

LINOVISION

vSIM Routers

IOT-R51W

User Manual

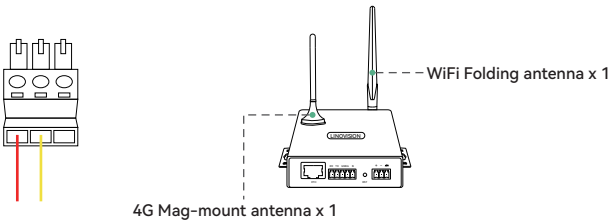
Updated on July 01, 2023

Installation

- 1 Attach the antennas to the SMA connectors on the back of the router to the ports labelled “Main” and “Aux.” Turn clockwise to fasten the antenna.
- 2 Connect cables to a terminal base. Once it is powered on, the router's indicator lights will activate.
- 3 Wait a minute or two after plugging in the router, as it may take a few moments for it to get up and running.

WARNING

Improper wiring may cause damage to the device, please be sure to connect the red wire (positive) to the left port, yellow wire (negative) to the right port.



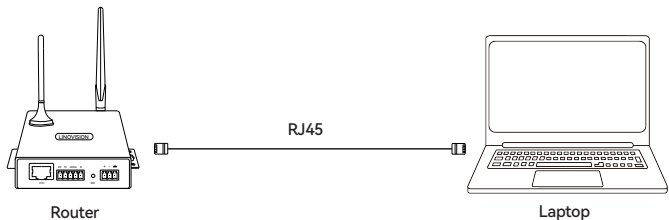
Scan QR code

Scan the QR code on the label at the top of the router or visit <https://linovision.com/pages/vsim-data-plan>, to activate your vSIM Data Plan.



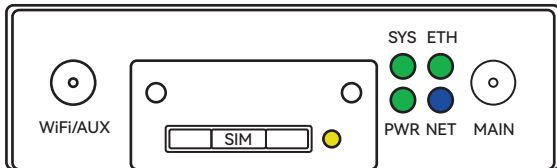
Connect IOT-R51W router to PC

Connect the Ethernet cable to the router's Ethernet port and to the Ethernet port on the PC. Or use WiFi open web browser type in default IP to gain access to the web platform.



Rear Panel LED Indicator

SYS	A green LED indicates system online.
ETH	Flashes green when there is Ethernet traffic.
PWR	A green LED indicates the R51W is receiving power.
NET	A blue LED indicates Internet connectivity.

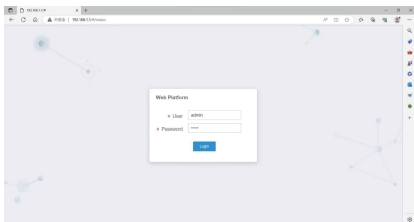


Access the router's web platform

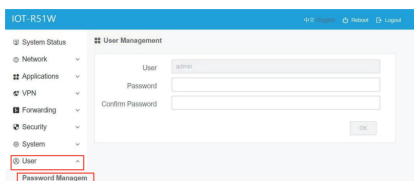
Open a web browser on a computer and go to your router's IP address. The default IP is "192.168.1.1". You can find the SSID (network name) and wireless password printed on the label at the top of the router.

Enter the default username and password

- 1 The default user name is "admin" and the password is "admin".



- 2 Login to the Web Platform to setup new password on "User > Password Management" section.



- 3 The Web Platform provides basic configuration, Applications, VPN, Forwarding, Security and other functions.

WiFi Settings

The default SSID is “2.4_2xxxxxxxxx” and the password is “12345678”. Click “Network > WLAN > Edit” to modify.

IOT-R51W

中文 English Reboot Logout

System Status

Wireless LAN / WiFi

Network

LAN

WWAN

WLAN

DHCP

DNS

Create Refresh

SSID	Mode	On/Off	Operation
2.4_204016243F5C	Access Poin...	On	Edit Delete

The IOT-R51W router provides two functions of Access Point mode (AP) and Client mode (STA). Through the function of AP mode, you can provide wireless LAN hotspots for easy access to the network and save wiring troubles; use the client mode, you can connect the router to other AP devices.

When using AP mode to you can opt to make your network invisible “Hide SSID > On”. Only those who know your network name and password will be able to join.

IOT-R51W also can support multiple networks/SSID “Network > WLAN > Create”. These can be used to define different networks for security reasons or to apply some rules and policies on networks.

System Status

Network ^

LAN

WWAN

WLAN

DHCP

DNS

Applications v

VPN v

Forwarding v

Security v

System v

User v

Wireless LAN / WIFI

Enabled	On
Frequency band	2.4G
Mode	Access Point (AP)
Enabled WDS	Disalbe
MAC	
SSID	2.4_204016243F5C
Hide SSID	Off
Radio Power	Default
Network Mode	802.11b/g/n mixed
Channel	1
Channel Width	40 MHz
Force 40MHZ	Off
Disassoc Low Ack	On
Encryption Mode	WPA/WPA2
Cipher	Auto
* Password	12345678

OK

Back

Save your settings

Once you are finished naming and securing your wireless network, click the OK button. The changes will be applied to your router, which may take a few moments. Once the router has finished resetting, your wireless network will be enabled.

Use Case (Set up remote access for IP camera)

Plug and play easy installation, instant connection

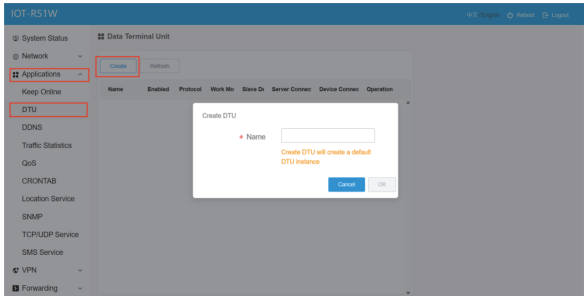


Advanced Settings

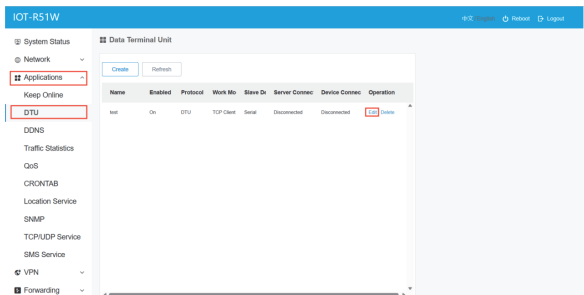
1 DTU Setting

DTU provides wireless connectivity, data collection, and transmission for industrial applications.

- Click “Applications > DTU > Create”

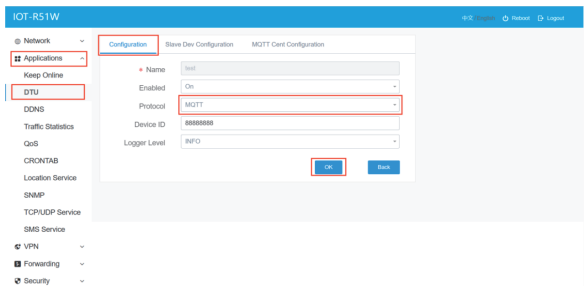


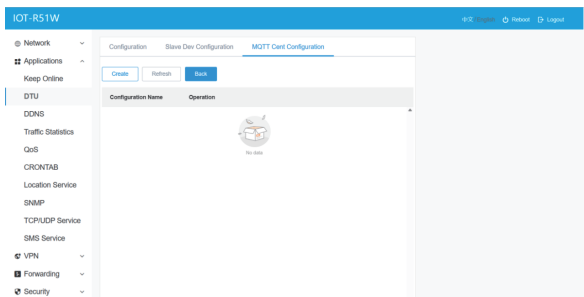
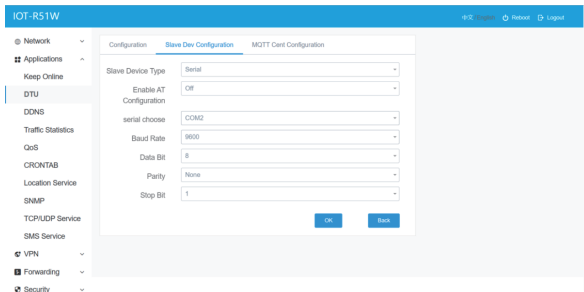
- Click “Applications > DTU > Edit”



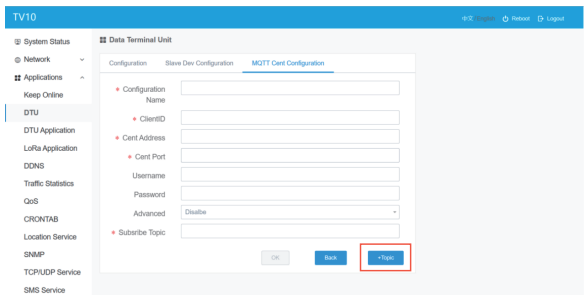
2 Supports MQTT Protocol Convert

- Click Applications > DTU > Configuration > Select Protocol > OK”
Lightweight publish/subscribe messaging transport that is ideal for connecting remote devices with a small code footprint and minimal network bandwidth. MQTT is used in a wide variety of industries, such as water, mining, power, oil and gas, etc.

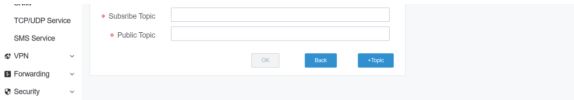




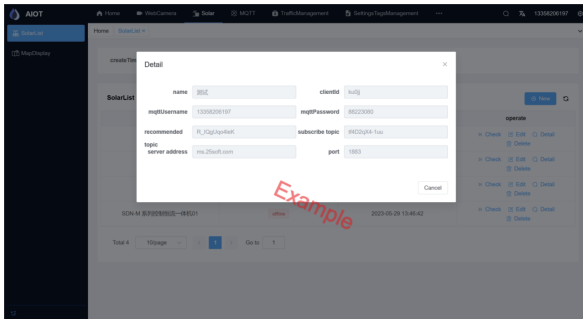
- Click "+Topic" to create multiple public topics



- MQTT topic is a string used in the MQTT protocol to identify and route messages. It is a key element in communication between MQTT publishers and subscribers. In the MQTT publish/subscribe model, publishers send messages to specific topics, while subscribers can subscribe to those topics to receive the messages.



- Broker platform as an example from AIOT



3 LAN Configuration

- The configuration of the LAN port is mainly used for the connection between the router and the slave device, so that the slave device can access the external network through the router, and also ensures the normal communication between the various network segments connected to the router.

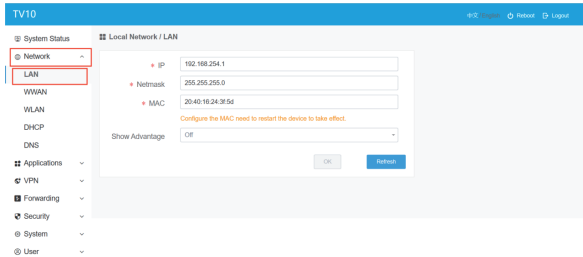
● Port Configuration Parameters

Parameter	Caption	Configuration Method
IP address	Set the IP address of the LAN port	Manually enter in the input box Format: X.X.X.X Default value: 192.168.1.1
Subnet mask	Set the subnet mask of the LAN port	Manually enter in the input box Format: X.X.X.X Default value: 255.255.255.0
MAC address	Set the MAC address of the LAN port	The format is normally not modified XX:XX:XX:XX:XX:XX:
Gateway	Set the gateway of the LAN port IP	Manually enter in the input box Format: X.X.X.X
DNS1	Set preferred DNS server	Manually enter in the input box Format: X.X.X.X
DNS2	Set preferred DNS server	Manually enter in the input box Format: X.X.X.X

4 Devices on Different Network Segments

(For situation when you are unable to modify your camera's IP address, you can modify router's IP address to match instead.)

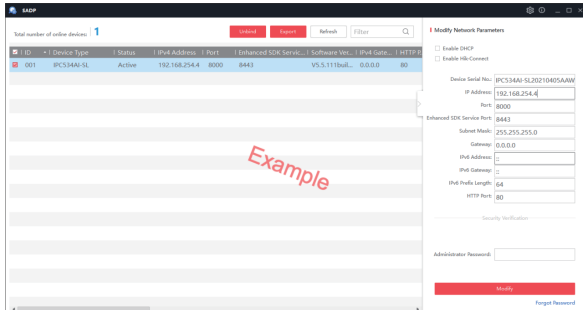
- Click "Network > LAN"



1. VFirst change the netmask of the router to match with your camera.
2. Check camera and router's IP address, make sure the IP address is on the same network segment, according to the division of the subnet mask.

For example:

The IP address of the camera is 192.168.254.4, and the subnet mask is 255.255.255.0; while the IP address of the router is 192.168.1.1, and the subnet mask is 255.255.255.0; judging by the subnet mask, the first three segments of the IP should be the same, so change the IP address of the router to 192.168.254.x;



Need Help?

Hardware issues

1 All router's indicator lights are off

- The power supply is not connected to the router's power port
- If the power supply does not meet the requirements, please ensure that the power supply is 12V

2 SIM card cannot be inserted into the SIM card tray, all router's indicator lights are off

- If the SIM card holder is damaged, please contact our technical support for repair
- If the SIM card is inserted in the wrong direction, please make sure that the SIM card chip is aligned with the chip end of the card slot and inserted into the card tray

3 The indicator light of the ETH/GE port is off, and the web platform cannot be accessed

- If the network cable is not connected correctly, please reconnect the network cable
- If the network cable is damaged, please replace the network cable
- If the PC's network card is working abnormally, please replace the network card or enable the network adapter

Dial up connection issues

4 The device is interrupted during the dial-up process, and cannot dial-up to access the Internet

- If the network type of the SIM card is incorrect, please replace the corresponding type of SIM card according to the module
- Please make sure the SIM card is activated. Check whether the SIM card account is in arrears. If yes, top up the account
- If the PIN code is configured incorrectly, please use the correct PIN code

Web platform operation issues

5 Unable to log in to the Web platform page normally

- The browser is not compatible, please use Google Chrome or IE10 or above
- Check the IP address obtained by the computer, the router IP and the computer IP are in the same network segment
- If you forget to configure the IP address of the interface, please press and hold the Reset button for 5 seconds with a needle, and wait for the router to restart. Enter 192.168.1.1 in the browser to log in to the configuration page

6 Firmware update failures

- If the upgrade fails due to the restart caused by other functions during the upgrade, please close other functions and re-upgrade
- Please ensure that the router's power supply operates during the upgrade process.

7 Router keeps rebooting itself

- Failed to communicate with the server address set by the keep online function
- If keep online is set, click "Application >Keep Online" to open the "Online hold" tab, close this function or fill in the IP address of the server that can communicate normally