File Name:	User Manual	Version	1.0
Project:	V518	Update Date:	Nov.16th, 2018

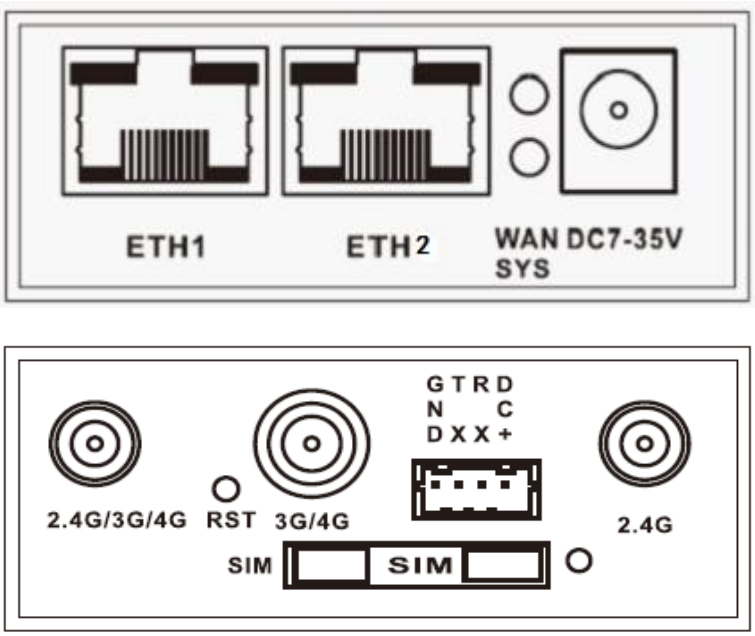
iStartek 3G/4G INDUSTRIAL ROUTER USER GUIDE
Model: V518

Content

1. Interface description ..... - 3 -
2. Preparation for setup ..... - 4 -
3. Operating mode ..... - 6 -
   3.1 3G/4G Wireless Router Mode (default) ..... - 7 -
   3.2 Standard Wireless Router Mode ..... - 8 -
   3.3 Standard Wireless AP and APClinet Bridge Mode ..... - 10 -
   3.4. Wireless AP Client Mode ..... - 14 -
4. Wireless Security Settings ..... - 15 -
   4.1. Wireless Security ..... - 15 -
   4.2. Open System ..... - 15 -
   4.3.WPA-PSK ..... - 16 -
   4.4.WPA2-PSK ..... - 17 -
   4.5. WPAPSKWPA2PSK ..... - 18 -
5. System Service ..... - 18 -
   5.1.Virtual Sever ..... - 19 -
   5.2. COM2 SERVER ..... - 19 -
   5.3. SMS Service ..... - 20 -
6. Device Management ..... - 21 -
   6.1. Device Function ..... - 21 -
   6.2. Firmware Upgrade ..... - 22 -
   6.3. Factory Defaults ..... - 23 -
   6.4. Password Management ..... - 23 -

Startrack Technology

1. Interface description



Item	Parameter
WAN Port(Left)	1 10/100M adaptive LAN/WAN port, built-in isolation, auto flip (Auto MDI/MDIX); standard routing mode for WAN port, other modes for LAN port
LAN Port(Right)	1 10/100M adaptive LAN port with automatic flip (Auto MDI/MDIX); built-in 1.5KV electromagnetic isolation protection
Serial Port	1 serial port DTU supports data transparent transmission, AT command
Indicator	2 indicators
Antenna Connector	3 antenna interfaces, standard SMA antenna interface (2 2.4G and 1 3G/4G)
USIM	1 SIM card slot
Power interface	Standard DC interface 7V-35V

Indicator status description

Item	Status	Description
ETH	Flash	RJ45 port is connected
	Off	RJ45 port is not connected
WAN	Fast Flash	Fast flashing after power-on, indicating that the dialing process is in progress

Startnet Technology

	Constant On	It is constantly on after power-on, indicating that the dialing is successful.
	Off	Off after power-on, indicating that the LTE module or SIM card is not recognized.
SYS	Constant On	It is constantly on after power-on, indicating that normal power supply.
	Off	After power-on, from constant light to slow flash, the system is running normally.

2. Preparation for setup

Connecting device

You can connect your computer and router by following the steps below.

Set the computer's IP address

Before accessing the web settings page, it is recommended that you set your computer to "automatically obtain an IP address" and "automatically obtain a DNS server address", and the router automatically assigns an IP address. If you need to assign a static IP address to your computer, you need to set the IP address of the computer to the same subnet as the router's LAN port IP address (the router's LAN port default IP address is 192.168.10.1, and the subnet mask is 255.255.255.0).

Connect via Wi-Fi

Detect the wireless router's wireless network connection, then click the 'Connect' button to establish a connection, the default wireless password is: **12345678**.

Confirm that the computer is connected to the router

Startrack Technology

When your computer shows that the IP has been successfully obtained, use the Ping command to confirm that the connection between the computer and the router is successful.

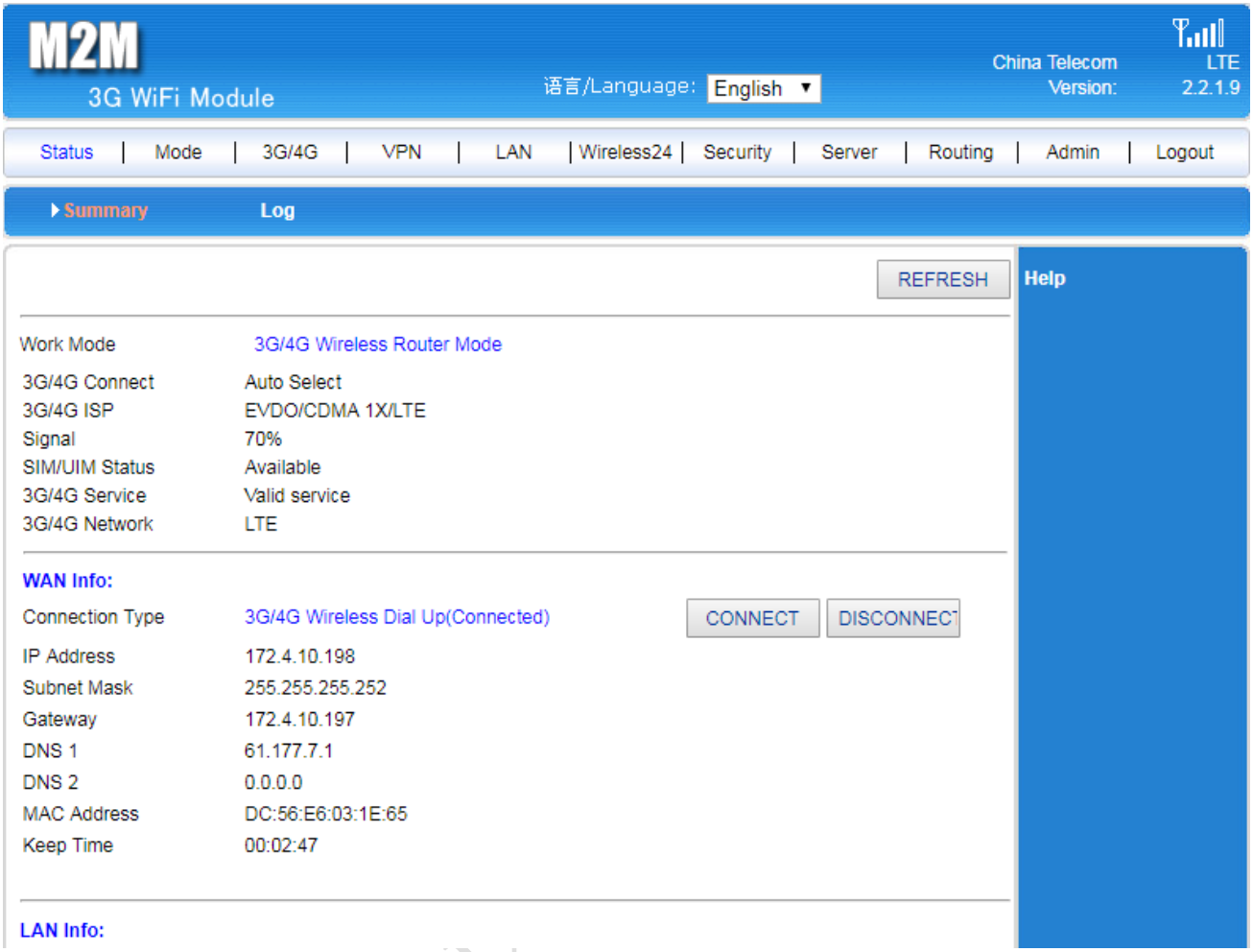
For example, in a Windows XP environment, execute the Ping command: Ping 192.168.10.1
If the screen displays as below, it indicates that the computer has successfully established a connection with the router.

Log in to the router

Log in to the router web settings page.
Enter "http://192.168.10.1" in the address bar of the web browser and enter the login user name and password in the pop-up box.
When you log in for the first time, please enter the default username: admin, password: admin.

Enter in router web settings page

After the login is successful, enter the web settings page, then you can set up and manage the router.



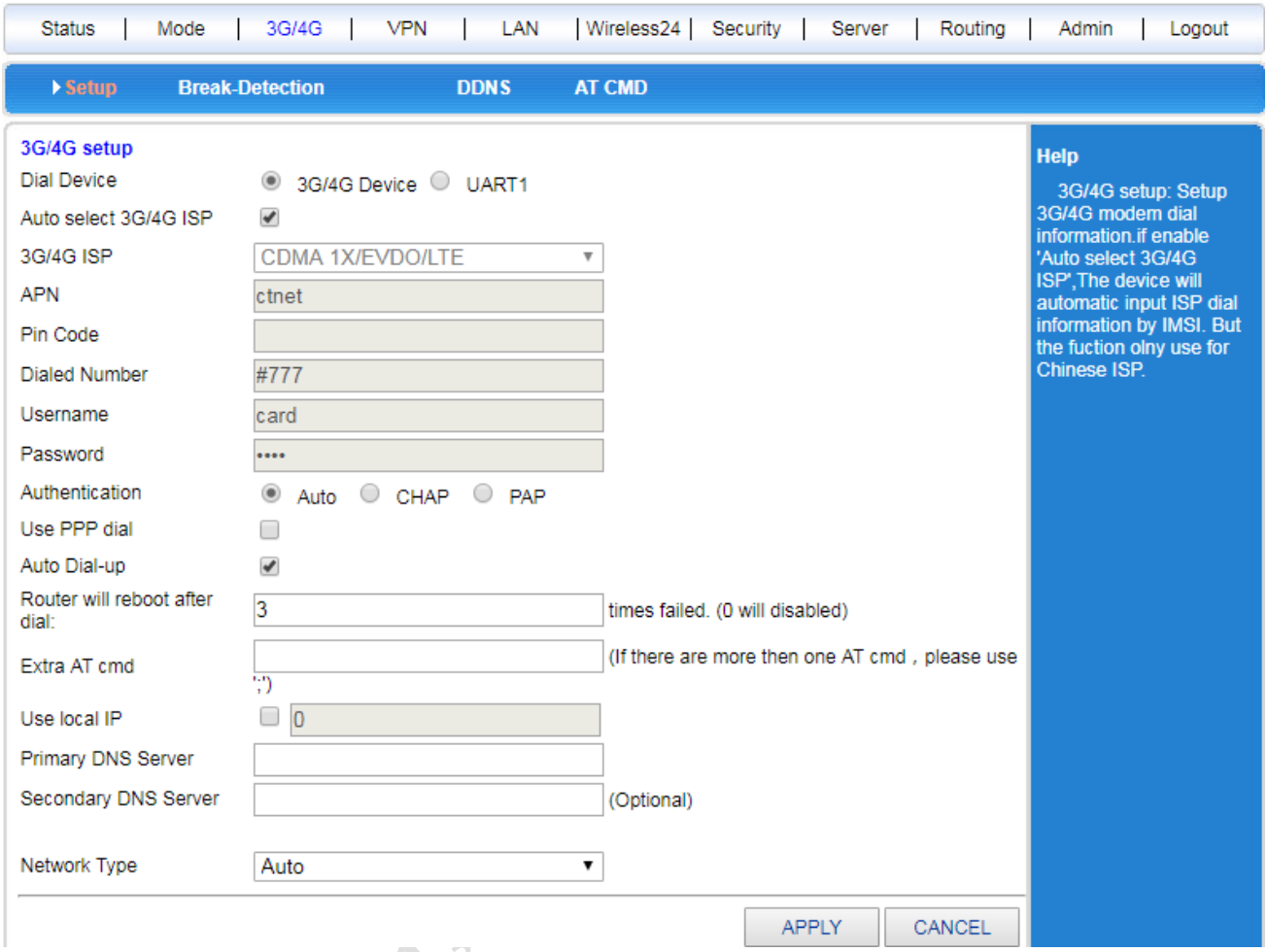
3. Operating mode

V518 provides 4 working modes: 3G/4G Wireless Router Mode (default), Standard Wireless Router Mode, Standard Wireless AP and APClinet Bridge Mode, Wireless AP Client Mode:

Startrack

3.1 3G/4G Wireless Router Mode (default)

The V518 defaults to the 3G/4G Wireless Router Mode. When a 3G/4G card is inserted, the router will automatically recognize the 3G/4G network. You can also define the network operator you need to choose.



For example, the operators in China:

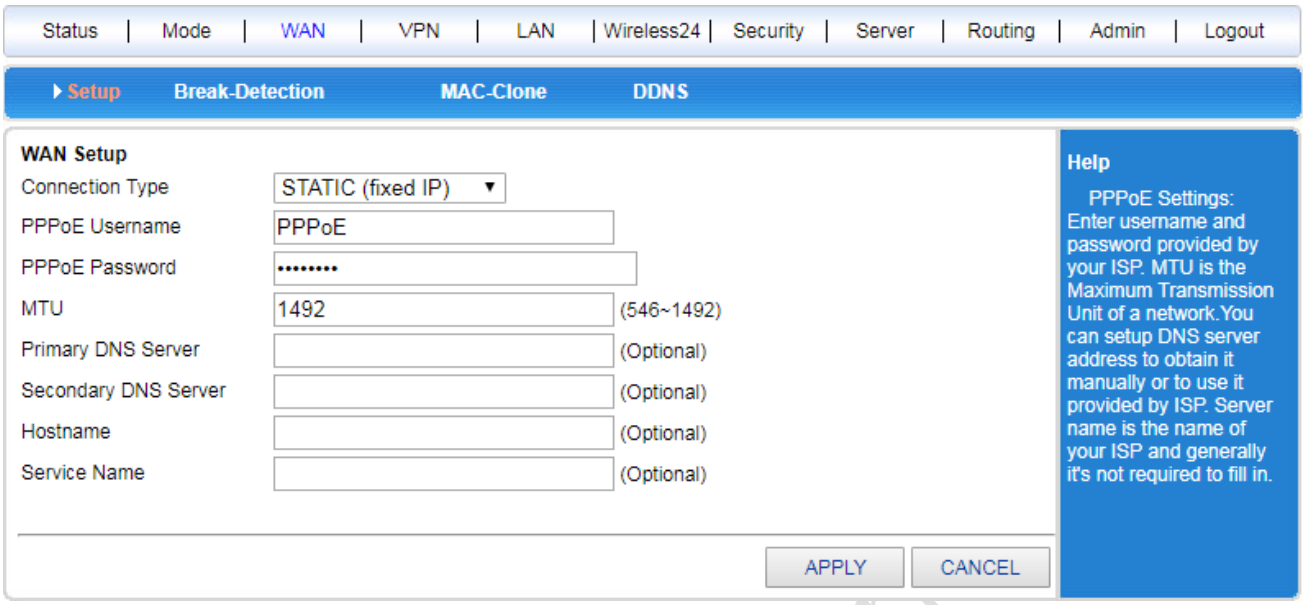
Operator	3G/4G Network	APN	Dial Number	User Name	Password
CHINA MOBILE	TD-SCDMA TDD-LTE	cmnet	*99***1# or *99# or*98*1#	card	card
CHINA TELECOM	CDMA2000 FDD-LTE	ctnet	#777	card	card
CHINA UNION	WCDMA FDD-LTE	3gnet	*99#	Blank	blank

3.2 Standard Wireless Router Mode

1）Static internet access

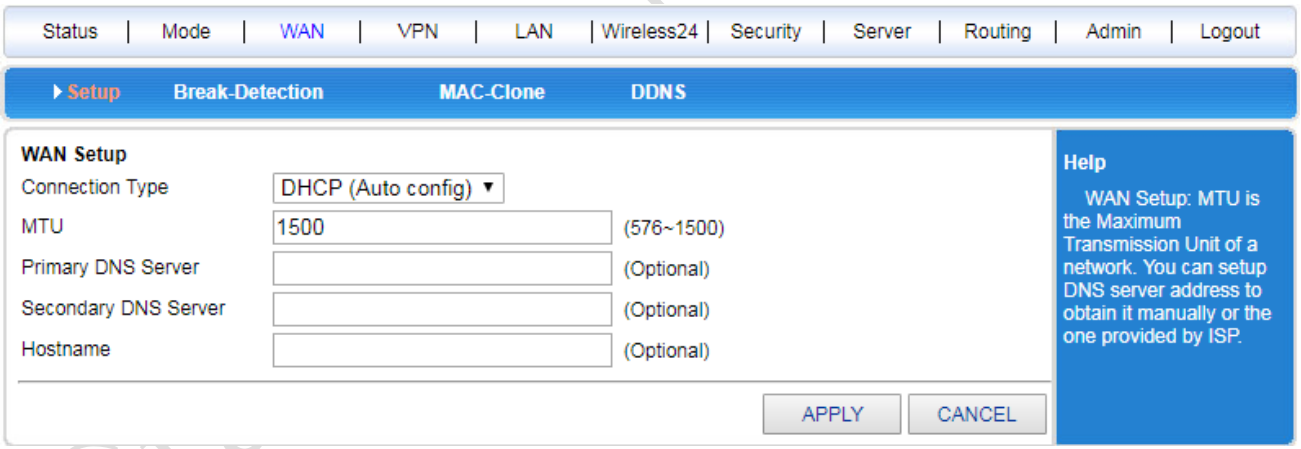
Enter the router management interface working mode to select the Standard Router Mode, set WAN Internet mode as static address, enter the IP address, network mask, gateway, DNS and

other related parameters provided by the ISP, click OK.



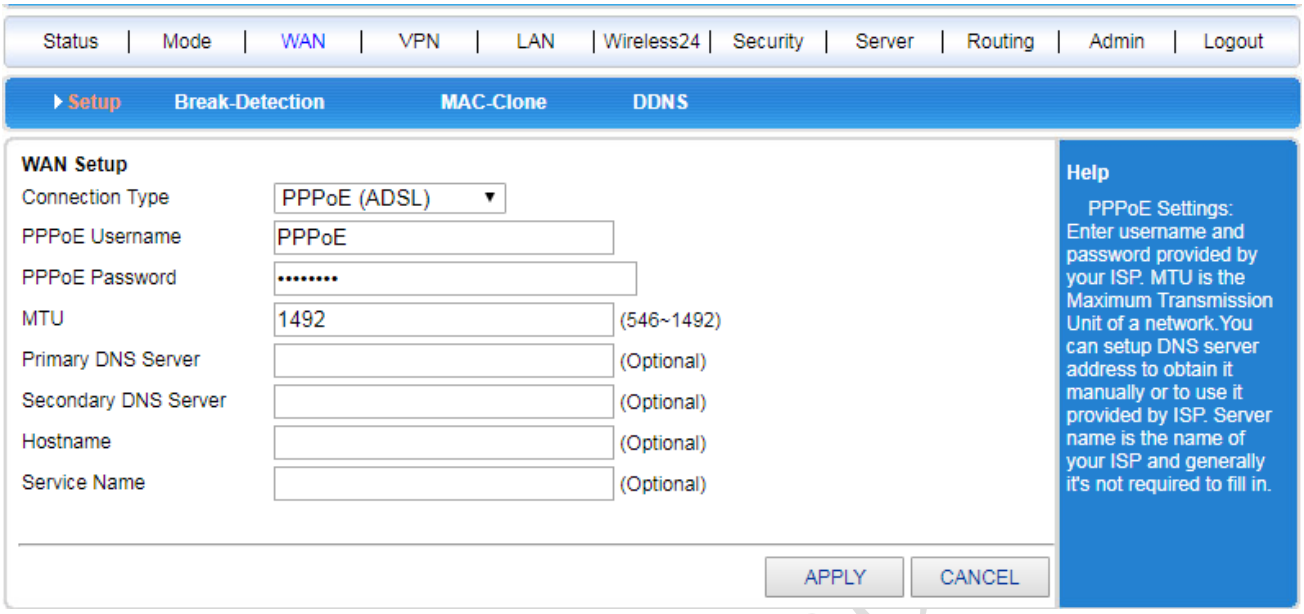
2）Dynamic internet access

Enter the router management interface working mode, select the Standard Router Mode, set WAN setup as the dynamic address, click APPLY, the router will automatically obtain the parameters assigned by the ISP.



3）PPPoE Internet access

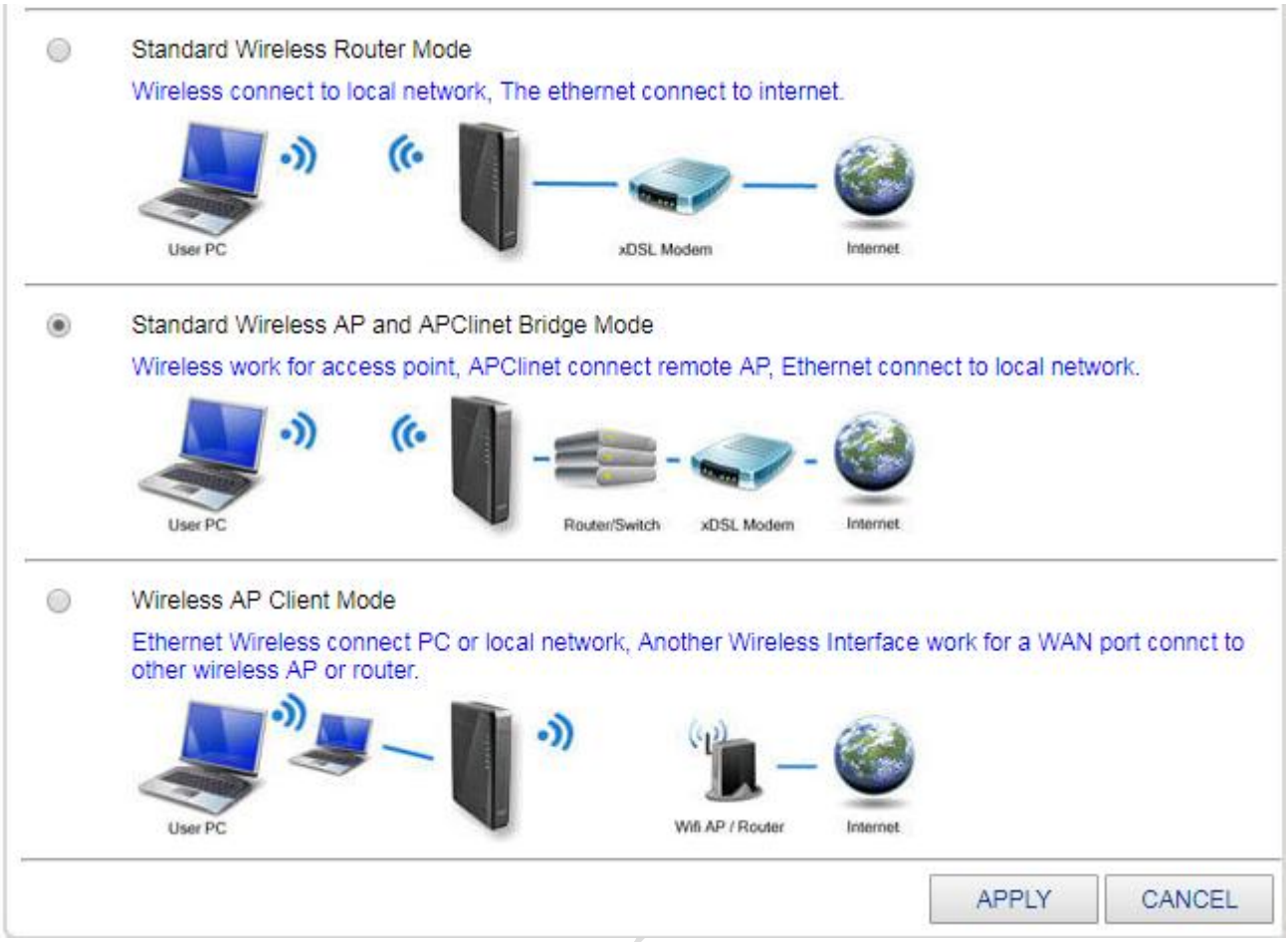
Enter the router management interface working mode, Standard Router Mode, WAN setting as PPPoE, enter the user name, password and other related parameters provided by the ISP, click APPLY.



3.3 Standard Wireless AP and APClinet Bridge Mode

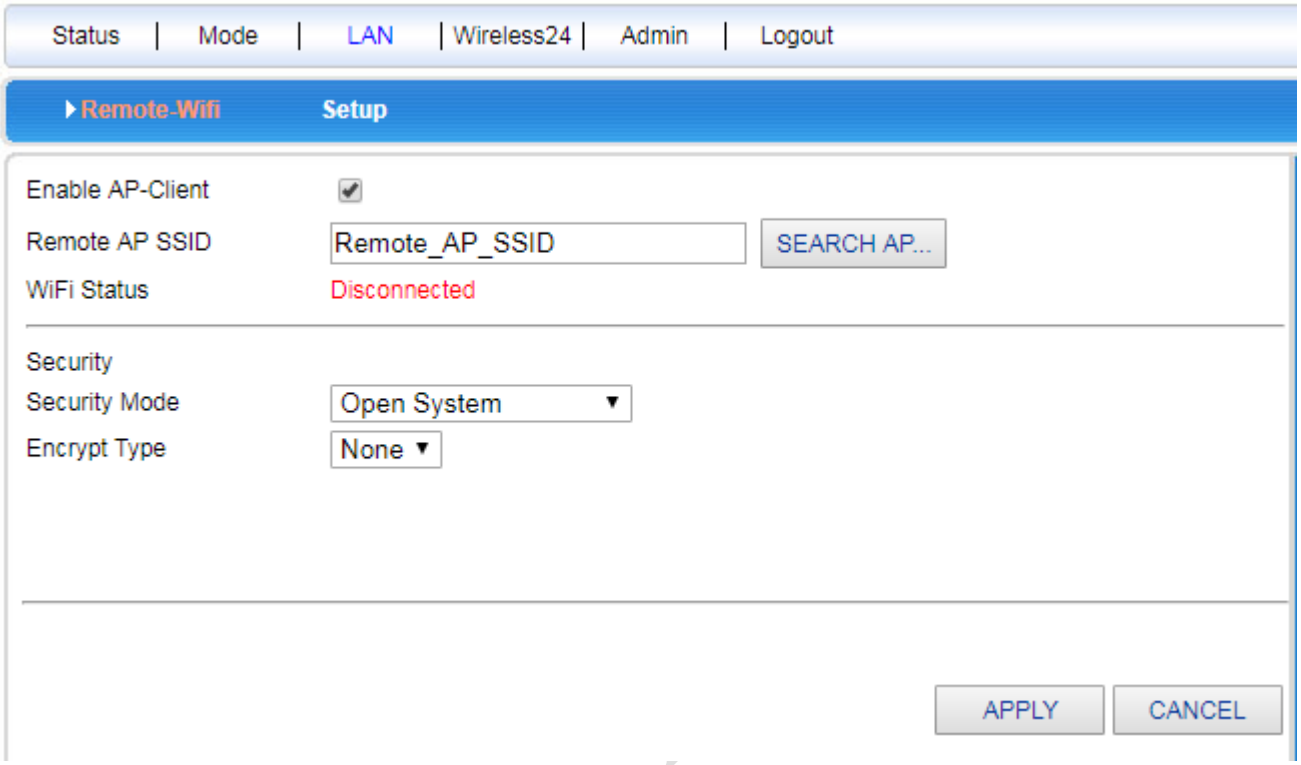
After selecting this mode, we can use the V518 as a bridge AP to bridge the previous level wireless router. First set the computer's local IP to 192.168.10.100, connect to the LAN2 interface through the network cable, enter the router management interface, and select the **Standard Wireless AP and APClinet Bridge Mode**

Startrack Technology


Standard Wireless Router Mode
Wireless connect to local network, The ethernet connect to internet.
User PC
xDSL Modem
Internet
Standard Wireless AP and APClinet Bridge Mode
Wireless work for access point, APClinet connect remote AP, Ethernet connect to local network.
User PC
Router/Switch
xDSL Modem
Internet
Wireless AP Client Mode
Ethernet Wireless connect PC or local network, Another Wireless Interface work for a WAN port connct to other wireless AP or router.
User PC
Wifi AP / Router
Internet
APPLY
CANCEL

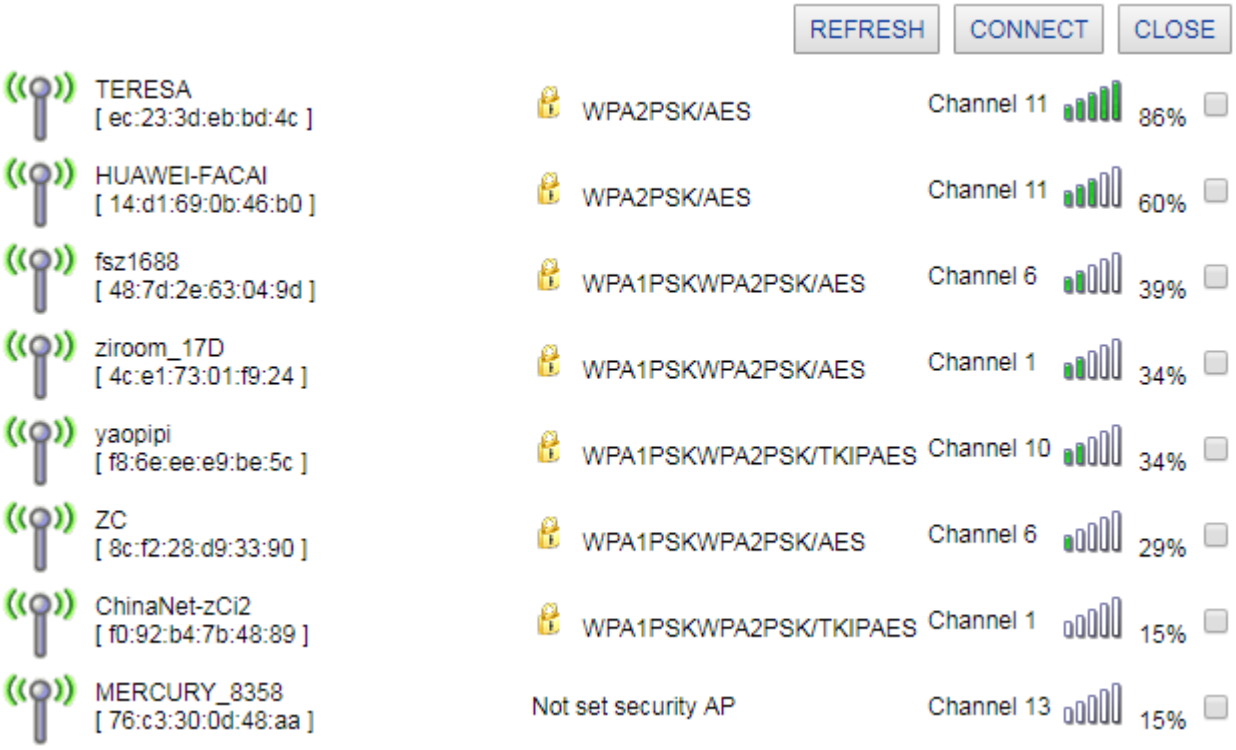
Startrack

（1）Click on LAN settings to search for wireless networks

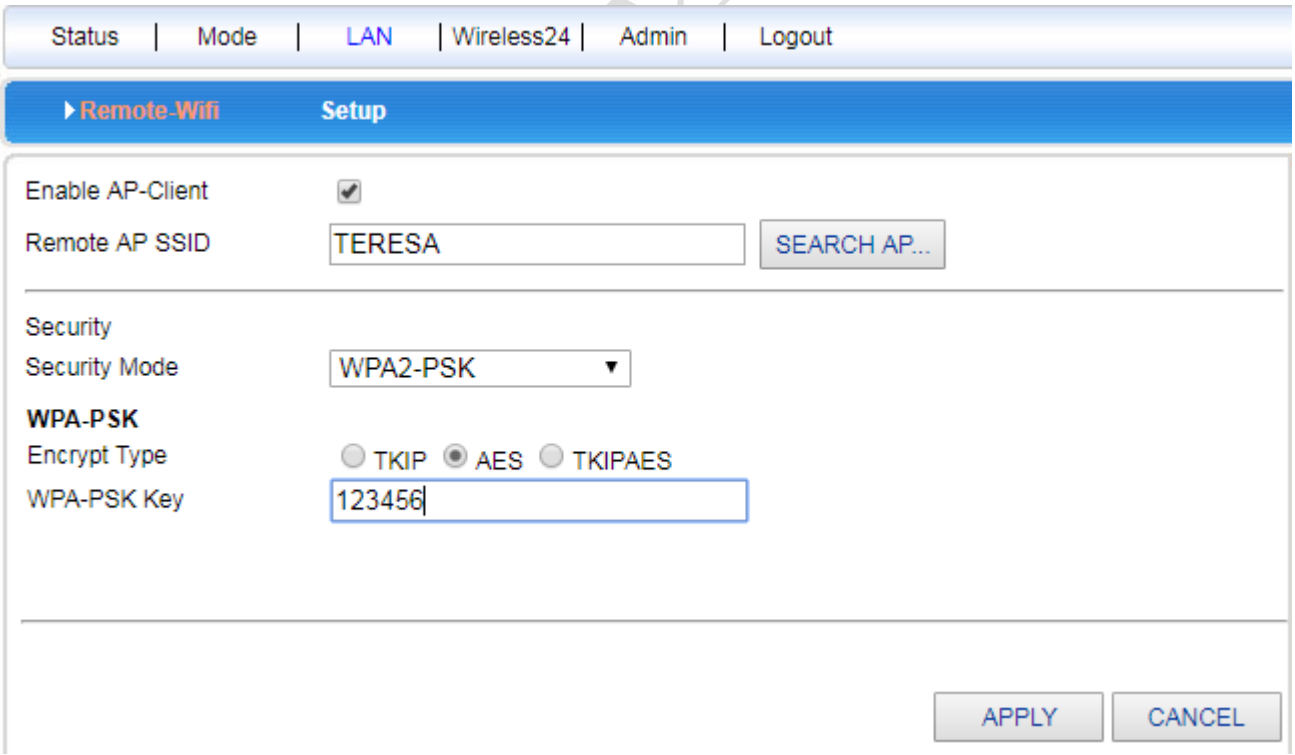


（2）You can see the valid wireless AP name in the current range and select the corresponding wireless AP.

Startrack

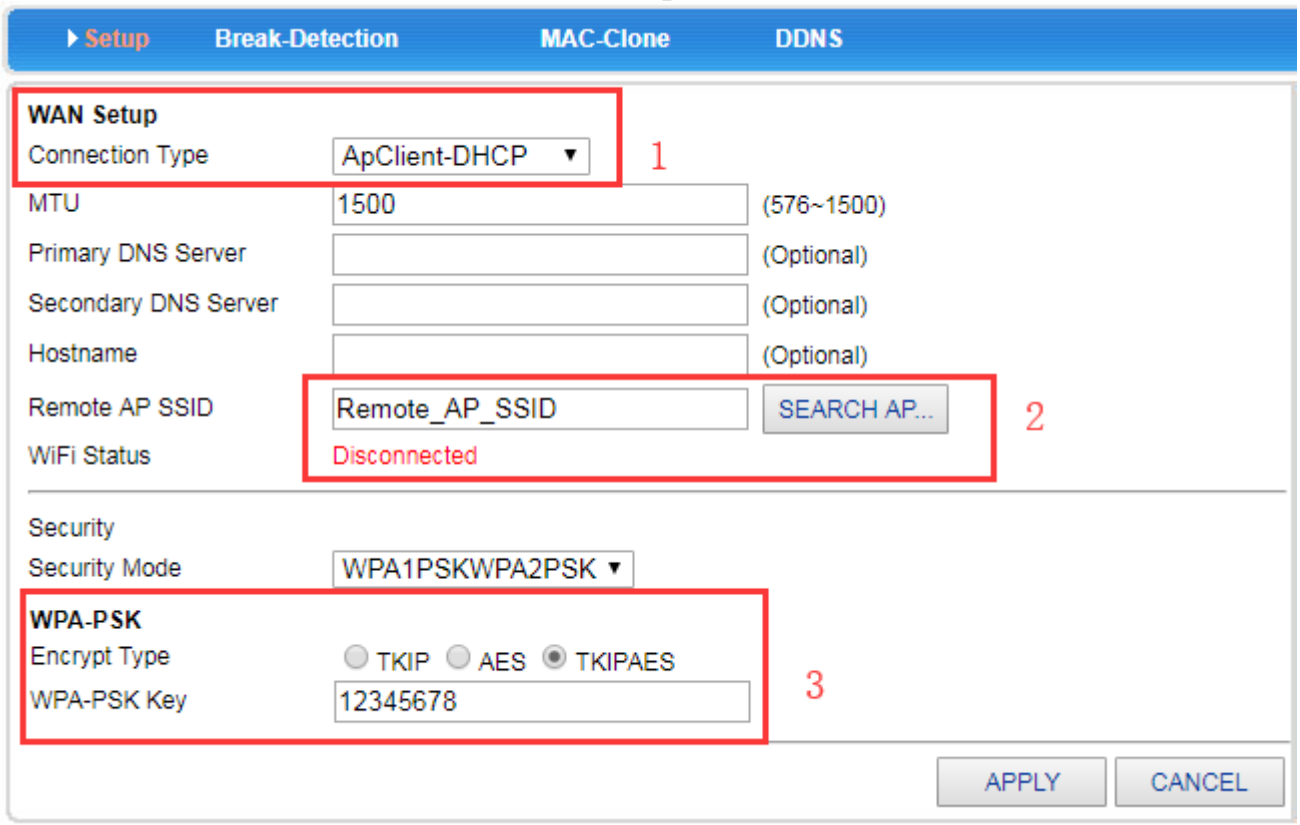


（3）Enter the selected wireless AP password to bridge the previous level wireless AP.



3.4. Wireless AP Client Mode

- Router management interface - working mode - Wireless AP Client Mode, click to APPLY.
- Wireless connection - Internet access drop-down menu select ApClinet-dynamic address (automatically obtained from DHCP server), click to search wireless network. This time will automatically pop up all the wireless network selection dialogs found, select the WIFI network which you are going to connect. Please pay attention to see the channel of the selected network, click on the connection. If the selected WIFI has a password, please enter the corresponding password in the following wireless security. At this time, please pay attention to whether the password is character type or hexadecimal. Click APPLY.
- Channel。Router Management Interface - Wireless Settings - Select the corresponding Channel in the wireless channel.



Technology

4. Wireless Security Settings

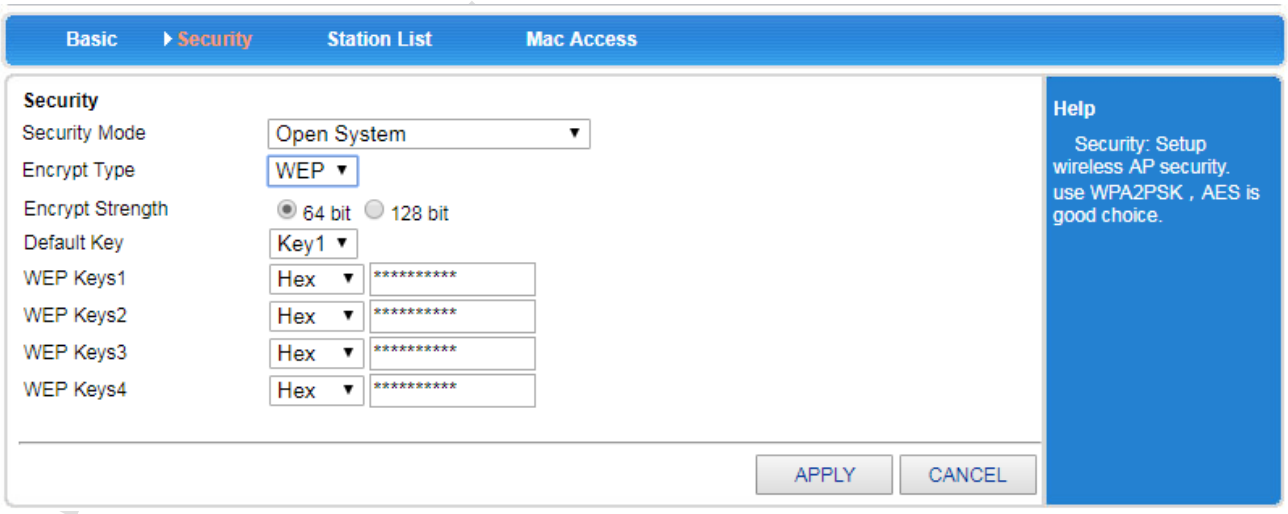
4.1. Wireless Security

There are several types of wireless security modes, and you can select different security modes as needed.

- Stop
- Open System
- WPA-PSK
- WPA2-PSK
- WPAPSKWPA2PSK(即WPA-PSK和WPA2-PSK混合模式)

4.2. Open System

The encryption type in this security modes: None and WEP



Interface Description：

Item	Description
Encryption type	有两种加密类型可供选择：None 和 WEP。选择 None 则为不加密，选择 WEP 加密后的设置界面。如图所示。 There are two types of encryption optional: None and WEP. If you select None, it is not encrypted. If select the WEP, encrypted setting interface as the picture

	shows.
WEP Encryption length	There are two encryption lengths optional: 64bit and 128bit. The default is 64bit
Default key ID	You can set up 4 keys at the same time, but only 1 key can be selected for using at the moment. This item is the key to be used currently. The default is key 1.
WEP Key	可以选择设置的密钥类型并设置密钥。有两种密钥类型可供选择:十六进制型和字符型。根据不同的加密长度和密钥类型，设置不同的密钥。You can choose the type of key and then set its key. There are two key types optional: hexadecimal and character. Set different keys according to different encryption lengths and key types.

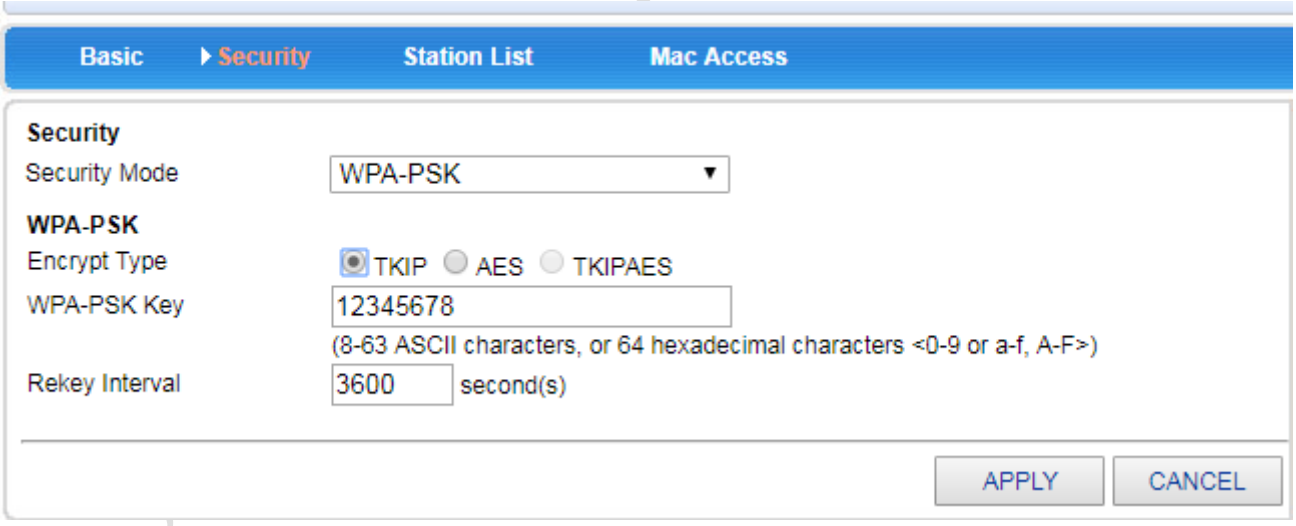
Key setting：

64bit encryption: 10-digit hexadecimal or 5-digit character.

128bit encryption: 26-digit hexadecimal or 13-bit character.

4.3.WPA-PSK

This security mode is the WPA-PSK encryption mode.

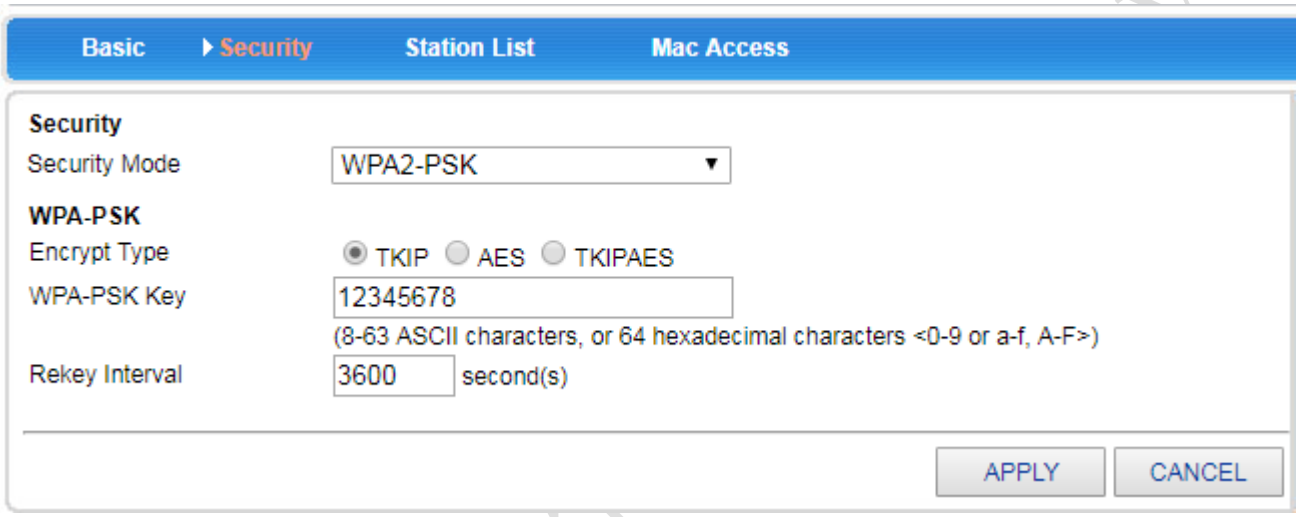


Interface Description：

Item	Description
Security Mode	Choose WPA-PSK。
Encrypt Type	Two options:TKIP and AES。

WPA-PSK Key	Set the key. The legal key length is 8-63 ASCII characters or 64 hexadecimal numbers (0~9, a~f or A~F).
Key update interval	Set the key update interval in seconds.

4.4.WPA2-PSK

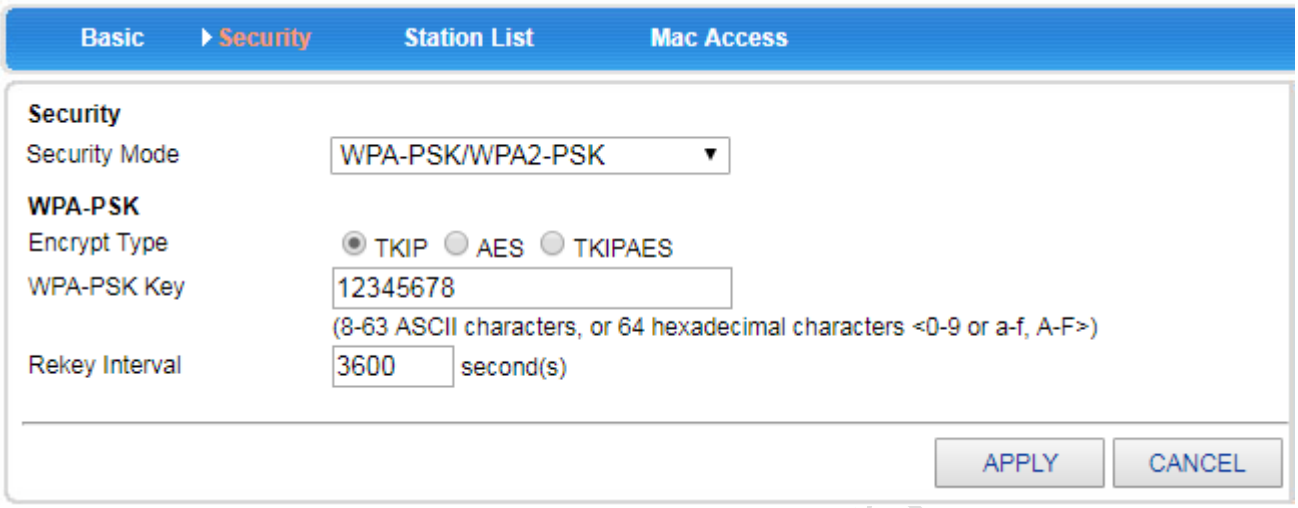


Interface Description：

Item	Description
Security Mode	Choose WPA2-PSK。
Encrypt Type	3 Options：TKIP、AES 和 TKIPAES。
WPA-PSK Key	Set the key. The legal key length is 8-63 ASCII characters or 64 hexadecimal numbers (0~9, a~f or A~F).
Key update interval	Set the key update interval in seconds.

Startrack

4.5. WPAPSKWPA2PSK

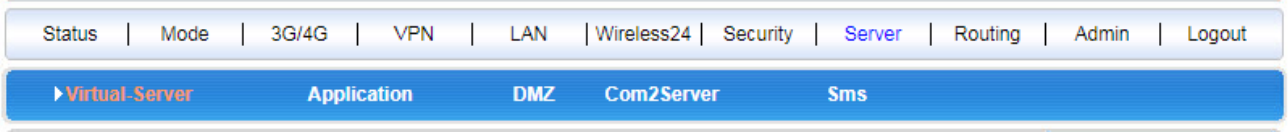


Interface Description：

Item	Description
Security Mode	Choose WPAPSKWPA2PSK。
Encrypt Type	3 options: TKIP, AES and TKIPAES。
WPA-PSK Key	Set the key. The legal key length is 8-63 ASCII characters or 64 hexadecimal numbers (0~9, a~f or A~F).
Key update interval	Set the key update interval in seconds.

5. System Service

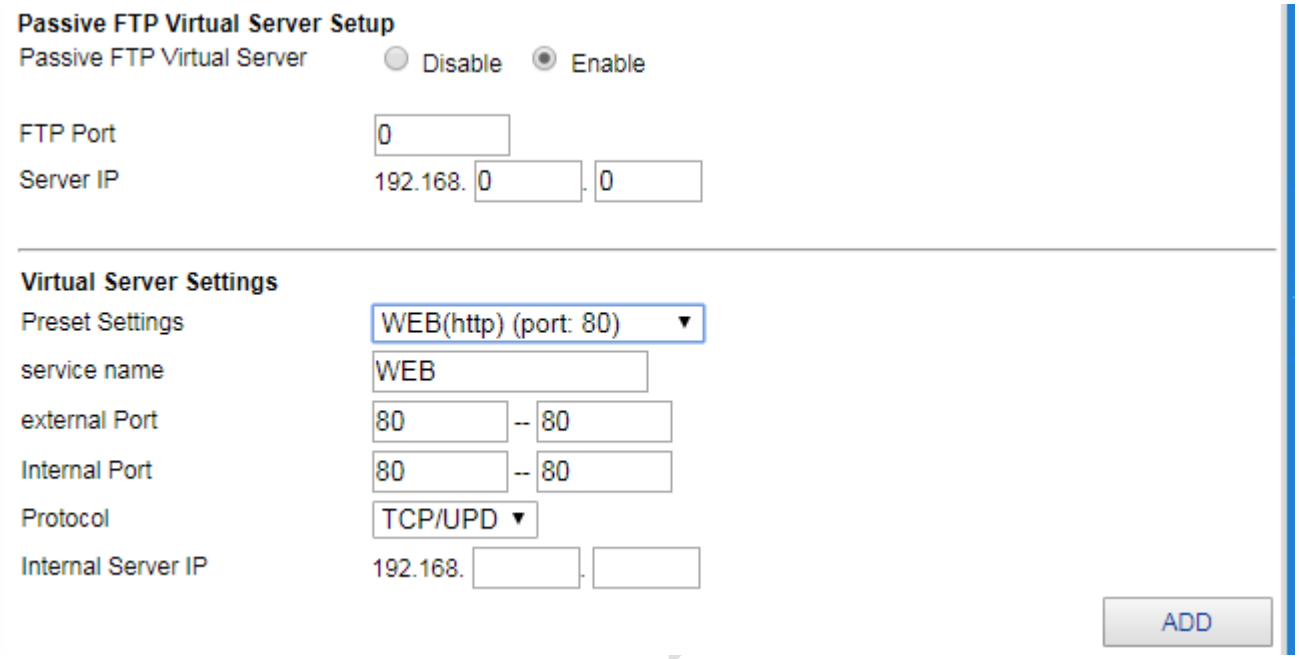
V518 offers a variety of service options, here we mainly explain virtual services, serial services and SMS services.



Startrack Technology

5.1.Virtual Sever

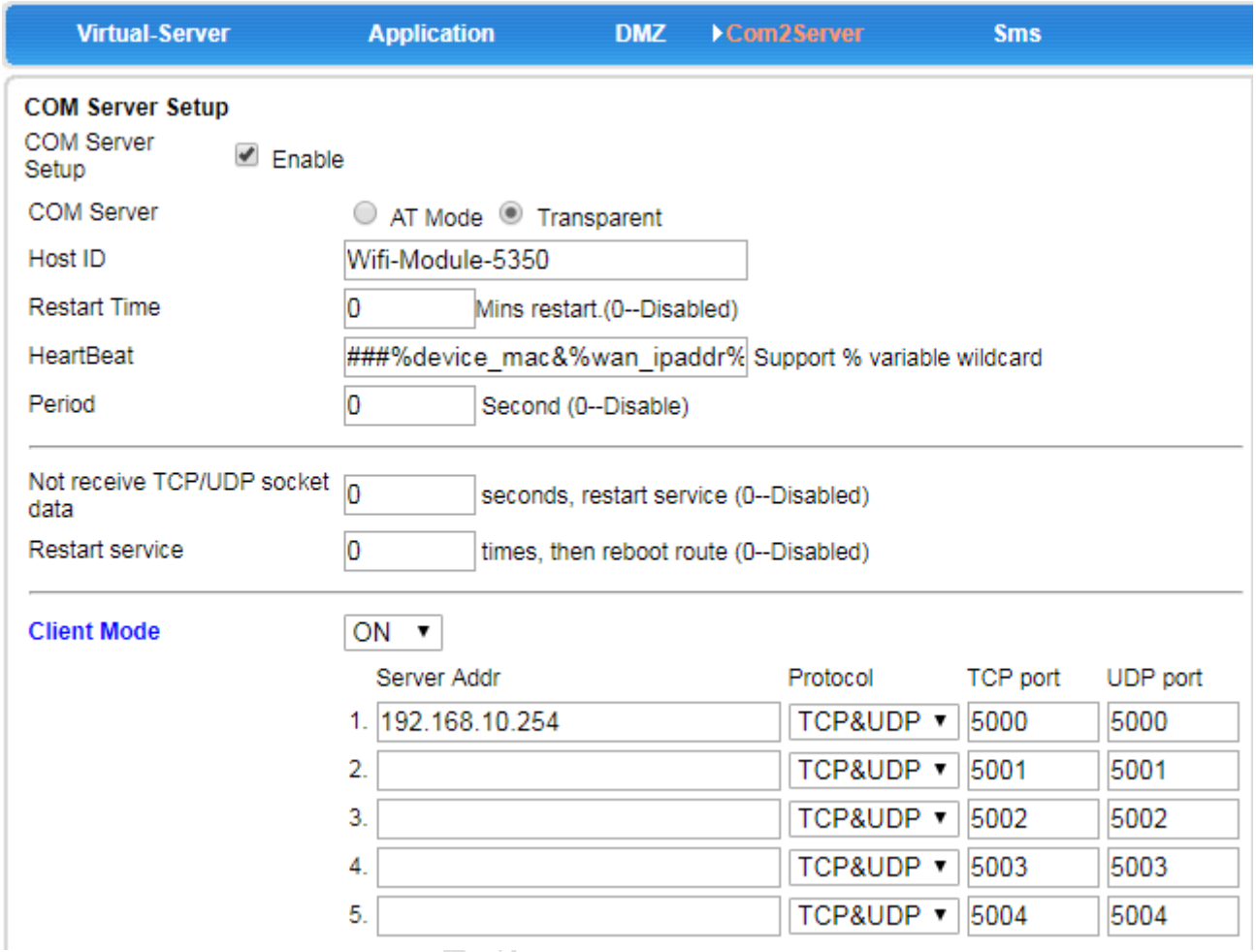
The V518 can be used as a network server and provides a variety of service functions. It only needs to fill in the external port, internal port, and internal server IP address correctly, and can be used as a virtual server.



5.2. COM2 SERVER

One of the main functions of the V518 is COM2 SERVER (client), where we can easily connect many serial terminals.

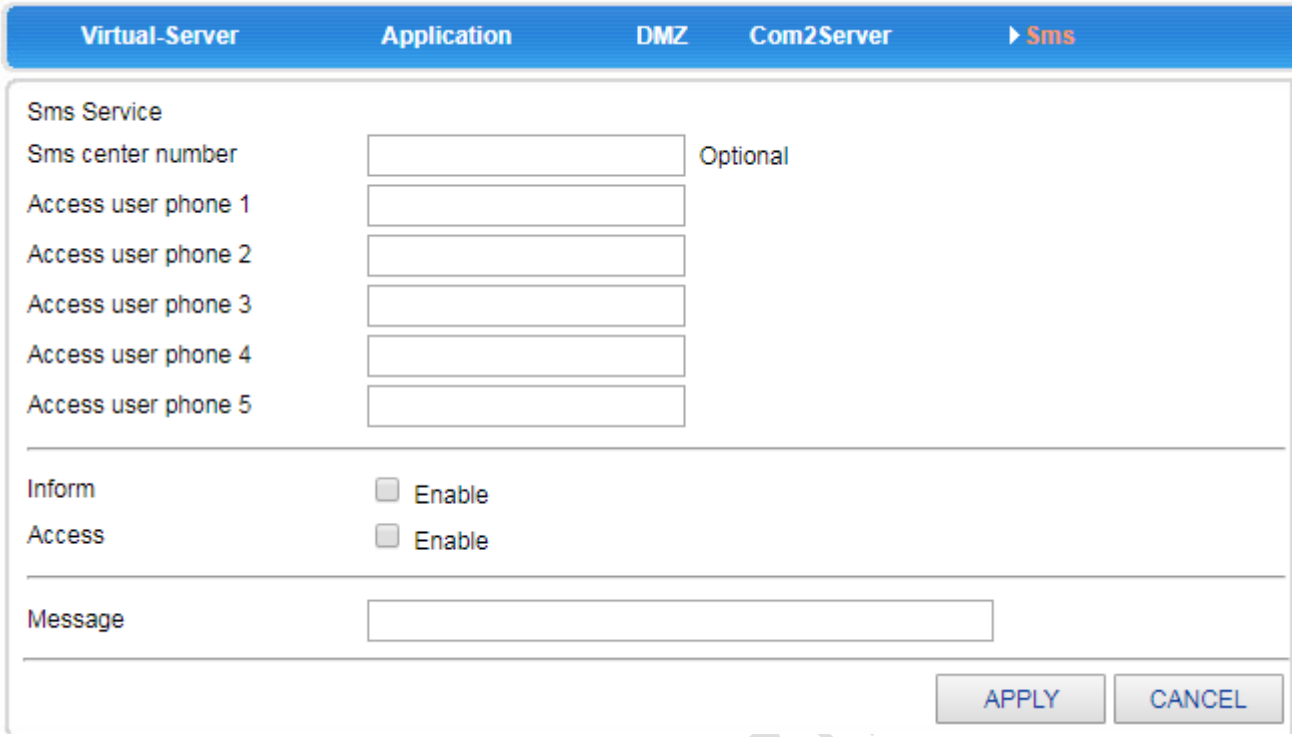
Startrack



5.3. SMS Service

If the V518 is equipped with a 3G/4G tariff card that can send and receive text messages, then we can send a text message to the V518 through preset mobile phone number, controlling the dialing/disconnection and restart of the V518. The specific setting interface is as follows:

Startrack

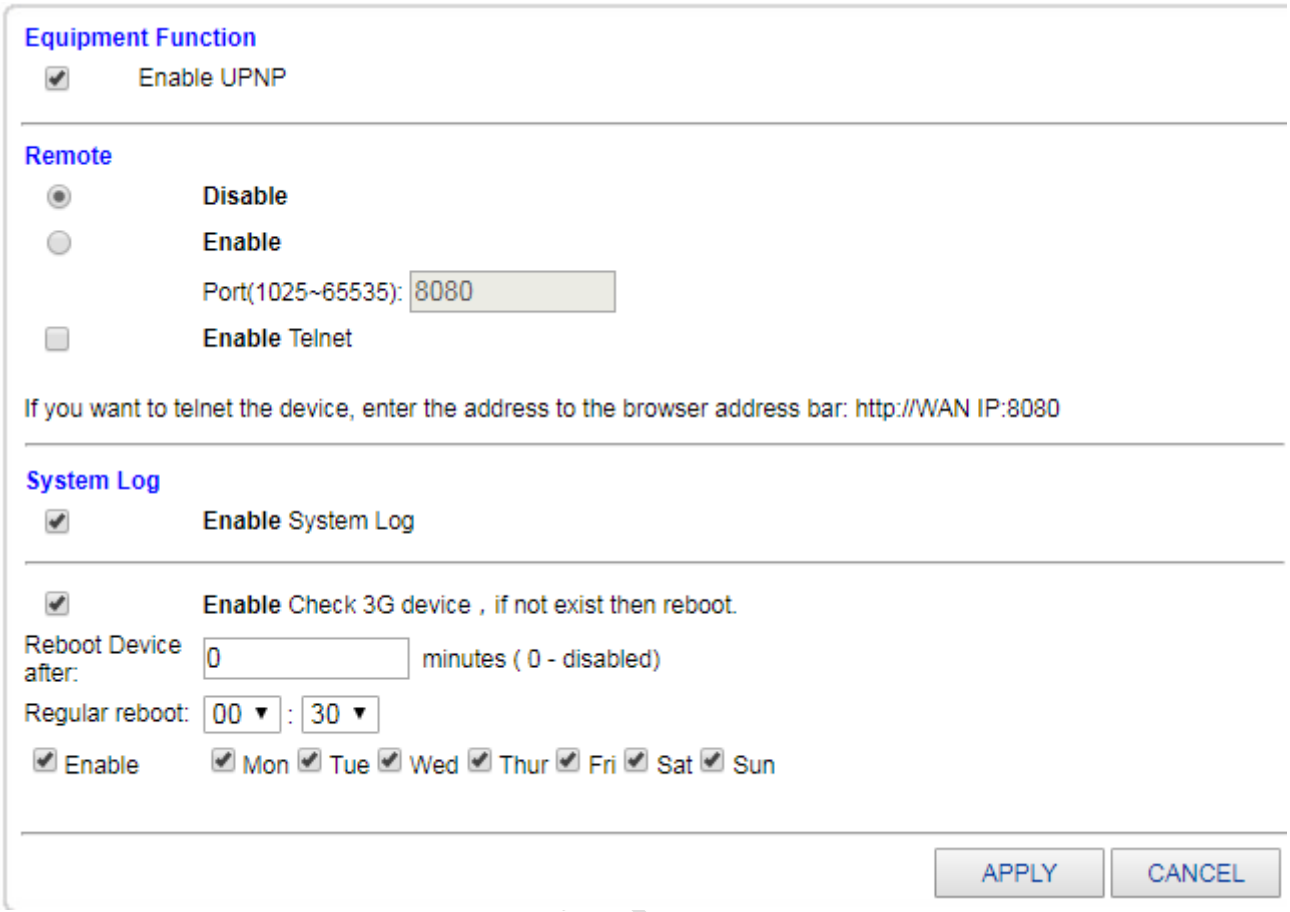


6. Device Management

6.1. Device Function

The UPnP protocol is used by systems such as Windows ME, 2000, XP. If this feature is enabled, these operating systems will automatically find the router through this protocol.
UPnP (Universal Plug and Play) is mainly used to implement intelligent interworking of devices. It can automatically discover and control various network devices from various vendors without user participation and use of the main server.
With the UPnP feature enabled, the router can implement NAT traversal: when computers in the LAN pass.
When the wireless router communicates with the Internet, the wireless router can automatically add and delete the NAT mapping table as needed to solve the problem that some traditional services (such as MSN voice and video) cannot traverse NAT.

Startrack Tec



Check the radio button and press the <APPLY> button to complete the setting.

6.2. Firmware Upgrade

With a software upgrade, you can load the latest version of the software into your router for more features and more stable performance.

The software upgrade steps are as follows:

(1) Click the <Browse> button and select the software you want to upgrade.

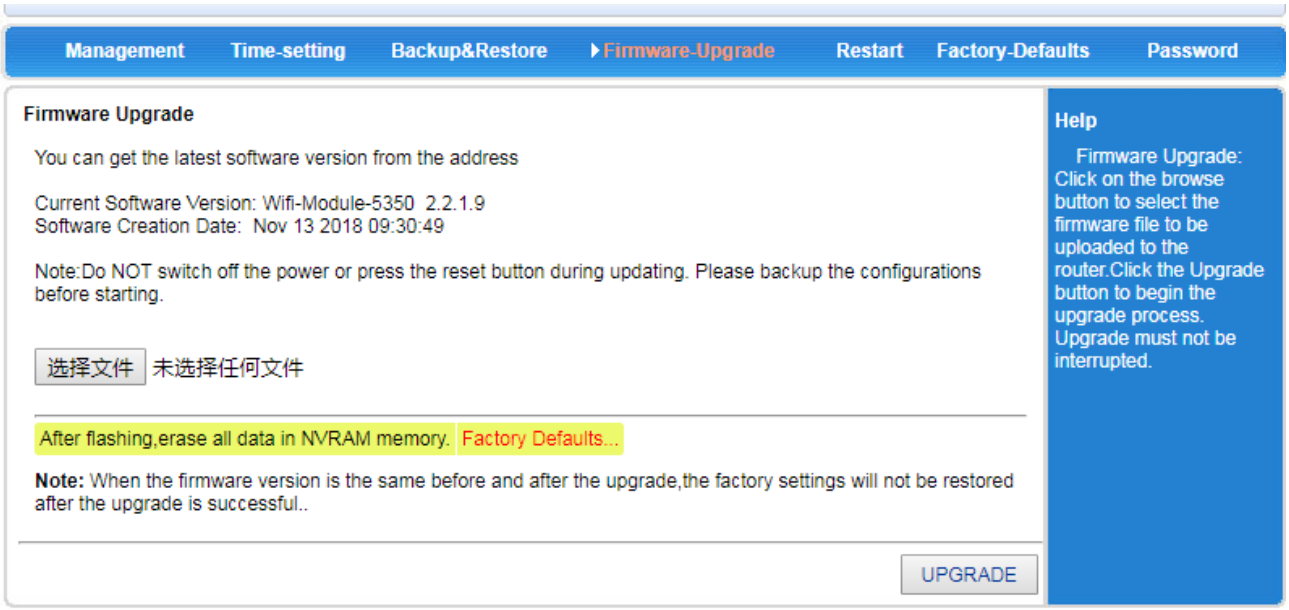
(2) Click the <Upgrade> button to start the upgrade.

(3) If you need to upgrade and restore the factory, click the <Restore Factory Settings> button.

Description: The upgrade and factory reset settings have two conditions:

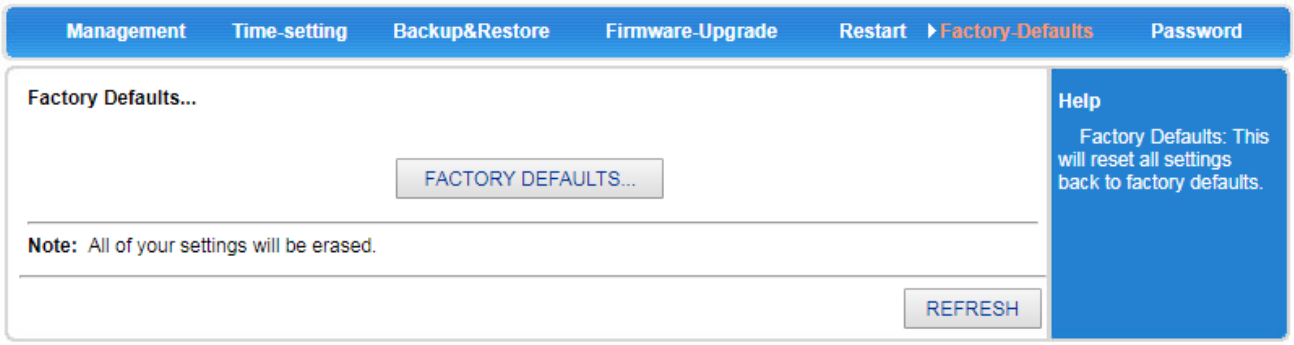
1. The version number changes; 2. Click the <Restore Factory Settings> button during the upgrade.

startrack



6.3. Factory Defaults

The wireless router will reboot during the recovery setup.
Restoring to the factory settings will clear all settings information of the wireless router and return to the initial state. This function is generally used when the device is switched from one network environment to another. The device is restored to the factory settings and then re-set to better suit the current networking.
Click the <FACOTRY DEFAULTS> button to confirm and restore the factory settings.

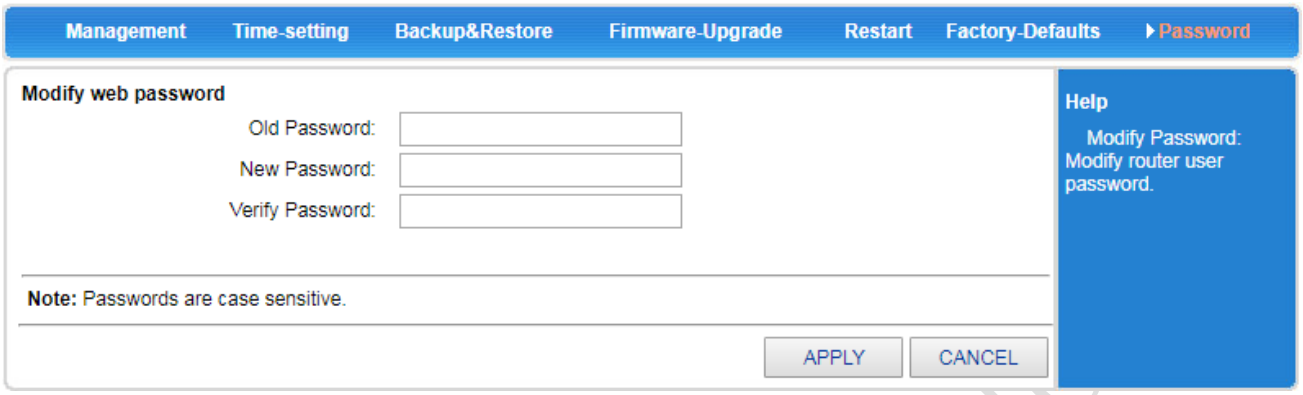


6.4. Password Management

The default username/password of the wireless router is admin, the username cannot be modified, and the password can be modified. For security reasons, it is recommended to modify this password and keep the password information.
The setup steps are as follows:
(1) Enter the original password in the <Old Password> text box; enter a new password in the

<New Password> text box, and re-enter the new password in the <Verify Password> text box to confirm.

(2) Click the <APPLY> button to complete the password modification.



Startrack Technol