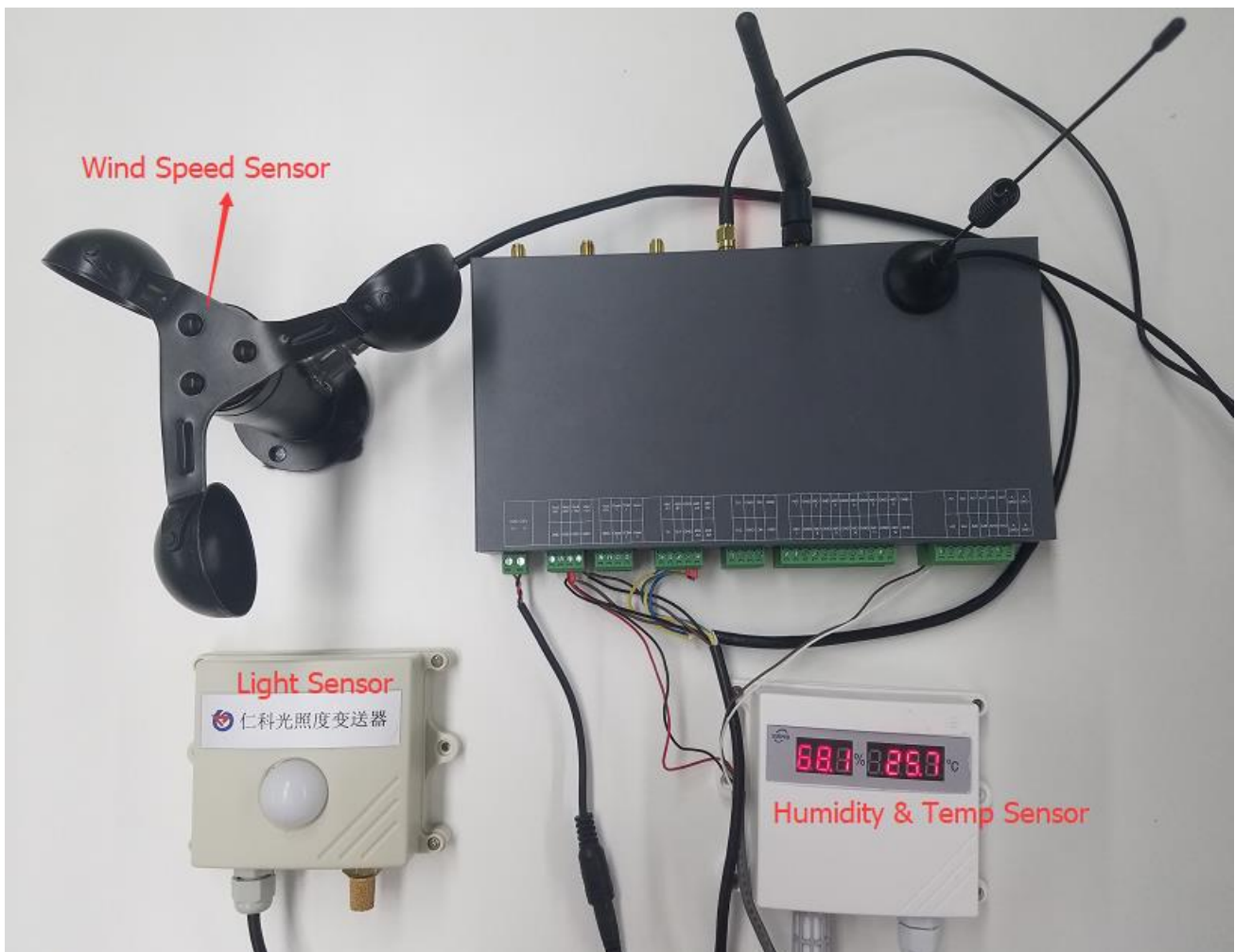


1. Connect the antenna to RT620 and insert a sim card, then power on the router



2. Connect sensors to the RT620

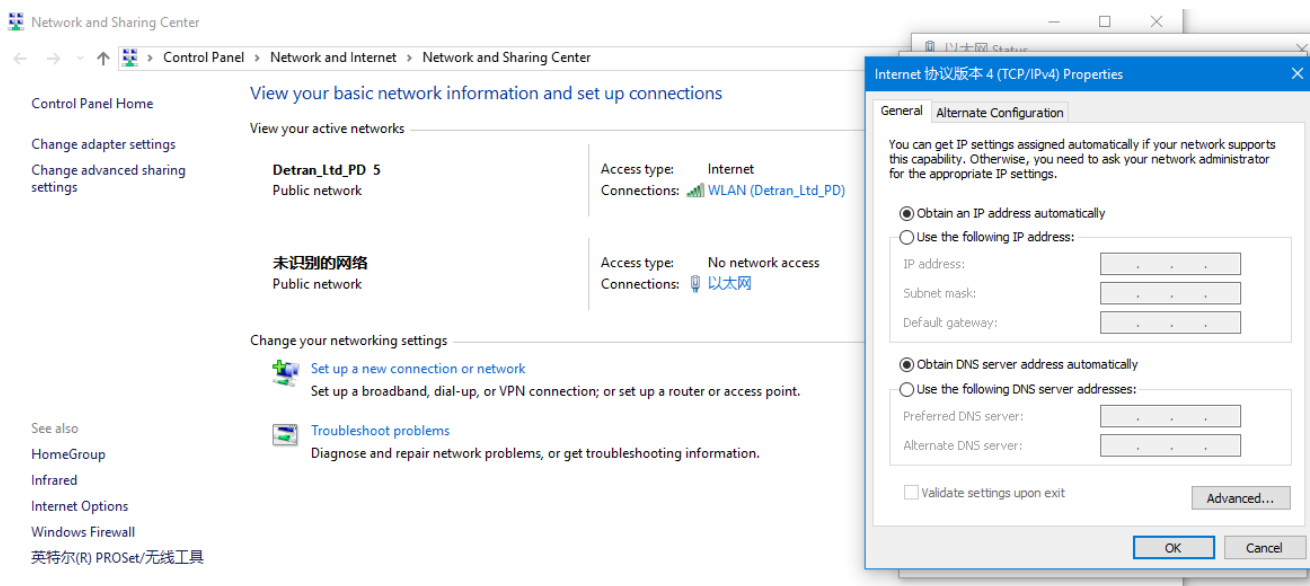
- a) the light sensor connect to 485-A1, 485-B1, Vout+12V and GND interface
- b) the wind speed sensor connect to 485-A2, 485-B2, Vout+12V and GND interface
- c) the humidity and temperature sensor connect to AI2, AI4, Vout+12V and GND interface.



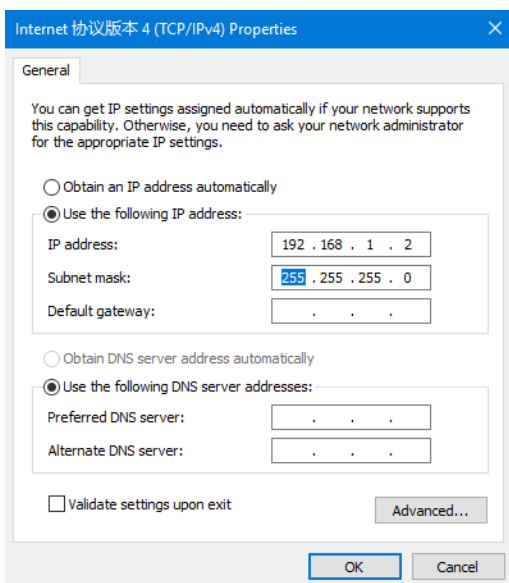
### 3. Connect the router to your PC with a cable



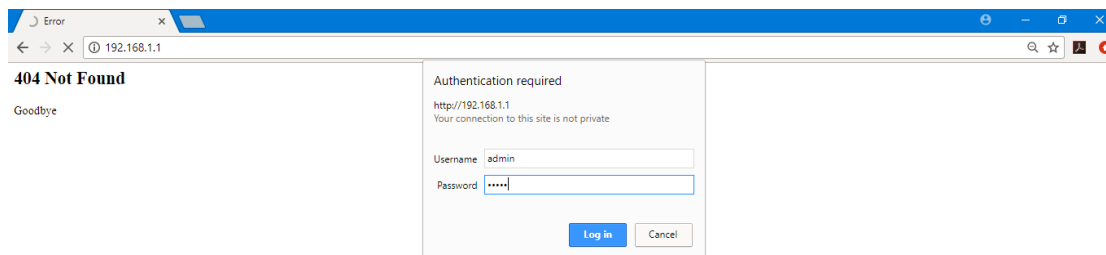
#### 3.1 You can configure your PS as “Obtain an IP address automatically”



#### 3.2 Or use a static address

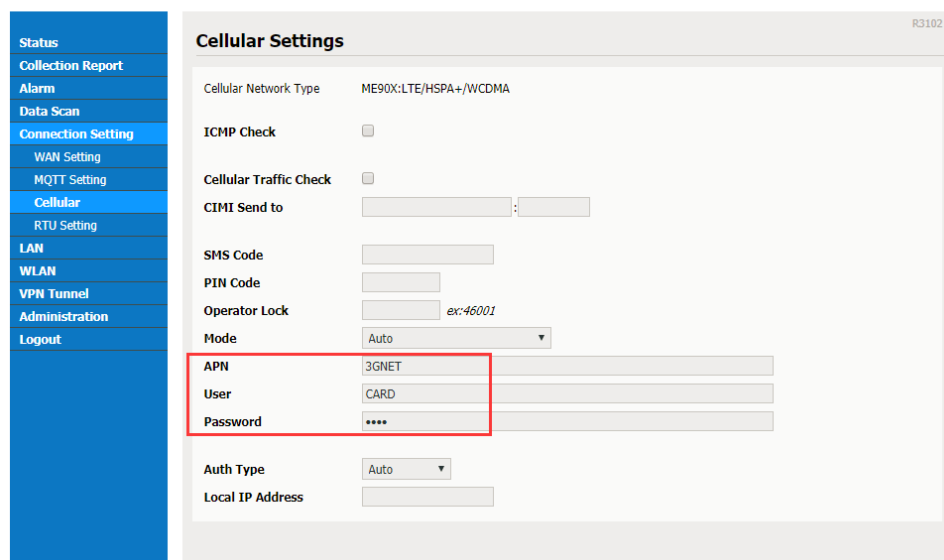


#### 4. Access to <http://192.168.1.1> with default account/pw: admin/admin

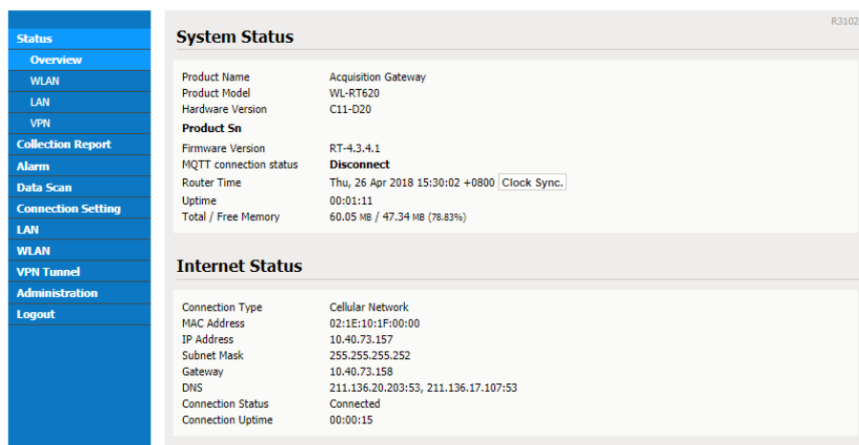


#### 5. Modify the APN in the interface by going to **Connection Setting > Cellular**

Note: The APN parameters are the same as your SIM card



#### 6. Check the Internet Status



## 7. Navigate to **Collection Report > Collection Setting**

- Status
- Collection Report
- Collection Setting**
- Report Setting
- Alarm
- Data Scan
- Connection Setting
- LAN
- WLAN
- VPN Tunnel
- Administration
- Logout

R3102

### Collection Setting

Slave Id1  eg:1,2,3

Baud Rate

Parity Bit

Data Bit

Stop Bit

Slave Id2  eg:1,2,3

Baud Rate2

Parity Bit2

Data Bit2

Stop Bit2

Slave Id3  eg:1,2,3

Baud Rate3

Parity Bit3

Data Bit3

Stop Bit3

Modbus cycle interval  (seconds)

RTU scripts

```

SET_ADDR 1;
VARS W AI[14];
INTFS 2000 F AITMP[4];
VAR F TMP;
INTF 4000 W Light;
INTF 4010 W WS;
IN A 1,14;

```

#### Modbus Cmd Table

Cmd	Addr	Items	Data Type	Float Length	Slave Id	Signal Id	Description*
04	07D0	2	float	2	01	1	Humidity (%)
04	07D2	2	float	2	01	2	Temp (°C)
04	07D4	2	float	2	01	3	Chip Temp (°C)
04	07D6	2	float	2	01	4	Chip Voltage (v)
04	0FA0	1	short	0	01	5	Illumination (Lux)
04	0FAA	1	short	0	01	6	Wind Speed (mph)

Parameters	Instruction
Slave Id1	RS485 – A1B1 interface
Slave Id2	RS485 – A2B2 interface
Slave Id3	RS485 – A3B3 interface
Cmd	Modbus code (HEX)
Addr	Register address (HEX)
Items	The number of registers
Data Type	-
Float Length	-
Slave Id	Script ID
Signal Id	Data number
Description	Data name

## RTU Scripts

```

SET_ADDR 1;           // Set the slave address of the TMTF variable to 1
VARS W AI[14];        // Set a four-element double-byte integer array without assignment, AI[1]~AI[14]
INTFS 2000 F AITMP[4]; // Set a four-element four-byte floating-point array without assignment and register address is 2000~2003
VAR F TMP;            // Set temporary variables for floating point process calculations.
INTF 4000 W Light;    // Set an unsigned double-byte integer without assignment and register address is 4000 (For light sensor)
INTF 4010 W FS;       // Set an unsigned double-byte integer without assignment and register address is 4010(For wind speed sensor)
IN_A 1,14;            // Read the analog quantity from number 1 to 14
IN_UA_B Light,1,010300060001A,100; // Read the analog data of light sensor via Modbus command
IN_UA_B WD,1,020300160001A,100; // Read the analog data of wind speed sensor via Modbus command
CAL TMP = AI[2] / 4096 * 3.3 / 165 * 1000 - 4; // Humidity calculation
CAL AITMP[1] = TMP / 16 * 100;
CAL TMP = AI[4] / 4096 * 3.3 / 176 * 1000 - 4; // Temperature calculation
CAL AITMP[2] = TMP / 16 * 160 - 40;
CAL TMP = AI[13]*3.3/4096; // Router chip temperature calculation
CAL TMP = 1.42 - TMP;
CAL AITMP[3] = TMP*1000/4.35 +25;
CAL AITMP[4] = AI[14]/4096*3.3/2.4*26.7; // Router chip voltage calculation
SLEEP 1000;           //The interval for executing this script. (ms)

```

### Note:

Parameter	Instruction
IN_UA_B SUN,1,010300060001A,100	The Modbus command for light sensor.
Light	The analog data of light sensor
1	Read one analog data
01	Address code
03	Function code
0005	Start address
0001	Data length
A	Check code
100	Set time out (ms)

## 8. Navigate to *Collection Report > Collection Setting*

Status  
Collection Report  
Collection Setting  
Report Setting  
Alarm  
Data Scan  
Connection Setting  
LAN  
WLAN  
VPN Tunnel  
Administration  
Logout

Report Setting

Report interval  (mins)

Signal Information Table

ID	Name*	Type	MAX	MIN	Controlable	Oper
1	Humidity (%)	Analog Quantity	100	0	False	UPD
2	Temp (°C)	Analog Quantity	100	-40	False	UPD
3	Chip Temp (°C)	Analog Quantity	100	0	False	UPD
4	Chip Voltage (V)	Analog Quantity	30	0	False	UPD
5	Illumination (Lux)	Analog Quantity	9999	0	False	UPD
6	Wind Speed (mph)	Analog Quantity	100	0	False	UPD
		Digital Quant			False	ADD

Add

Parameters	Instruction
Report interval	Report data to M2M management platform
ID	Signal ID
Name	Keep the same as "Description" in the Modbus cmd table
Type	Data type: analog and digital
MAX	maximum quantity
MIN	minimum quantity
Controllable	False: read-only, uncontrollable output True: controllable output
Oper	Operation mode ADD: add, work with data structure UPD: update, work with data table DEL: delete, work with data table

## 9. Navigate to **Data Scan > New data**, check the value from sensors

Status  
Collection Report  
Alarm  
Data Scan  
Old data  
New data  
Connection Setting  
LAN  
WLAN  
VPN Tunnel  
Administration  
Logout

Signal Value Table

Signal ID	Signal Name	Signal Value
1	Humidity (%)	76.35
2	Temp (°C)	27.12
3	Chip Temp (°C)	34.91
4	Chip Voltage (V)	3.67
5	Illumination (Lux)	385
6	Wind Speed (mph)	18

Alarm Value Table

Alarm ID	Alarm Name	Alarm Status	Alarm Time
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## 10. Navigate to **Connection Setting > RTU Setting**

Configure the parameters to connect to WLINK M2M management platform

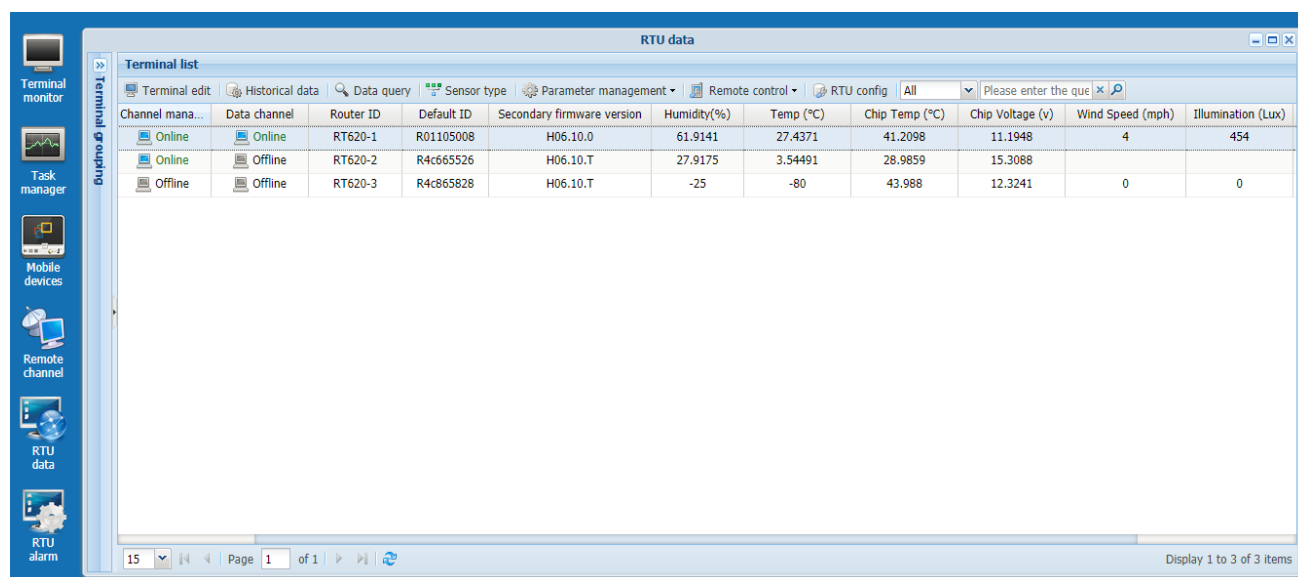
Status  
Collection Report  
Alarm  
Data Scan  
Connection Setting  
WAN Setting  
MQTT Setting  
Cellular  
RTU Setting  
LAN  
WLAN  
VPN Tunnel  
Administration  
Logout

RTU Setting

RTU Enabled ☒  
RTU Server/Port  :   
Heartbeat Enabled ☒  
Heartbeat Intval  (seconds)  
Public Intval  (seconds)

Save Cancel

## 11. Login to WLINK M2M management platform, check the status of sensors



**Terminal list**

Channel name	Data channel	Router ID	Default ID	Secondary firmware version	Humidity(%)	Temp (°C)	Chip Temp (°C)	Chip Voltage (V)	Wind Speed (mph)	Illumination (Lux)
Online	Online	RT620-1	R01105008	H06.10.0	61.9141	27.4371	41.2098	11.1948	4	454
Online	Offline	RT620-2	R4c665526	H06.10.T	27.9175	3.54491	28.9859	15.3088		
Offline	Offline	RT620-3	R4c665828	H06.10.T	-25	-80	43.988	12.3241	0	0

Page 1 of 1

Display 1 to 3 of 3 items