ALNETS Multi-LANs Proxy Router User Manual

(Model: MLR-L22/MLR-LW22)

CONTENTS

1. Router Product List 2
2. Router Wi-Fi Password (MLR-LW22 Only)....2
3. Router Ports Description 2
4. Router Connection and Software Installation 3
4.1 Wired Connection to PC....4
4.2 Wireless Connection to PC (MLR-LW22 only) 4
5. Using ALBulk Software for Configuration 5
5.1 Login to ALBulk 5
5.2 Sub-router Settings 6
5.2.1 Generate Brand Router SSID & MAC....6
5.2.2 Customize Router SSID & MAC 7
5.3 Wi-Fi Settings for MLR-LW22 Only....9
5.4 Proxy Settings 10
5.4.1 Import Proxies to Router....11
5.4.2 Editing Nodes....12
5.4.3 Ping the Proxy Nodes....14
5.4.4 Export all Nodes in TXT: 15
5.4.5 Reset Proxies....15
5.4.6 API Integration 15
5.4.7 Cloud Host Binding....16
5.5 Access Rules (Updated in V3.3)....19

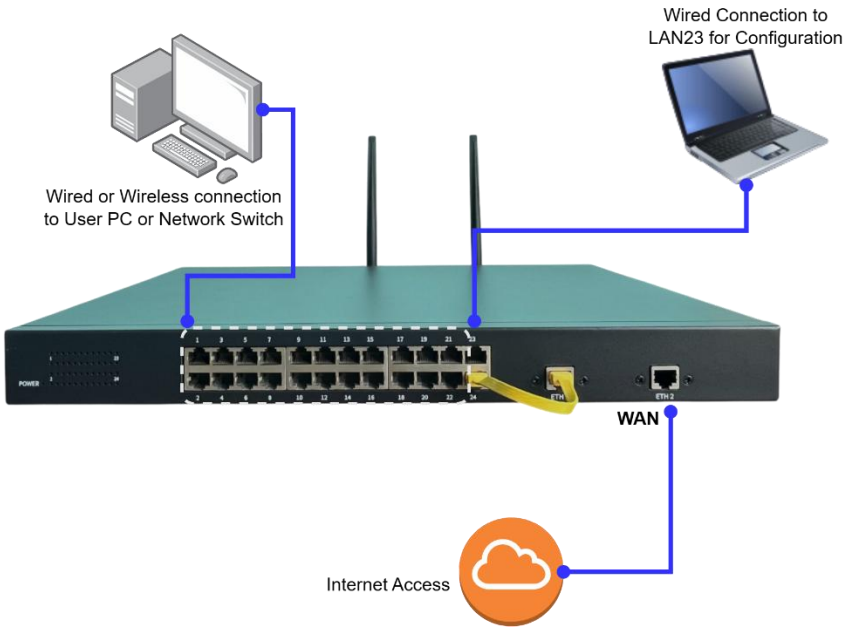
1. Router Product List

- Router (including models: MLR-L22/ MLR-LW22) x1
- Power Adapter x1
- Antenna x2 (MLR-L22 does not include antenna)
- Internal connection Ethernet cables x2
- L type mounting bracket x2

2. Router Wi-Fi Password (MLR-LW22 Only)

The default password for all Wi-Fi networks is **admin123.**

3. Router Ports Description



WAN Port

Port **"ETH2"** is the WAN port, and can be connected to Internet through an upstream router.

Wired Configuration Port

Port **"23"** is used to connect a Windows PC for configuration via the **ALBulk** software.

Internal Connection Ports

Port **"24"** serves as internal link port and correspond to "ETH1".

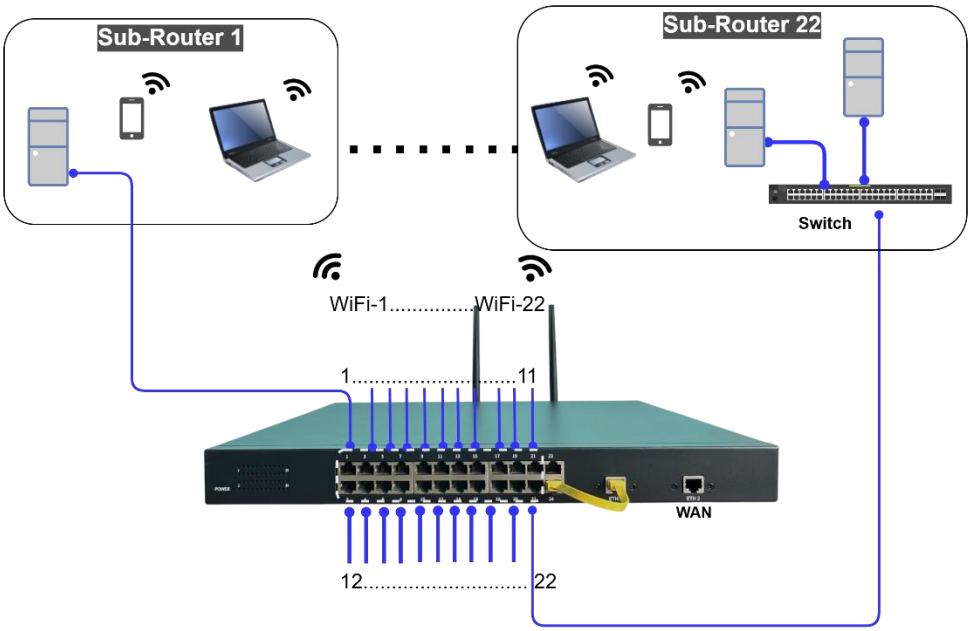
- 24 → ETH1

Working LAN Ports

The 22 LAN ports in the white-dotted area are working ports. Each port functions as an independent sub-router network with its own router MAC. Devices such as PCs, APs, or network switches can be connected.

Wi-Fi Networks (MLR-LW22 only)

MLR-LW22 broadcasts **22 Wi-Fi networks**, each corresponding to a separate sub-router. Each sub-router includes one SSID and one LAN port. Devices within the same sub-router share the same proxy IP.



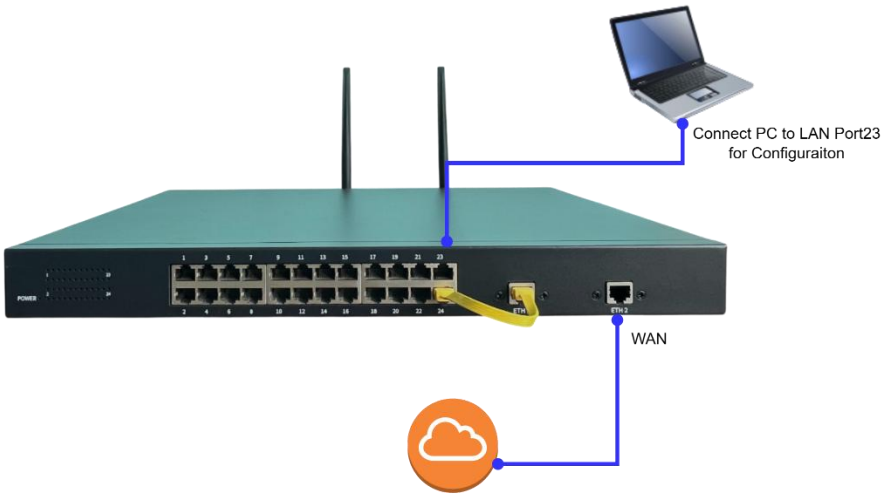
4. Router Connection and Software Installation

On a Windows PC, run **ALBulk.exe** and proceed with the installation. ALBulk currently supports Windows only.

Before starting the configuration software, the PC must establish a connection with the router. There are two ways to connect:

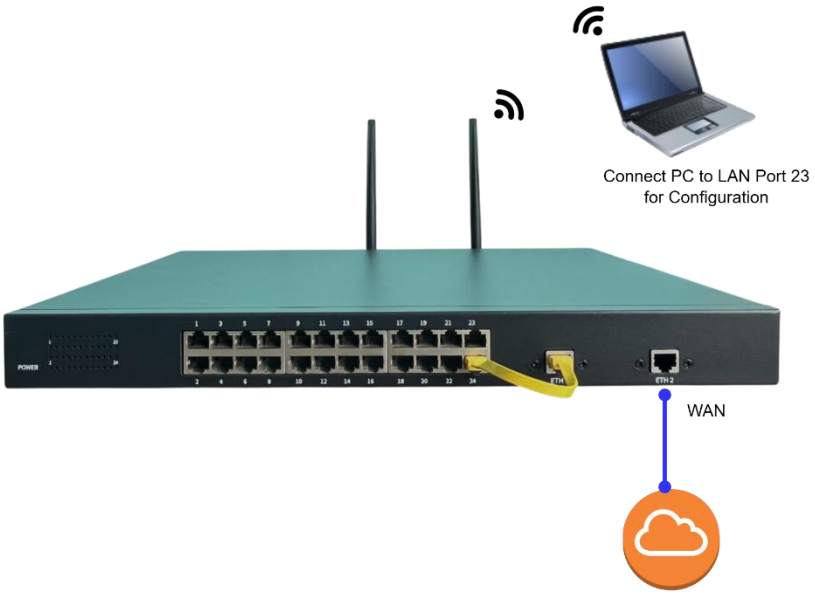
4.1 Wired Connection to PC

Connect the PC to port “23” using an Ethernet cable， then run ALBulk to begin configuration.



4.2 Wireless Connection to PC (MLR-LW22 only)

Connect the PC to the SSID “ALOS-1” (password: admin123), as images showed below, then run ALBulk to begin configuration.

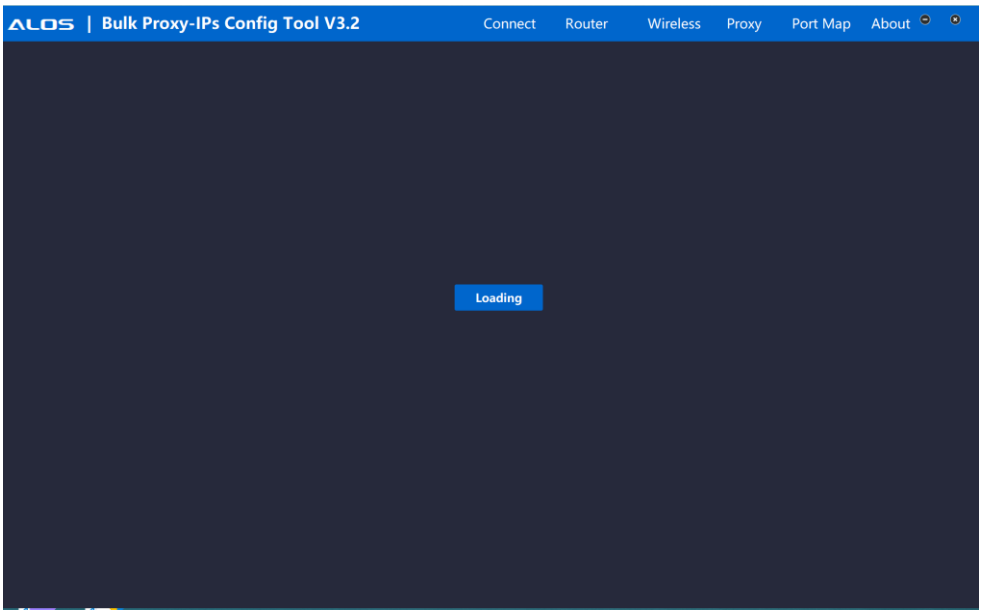


5. Using ALBulk Software for Configuration

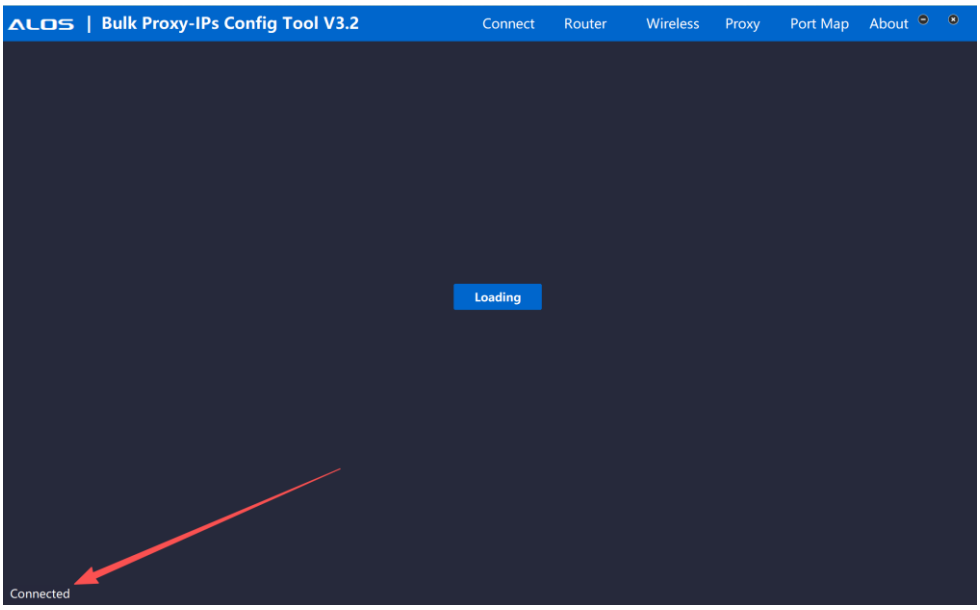
After completing the router connection as described above, double-click the ALBulk software to start network configuration.

5.1 Login to ALBulk

On the **Connect** page, click "**Loading**" button in the center of the page.

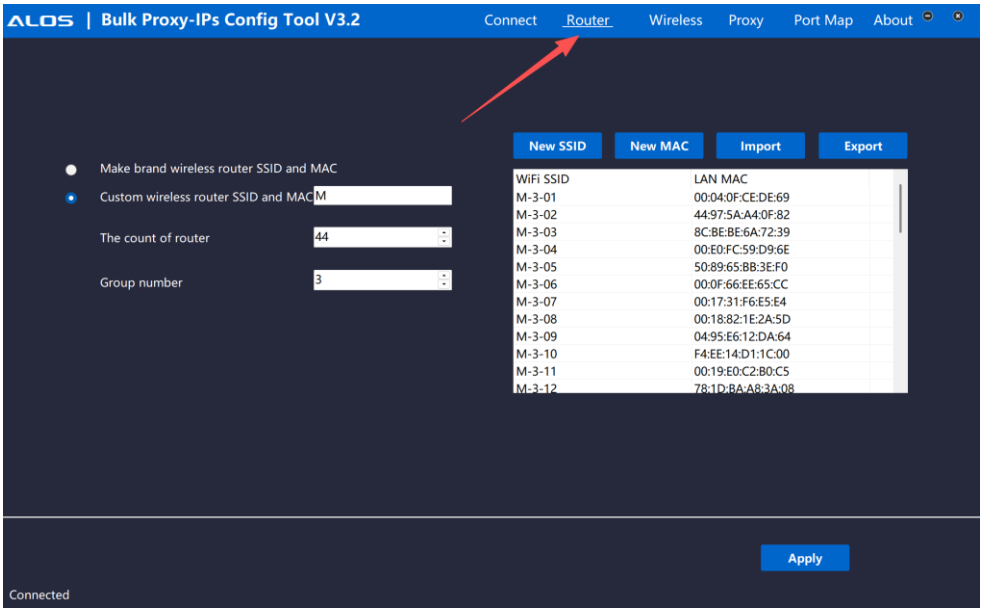


Upon successful connection, a "**Connected**" prompt will be displayed.



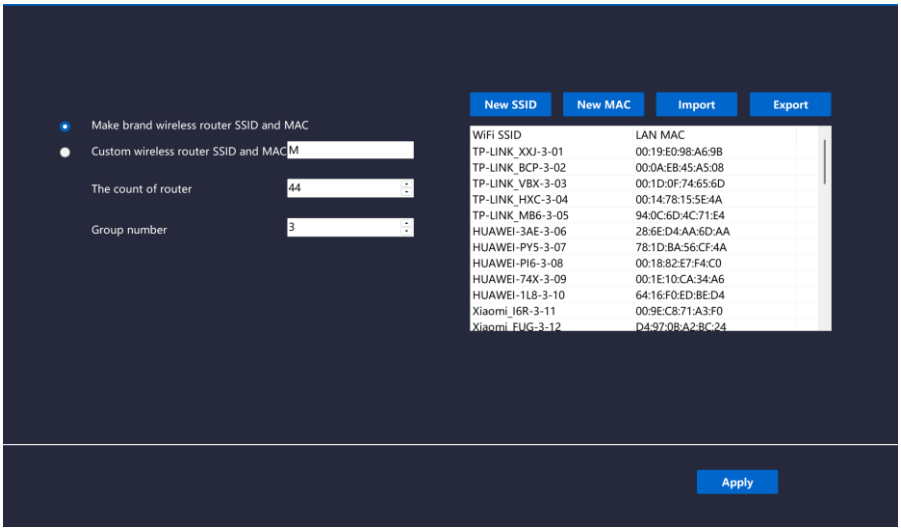
5.2 Sub-router Settings

Go to the menu: **Router**, start SSID & MAC Settings.



5.2.1 Generate Brand Router SSID & MAC

Select **"Make Brand Router SSID & MAC"**, then click **"New SSID"**. The software will automatically generate 22 random router SSIDs and MAC addresses. Click **Apply** to save settings to the device.

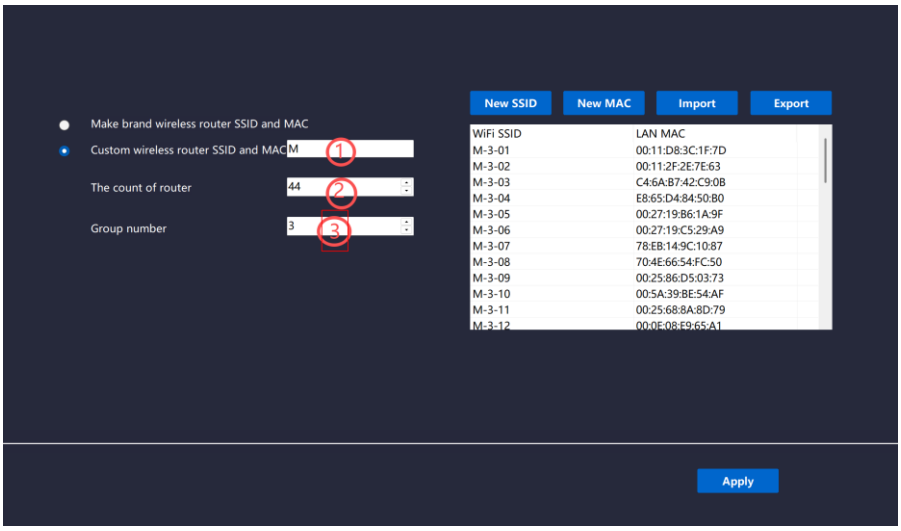


5.2.2 Customize Router SSID & MAC

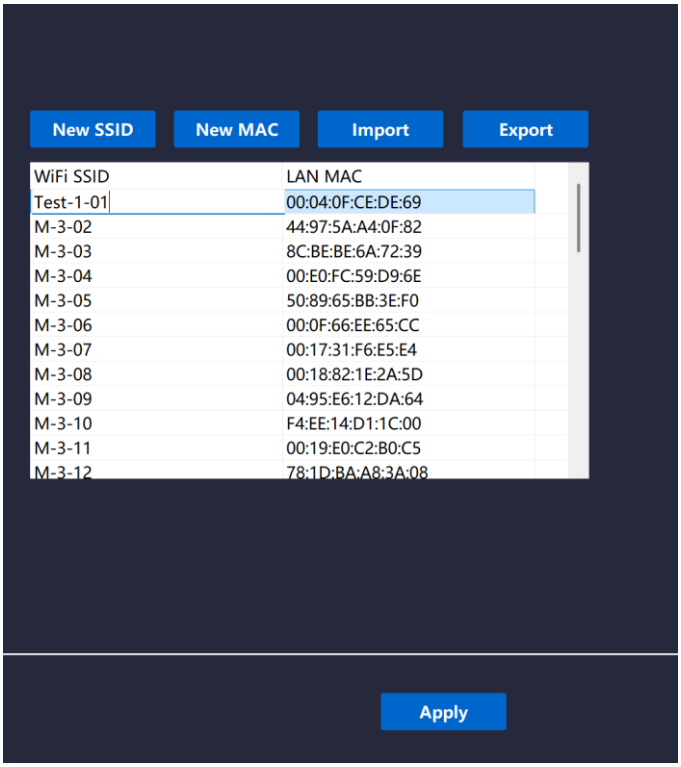
Rename SSID by input a new ①prefix name, and select the quantity of SSIDs to broadcast② (if the router model has an upper limit of broadcasting 22 SSIDs, you may set the SSID quantity <=22).

No need to modify ③"Group number", if there is only 1 ALNETS router in the surrounding. That group number is used to identify the number of ALNETS routers you have in the network.

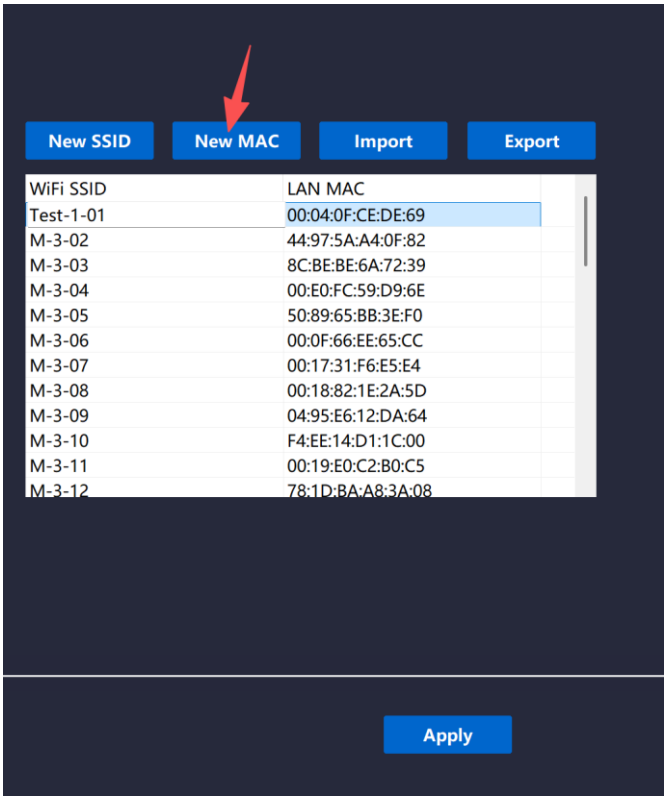
When all is set, click **Update SSID**, then **Apply**.



Users may also manually edit individual SSIDs in the list, as image shown below, after setting, click **Apply**.



Click **New MAC** to refresh router MAC addresses in batch, as image shown below, after setting, click **Apply**.

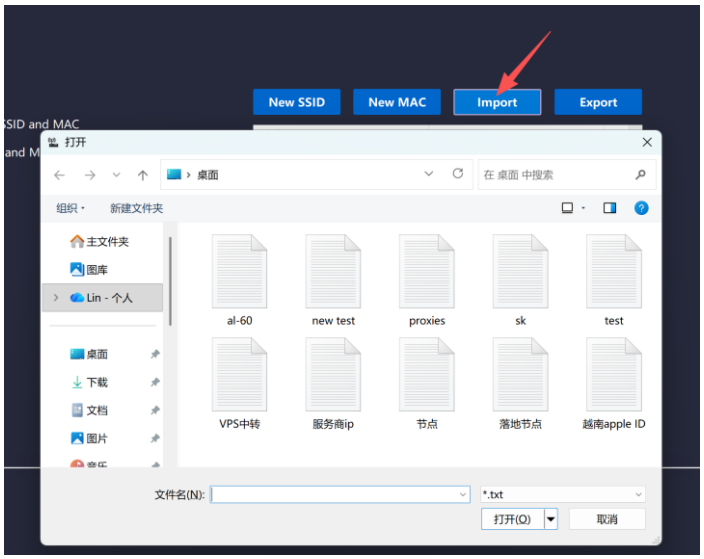


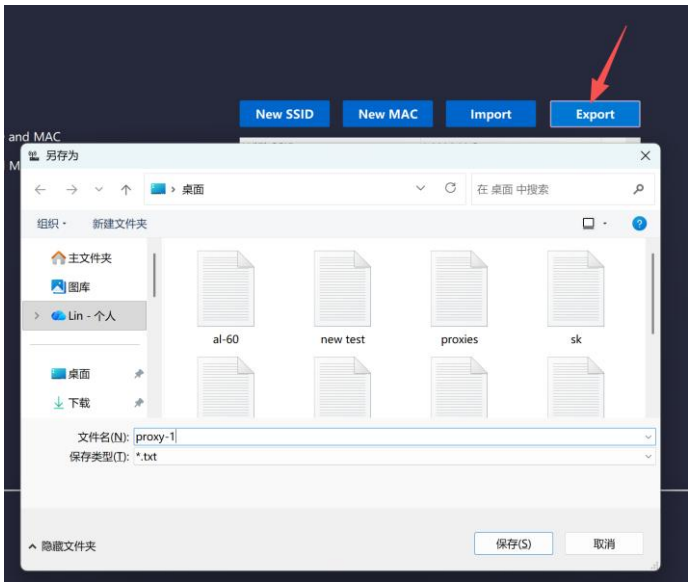
Note:

*The software ALBulk includes **millions of built-in LAN MACs**, enabling network environment refresh and new fingerprint generation.*

Import / Export

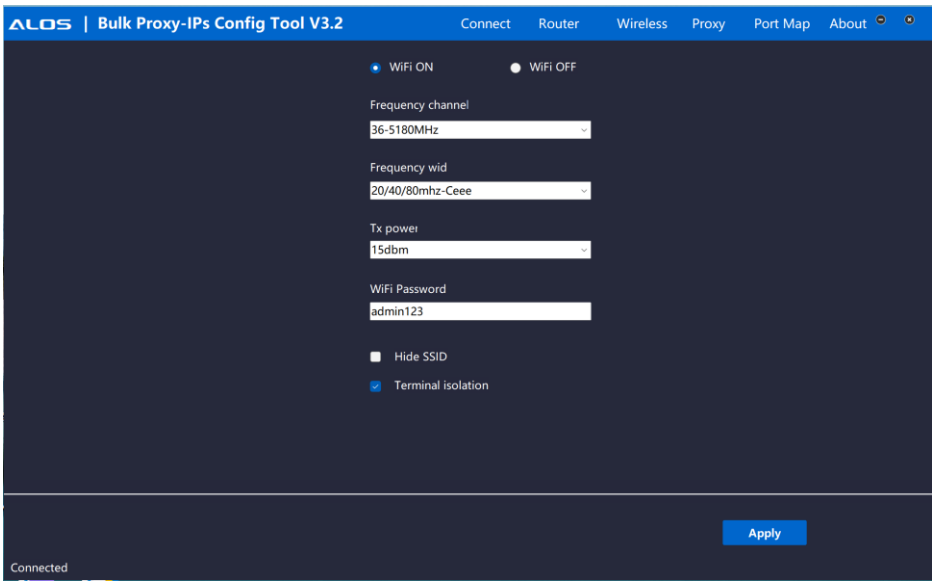
The system supports importing and exporting SSID/MAC lists in .txt format, images as shown below.





5.3 Wi-Fi Settings for MLR-LW22 Only

Go to **Wireless** Settings.



Wi-Fi parameters include **Frequency Channel** (default set to “Auto”), **Frequency Width**, and **Transmit Power**. If the local Wi-Fi environment is not complex, these parameters can remain at their default settings.

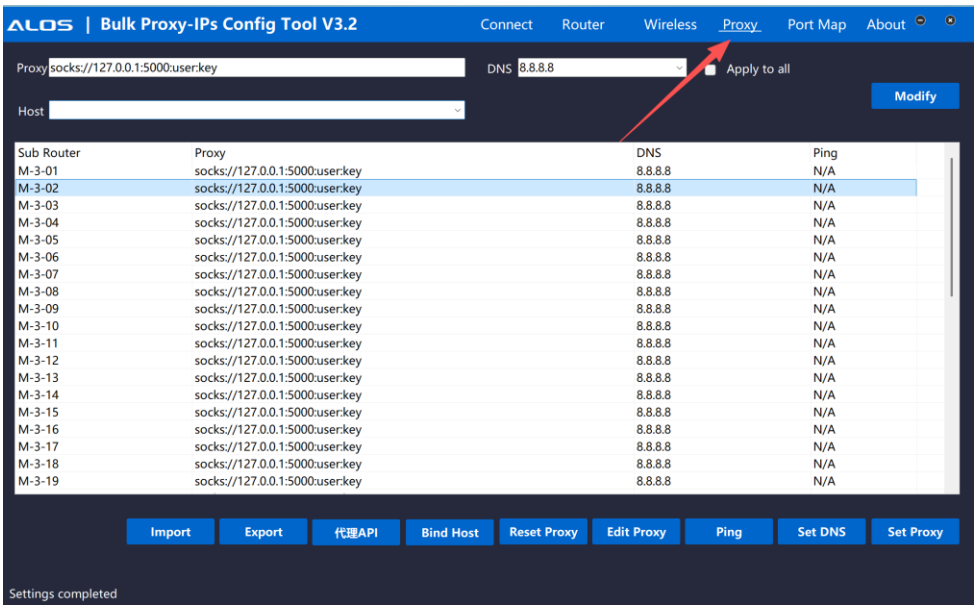
- **Enable/disable** all Wi-Fi networks.

- **Wi-Fi Password**: Allows unified modification of passwords for all SSIDs. The default is **admin123**.

- **Hide SSID**: Make all SSIDs invisible.

- **Terminal Isolation**: Prevents wireless devices connected to the same Wi-Fi network from accessing each other.

5.4 Proxy Settings



Note:

Before configuring proxies, prepare the Proxy IPs to import.

Proxies can be obtained by purchasing from a Proxy Providers or using VPS to build up proxies.

Collect the Proxies and save them into a TXT file for later use.

*The router supports proxy protocols of **socks5** and **http**. Proxy Format of each protocol as below:*

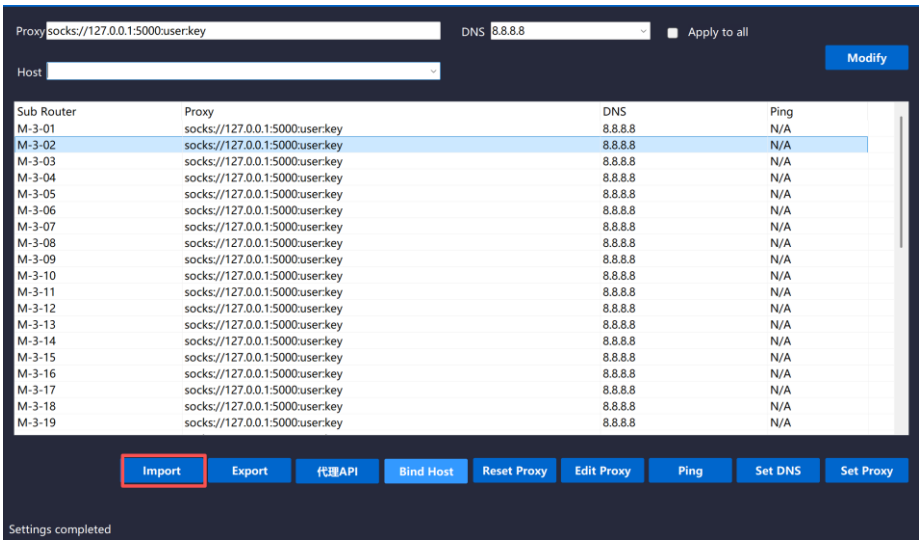
***Socks5 proxy format**: socks://ip:port:user:password (if no user and password, use socks://ip:port).*

***HTTP proxy format**: http://ip:port:user:password (if no user and password, use http://ip:port).*

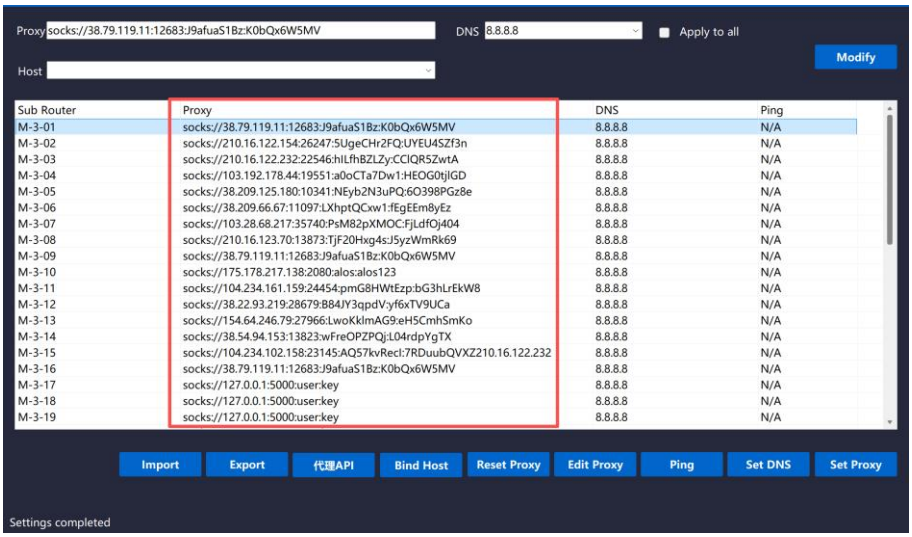
When importing proxy information, please avoid entering extra spaces, as they may fail the proxy testing.

5.4.1 Import Proxies to Router

On the **Proxy** page, click "**Import Proxy**" to import the TXT file containing Proxy IPs.



After importing Proxy IP information, the node information list will appear as shown below:



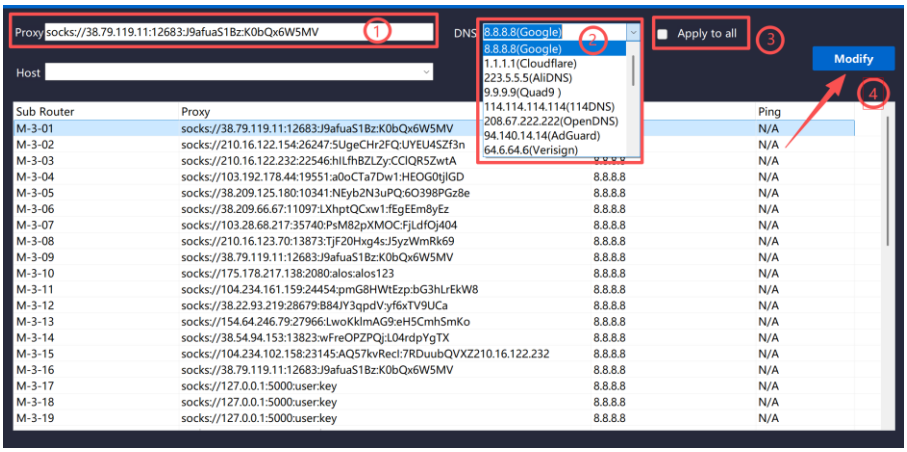
5.4.2 Editing Nodes

Method 1:

If you need to modify a single proxy node, as shown in the below image, select the node you want to edit. Its information will appear in the proxy editing box ①. Copy and paste the new proxy node information into this box, then click **"Modify"** ④ to update the settings. After all node edits are completed, click the **"Set Proxy"** button at the bottom right to save.

If you need to change the DNS server, select the desired DNS server IP address from the **DNS** dropdown menu ②**,** or input a new DNS IP address. You may check

"Apply to all" ③ to apply the new DNS server to all proxy nodes. If left unchecked, the new DNS server will only apply to the currently selected proxy node. After configuring, click the **"Set DNS"** button at the bottom right to save.



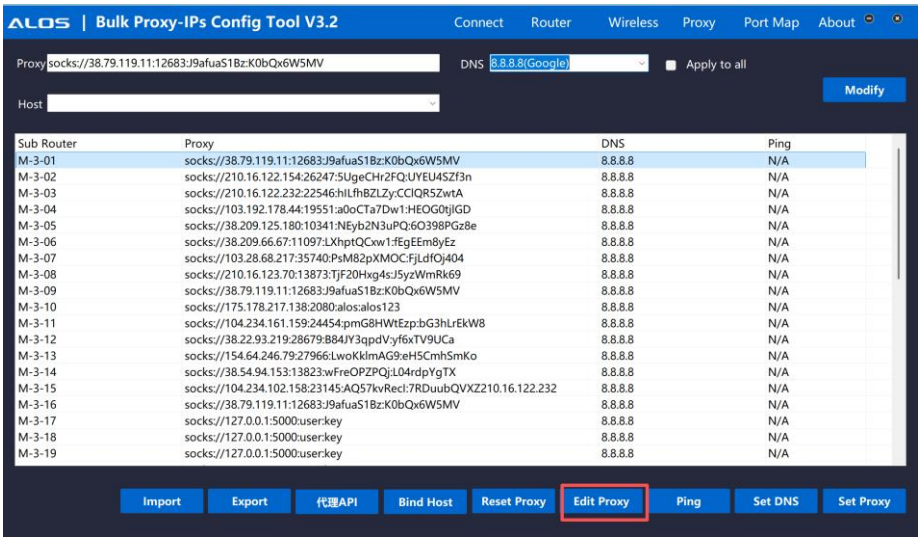
Note:

*Clicking the **"Set Proxy"** button saves **all related configuration changes**, and the device may take slightly longer to process them.*

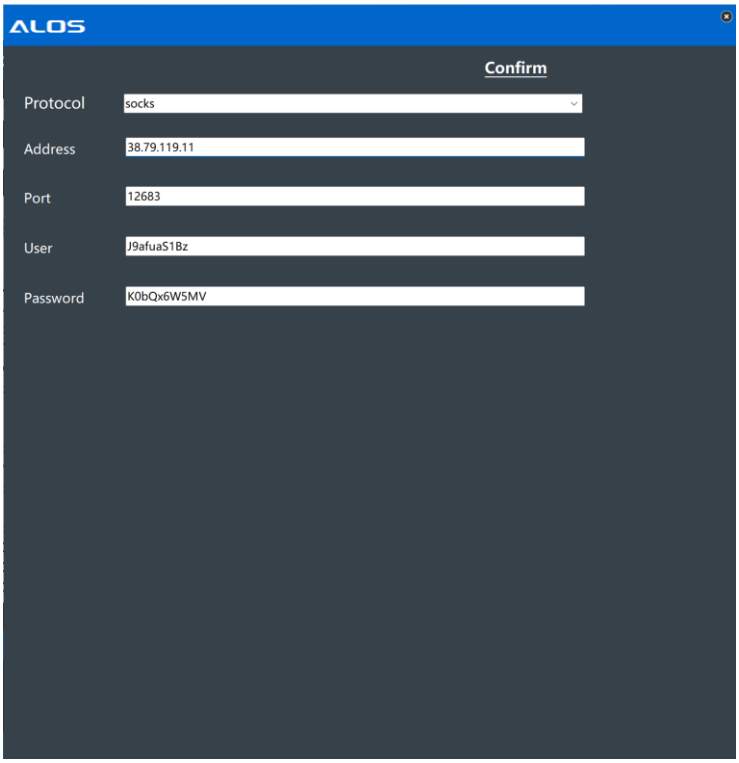
*Clicking the **"Set DNS"** button saves **only the DNS server settings**.*

Method 2:

Select a proxy node, then click the **"Edit Proxy"** button, as shown in the figure.



A dialog window for the proxy node will pop up, as shown in the figure below.

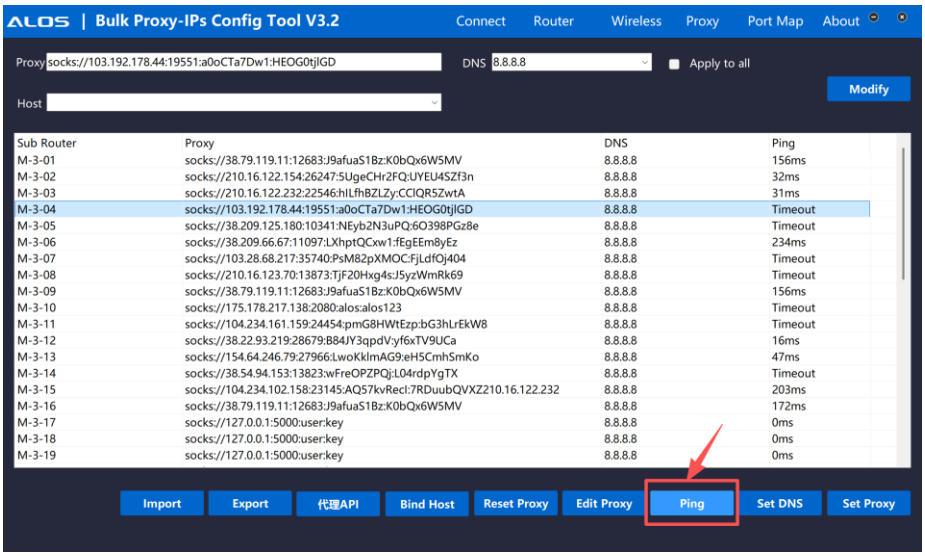


After modifying the proxy node information, click “Confirm”.

Once all nodes have been updated one by one, click the “**Set Proxy**” button to save and apply all changes to the router.

5.4.3 Ping the Proxy Nodes

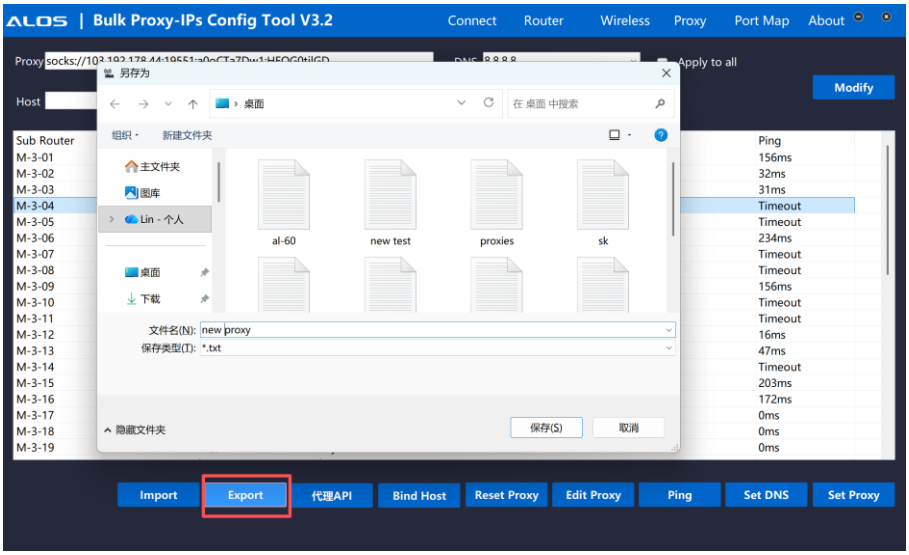
After proxies are set, click “Ping” to test if the proxy connection is successful.



5.4.4 Export all Nodes in TXT:

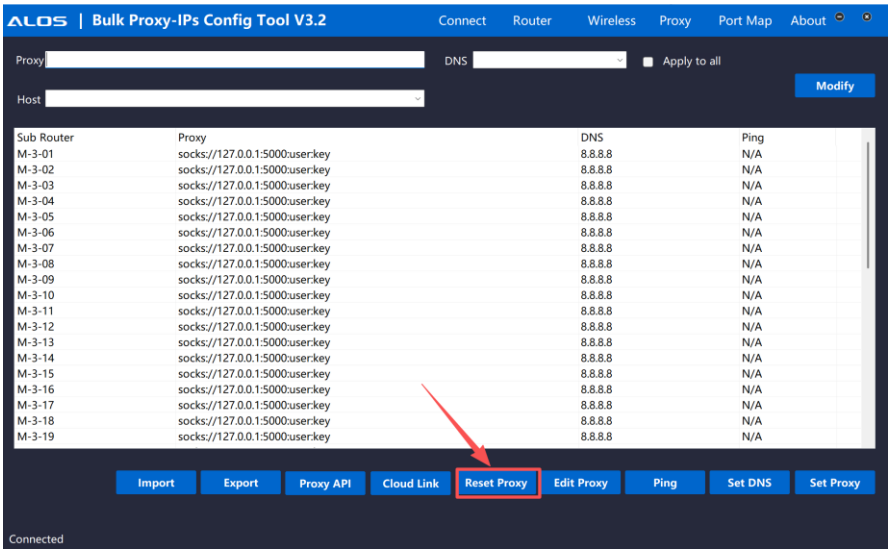
The software supports batch exporting of node information for modification.

After modification, you can import the nodes at the same TXT format back to the router.



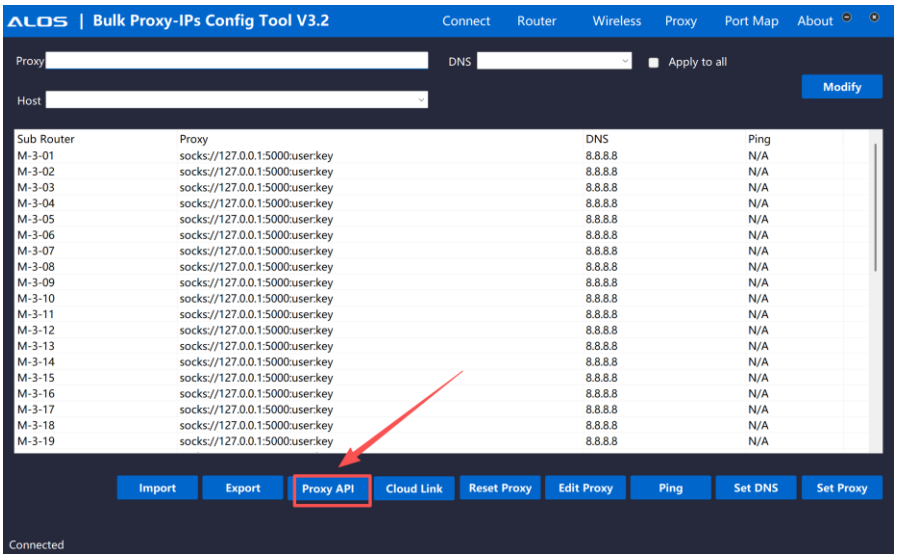
5.4.5 Reset Proxies

Click "Reset Proxy" to get all Proxies to the default state as *socks://127.0.0.1:5000:user:key.*

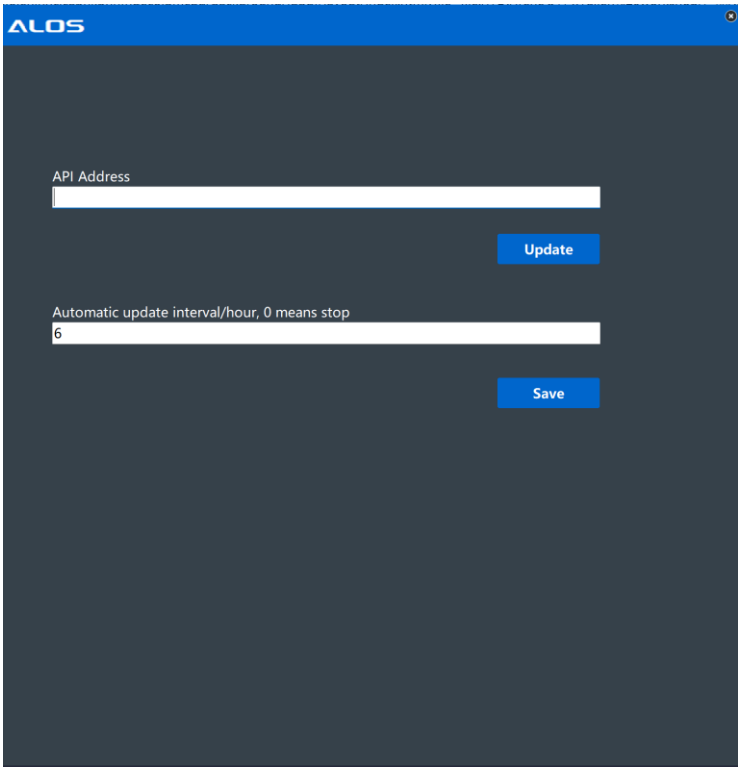


5.4.6 API Integration

Click “Proxy API” to configure automatic node updates from supported providers.



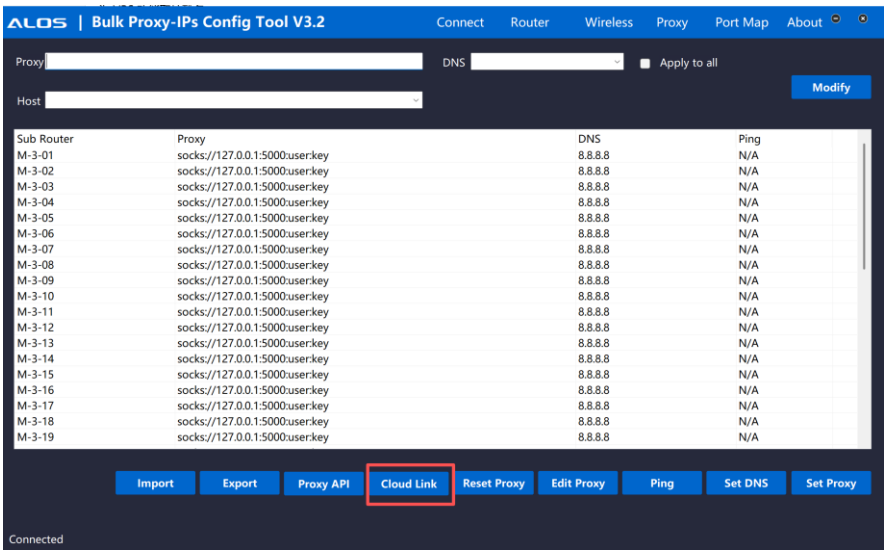
The API setting page as below:



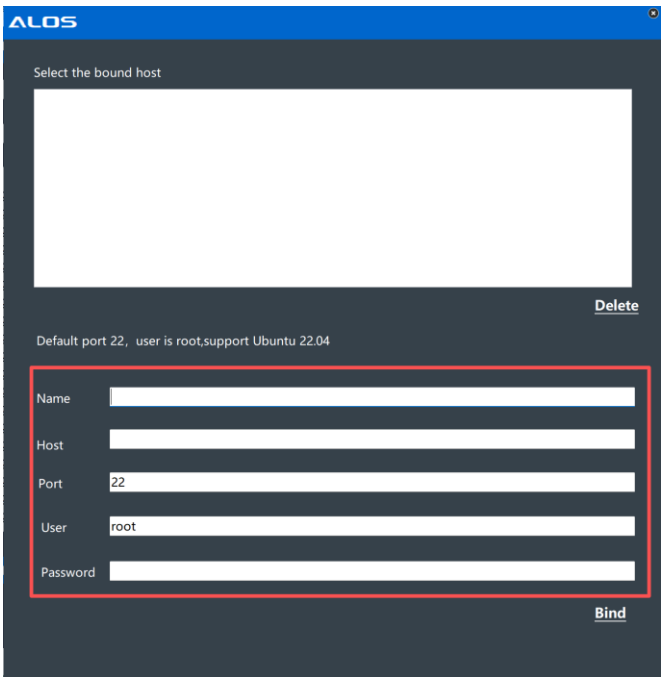
5.4.7 Cloud Host Binding

It allows direct conversion of any static-IP cloud server into a proxy node.

Click “Cloud Link” button as shown in the following figure.



Coming up a setting page as below. Input the account info of a cloud server in the editing area in red, then click “Bind”.



“Name” – Self-define a name of the cloud server for easy memorization.

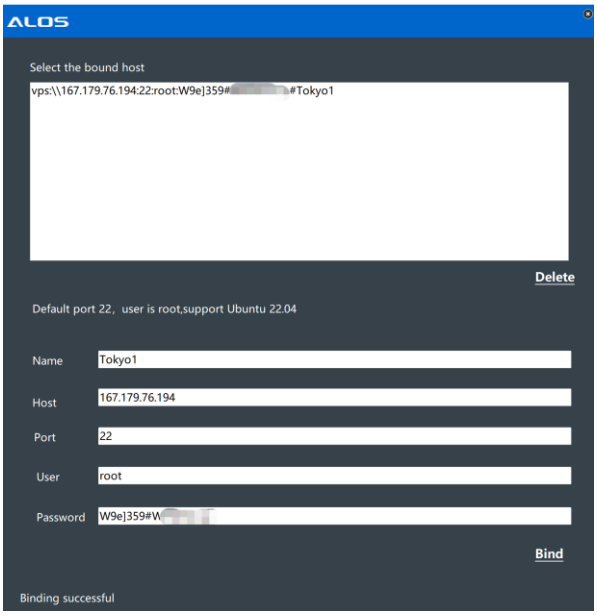
“Host” – Enter the cloud server’s IP address. (***Note:*** *the cloud server should be installed with Unbuntu 22.04*)

“Port” – SSH port, the default port is “22”.

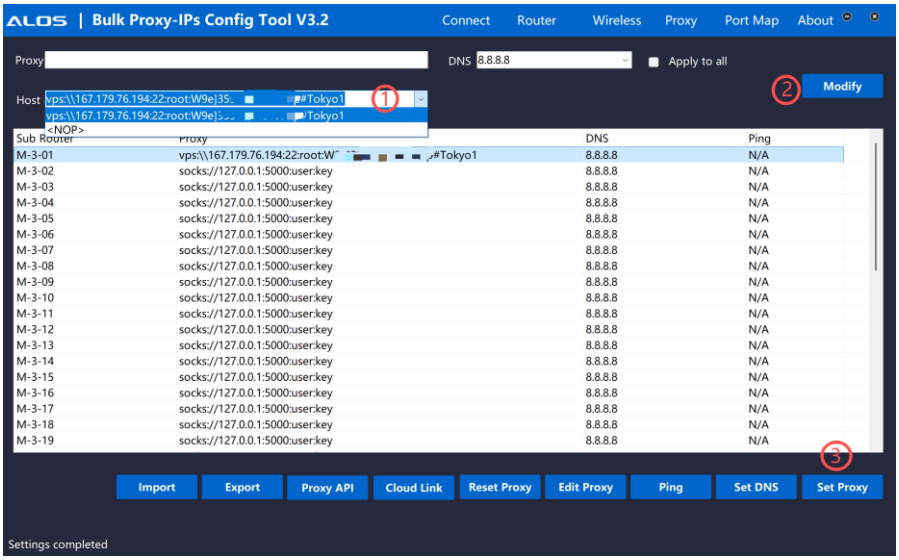
“User” – Enter the user name of cloud server. In general, default user name is “root”.

“Password” – Enter the password of cloud server.

After binding a cloud server, it will appear like below:



In the proxy setting page, we select a "Sub Router", and then in the ①"Host" dropdown menu, select the Cloud Link we just built, and click ②"Modify", then click ③"Set Proxy", all is set. A proxy node built from cloud sever is created.



Tips:

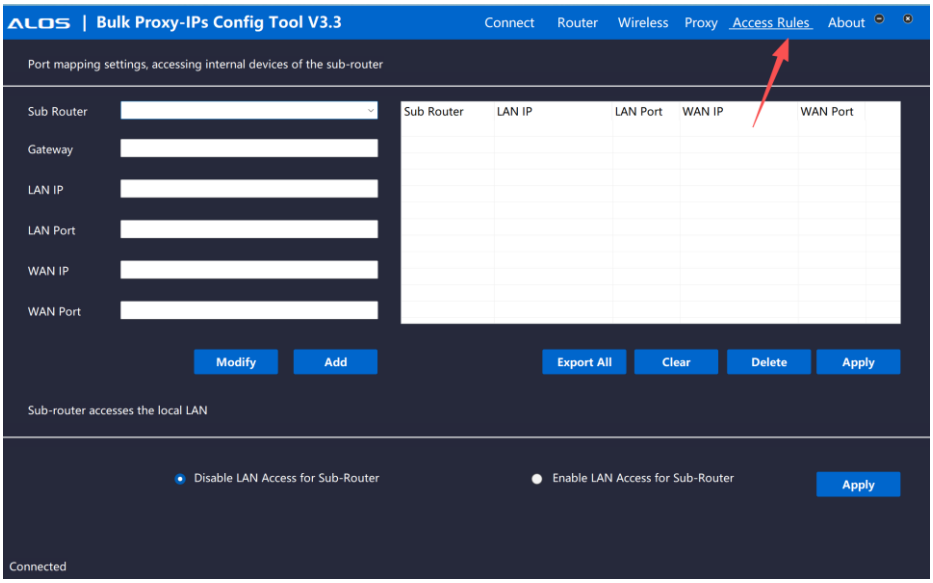
Please ensure that your cloud server's firewall or security policy allows at least the following ports, or simply enable all ports from 1–65535 to guarantee smooth network connectivity. You may check the port status in your cloud server's network/security settings.

Required open ports:

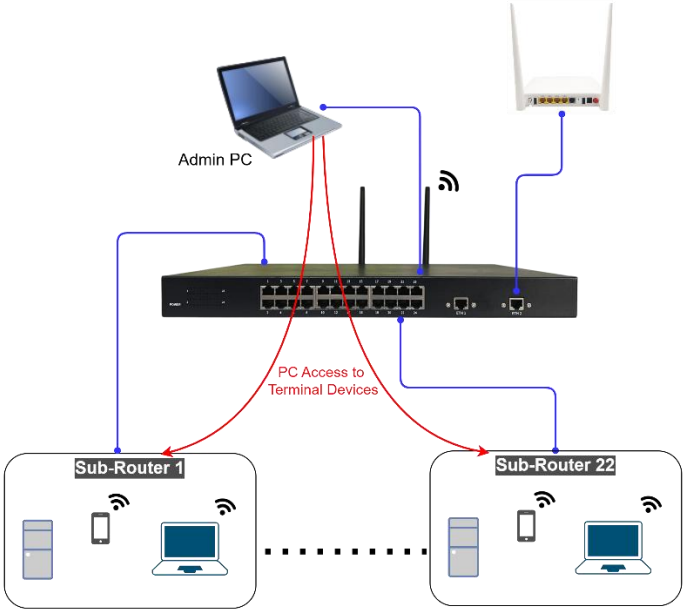
SSH — Port 22
TCP — Port 23585
UDP — Port 23585
TCP — Port 26516
UDP — Port 26516
TCP — Port 32411
UDP — Port 32411

5.5 Access Rules (Updated in V3.3)

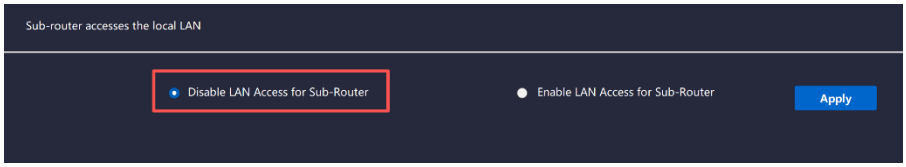
Access Rules is used for the management and control of devices downstream or upstream within the router's internal network.



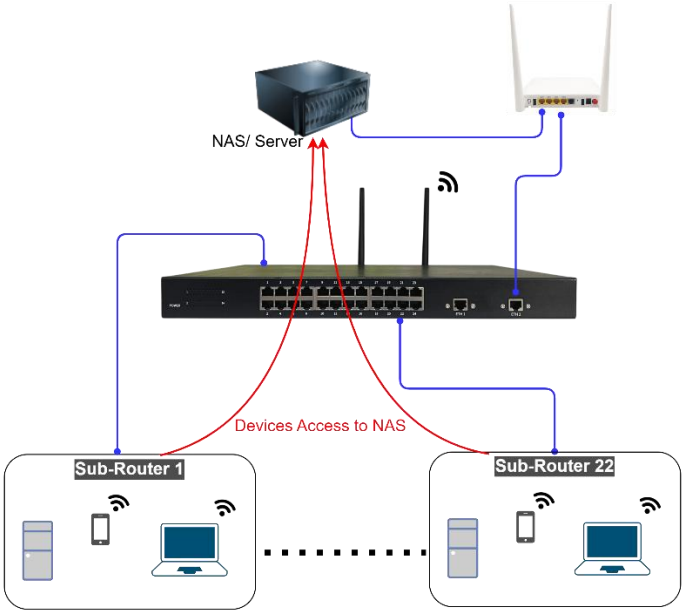
- When a downstream control is required, for instance, one admin PC needs to control devices in the sub-router networks, diagram as below:



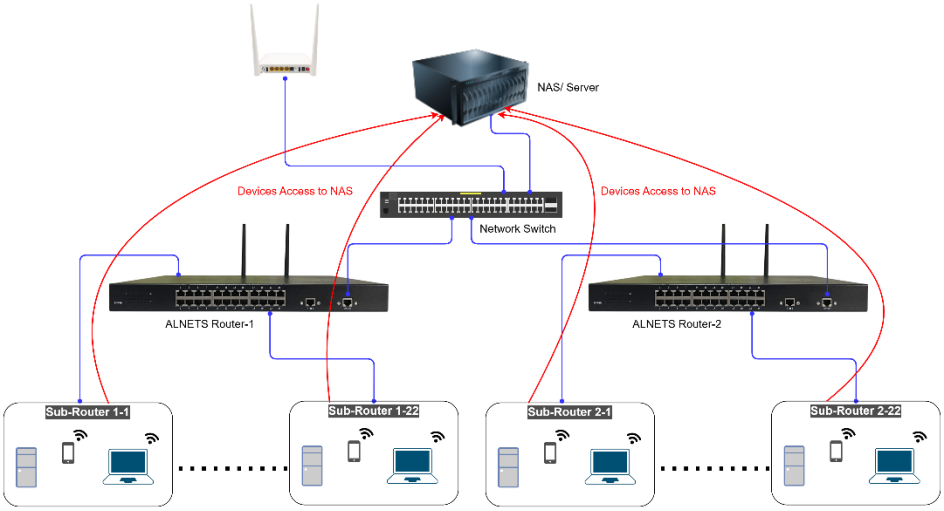
In this scenario, “Disable LAN Access for Sub-Router” in the ALOS software should be checked. Then do the port mapping setting.



- When an upstream access is required, for instance, terminal devices in each sub-router’s network want to access to the sources stored in the NAS/server upstream. Diagram as below:

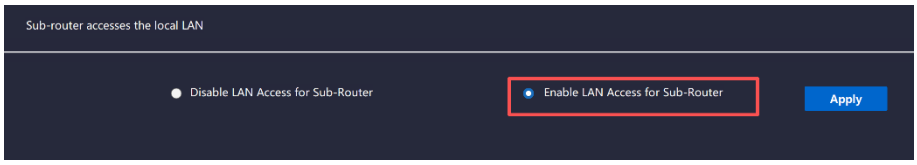


Or there are more than one ALNETS routers in the network, and all terminal devices connected to the routers need to access to a same NAS/Server upstream. Diagram as below:



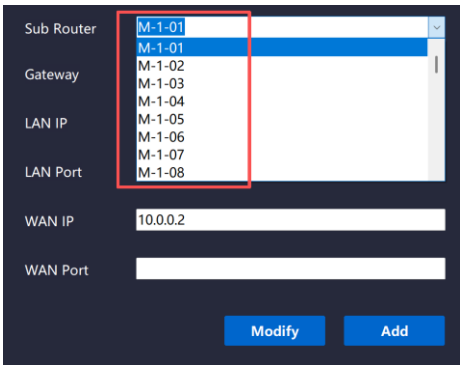
In these scenarios, “Enable LAN Access for Sub-Router” in the ALOS software should

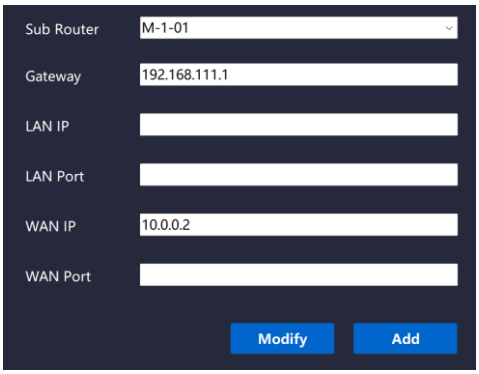
be checked. Then do the port mapping setting.



****Here we take Remote Desktop (RDP) access demonstration as an example.****

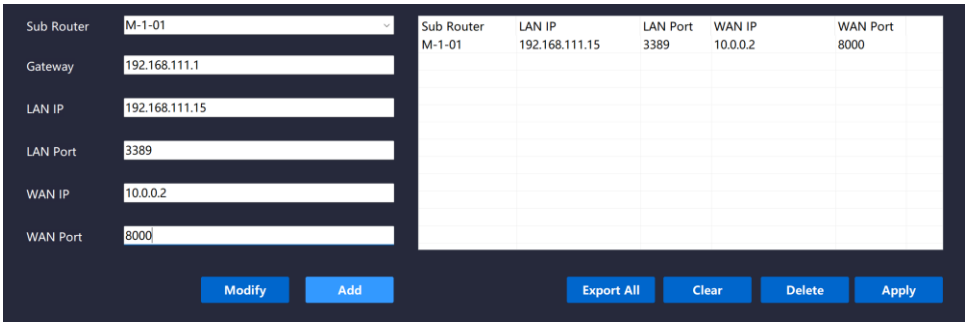
In the Sub-Router dropdown menu, select a target sub-router (e.g., M-1-01).
Once selected, the Gateway and WAN IP fields will be automatically populated.
Fill in the fields as follows:



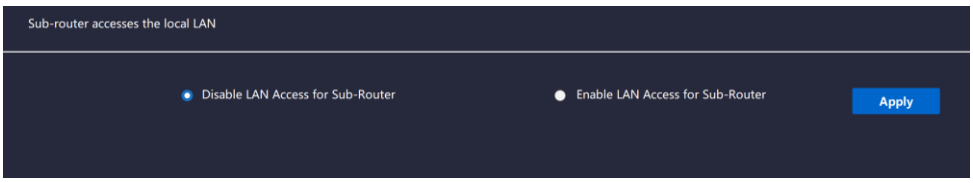


LAN IP: Input the local IP address of the downstream terminal device connected to this router.
LAN Port: Input the default Remote Desktop port 3389.
WAN Port: Choose an unused external port in the range 1024–65535 (consult your network administrator if necessary, to avoid port conflicts).

After completing the fields, click **Add**.
A new port-mapping entry will appear in the list on the right.
Then click **Apply** to save and activate the configuration.



Then select “Disable LAN Access for Sub-Router” and click **Apply**.



Note:

*When selecting "**Disable LAN Access for Sub-Router**", it means terminal devices connected under sub-router's networks, will **NOT** be able to access to Control Computer, which is connected through the physical LAN port or Wi-Fi "ALOS-1".*

*When selecting "**Enable LAN Access for Sub-Router**", it means terminal devices connected under sub-router's networks, will be able to access to Control Computer, which is connected through the physical LAN port or Wi-Fi "ALOS-1".*

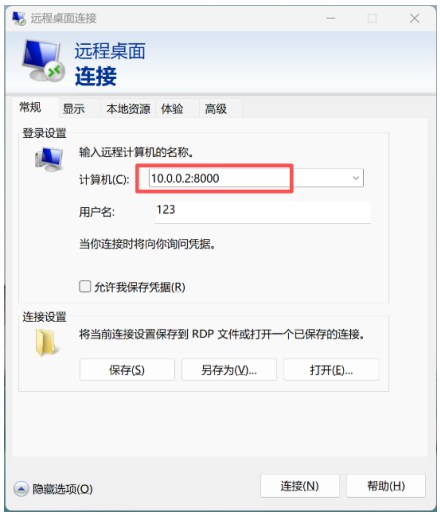
After configuration is complete, connect the control computer either:

- via Ethernet to the router's physical **23 LAN port**, or
- wirelessly to the router's Wi-Fi **ALOS-1** (available on MLR-LW22 model).

Open Remote Desktop Connection on the control computer.

Enter the address in the format: ***WAN IP : WAN Port*** (as configured above).

Enter the username and password of the target downstream computer, then click "Connect". Image shown as below:



Key advantage:

Using port mapping for Remote Desktop access ensures that the control computer will bypass proxies, because the connection travels directly through the clean internal network rather than through the proxy tunnel.

For Technical Support, please Contact Us by:

WeChat: alnets-wx
Telegram: @alnetscn
WhatsApp: 0086-138 5909 6433
Email: sale@alnets.net
Website: www.alnets.net