam	Doorway	undefined	192.168.15.16	192.168.2.11192.168.2.11.8106

## 6-2. Initiate Smart Home



### A. ZigBee Channel

The ZigBee channel Z203 is using.



## B. Switch ZigBee Network Channel

- To change the ZigBee channel, please make sure the Wi-Fi signal is good.
- Please activate the End Devices before switching the ZigBee channel.

The screenshot shows the Netvox web interface. The top navigation bar includes 'netvox', 'Status', 'Management', 'Personalization', 'Network', and 'Smart Home'. The left sidebar lists 'Device Management', 'Initiate Smart Home', 'User Management', 'Upgrade Firmware', 'Data Management', and 'Communication Setting'. The main content area is titled 'Initiate Smart Home' and contains a tree view with 'Zigbee Channel' expanded to show 'Switch ZigBee network channel'. Below this, there are radio buttons for 'Manual operation' (selected) and 'Auto operation'. A 'Switch ZigBee network channel:' button with an 'OK' label is present. Notes provide instructions on when to switch channels. At the bottom, there are links for 'Initialize Smart Home' and 'Check the completeness'.

## C. Initialize Smart Home

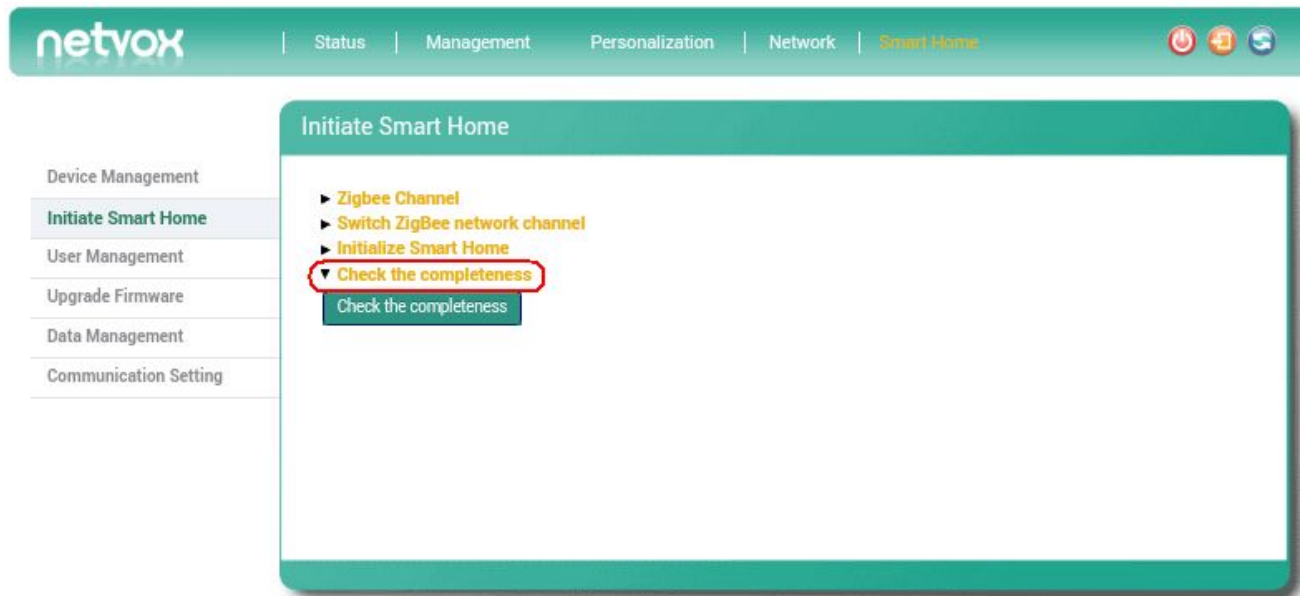
After building up or re-building a ZigBee network, please initialize the ZigBee network.

The screenshot shows the Netvox web interface. The top navigation bar includes 'netvox', 'Status', 'Management', 'Personalization', 'Network', and 'Smart Home'. The left sidebar lists 'Device Management', 'Initiate Smart Home', 'User Management', 'Upgrade Firmware', 'Data Management', and 'Communication Setting'. The main content area is titled 'Initiate Smart Home' and contains a tree view with 'Zigbee Channel' expanded to show 'Initialize Smart Home'. Below this, there is a 'Please select devices to be initi:' input field and an 'Initialize Smart Home' button. A note explains that this is for initializing the configuration of the network. A 'Continue To The Latest Unfinished Initialized Data' button is also present, with a note explaining its purpose. At the bottom, there is a list of devices not successfully added into a group and a link for 'Check the completeness'.



## D. Check the Completeness

Users are able to check the completeness of the network. It will list the problem of the network.

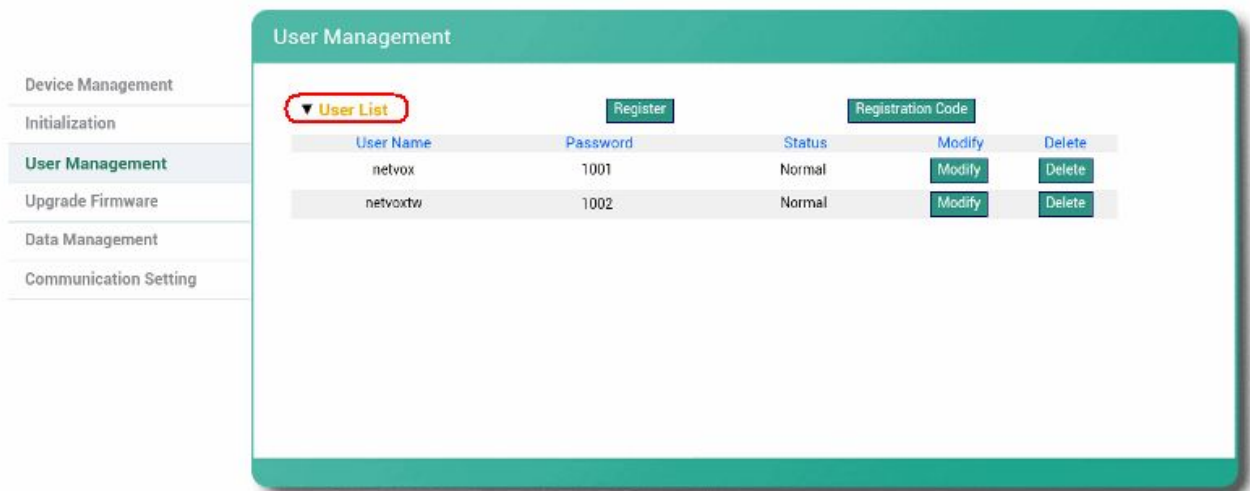


## 6-3. User Management



### A. User List

It shows the user profiles.



To edit the profile, please click **Modify**.



Users are able to change the password or lock/unlock the user.

The screenshot shows the 'User Management' interface. It has a teal header with the text 'User Management'. Below the header, there is a 'Back' button. The main content is divided into two sections: 'Modify Password' and 'Modify Status'. The 'Modify Password' section contains a form with fields for 'User Name' (value: netvox), 'Old Password' (value: 1001), 'New Password' (empty), and 'Verify Password' (empty). There are 'Submit' and 'Cancel' buttons. The 'Modify Status' section contains a table with one row: 'User Status' is 'Normal', and there is a 'Modify Status' button highlighted with a red box.

## B. Register

The screenshot shows the 'User Management' interface. It has a teal header with the text 'User Management'. Below the header, there is a 'User List' section. There is a 'Register' button highlighted with a red box. To the right of the 'Register' button is a 'Registration Code' field. Below these is a table with the following data:

User Name	Password	Status	Modify	Delete
netvox	1001	Normal	Modify	Delete
netvoxtw	1002	Normal	Modify	Delete

To create a new user profile, please key in the Username, Password, Confirm Password, and Registration Code. To acquire registration code, please refer to the next section.

- **Password only supports numbers so far.**

The screenshot shows the 'User Management' interface. It has a teal header with the text 'User Management'. Below the header, there is a 'Back' button. The main content is the 'Create Account' section. It contains a form with fields for 'User Name' (placeholder: 'Please input the User Nar', hint: '(4-16 letters or numbers limited)'), 'Password' (placeholder: empty, hint: '(6-16 letters or numbers limited)'), 'Confirm Password' (placeholder: empty, hint: '(it shall be the same as input password)'), and 'Registration Code' (placeholder: 'One registration code can', hint: empty). There is a 'Get registration code' button highlighted with a green box. At the bottom of the form are 'Submit' and 'Cancel' buttons.

### C. Registration Code



The screenshot shows the 'User Management' interface. At the top, there is a 'Register' button and a 'Registration Code' button, the latter of which is highlighted with a red box. Below these buttons is a table with the following data:

User Name	Password	Status	Modify	Delete
netvox	1001	Normal	Modify	Delete
netvoxtw	1002	Normal	Modify	Delete

To get registration code, please click **Get Registration Code**.



The screenshot shows the 'User Management' interface with a 'Back' button and a 'Registration Code List' section. The list contains the following data:

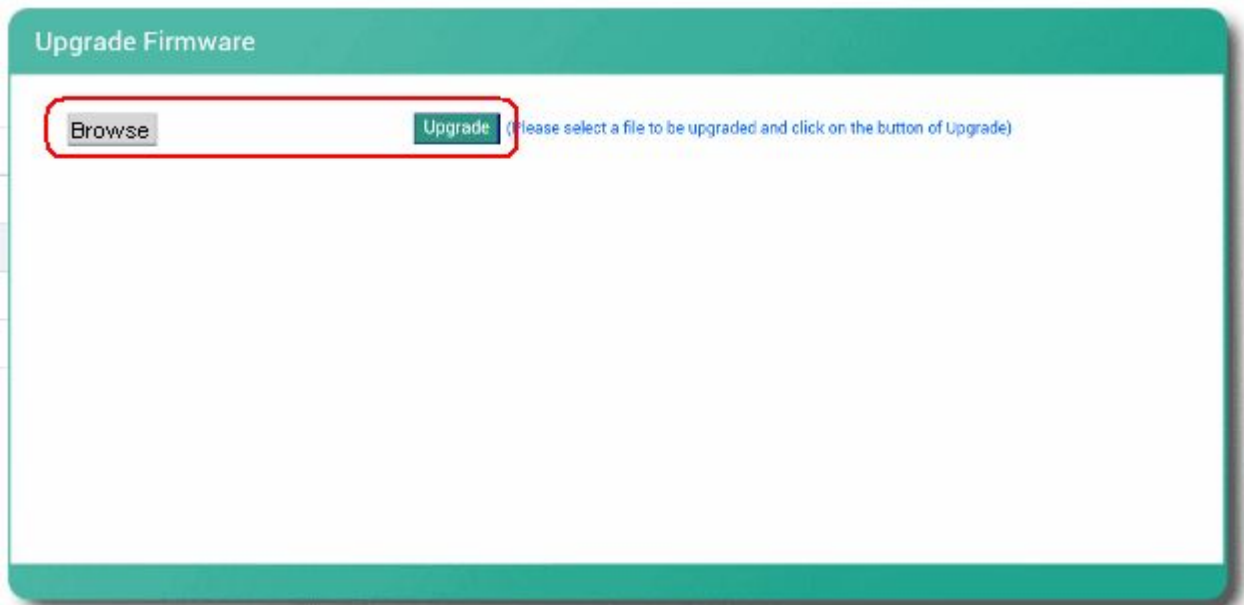
Serial Number	Registration Code	Status
1	1001	unused
2	1002	unused
3	1003	unused
4	1004	unused
5	1005	unused
6	1006	unused
7	1007	unused
8	1008	unused

At the bottom left, there is a 'Get registration code' button, which is highlighted with a red box. To its right, a notice reads: 'Notice: Click on the button of "Get registration code" to get one registration code.'

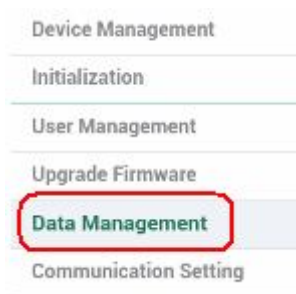
## 6-4. Upgrade Firmware



To upgrade the firmware of the ZigBee module, click **Browse**, select the firmware, and click **Upgrade** to update the ZigBee module.

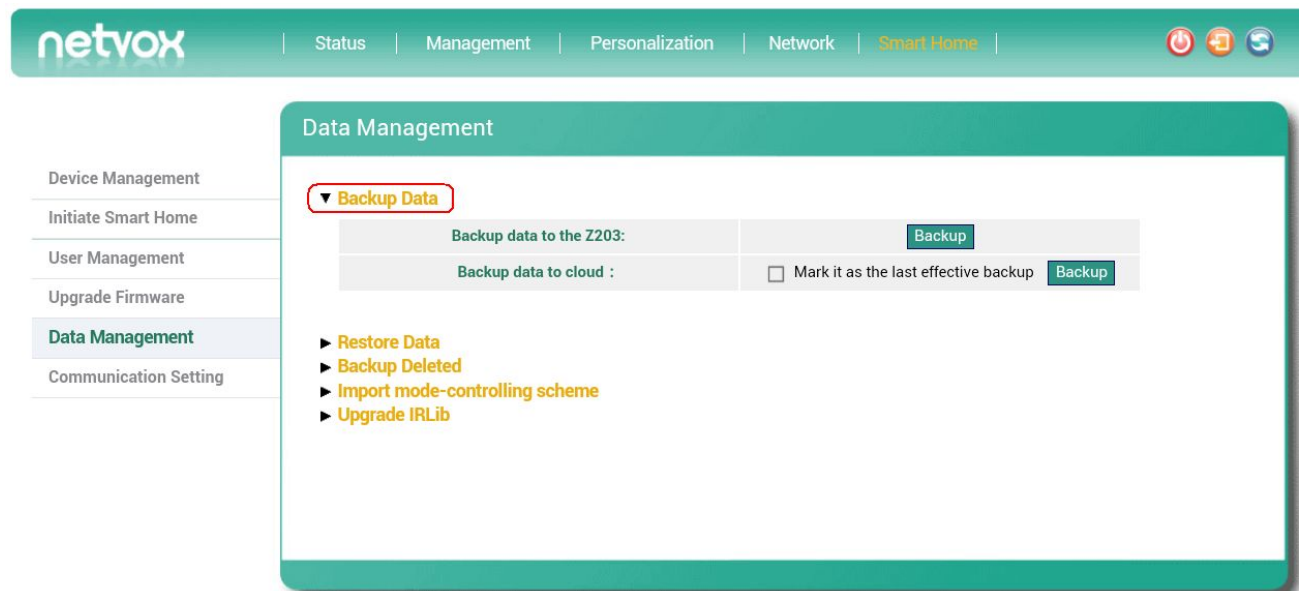


## 6-5. Data Management



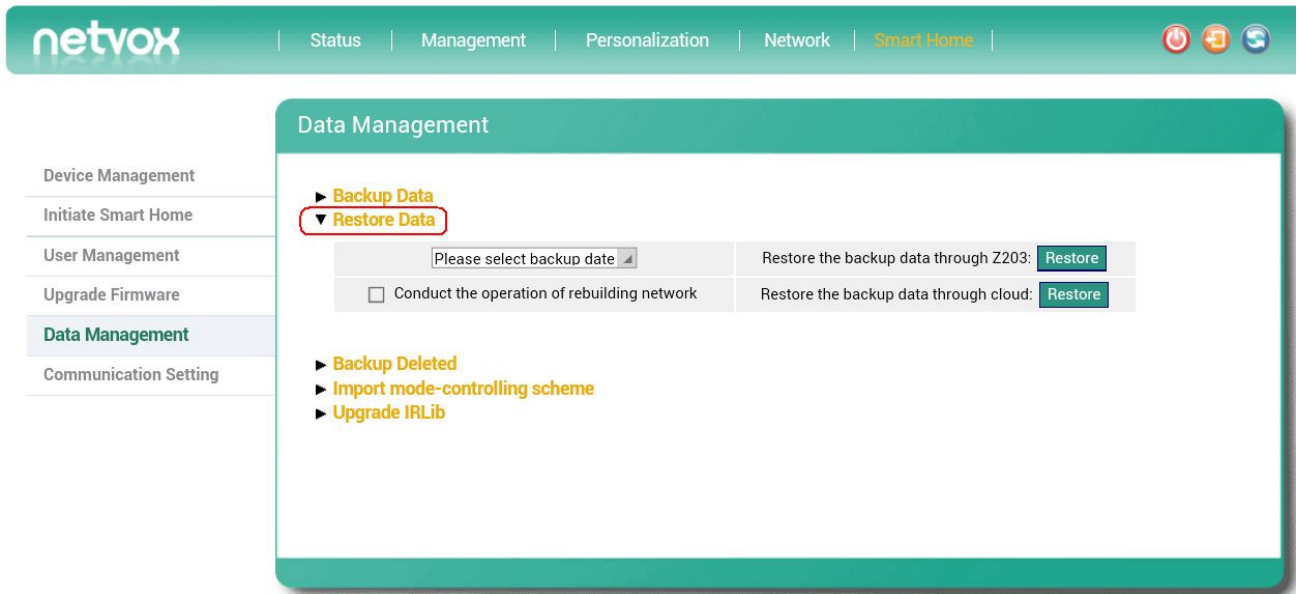
### A. Backup Data

Backup the settings of the ZigBee network such as user profiles or room photos. Users are able to choose the backup destination.



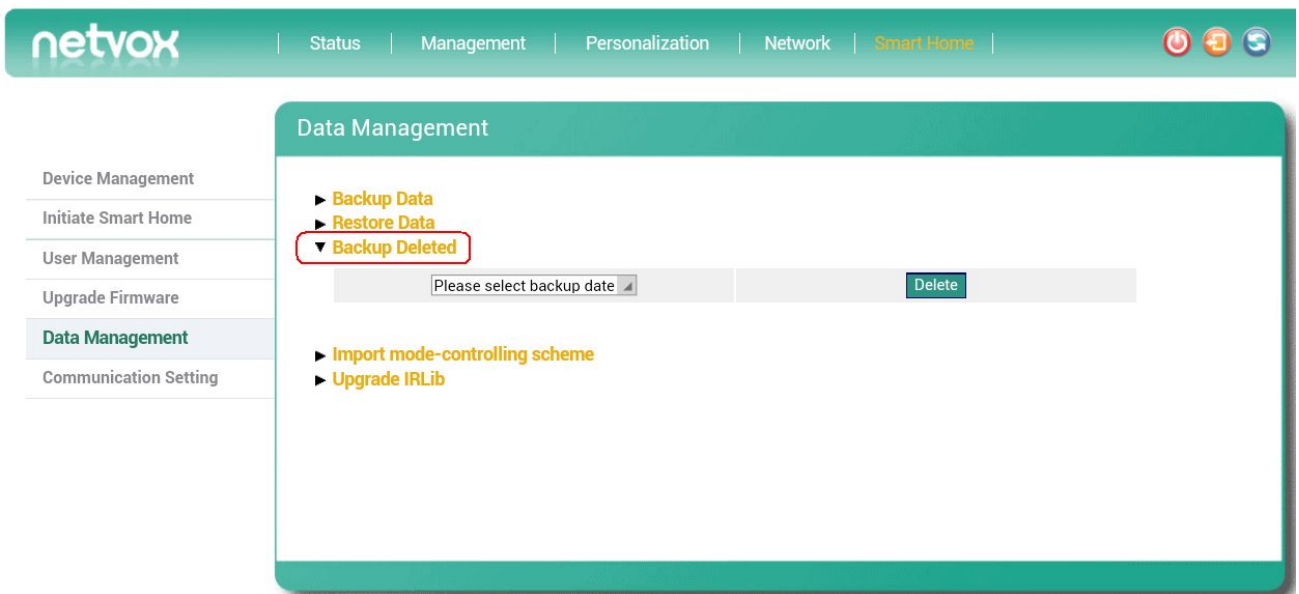
## B. Restore Data

Restore to the saved settings or the factory default setting.



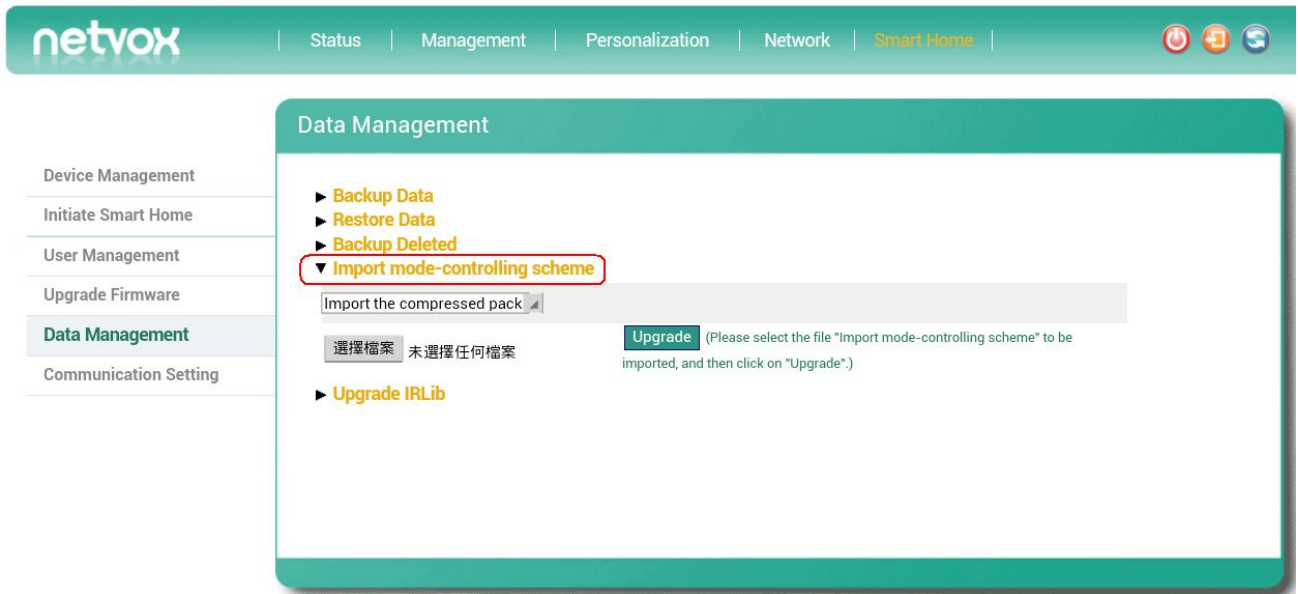
## C. Backup Deleted

Z203 can only save up to 4 profiles of the settings. Users are able to delete the saved profile here.



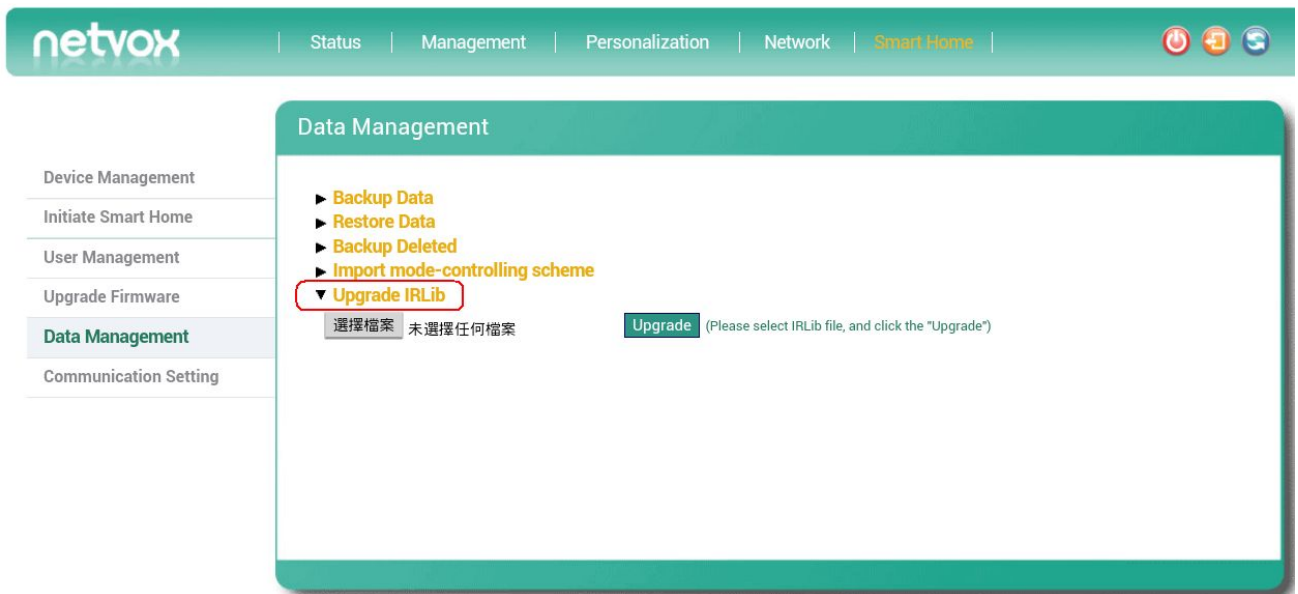
## D. Import Mode-controlling Scheme

Users are able to import the controlling mode/scheme which is created from mode editor.



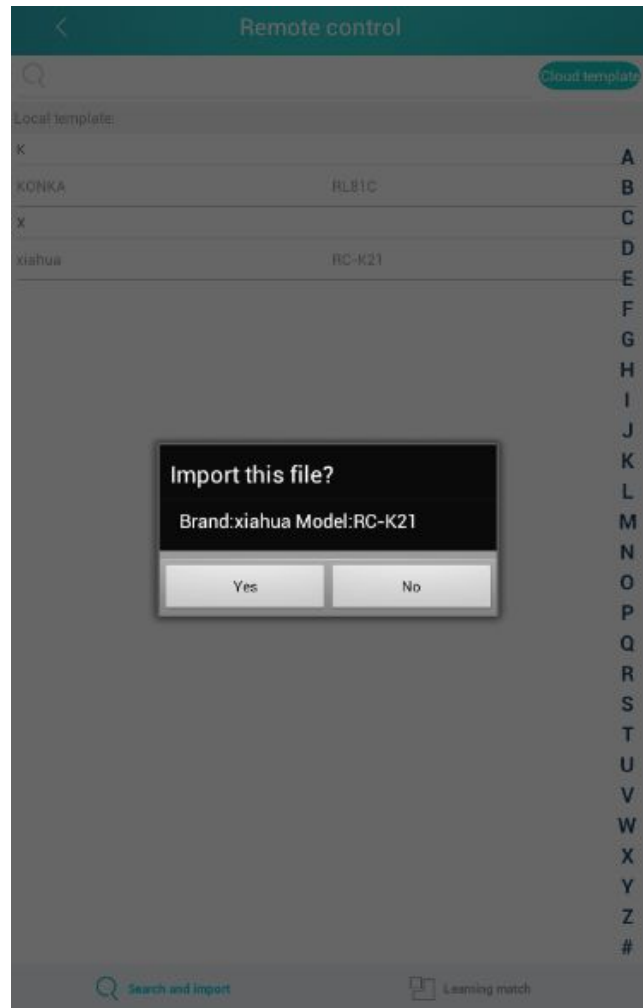
## E. Upgrade IRLib

Users are able to upgrade the IR controlling library.





After upgrading, import the IR data in Netvox app.

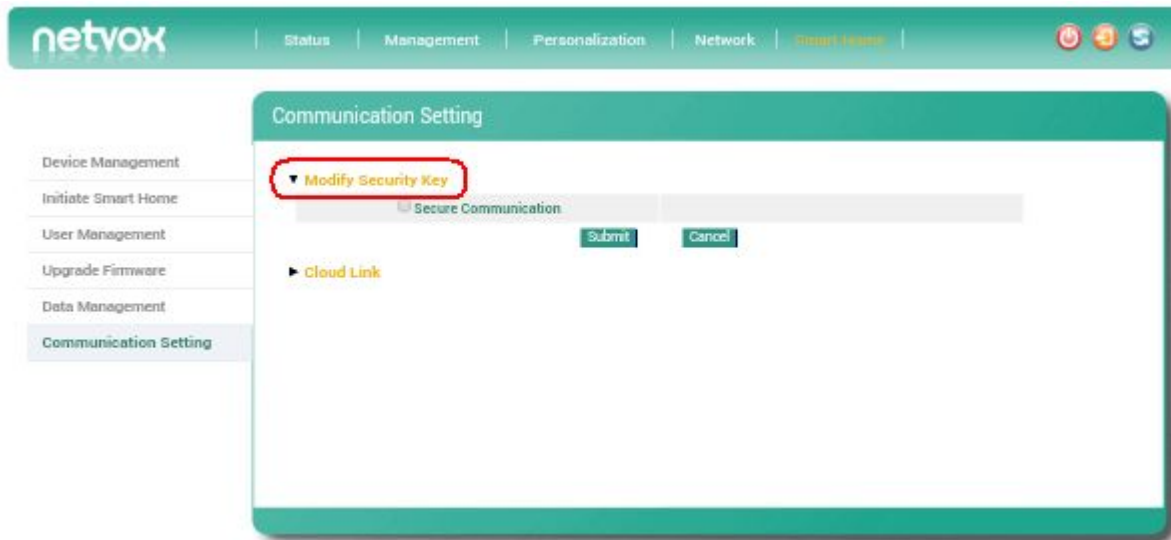


## 6-6. Communication Setting



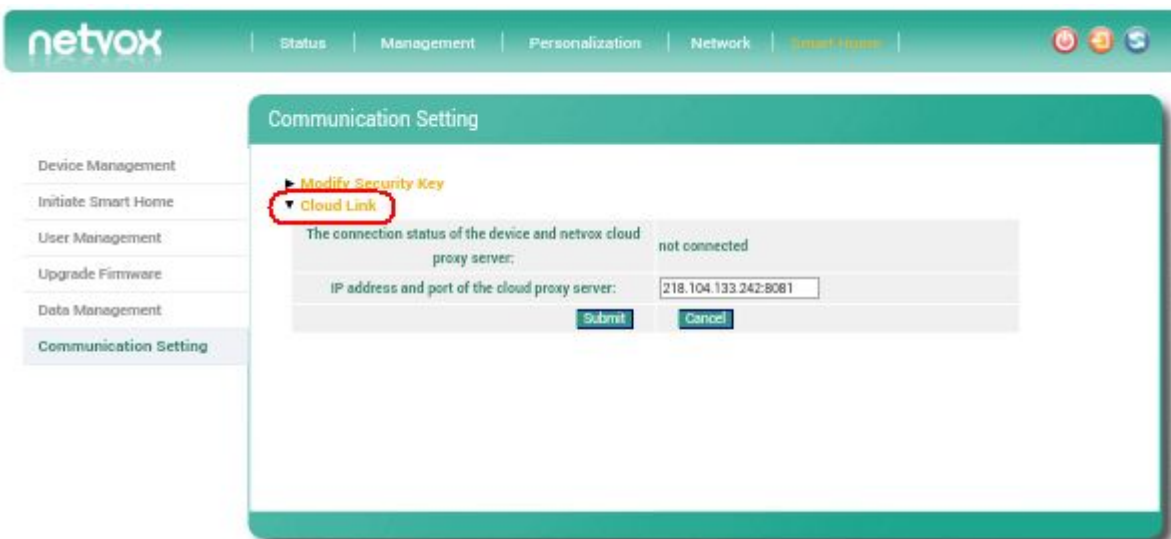
### A. Modify Security Key

Users are able to secure/insecure the ZigBee communication.



### B. Cloud Link

Users are able to set up the IP address of the Cloud server.



## 7. Related Netvox Devices

- Z103: USB Dongle



## 8. Important Maintenance Instructions

- This device is NOT truly waterproof/ resistant and is for indoor use.
- Please keep the device in a dry place. Precipitation, humidity, and all types of liquids or moisture can contain minerals that corrode electronic circuits. In cases of accidental liquid spills to a device, please leave the device dry properly before storing or using.
- Do not use or store the device in dusty or dirty areas.
- Do not use or store the device in extremely hot temperatures. High temperatures may damage the device or battery.
- Do not use or store the device in extremely cold temperatures. When the device warms to its normal temperature, moisture can form inside the device and damage the device or battery.
- Do not drop, knock, or shake the device. Rough handling would break it.
- Do not use strong chemicals or washing to clean the device.
- Do not paint the device. Paint would cause improper operation.

Handle your device, battery, and accessories with care. The suggestions above help you keep your device operational. For damaged device, please contact the authorized service center in your area.