

# How to Connect Cellular Modem to PUSR Cloud?

**This manual applies to the following products:**

4G Modem: USR-G786-G/EUX/AUX, USR-DR504-G/EUX/AUX

CAT1 Modem: USR-G771-E, USR-DR502-E, WH-LTE-7S1-E

## ➤ Preparation

USR 4G/CAT1 modem\*1

SIM card \*1

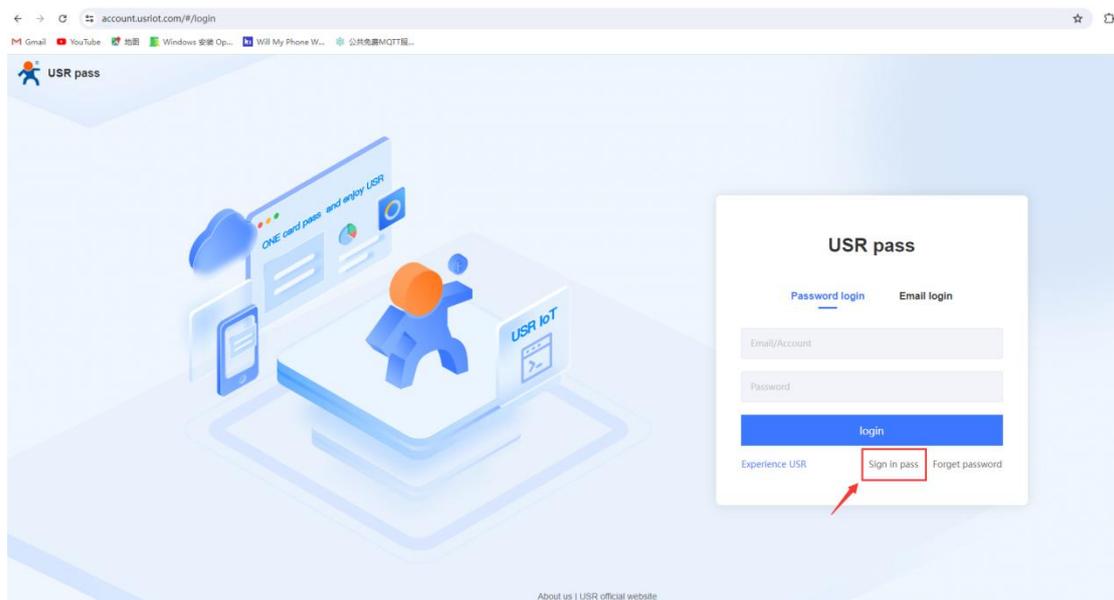
4G antenna \*1

Power adaptor \*1

RS232 or RS485 to USB cable \*1

## ➤ PUSR Cloud Configuration

1. PUSR Cloud address: <https://mp.usriot.com>
2. Please register an account first, and then log in.



3. After logging in, click to add a gateway. Here “Gateway” indicates “USR Modem”.

USR Cloud Console

Gateway management > Gateway list

Total Gateways: 32 | Online gateway: 0 | Offline gateway: 32

More gateway features Go to DM platform

Buttons: Add, Batch Add, Delete

Gateway status	Gateway name	SN	Gateway model	Number of associated devices	Belonging organize	Tag	Operation
Offline	USR-CAT1	00047955000000043595	Unknown type	0	My project1		View Edit Delete More
Waiting for the initial...	gateway	00047955000000043594	Unknown type	1	MyGroup		View Edit Delete More
Waiting for the initial...	Unnamed_Gateway name_99	00047955000000043593	Unknown type	0	组织		View Edit Delete More
Offline	Vcom2	00047955000000000024	Unknown type	0	组织		View Edit Delete More
Offline	W810 T	00047955000000000023	Unknown type	0	组织		View Edit Delete More
Offline	W810	00047955000000000022	Unknown type	1	组织		View Edit Delete More
Offline	N520	00047955000000000021	Unknown type	1	组织		View Edit Delete More
Offline	T2	00047955000000000020	Unknown type	1	组织		View Edit Delete More
Offline	USR-TCP232-305	00047955000000000019	Unknown type	0	组织		View Edit Delete More
Waiting for the initial...	VCOM3	00047955000000000018	Unknown type	0	组织		View Edit Delete More

4. Click “SN does not support, click here”. 4G/CAT1 modems cannot be added via SN and MAC, so we need to create the communication ID and password in PUSR Cloud.

USR Cloud Console

Gateway management > Gateway list > Add Gateway

**Add Gateway**

\* Gateway name: USR-CAT1

\* Belonging organize: My project1

\* SN: Please Input SN. **SN does not support, click here**

\* MAC / IMEI: Please Input MAC/IMEI/NID number

Positioning method:  Manual positioning  Automatic positioning

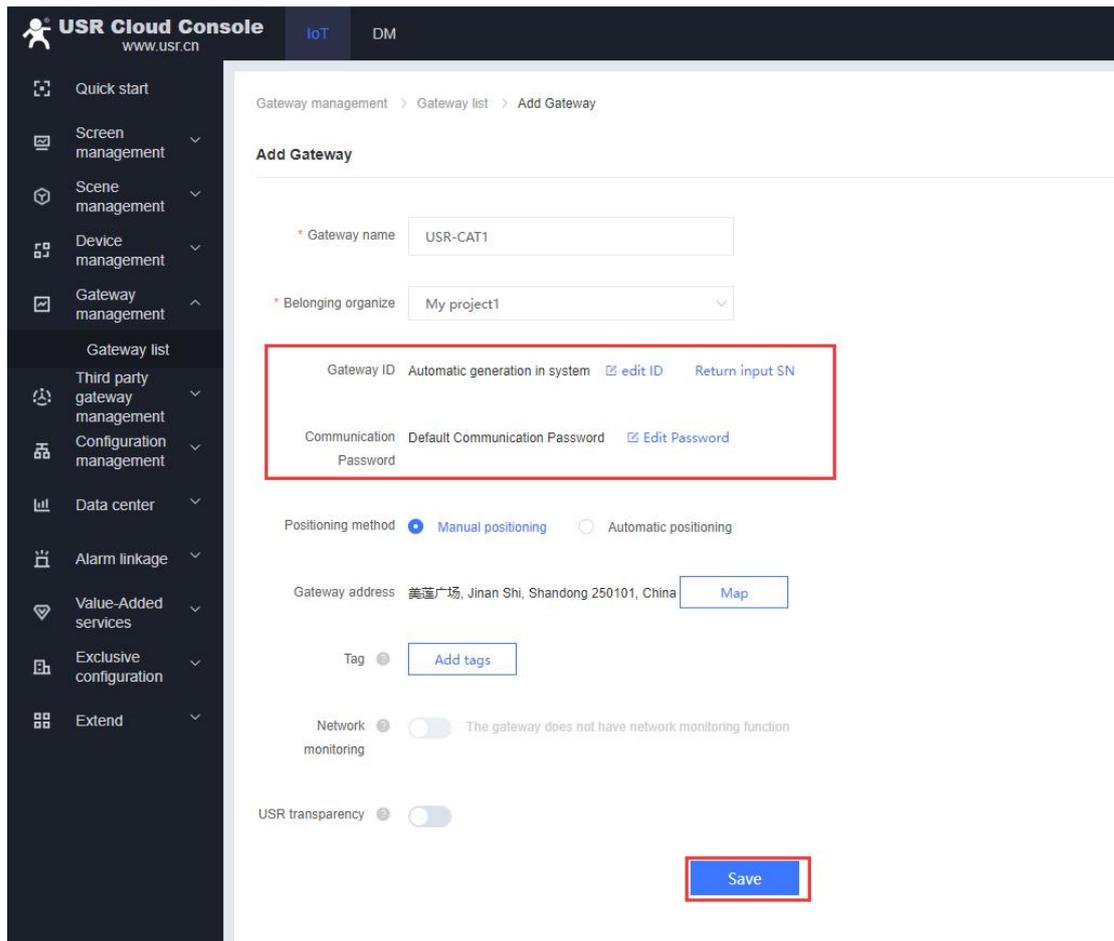
Gateway address: 美国广场, Jinan Shi, Shandong 250101, China

Tag:

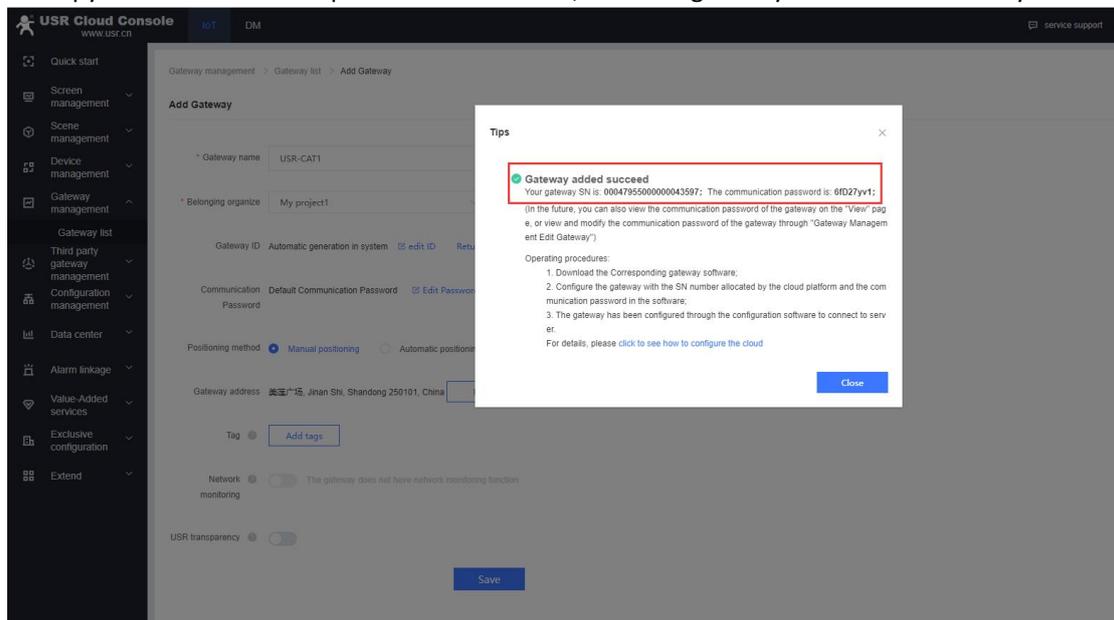
Network monitoring:

USR transparency:

5. Then click Save.

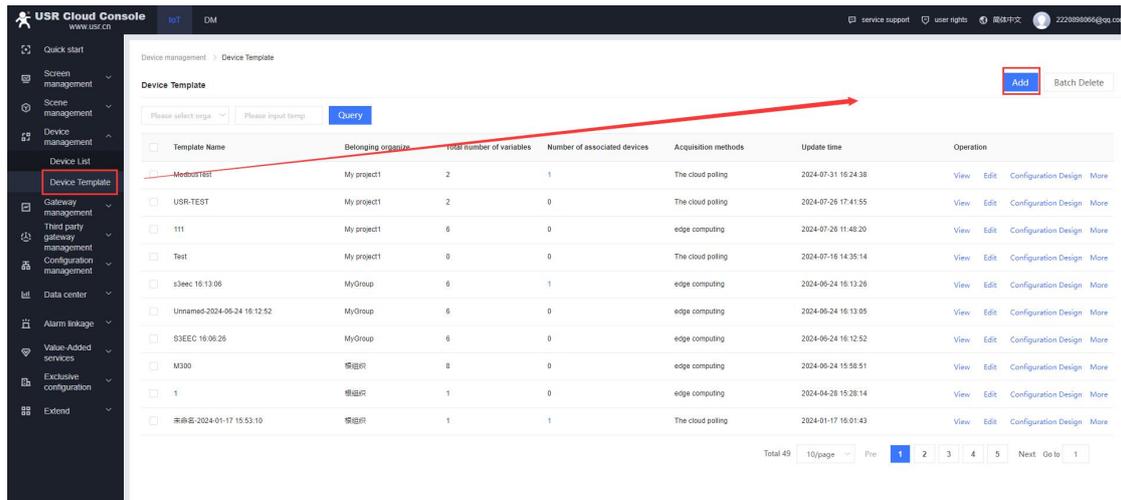


6. Copy the created SN and password. Click Close, then the gateway is added successfully.

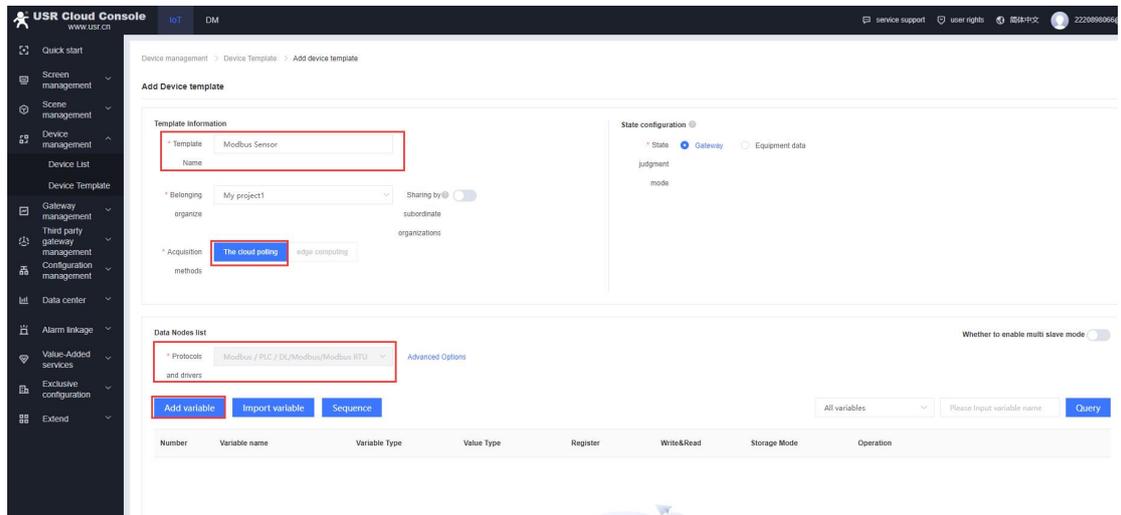


7. In "Device Template", click to add the template. Here we need to configure the Modbus

template according to the user manual of your serial Modbus device.



8. Configure the template name, and configure the protocol to Modbus RTU. Click to add the Modbus variables. We test with a temperature&humidity sensor in this manual.



9. Add the Modbus registers according to the user manual of your Modbus device.

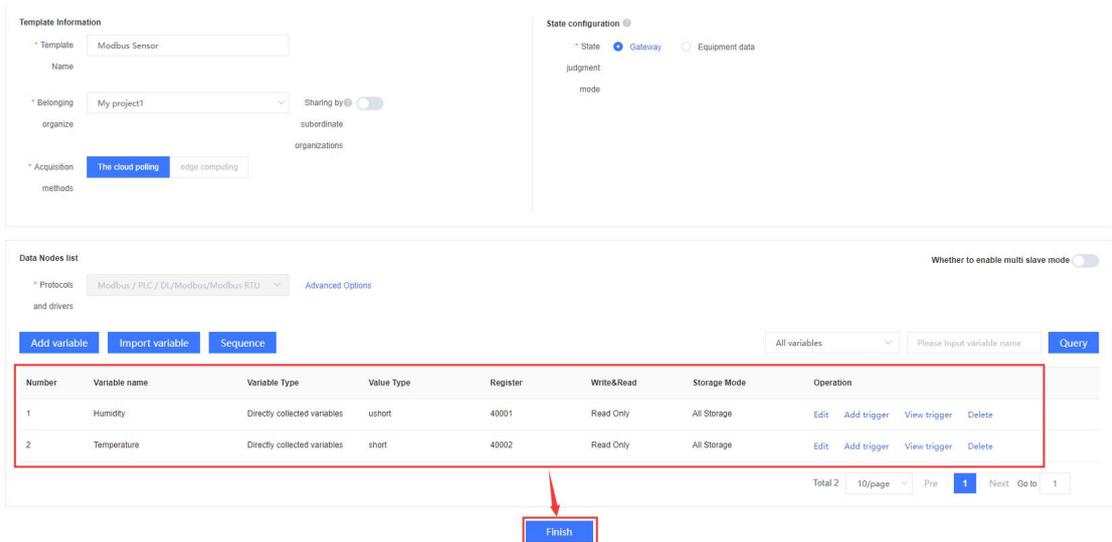
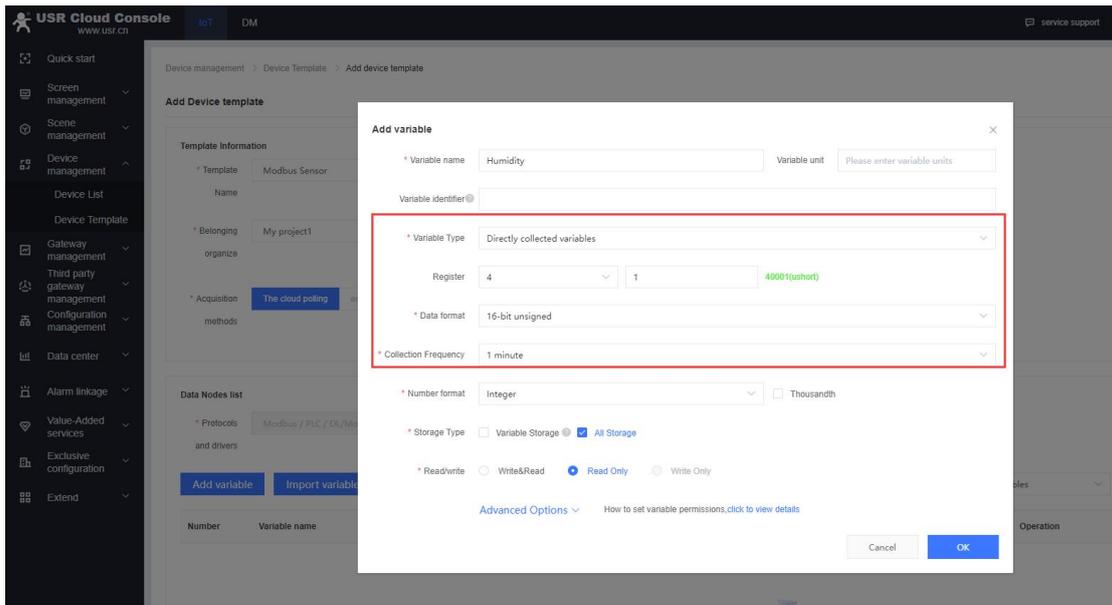
Register: It is the same as the Modbus master software. Fill in the decimal register address.

Function code 03H or 06H, starting address 0000H, register is 4 and address filling 1;

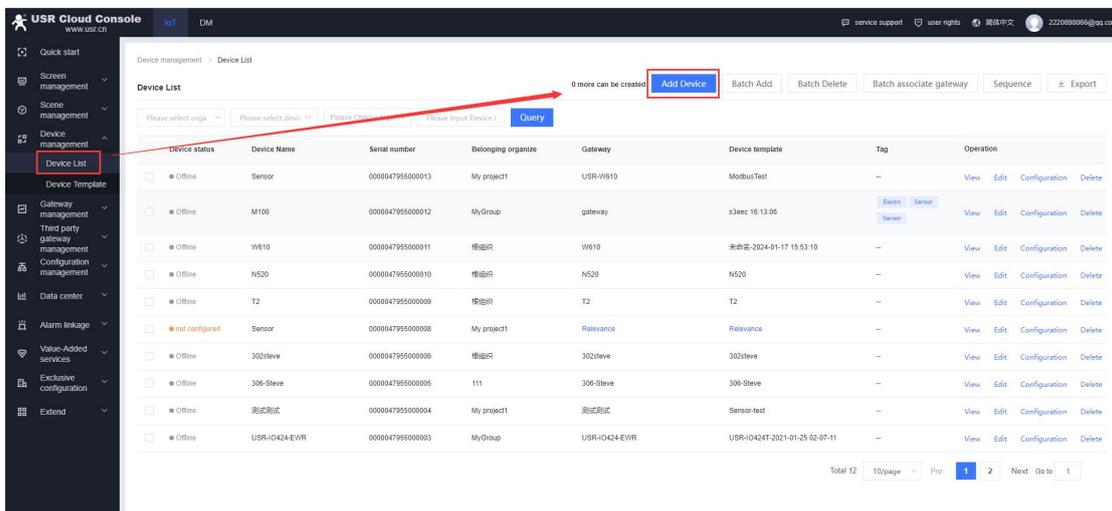
Function code 04H, starting address 000AH, register is 3, address filling 11;

Function code 01H or 05H, starting address 0002H, register is 0 and address is 3;

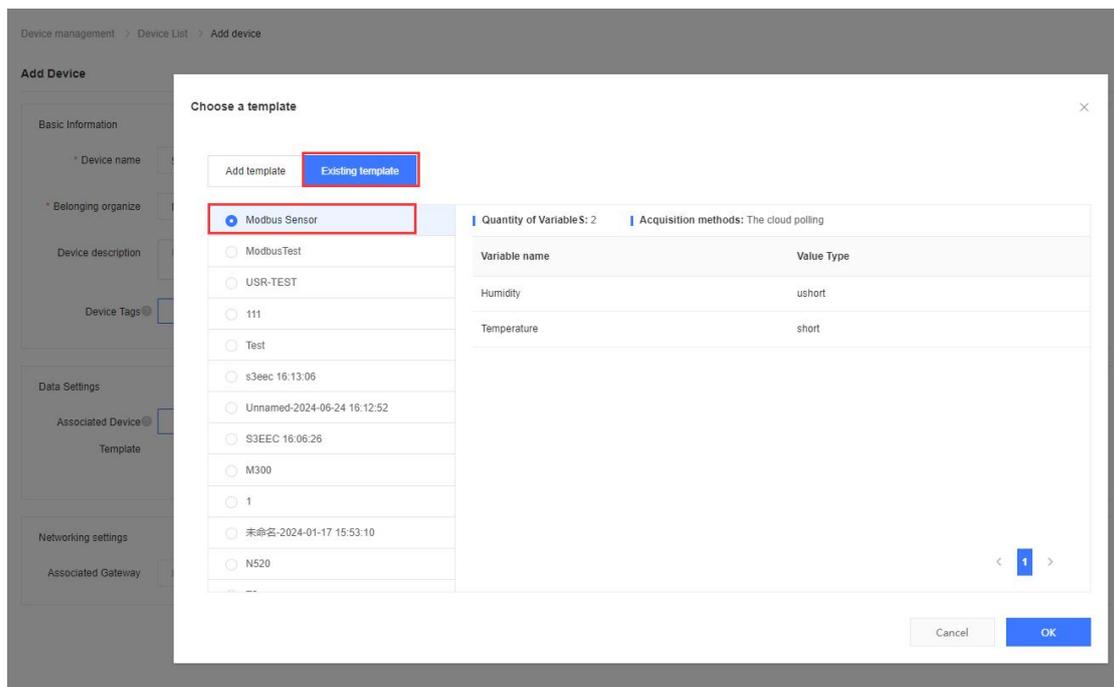
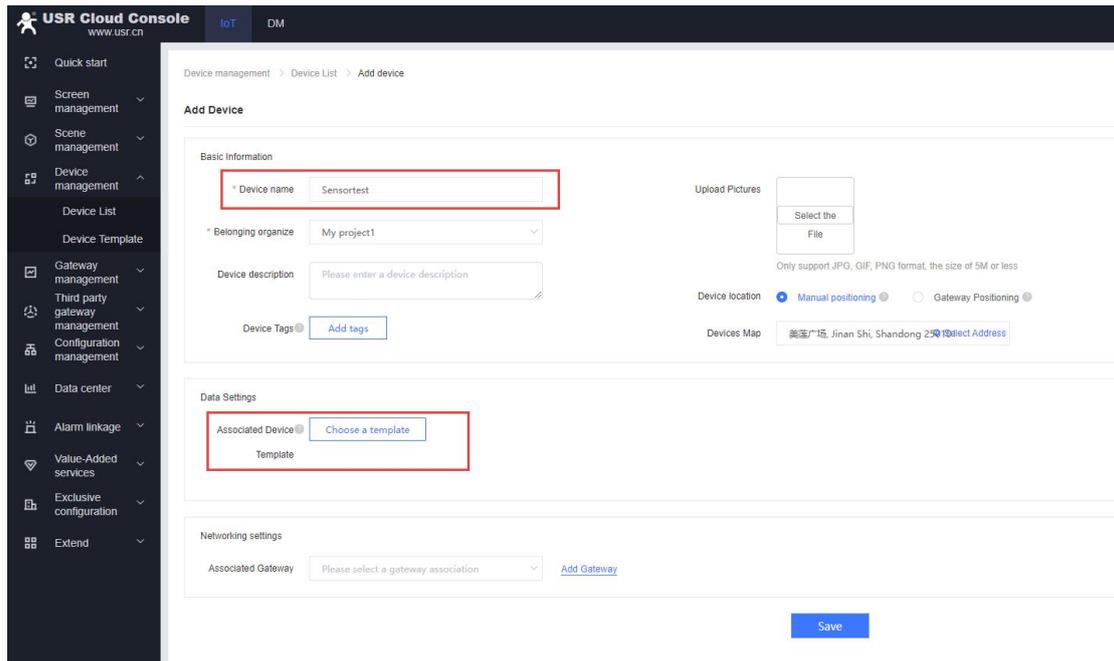
If the function code is 02H and the start address is 0003H, the register is 1, and the address is filled with 4.



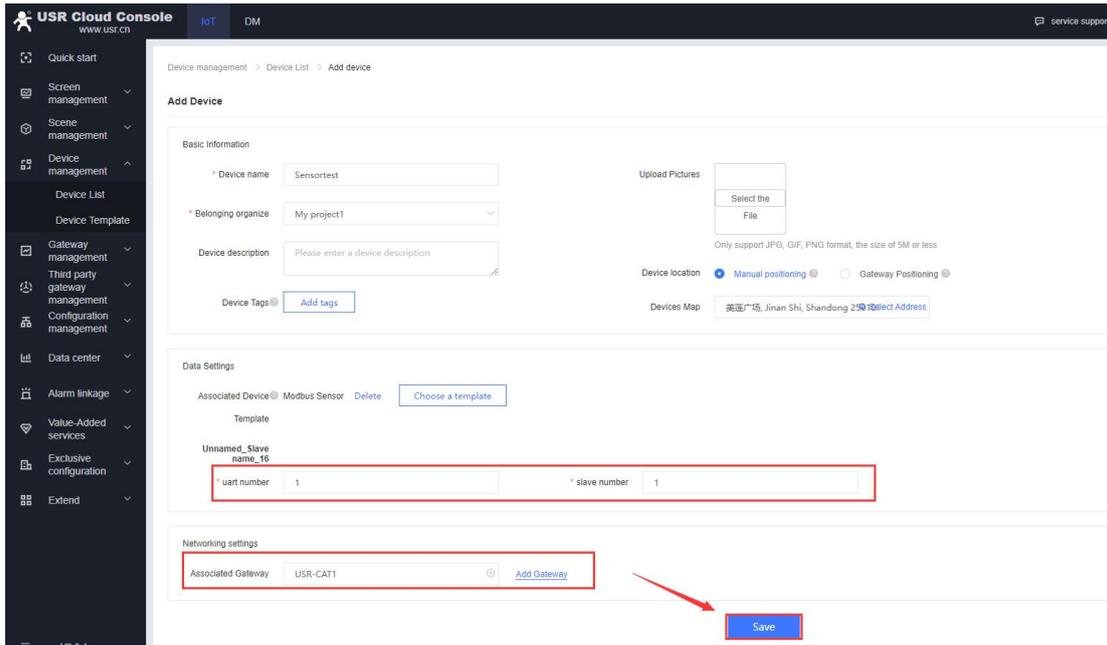
10. After adding the Modbus template, click to add the device. Here the “Device” is corresponding to your serial device.



11. So we change the Device name to “Sensortest”, and bind it to the created device template.



12. Here the “Slave number” is the slave ID(address) of your serial device. Also bind this device to the created Gateway, click Save.



13. The cloud configuration is done, then we start to configure the modem parameters.

## ➤ Device Configuration

Please use the corresponding setup software of the device to configure it:

4G modem setup software:

[https://www.pusr.com/ndirectory/\[Setup-Software\]-USR-CAT4-V1.0.2\\_1687230152.zip](https://www.pusr.com/ndirectory/[Setup-Software]-USR-CAT4-V1.0.2_1687230152.zip)

CAT1 modem setup software:

[https://www.pusr.com/ndirectory/\[Setup-Software\]USR-CAT1-Setup-Software-V1.1.4\\_1687230153.rar](https://www.pusr.com/ndirectory/[Setup-Software]USR-CAT1-Setup-Software-V1.1.4_1687230153.rar)

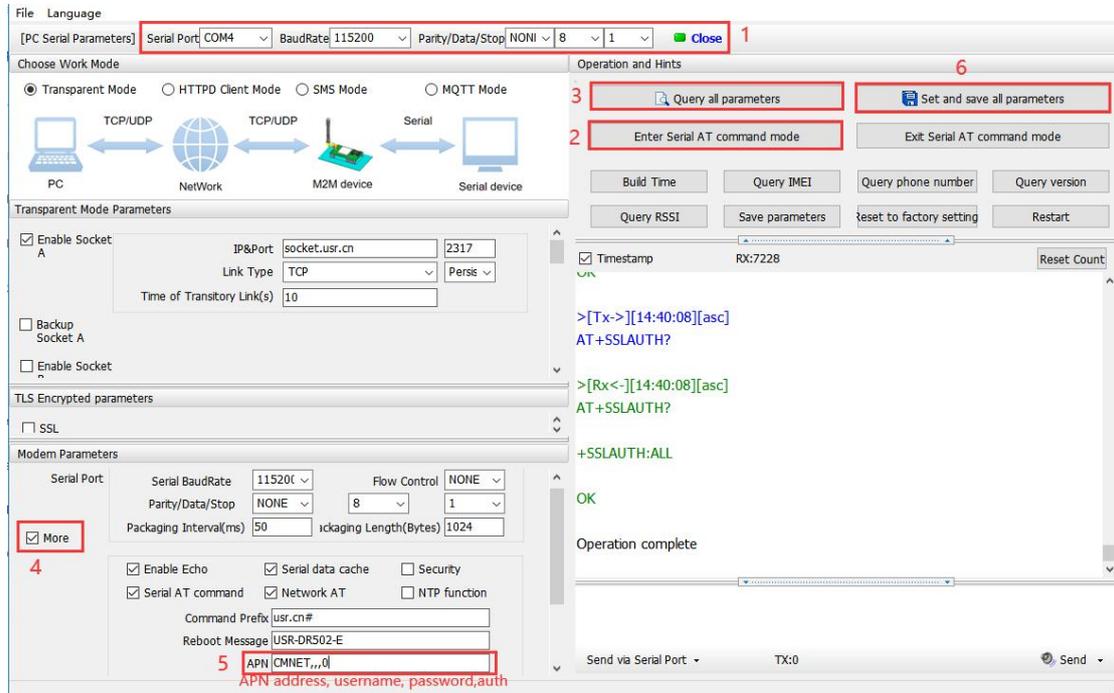
In this manual, we test using a CAT1 modem, for 4G modems, the configuration steps when connecting to PUSR Cloud are same. The only difference is that after configuring all the parameters, you need to click “Restart” manually after click “Set current parameters”.



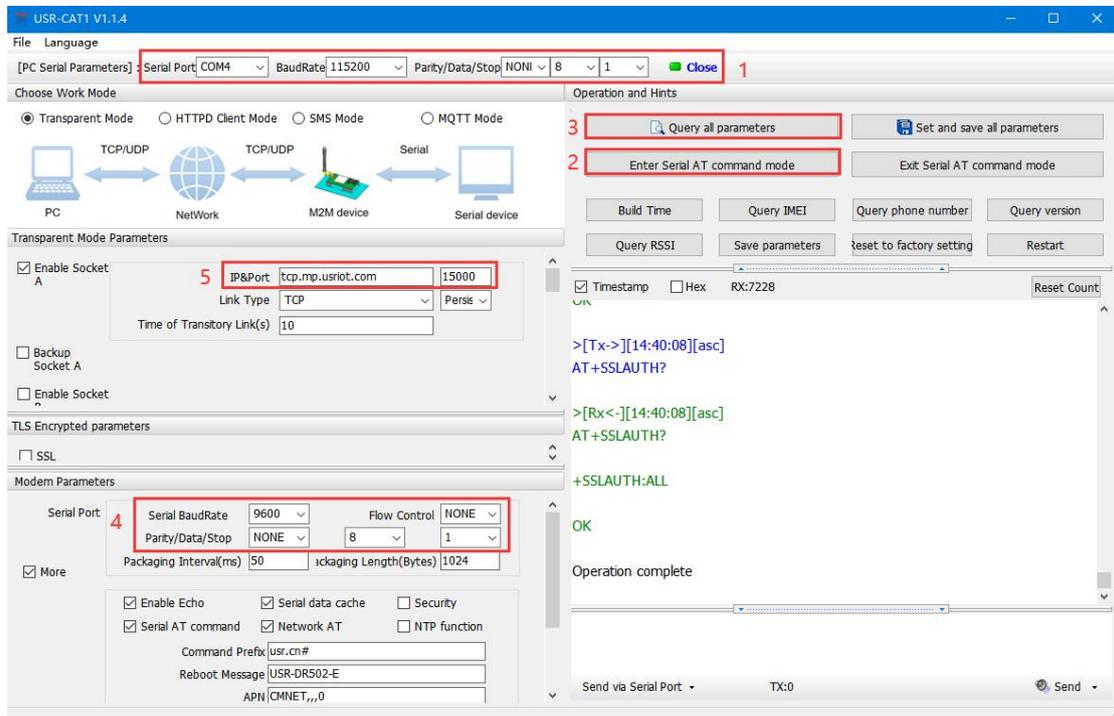
With CAT1 modems, after click “Set and save all parameters”, it will restart automatically to take all the parameters effect.



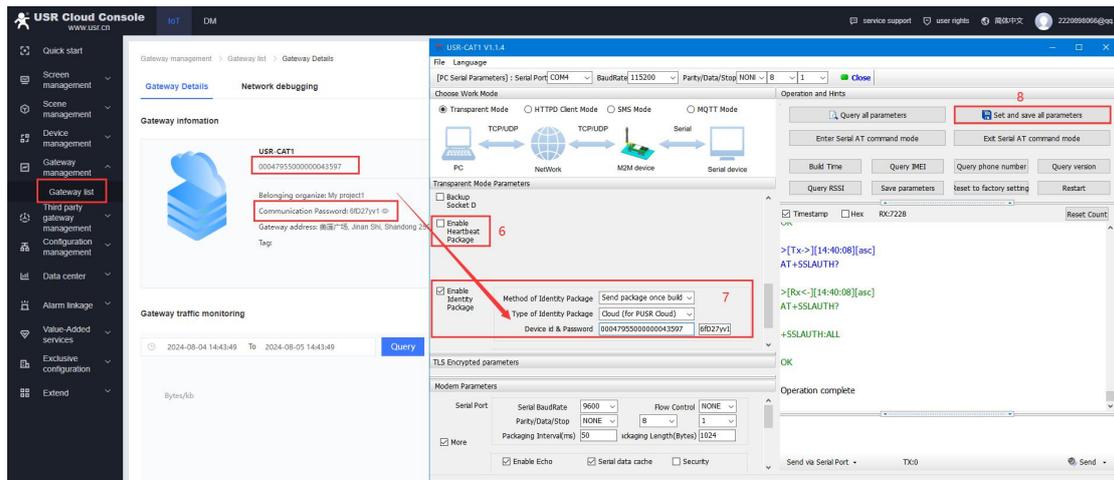
1. Install the SIM card and antenna in the modem, connect the modem to the PC using an RS232 or RS485 to USB cable, power on the modem using the power adaptor.
2. Open the created com port in setup software. Enter serial command mode and configure the APN parameters of your SIM card firstly. After configuring the APN parameters, the modem should connect to the network normally, and its NET indicator will be on.



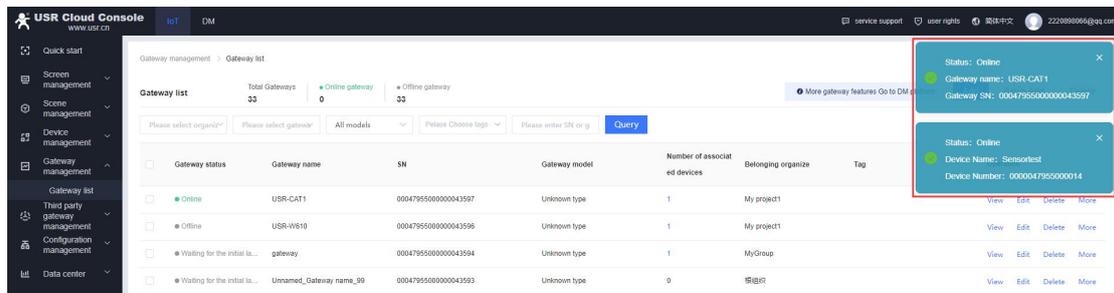
3. Configure the serial parameters of the modem to be same with your serial device. Change the remote IP to "tcp.mp.usriot.com", change the port to 15000.



4. Fill in the copied communication ID and password in identity package of the modem, you can also click the gateway name to check in PUSR Cloud.



5. After click “Set and save all parameters”, the CAT1 modem will restart automatically. Then we can see the gateway and device both get online.



6. Here we use a Modbus Slave software to simulate a temperature&humidity sensor, when we click the device name in PUSR Cloud, we can read the data from the sensor(Modbus Slave software).

