

# Edge Gateway

## EG8200mini Quick Start Instructions





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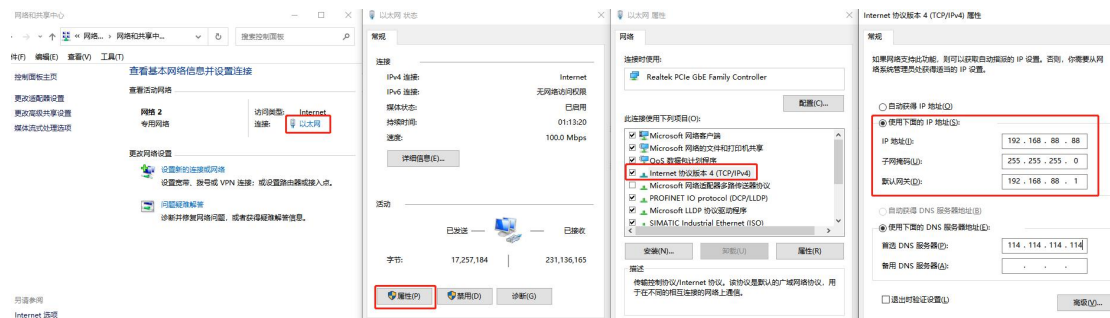
## EG8200mini Power Supply and Connection

### 1. powered by

Use DC12V to connect to the power supply terminal. After powering on, you will see POW The light is always on.

### 2. Ethernet connection/WiFi connection

- Use an Ethernet cable to connect the computer network port and the device The LAN port of the EG8200mini is connected to the LAN port. The default IP of the LAN port of the EG8200mini is 192.168.88.1. Configuration needs to set the LAN port IP of the computer and EG8200mini to the same IP address segment, otherwise the device and computer cannot communicate. As shown below:



- The computer connects to the hotspot of the device through the WiFi function. WiFi name: (EG8200mini-+last 4 digits of the SN number), password: EG12345678, and the WiFi default IP is 192.168.88.1 (the same as the LAN IP), as shown in the figure:

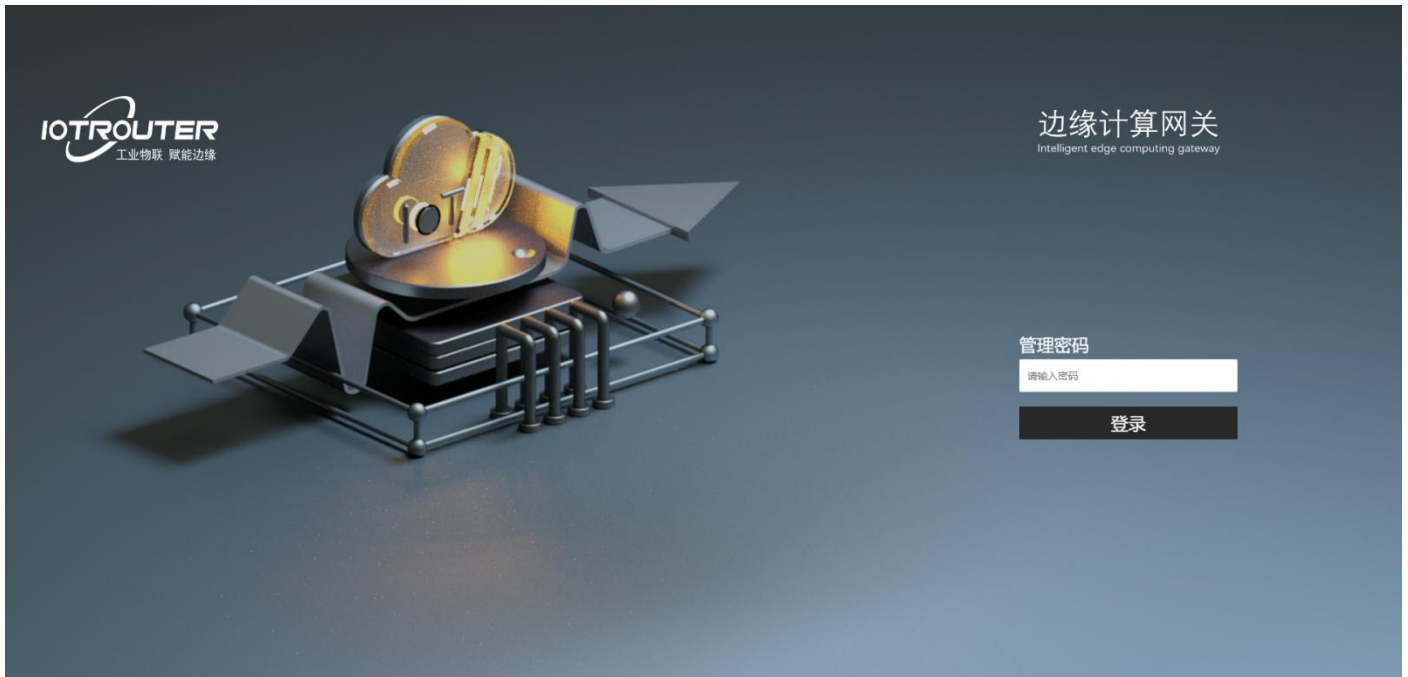


## EG8200mini USE

### 1. login interface

Open your browser and enter 192.168.88.1 in the address bar. Enter the login interface, the management

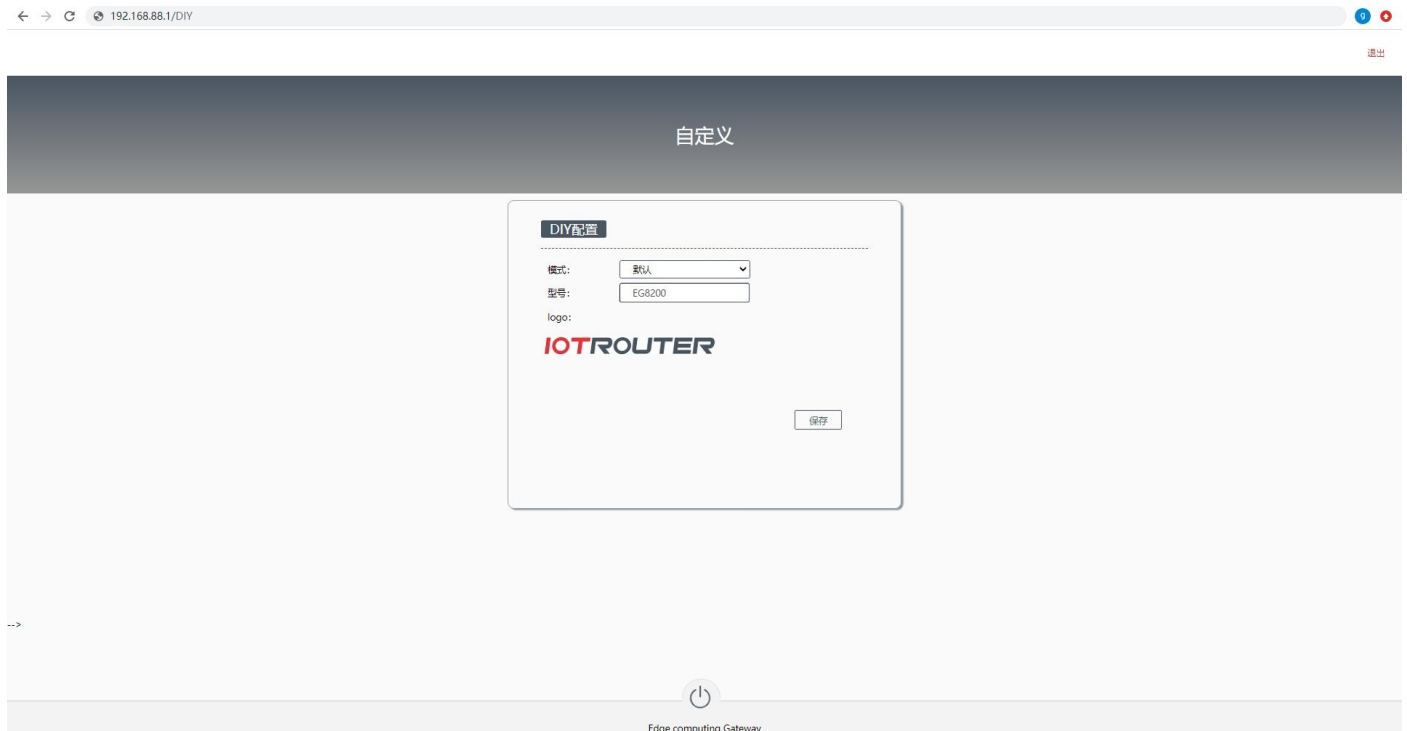
password defaults to EG12345678 (can be modified after logging in).



- Management password: Enter the management password **EG12345678** Enter the device management interface.

## 2. DIY configuration

After successfully logging in to the configuration interface, you can enter the device access IP: 192.168.88.1/DIY to enter the device DIY configuration interface.



- Default: mode factory default device model (EG8200mini)/LOGO (IOTROUTER).
- Neutral: model (IOT8200), without LOGO.
- Customization: The model can be customized, the LOGO can be customized and uploaded, and the modification will take effect after saving.

### 3. system message

**系统信息**

型号: EG8200  
 版本: 2001.23072601  
 设备SN: 82000002C7B158F  
 系统时间: 2023/8/29 下午 2:52:23 [校准] [时区]  
 联网模式: AUTO [设置]  
 远程管理:

**设备负荷**

3% CPU负荷  
 31% 内存负荷

Edge computing Gateway

**联网配置**

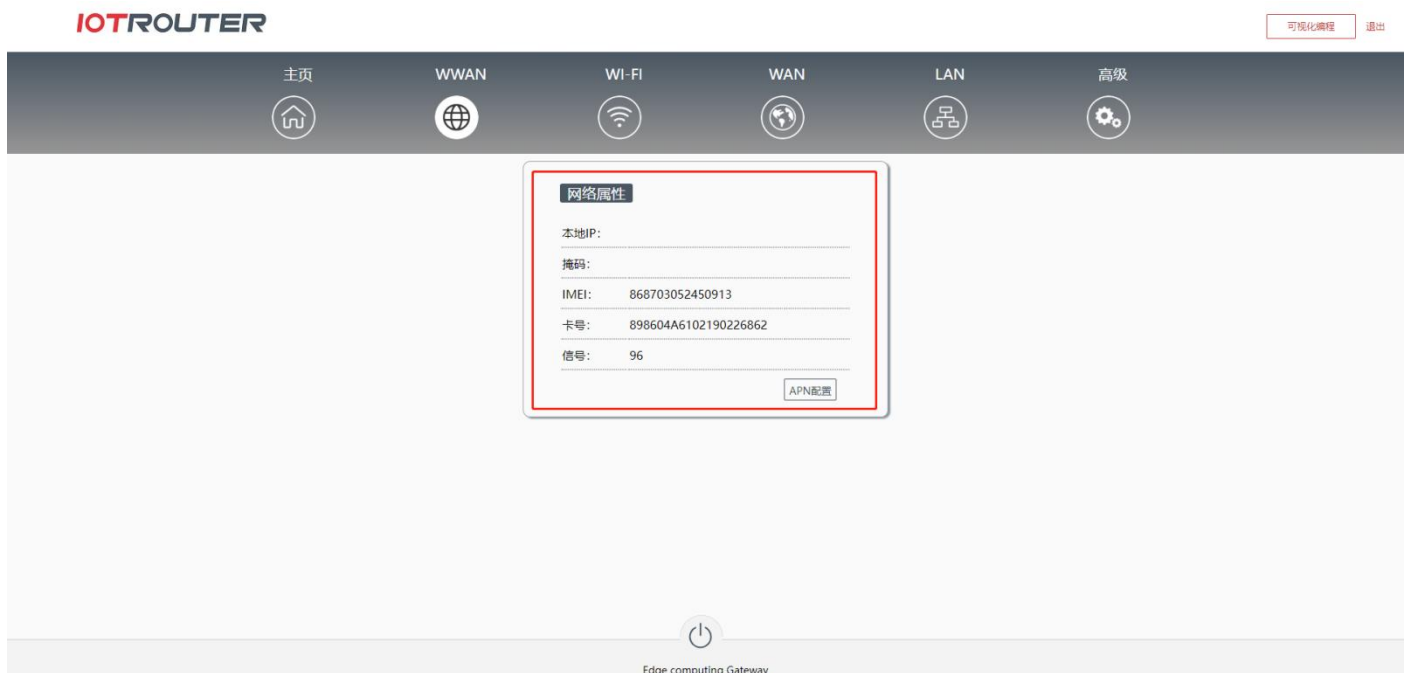
联网模式:  AUTO  WAN  WWAN  WIFI  
 嗅探地址1: www.baidu.com  
 嗅探地址2: www.alibaba.com  
 嗅探间隔(s): 20  
 嗅探次数: 3  
 [保存] [返回]

Edge computing Gateway

- Model: EG8200mini (Note: Any configuration modification on the homepage will take effect after restarting).
- Version: 2001.23072601 (the version has updated iterations).
- Device SN: The unique number of the device, which is required for remote management.
- System time: RTC clock, click calibration, time zone customization (default is East Eighth District).

- Network mode: The default is AUTO (automatically switches the networking mode according to the network environment), and the network access priority is WAN/WiFi/WWAN (4G), other options are fixed in a certain way for networking.
- Sniffing function: By pinging the default sniffing address (the address and period can be modified according to your own situation), you can determine the current networking status and automatically switch the networking mode (AUTO). If the networking mode is fixed, the sniffing function is replay and reconnect. .
- Remote management: used to remotely access and configure the device. If there are special requirements, you can close it yourself (**Note: After turning off remote management, remote configuration will not be possible and you will be responsible for all consequences.**).

#### 4. WWAN (4G) properties



- Local IP: IP automatically obtained by the cellular network.
- Mask: Automatically generated.
- IMEI: Cellular module IMEINumber.
- Card number: SIM card number.
- Signal: Current signal strength (range 0-100, the larger the value, the stronger the signal).
- APN: Supports APN settings. Click APN Configuration to enter the APN settings interface.

#### 5. WiFi configuration



- model:AP mode is used to create a Wi-Fi hotspot, allowing other devices to connect to the hotspot; STATION mode (Disabled by default and manually enabled, only supports 2.4GHz frequency band) is used to connect the device to an existing Wi-Fi network.
- AP-WiFi name:A combination of numbers, letters, and symbols, up to 32 characters (default EG8200mini- plus the last four digits of the device number).
- AP-WiFi password:A combination of numbers, letters, and symbols,At least8 characters.
- STATION-Connection name: Manually fill in the name of the connected hotspot.
- STATION-Connection password: Manually fill in the password of the connected hotspot.
- STATION-IP mode: DHCP (obtain IP automatically)/static (set IP manually).

Note: The AP hotspot needs to enable the DHCP service of the LAN so that EG8200mini can assign IPs to other devices connected to the hotspot.



## 6. WAN configuration



- IP mode: Default DHCP.
- Static mode: You need to set the IP address you want to fix. Click Save and Restart to take effect.
- MAC: WAN port MAC address.

## 7. LAN configuration



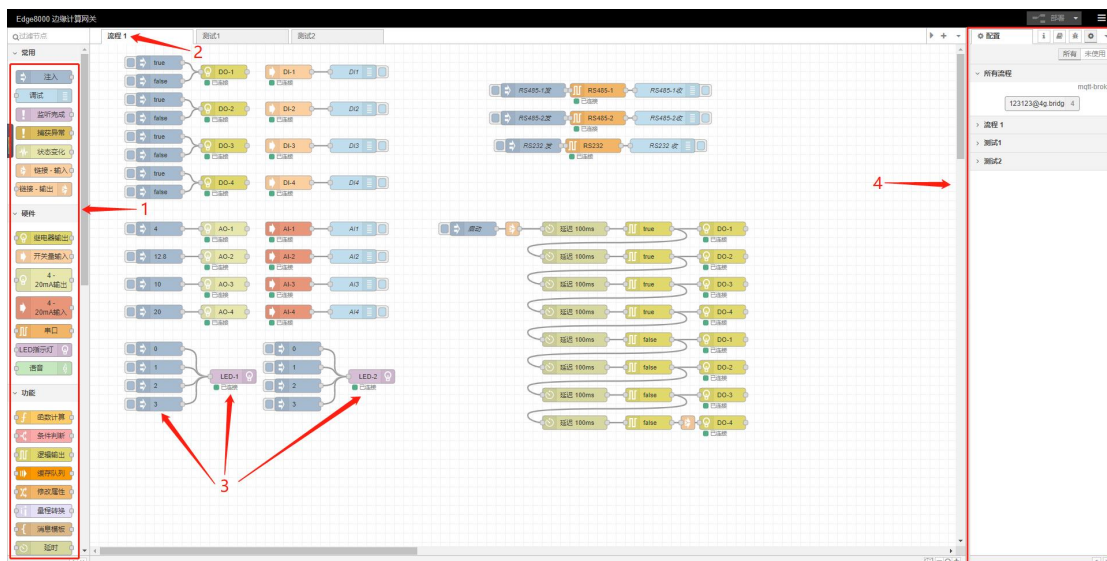
- IP: Default 192.168.88.1 (can be changed after logging in to the configuration interface).
- Mask: Automatically generated.
- Gateway: Not set by default.
- MAC: LAN port MAC address.
- DHCP service: You can set up a DHCP pool for external network supply (shared by WiFi and LAN). Save the settings and restart to take effect.

## 8. advanced



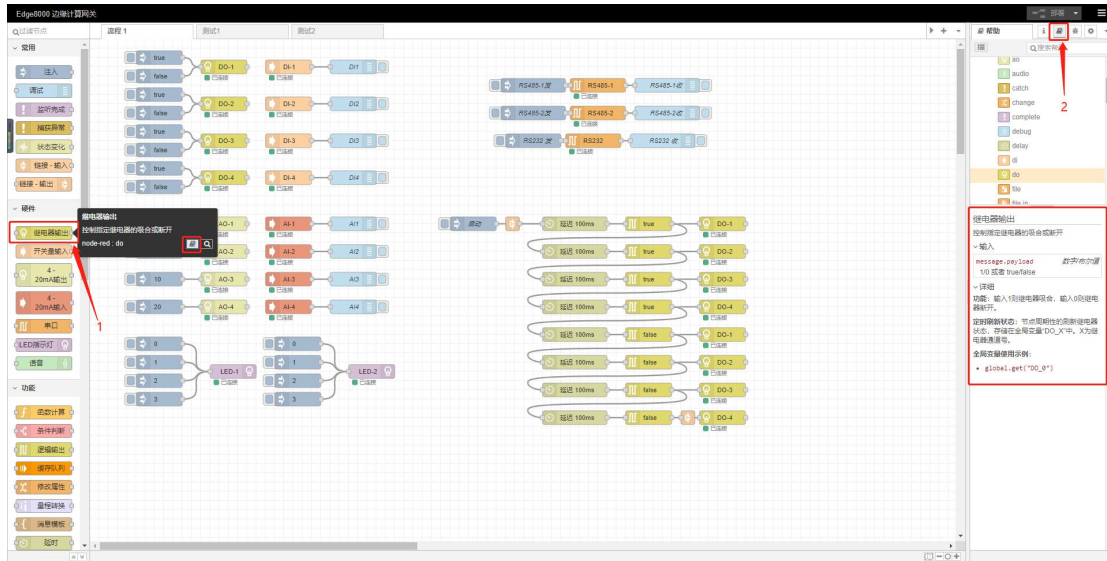
- Administrator password: Change the login password.
- Factory Restore: Restore to the device factory configuration, you can also use RESET reset button to reset.
- DNS: Domain name resolution, you can modify the DNS server yourself.
- NTP: Synchronize the NTP server time when connected to the Internet. Priority is given to the NTP server connection with the \* number. The private network can modify the \* address by itself.
- Visual programming: Click Visual Programming to enter the programming interface of the device.

## 9. visual programming



- 1: Function node
- 2: Process tab
- 3: Node
- 4: Sidebar

## 10. Node usage instructions

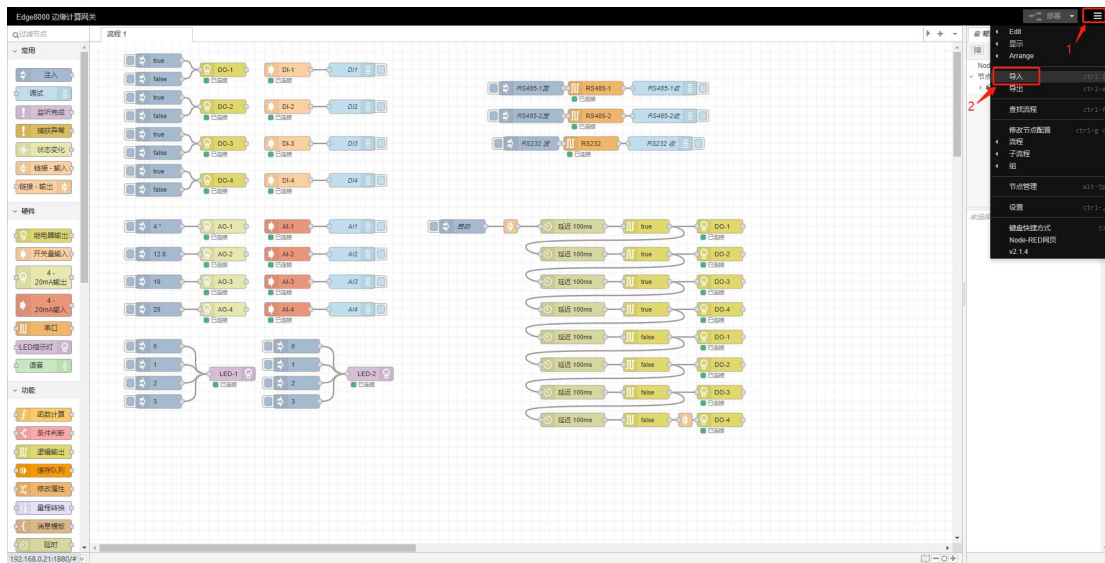


- 1: Click on the node
- 2: Click Help to view the instructions corresponding to the node.

# Visual programming - process import and export

## 1. Process import

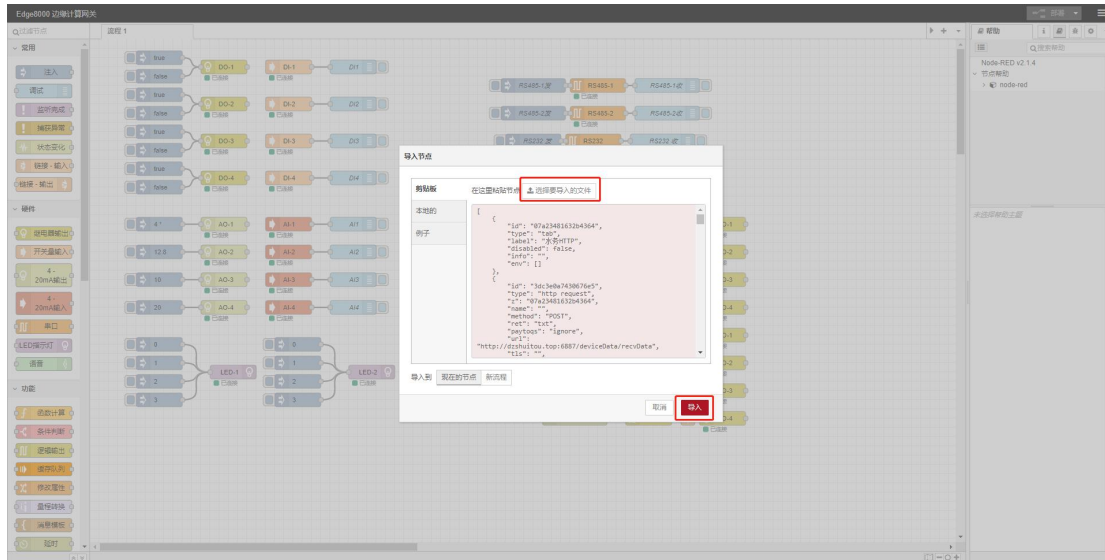
### 1.1 Enter the import function interface



As shown above:

- 1) Click on the icon in the upper right corner
- 2) Click the Import button

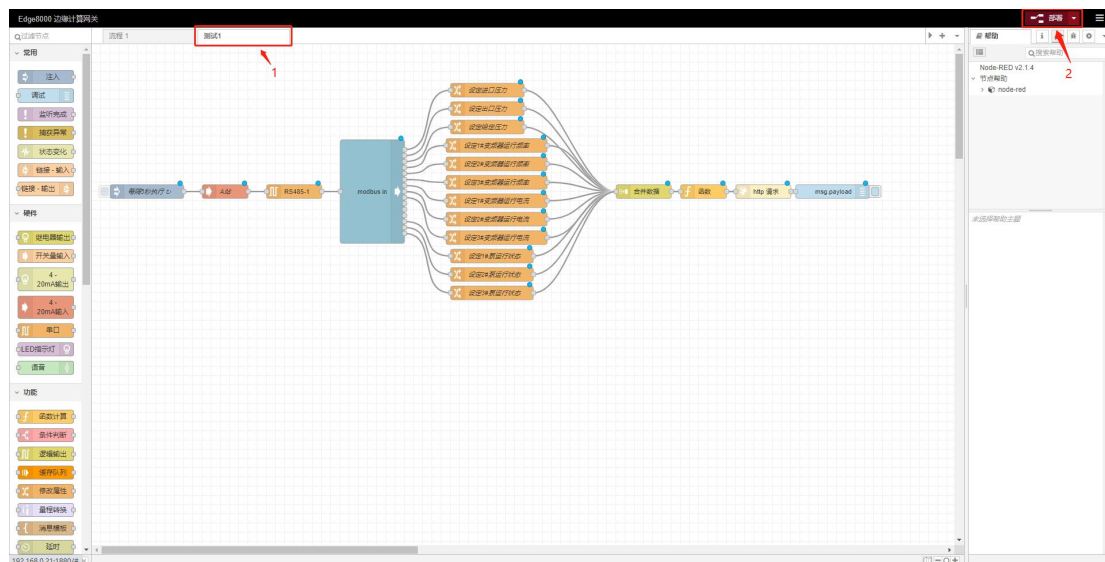
## 1.2 Select process and import



As shown above:

- 1) Select file to import
- 2) Click to import

## 1.3 Deployment process



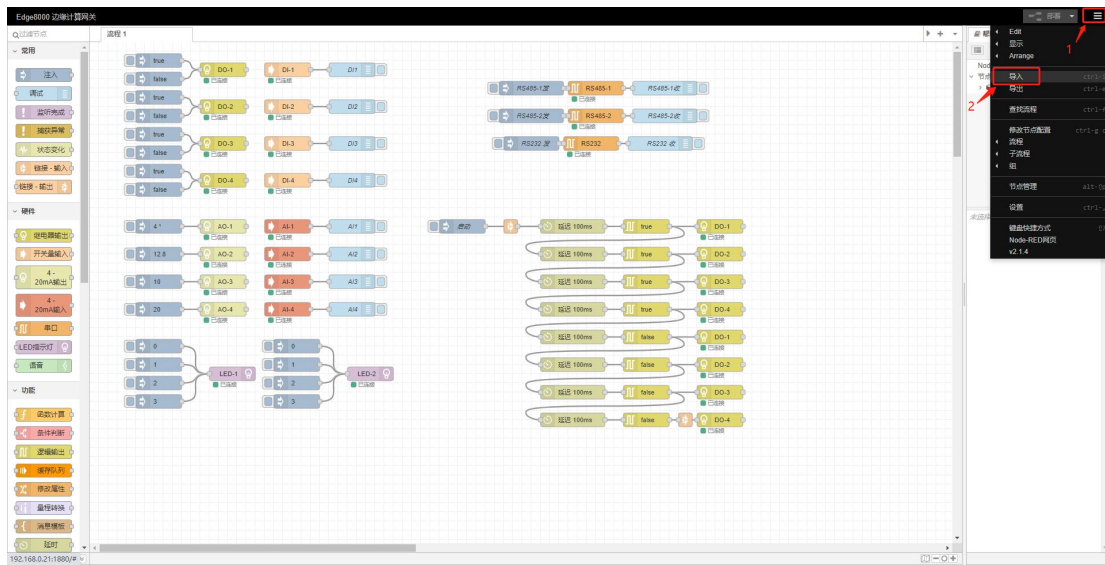
As shown above:

- 1) "Test 1" is the imported process file
- 2) Click Deploy and the import is successful.

## 2. Case import

The device has a variety of commonly used process cases built-in. Users can select the required cases according to classification for reference or call, helping you to build powerful applications more efficiently!

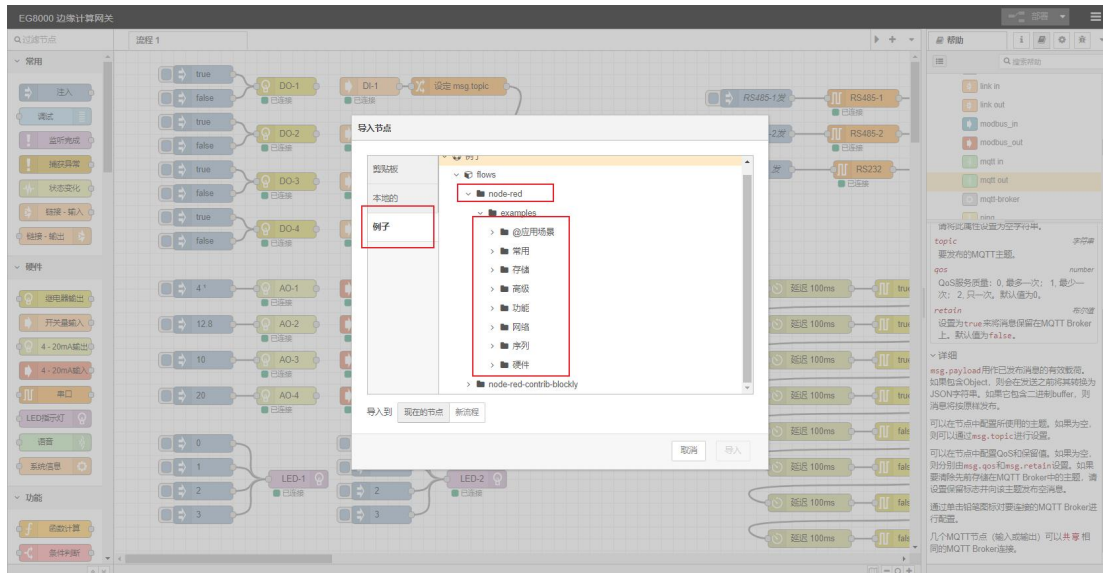
### 2.1. Enter the import function interface



As shown above:

- 1) Click on the icon in the upper right corner
- 2) Click the Import button

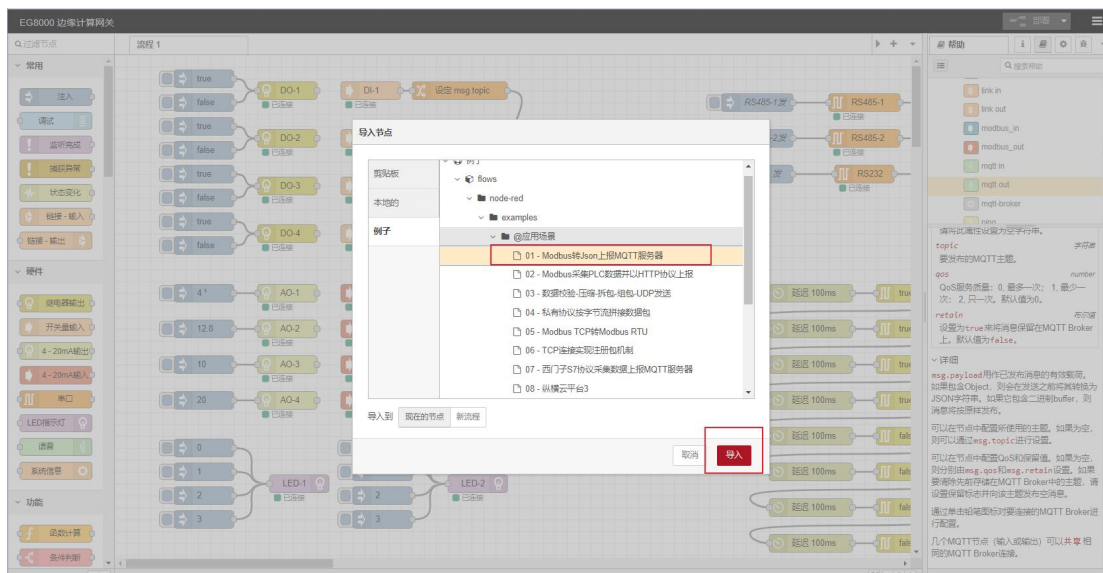
## 2.2. Select case



As shown above:

- 1) Click for example
- 2) Select examples under node-red
- 3) Select the desired example based on the folder name

## 2.3. Import case

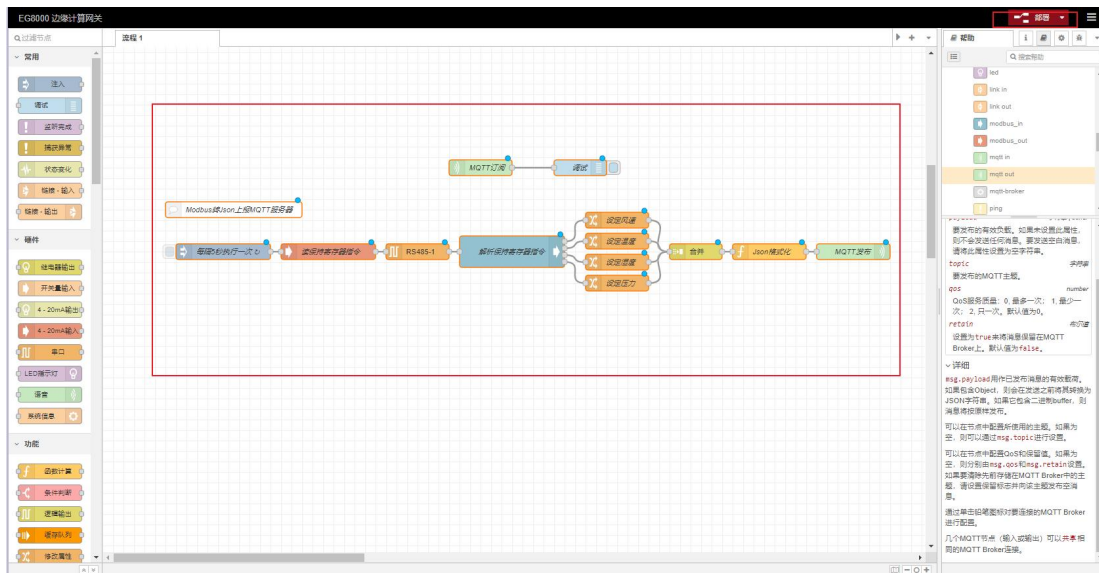


As shown above:

- 1) Click on the corresponding example
- 2) Click to import



## 2.4. Deployment case

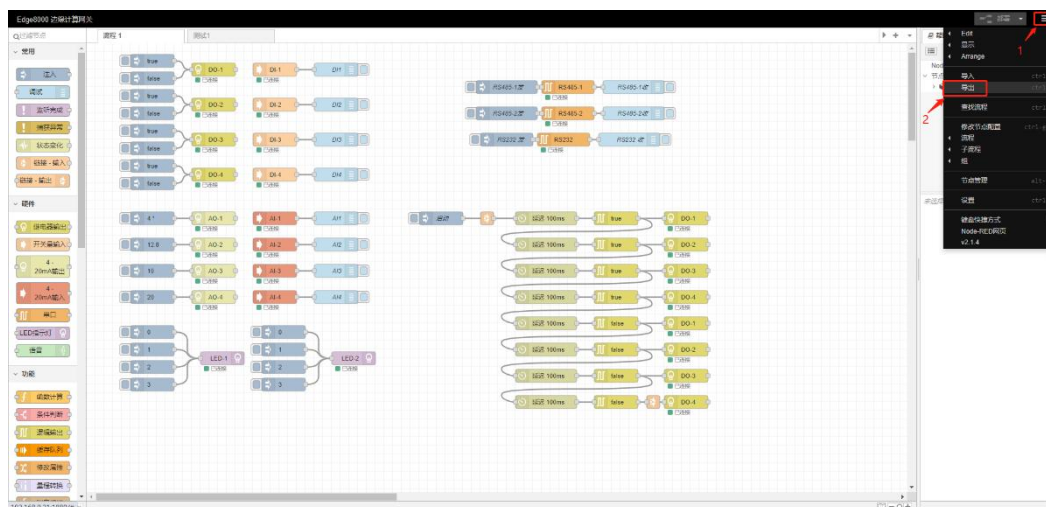


As shown above:

- 1) After importing, the case will appear on the canvas
- 2) Click Deploy and the application will take effect

## 3. Process export

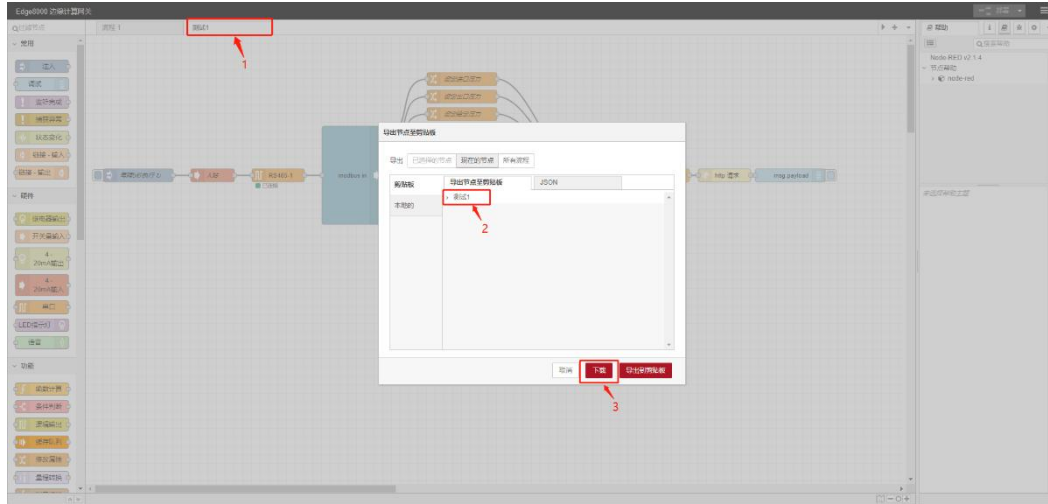
### 3.1. Enter the export function interface



Here we take exporting "Test 1" as an example, as shown above:

- 1) Click on the icon in the upper right corner
- 2) Click the export button

### 3.2. Select process and export



As shown above:

- 1) Select the process to export
- 2) Confirm that the export node is the required process
- 3) Click to download to generate the corresponding file

## Remote management (IOTClient use illustrate)

### 1. Software download and installation

Go to <https://www.iotrouter.com/product/> Website, click "Download" to enter the download page, where you can download the remote management software of EG8200mini.

### 2. Account login

Open the remote software and log in via SMS shortcut or account and password. New users can quickly log in using SMS, and the system will automatically create an account with an empty password (can be reset).



### 3. Add device

After logging in to your account, click on the lower left corner to add a device, where the SN can be viewed in the login of the device. The password is the login password of the web page, and the name is a custom name. After entering it, click Finish. (Each EG8200mini has a unique SN and password. After EG8200mini is bound to the device, others cannot bind it again unless the owner deletes the device under the corresponding account before binding other accounts again)

IOTROUTER 1.5.1.0

搜索分组  
Search for the group...

当前分组：默认分组

SN

查找 刷新

状态	SN	名称	型号	版本号	操作
----	----	----	----	-----	----

默认分组 0/0

添加设备

SN

设备密码

名称

请选择...

取消

刷新分组 新建分组 **添加** 删除 移动 分享 撤销分享 共 0 条 10条/页 首页 上一页 1/0 下一页 前往 跳转






IOTROUTER 1.5.1.0

搜索分组  
Search for the group...

当前分组：默认分组

SN

查找 刷新

状态	SN	名称	型号	版本号	操作
<input type="checkbox"/>		A区	EG8000mini	2X10.23021401	    

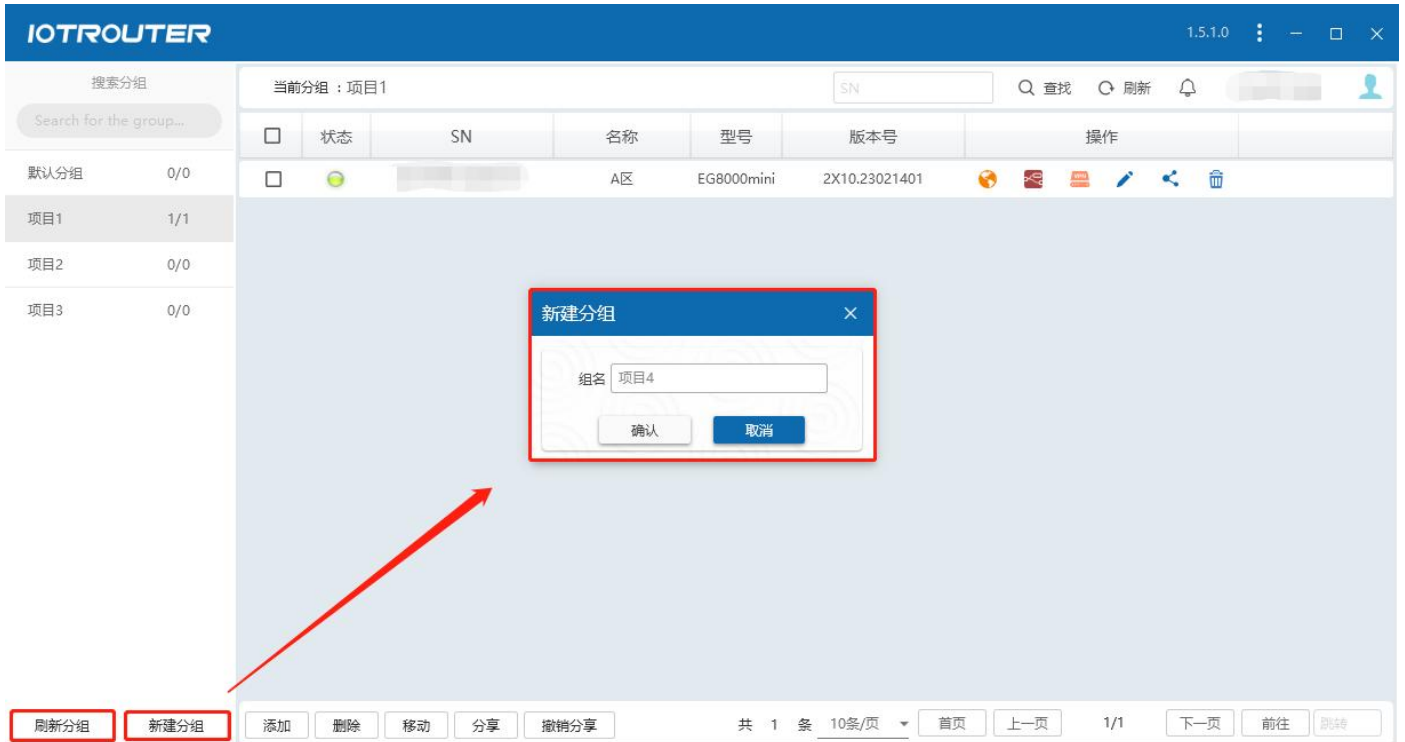
默认分组 1/1

刷新分组 新建分组 **添加** 删除 移动 分享 撤销分享 共 1 条 10条/页 首页 上一页 1/1 下一页 前往 跳转

在离线状态

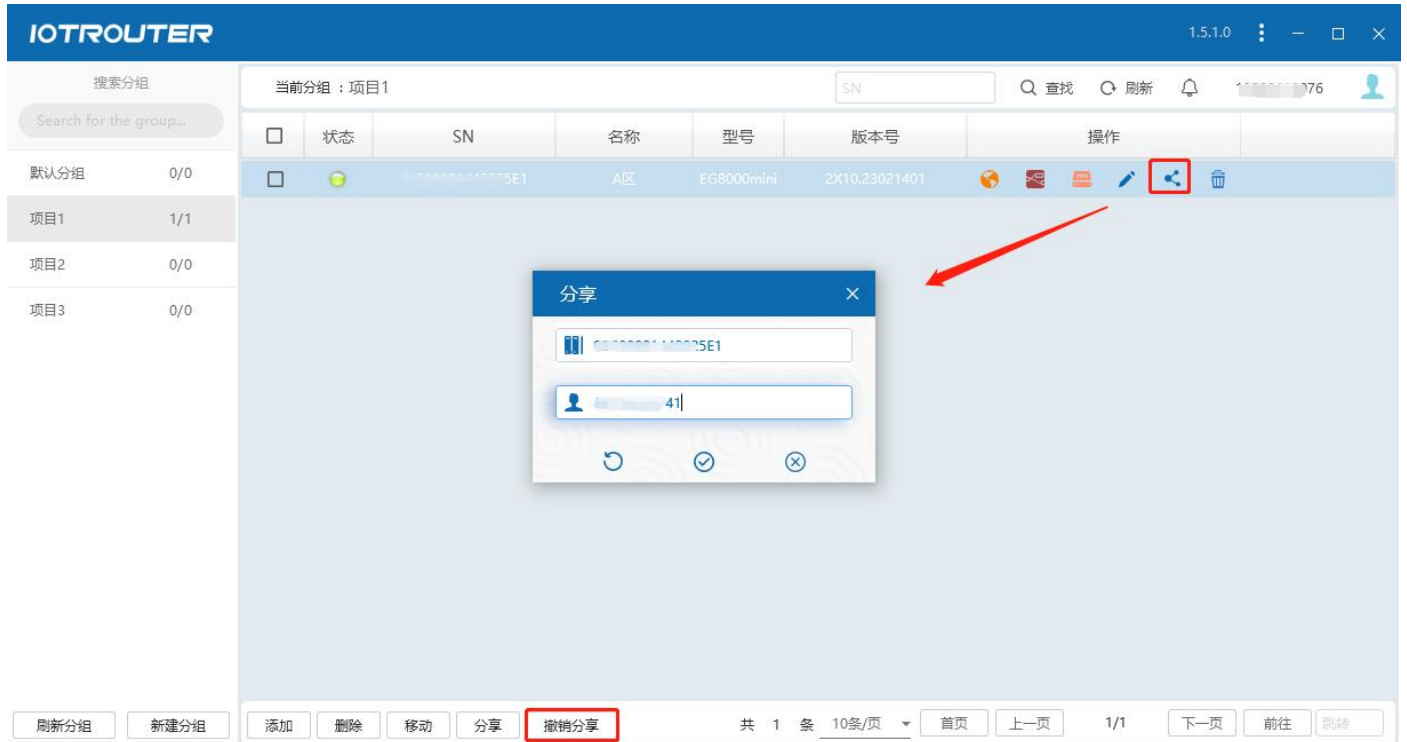
远程配置 远程编程 内网穿透 分享设备

## 4. Group management



- You can create multiple groups to manage devices in groups. After creating a group, if the corresponding group is not refreshed on the left, you can click to refresh the group.

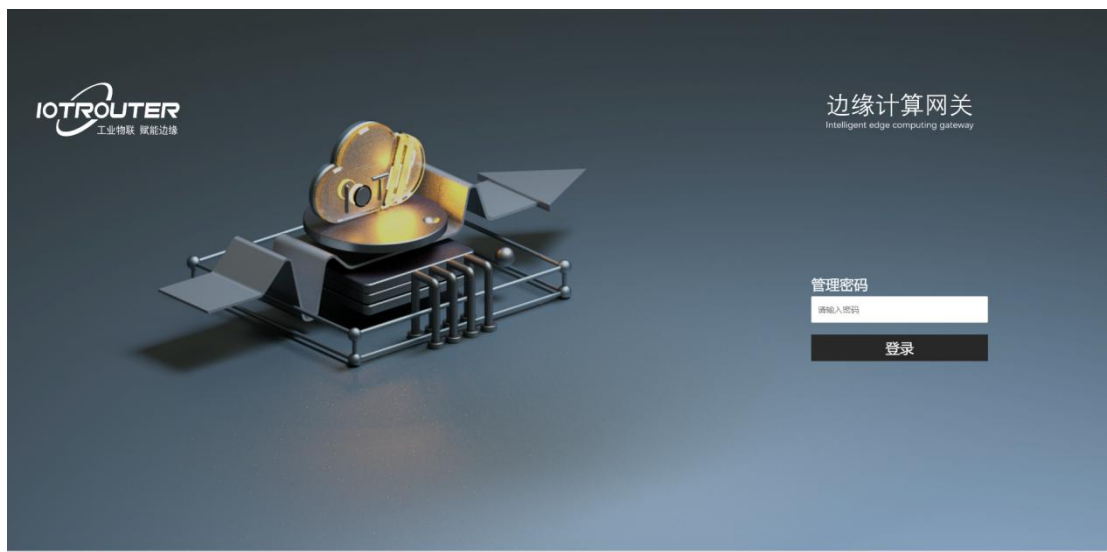
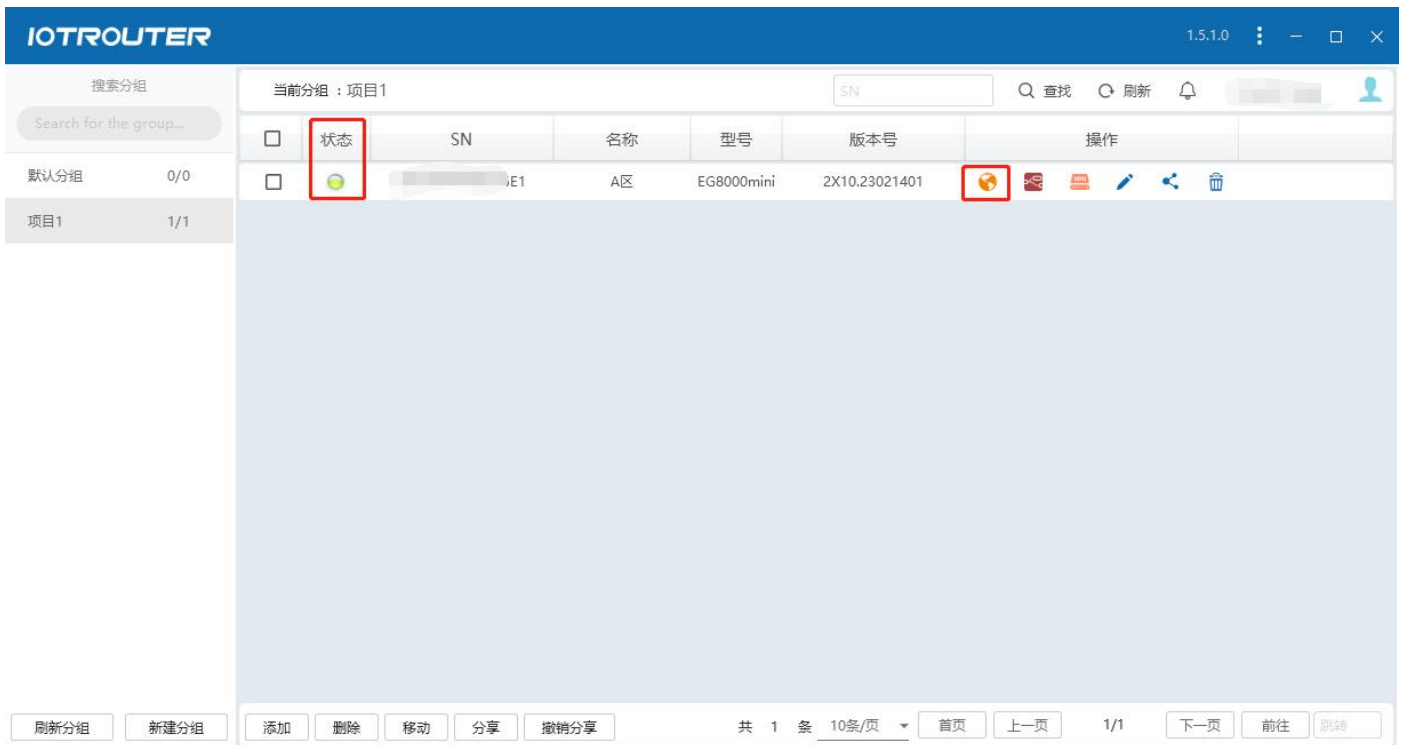
## 5. Device sharing



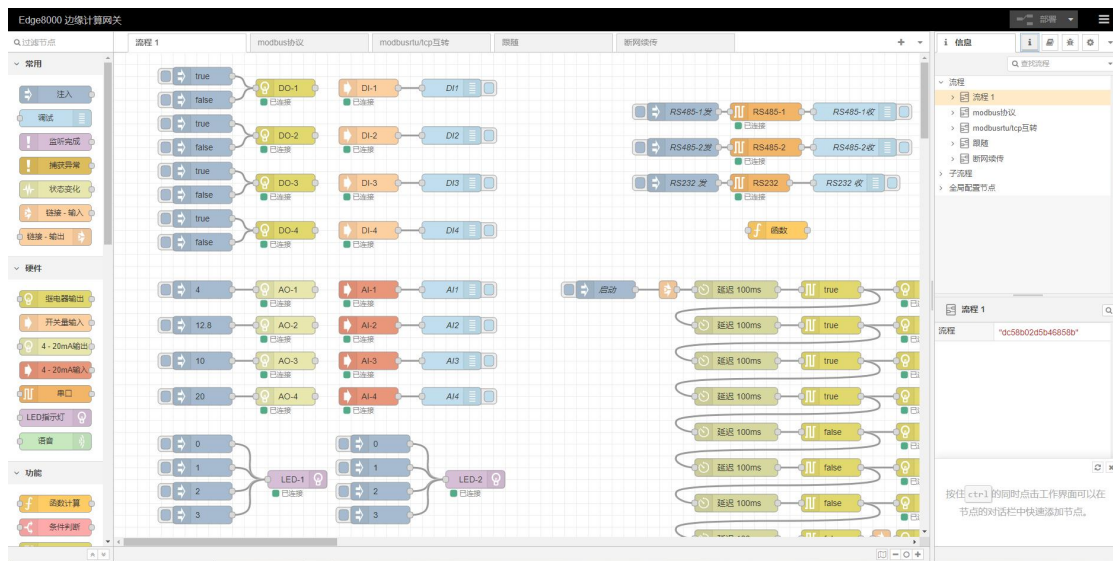
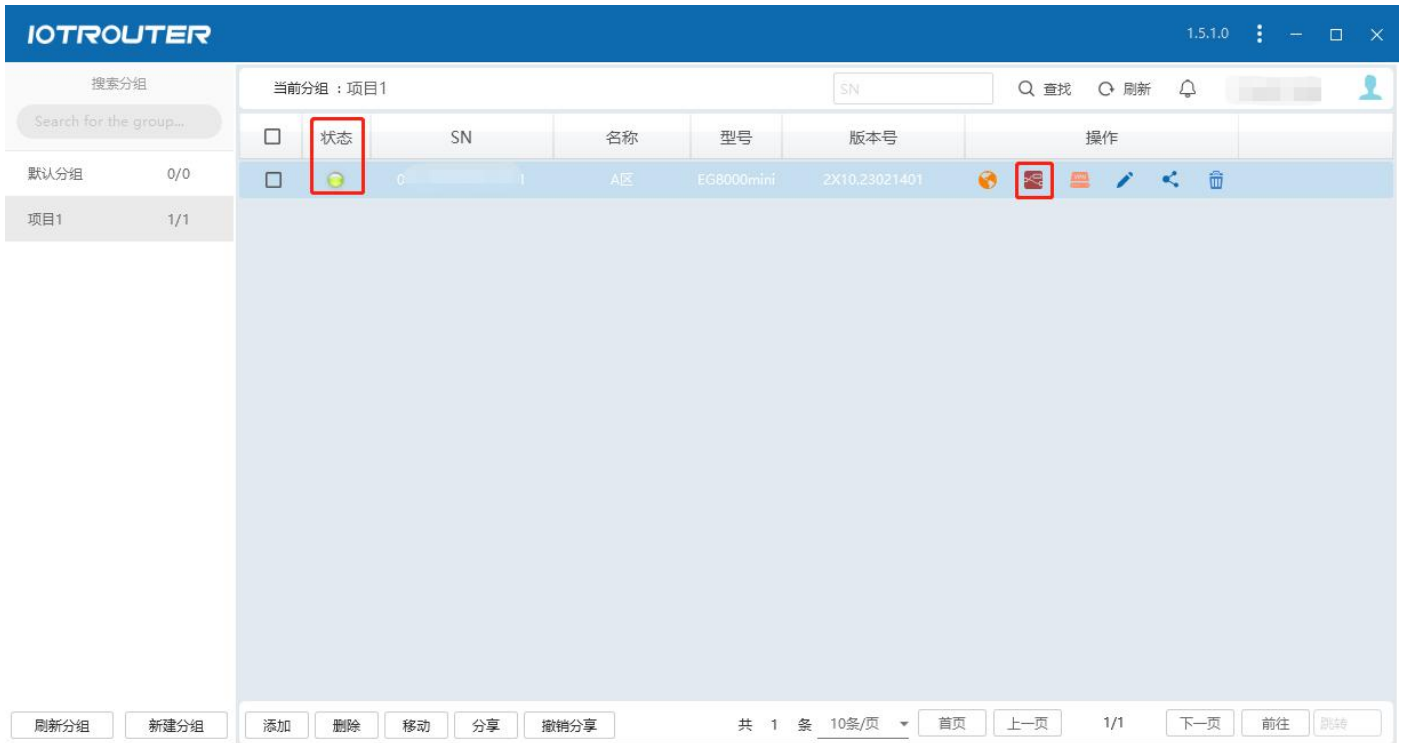
- Sharing devices: You can share devices added under the main account to sub-accounts (**One device can only be shared with one sub-account.**), the sub-account can remotely configure and program the device.

## 6. Remote configuration and programming

- Remote configuration: First make sure the device is online and the status is green. Clicking remote configuration will automatically open the browser and jump to the web configuration interface.



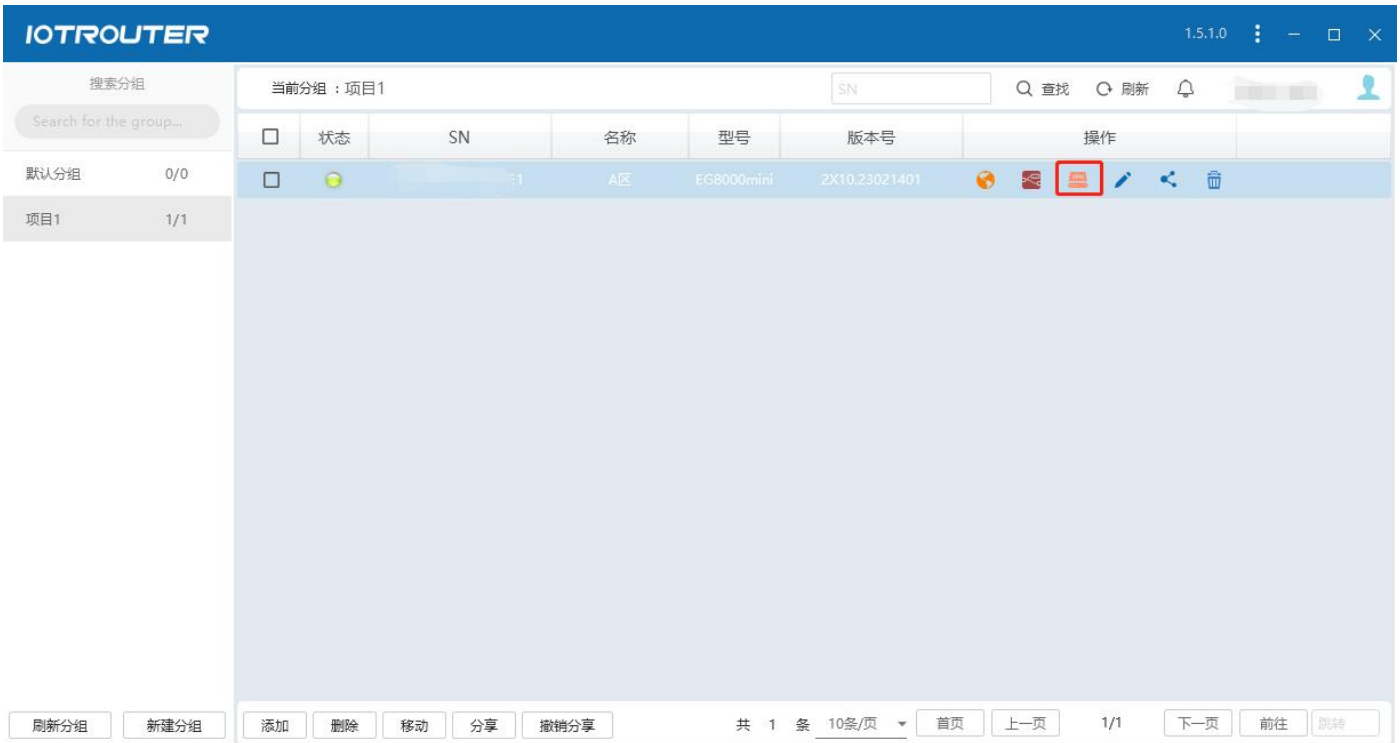
- Remote programming: Click the remote programming button to automatically jump to the programming interface. (You cannot click Visual Programming from the configuration interface to jump to the programming interface remotely. You need to click Remote Programming in the software to jump directly)



## 7. Intranet penetration

Click Remote LAN to enable intranet penetration. The software will automatically install a virtual network card on this computer and assign it to EG8200mini.IPto this computer,IPThe network segment is the same network segment as the LAN port of EG8200mini (the LAN port IP can be changed).





```
Microsoft Windows [版本 10.0.19044.1586]
(c) Microsoft Corporation. 保留所有权利。

C:\Users\14771>ipconfig

Windows IP 配置

未知适配器 本地连接:

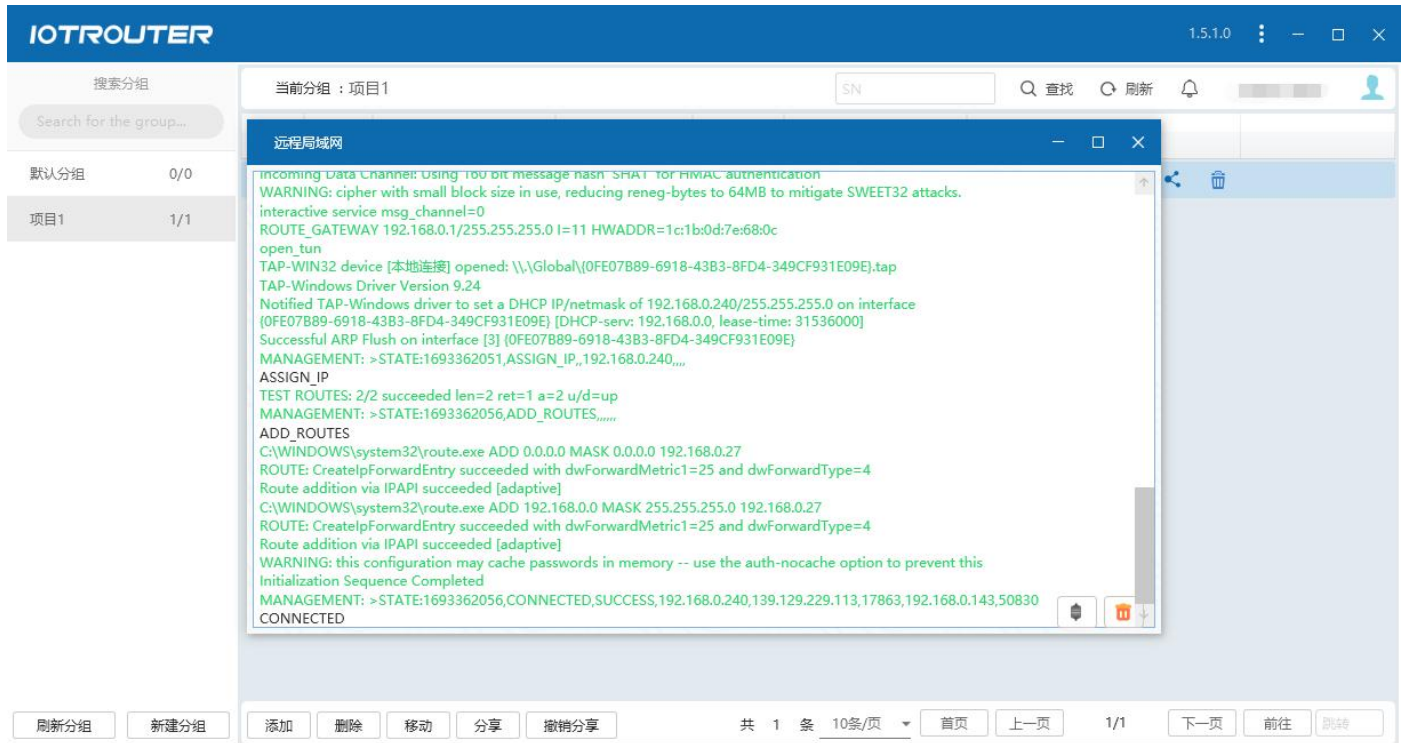
    连接特定的 DNS 后缀 . . . . . :
    本地连接 IPv6 地址. . . . . : fe80::4595-5e7f-6e87:15ba%25
    IPv4 地址 . . . . . : 192.168.88.240
    子网掩码 . . . . . : 255.255.255.0
    默认网关. . . . . : 192.168.88.1

以太网适配器 以太网:

    连接特定的 DNS 后缀 . . . . . :
    本地连接 IPv6 地址. . . . . : fe80::643a:8480:b973:6f02%10
    IPv4 地址 . . . . . : 192.168.0.15
    子网掩码 . . . . . : 255.255.255.0
    默认网关. . . . . : 192.168.0.1

C:\Users\14771>
```

The IP is assigned successfully and the machine can directly access the LAN where the EG8200mini is located. **Note:** The network segment used by the computer cannot be the same as the network segment of the device, otherwise it may cause the remote LAN to fail. The interface opened by the remote software cannot be closed. After closing, the intranet penetration is closed.



## MQTT Cloud Networking

### 1. EG8200mini series networking

This networking mode only supports use between the edge computing gateway EG8200mini/EG8100/EG8200mini series.

### 2. Network parameters

Communication method: MQTT cloud networking forwarding service

Connection address: bridge.iotrouter.com

Port: 1873

ClientID: Customized, maximum length 256 bytes, no duplication allowed.

Verification method:

username: The SN number used for EG8200mini series products must be a valid registered device SN.

Password: The device password used for EG8200mini series products, which is the web page login password.

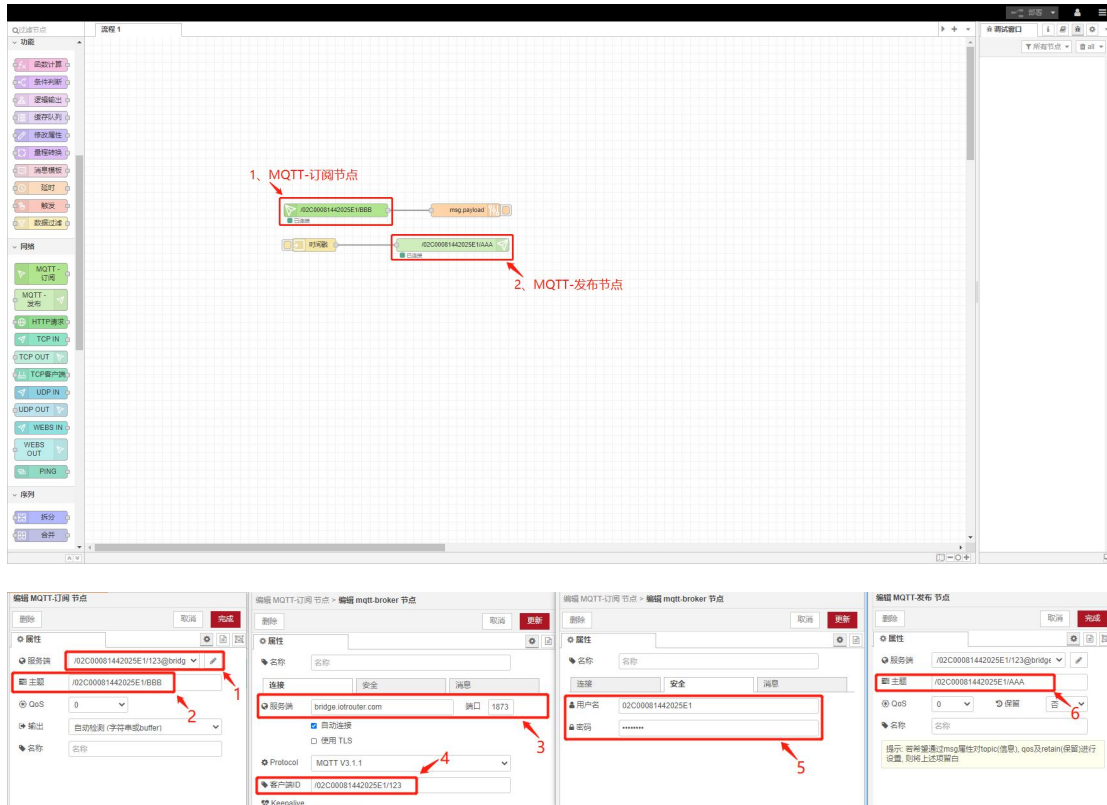
Device topic: The maximum length of the subscription publishing topic is 256 bytes, and the use of wildcards is not supported.

Qos: Support 0/1/2

Maximum MQTT message for forwarding data packets in cloud networking: 10KB

### 3. Network configuration

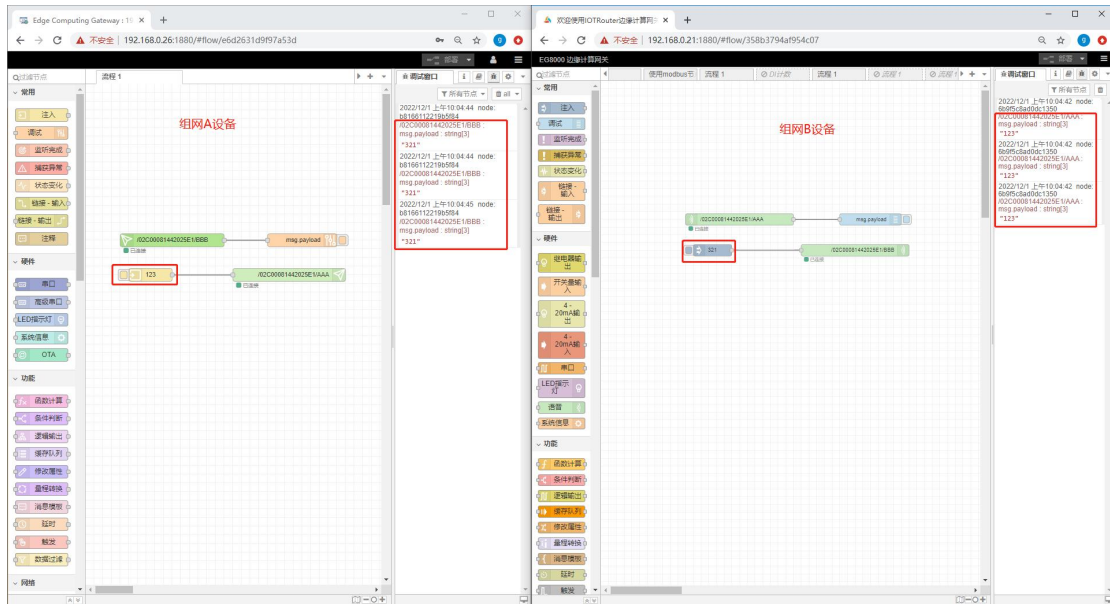
Use the MQTT node to configure parameters for the devices in Network A and Network B according to the network parameters.



- 1: Edit mqtt-subscription node to add new mqtt-broker
- 2: Set the subscription topic (the devices in Network A and B fill in each other's publishing topics)
- 3: Set the server address and port
- 4: Set the client ID (recommended format /sn/client so that it is not easy to conflict with others)
- 5: Set username and password
- 6: Click mqtt-publish node to set the publishing topic

### 4. Network presentation

After setting the parameters of the network A and network B devices, you can perform the test as shown below:



- 1: As shown in the figure, the data sent by the device in network A/B and the subscription status of network B/A can be successfully received, indicating that the network configuration is successful.

# Leading IoT Data Communications

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