SR1041E Pre-set tool

Product manual

1. overview

Preset is FiberHome SR1041The E-terminal is a tool for batch downloading configuration through the switch, and has the function of batch synchronous configuration and differential configuration for devices.

2. Software operating environment preparation

2.1. Switch configuration (multiple ports can be configured with VLAN)

The switch configuration methods of different manufacturers are different. This article takes the Cisco Gatalyst 3560G switch as an example, configure 1-3 ports to configure ACCESS mode, and configure VLAN101-VLAN103 respectively. Multiple ports can be configured on site according to the actual number of connected routers; Allow all VLANs to pass through, the specific command is as follows:

```
Switch>enable
Switch#configure terminal
Switch(config)#interface GigabitEthernet 0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#interface GigabitEthernet 0/2
Switch(config-if)#switchport mode access
```

```
Switch(config-if)#switchport access vlan 11
Switch(config-if)#interface GigabitEthernet 0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 12
Switch(config)#interface GigabitEthernet 0/24
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk allowed vlan all
```

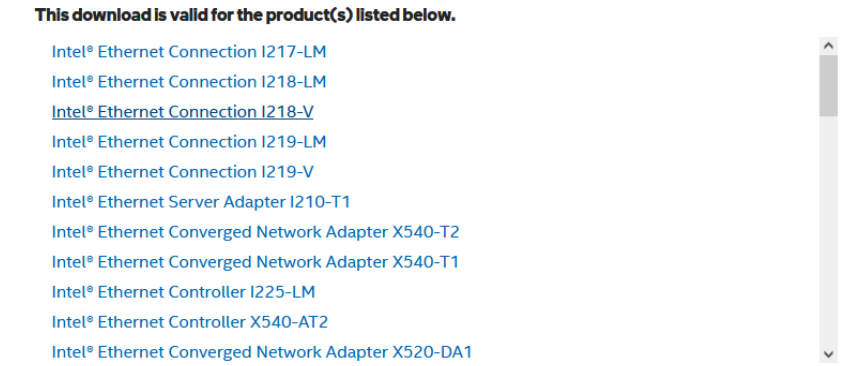
2.2. Computer network card configuration (multiple VLANs can be configured)

Different systems and network card configuration methods are different. This article uses windows10The operating system Intel NIC is used as an example.

2.2.1. Check whether the network card supportsVLAN, download the relevant driver according to your own operating system and network card type

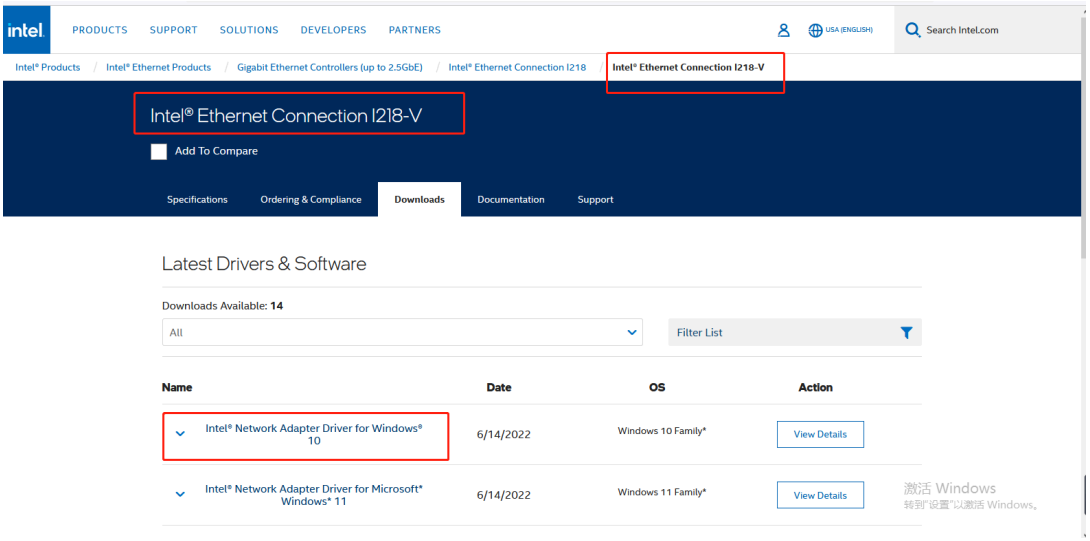
1. Check whether the network card is supported, and click the corresponding network card link after finding it

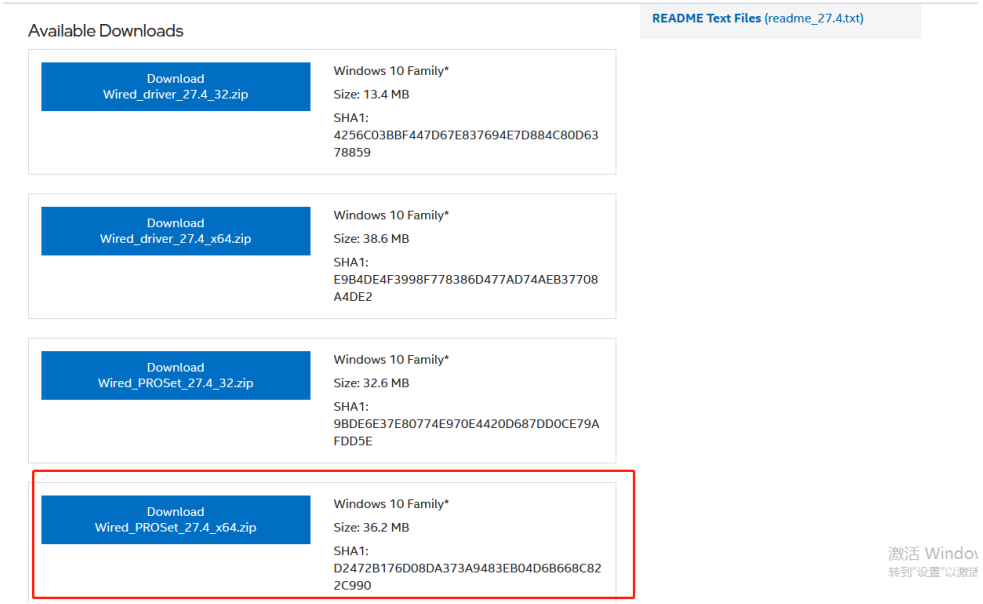
https://downloadcenter.intel.com/download/25016/Intel-Network-Adapter-Driver-for-Windows-10



Go to the bottom of the page to find the corresponding network card

2. After selecting the OS type,Click to download the driver



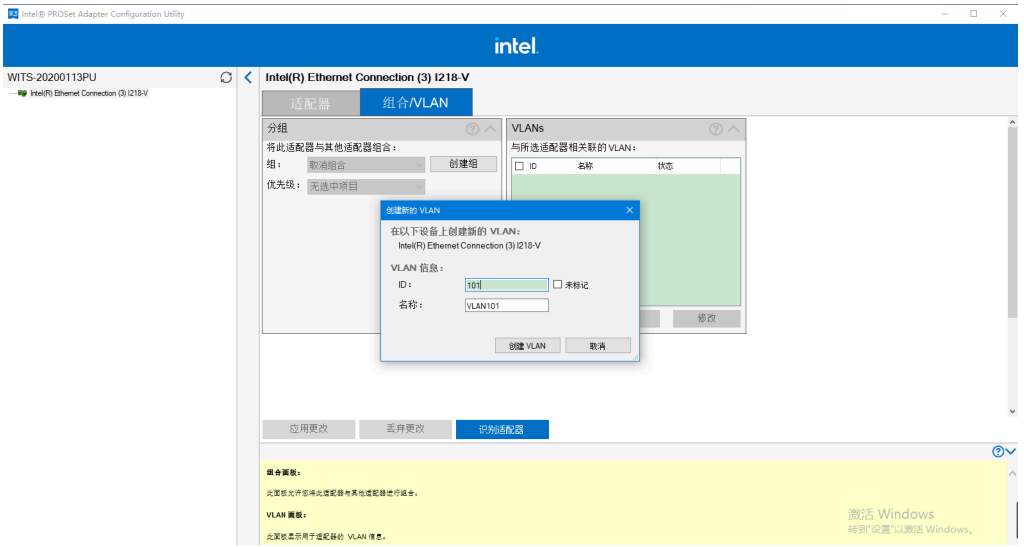


3. Select the appropriate version according to the computer operating system to install,There is a picture in the network card propertiesItems in the middle red box indicate successful installation. If there is no red box content after installation due to the difference of the network card, then the red box content displayed after creating multiple vlans in the next step also means success.

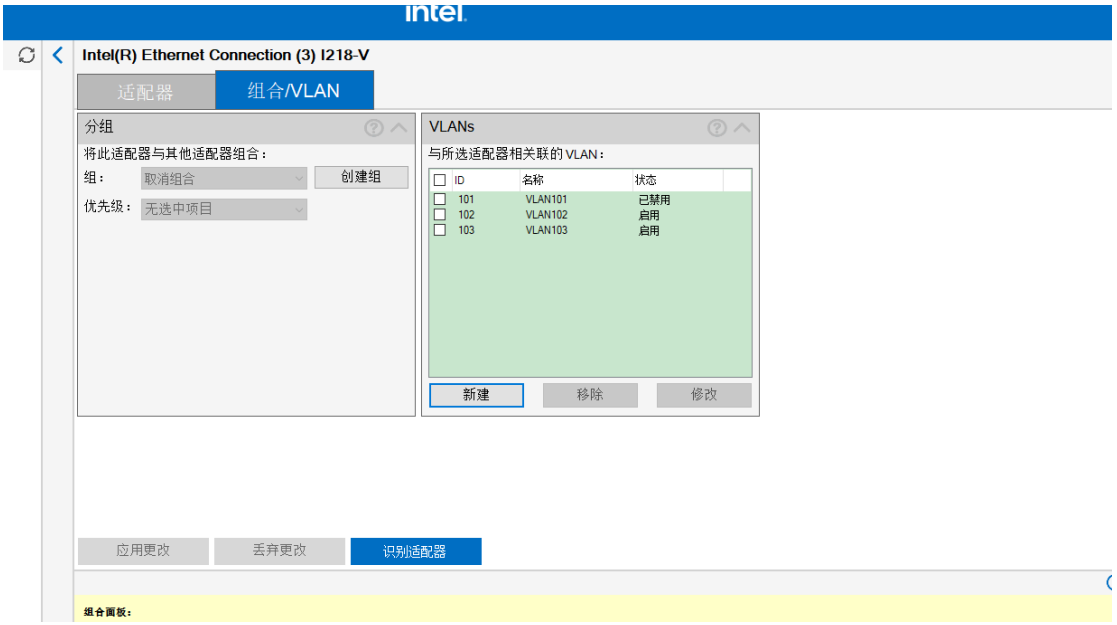


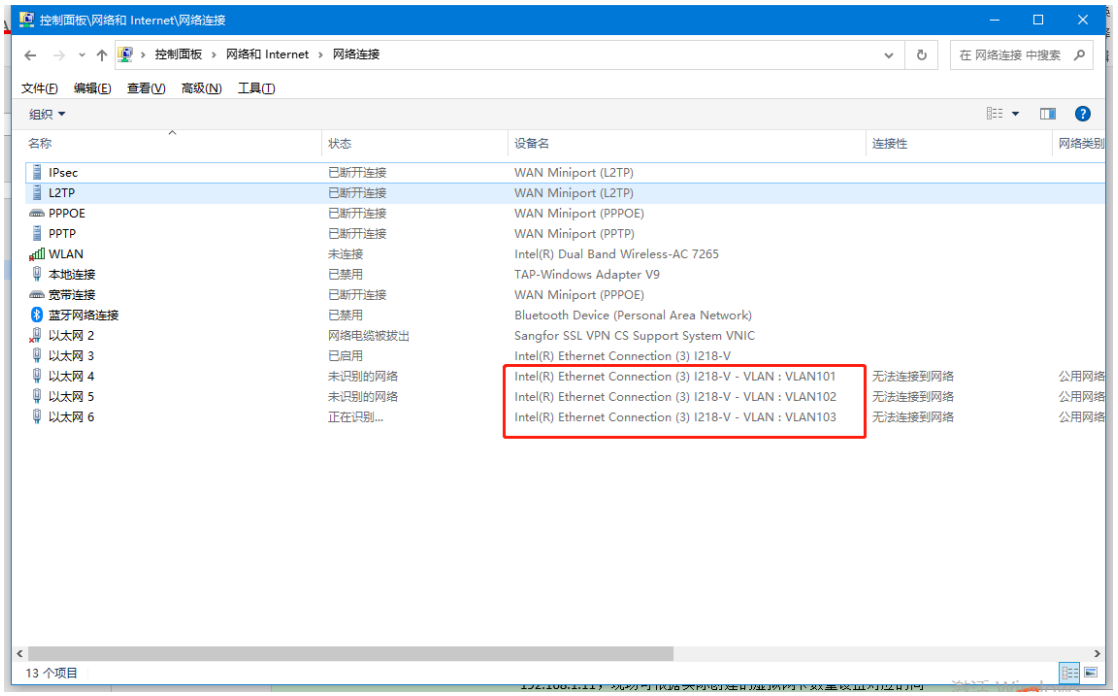
2.2.2. Configuring multiple VLANs for the NIC

2.2.2.1. Run P as administratorROSet tool, click Add to fill in the corresponding VLAN, this article uses 101-103as an example



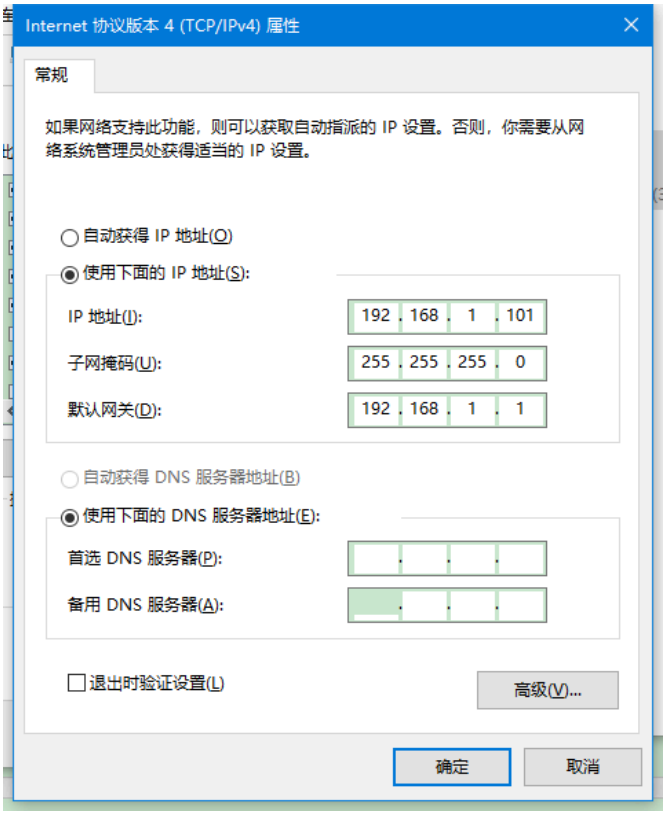
Multiple VLAN interfaces can be created on site according to the actual number of connected routers, as shown in the figure below after creation.

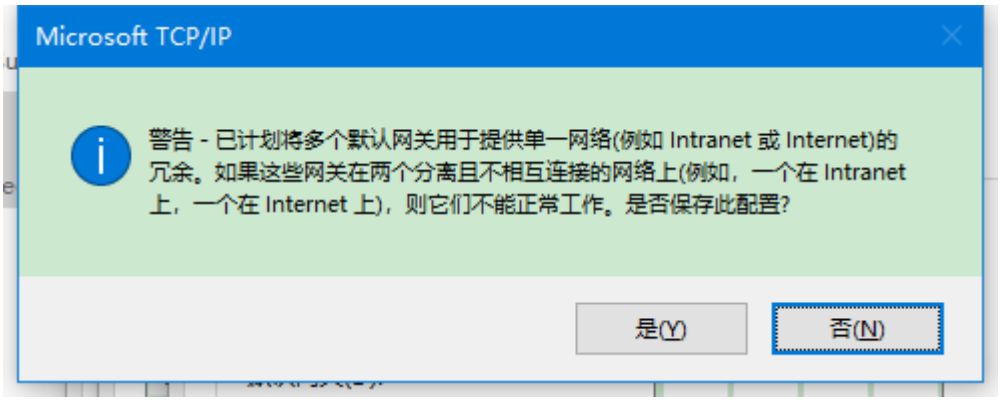




2.2.2.2. Set the virtual network card VLAN10 respectively1-VLAN103The static IP address of the same IP network segment as the router gateway, here is set to 192.168.1.10 corresponding to the VLAN for convenience1-192.168.1.103,The corresponding IP address of the same network segment can be set on site according to the number of virtual network cards actually created. The gateway address is the router address 192.168.1.1, the

next is VLAN101Network card example, other virtual network card settings are similar, no more details.





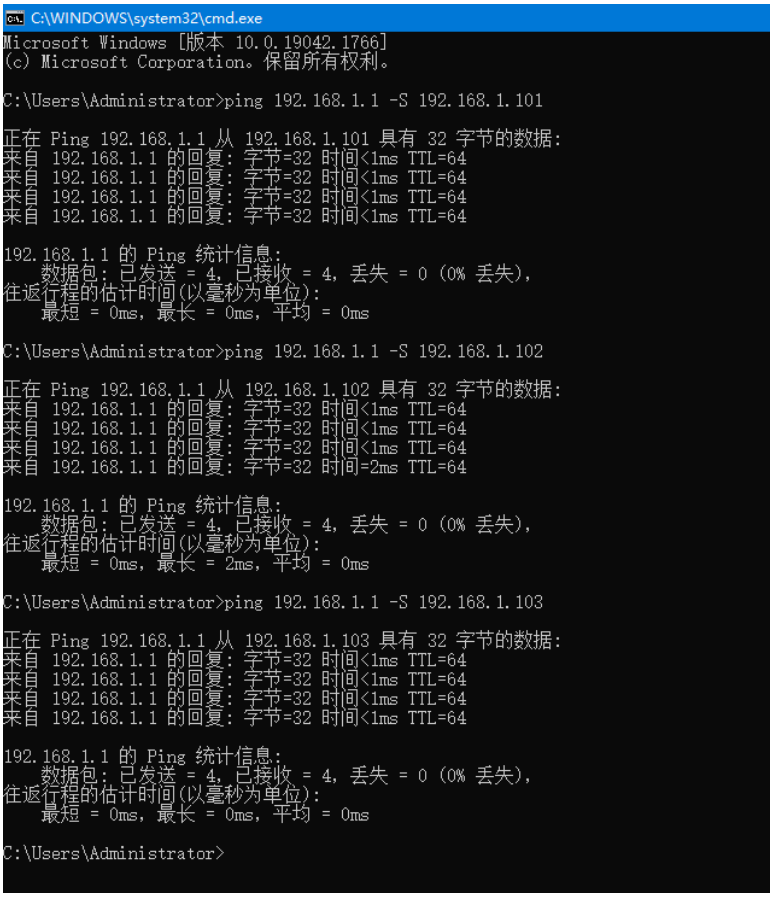
If this warning popup appears, click OK

2.3. Environmental validation

2.3.1. 2Any lan port of the router is respectively connected to the switch 1-2A PC configured with multiple VLAN virtual network cards is connected to port 24 of the switch. Adjust the number of routers and ports according to the actual situation.

2.3.2. Use the source address 192.168.1.10 corresponding to the computer VLAN network card in turn1-192.168.1.103Ping the router gateway address

192.168.1.1, if all addresses can be pinged, the environment configuration is successful, as shown in the figure below.



3. Software installation and use

3.1. Software installation and key instructions

3.1.1. Willsoftware compressionBagPreset.rar is decompressed to a custom directory (Note: there must be no spaces in the name of each directory in the decompression path, otherwise it will cause thedifferenceconfiguration failed).



Figure 3-1 software package

3.1.2. Enter the decompressed folder, double-clickPreset.exe to run the batch configuration tool.



Figure 3-2 software application

3.1.3. You can modify the text of the keys and prompts in the tool in the lang.ini file (modify to an appropriate language).

3.1.4. After the software is opened, the running interface is shown in Figure 3-3.

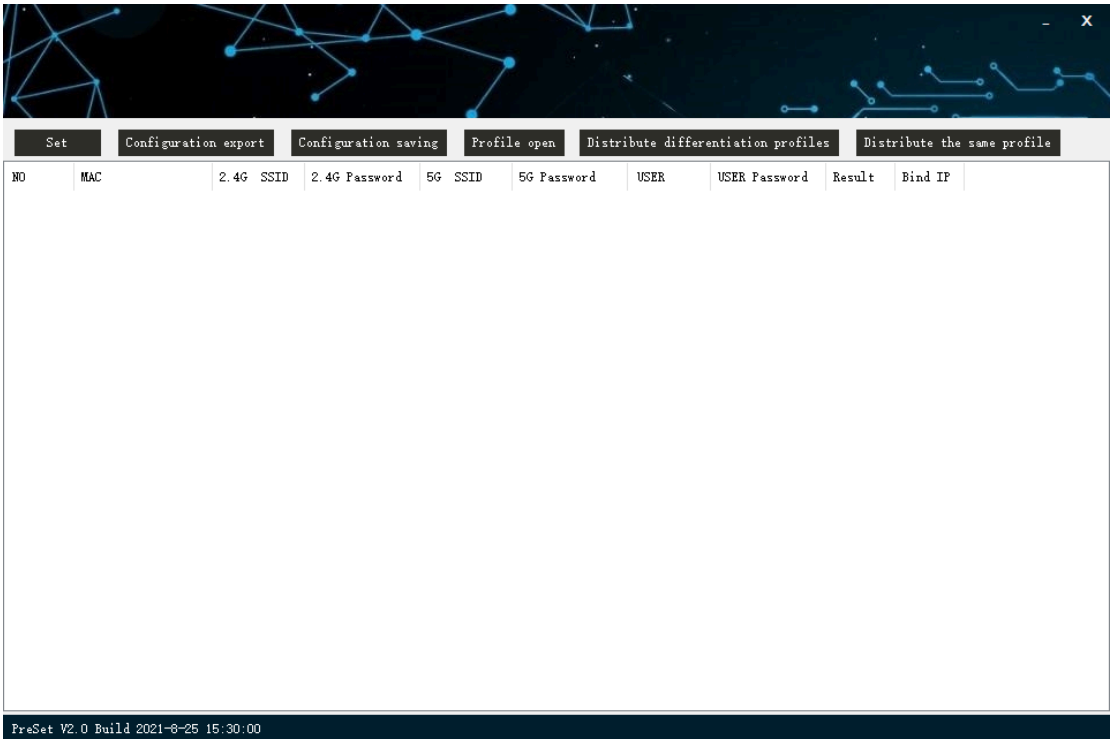


Figure 3-3 software interface

3.1.5. Key Description

1 set: Set router gateway address (LAN ip) and select configuration master file (Source profile).

The gateway address of the router is generally 192.168.1.1, which should be filled in according to the actual gateway address of the router on site.

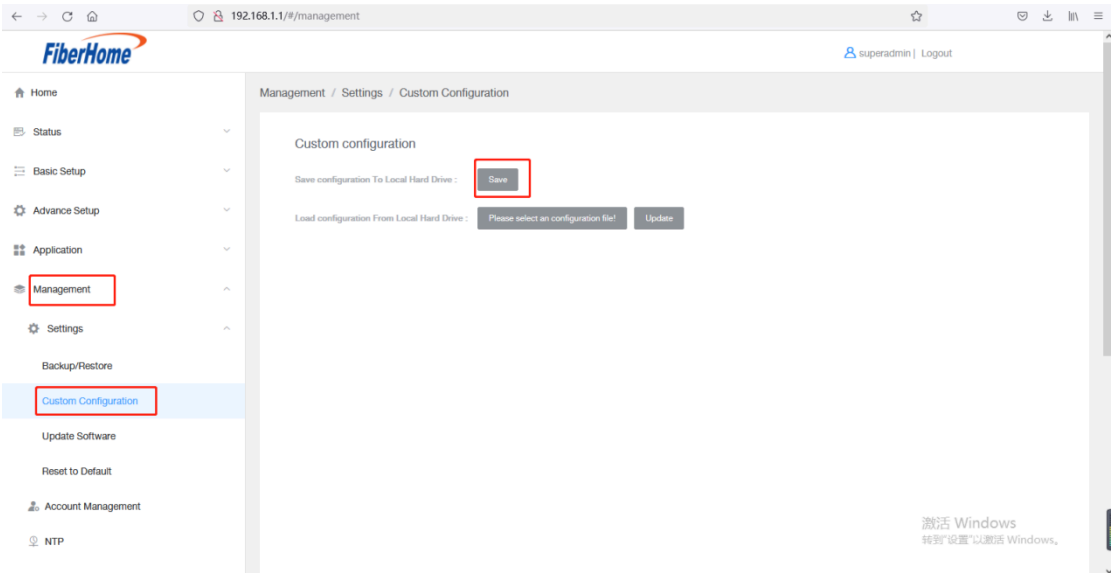
The configuration master file is a configuration file exported from the router gateway. The specific acquisition method is as follows: use the router gateway address 192.168.1.1 to enter the web interface of the gateway, click Management -- Settings --Custom configuration-- save Export the current configuration file of the gateway to PC, the file type is.txt, this file is the configuration master file. For on-site use, configuration master files need to be generated based on the actual pre-configuration of the live network.

Notice:

1, There must be no spaces in the name of the configuration master file and the path where it is located. Otherwise, the

delivery of the difference configuration will fail (Result will not become Failed, and there will be records in the log).

2. After exporting the configuration file, you need to exit the login status of the web page, so as not to affect the normal operation of the perset tool.



2 Configuration export: Automatically obtain the information of all router gateways, as well as the static ip address of the virtual local area network connected to it.

3 Configuration saving: Save the information obtained by importing the device as a .csvfile, modify the configuration in this file in excel and save it as a difference file.

4 Profile open: Differentiated file selection, this file is.csvType document, the text format needs to be fixed, otherwise there will be errors in reading parameters, resulting in abnormal configuration of the gateway.

Support to modify the ssid and password of pre-configured 2.4G and 5G wifi, and the password of ordinary users on the web page.

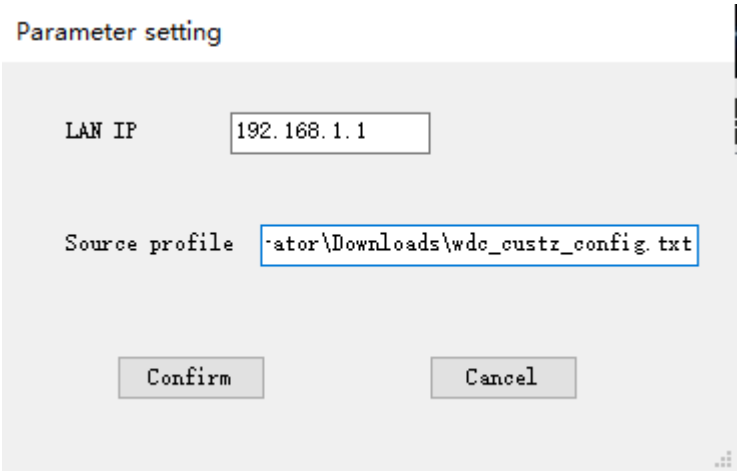
5 Distribute differentiation profiles: After the configuration file is regenerated from the information in the difference file (each mac address will generate a corresponding configuration file), then import it into the corresponding gateway.

6 Distribute the same profile: directly import the configuration master file into the gateway.

3.2. use

3.2.1. batch deliverySampleconfigurationCommon steps to all routers

3.2.1.1. After the environment verification is successful,first make sureopen softwareClick Set, fill in 192.168.1.1 for LAN ip (fill in according to the actual situation), and select the configuration master file to be imported (double-click the left mouse button).



3.2.1.2. Click on Configuration export,In the software, you can see the configuration information of all router gateways currently connected,as shown in the picture3-5.

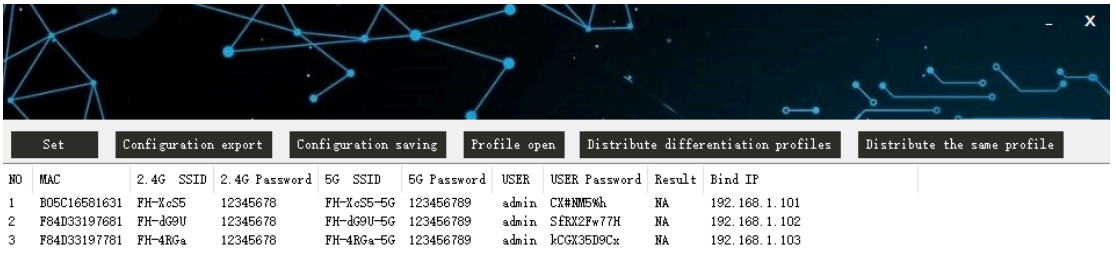


Figure 3-5 Configuration exportAutomatically obtain router configuration information

3.2.1.3. Click Distribute the same profile to distribute the configuration in the master file to all connected router gateways. After waiting for a period of time, the Result value of the device list in the software changes to OK in turn,routerwill automaticallyrebootandThe imported pre-configuration takes effect.If the configuration delivery fails, the Result will be Failed.

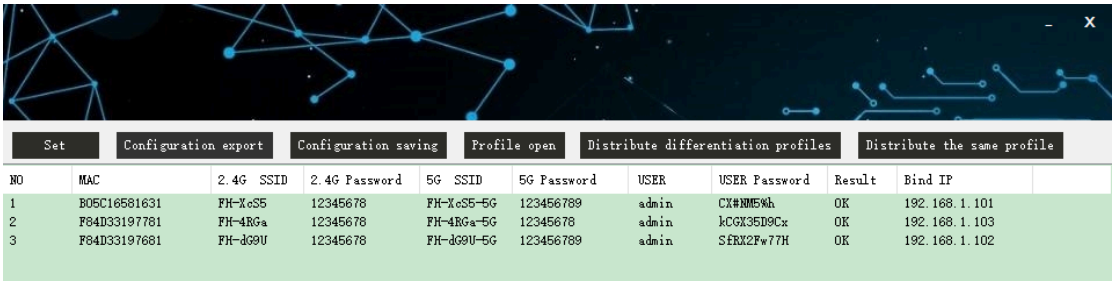


Figure 3-6 The synchronization configuration succeeds and the Result becomes OK

3.2.2. Batch delivery of differential configurationsGeneral steps for

3.2.2.1. After the environment verification is successful,Open the software and click Set, the gateway IP is 192.168.1.1 (fill in according to the actual situation), select the configuration master file to be imported (double-click the left mouse button).

3.2.2.2. Click on Configuration export,In the software, you can see the configuration information of all router gateways,As shown in Figure 3-5.

3.2.2.3. Click Configuration saving to save the device information obtained by the software to the PC (the file type is .csv), and it will prompt that the save is successful, as shown in the figure3-7shown. Modify the configuration information in this .csv file on the PC.

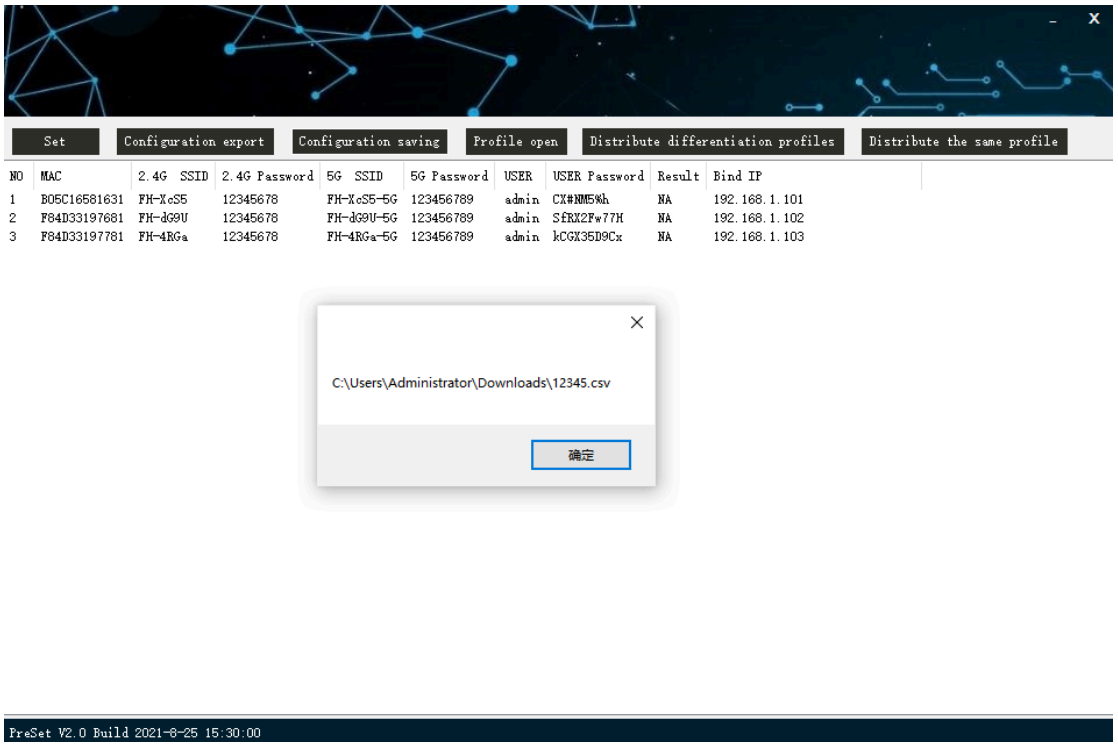


Figure 3-7 save device information

can be modified 2.4G SSIDand password, 5G SSIDand password, common user WEBLogin password, save this after modification.csvdocument

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	NO	MAC	2.4G SSID	2.4G Passw	5G SSID	5G Passwo	PPPoE Nar	PPPoE Pas	USER	USER Pass	Result	Bind IP		
2	1	F84D3319	FH-XcS5	12345678	FH-XcS5-5	1.23E+08	admin	CX#NM5%l	admin	CX#NM5%l	NA	192.168.1.103		
3	2	F84D3319	FH-XcS5	12345678	FH-XcS5-5	1.23E+08	admin	CX#NM5%l	admin	CX#NM5%l	NA	192.168.1.102		
4	3	B05C1658	FH-XcS5	12345678	FH-XcS5-5	1.23E+08	admin	CX#NM5%l	admin	CX#NM5%l	NA	192.168.1.101		
5														

3.2.2.4. Click Profile open,chooseModified .csv file, clickDistribute differentiation profilesStart configuration, softwareThe Result value will displayconfigurationwhethersuccess(OK or Failed), as shown in the figure3-8shown.

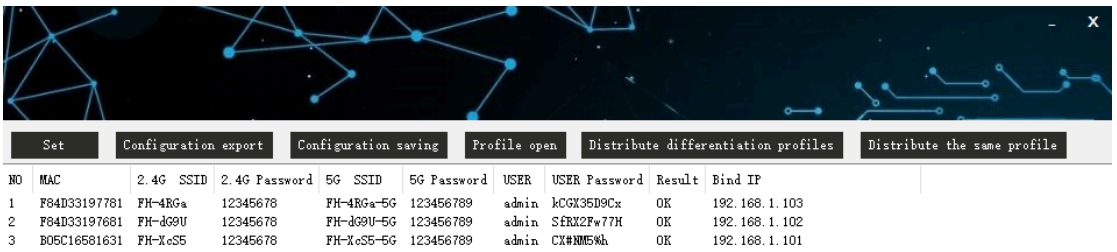


Figure 3-8 Differential configuration succeeded,ResultbecomesOK

3.2.2.5. After the operation is complete, the routerwill automaticallyrebootandThe imported pre-configuration takes effect.

3.2.3. The file that will be generated after performing the import configuration operation

3.2.3.1. log log file

In the Preset tool directory, log.txt is a log file, which can record the binding ip, operation result and failure reason of each delivered configuration, and also record the start/end time of running decode.exe and the configuration used during differential configuration Parent file information. As shown below:

```
192.168.1.101, 同步升级成功
192.168.1.102, 同步升级成功
Nov 20 2020 16:41:37 : ####################BEGIN##############################
Nov 20 2020 16:41:37 : [ genIndividualizationEnCodeMibData:409 ] EnCode FileName = D:\Preset1119\config.dat, enCodeLen = 38605!
Nov 20 2020 16:41:38 : ####################END##############################


192.168.1.101, 增量升级成功
Nov 20 2020 16:41:50 : ####################BEGIN##############################
Nov 20 2020 16:41:50 : [ genIndividualizationEnCodeMibData:409 ] EnCode FileName = D:\Preset1119\config.dat, enCodeLen = 38605!
Nov 20 2020 16:41:50 : ####################END##############################


192.168.1.102, 增量升级成功
Nov 20 2020 16:44:46 : ####################BEGIN##############################
Nov 20 2020 16:44:46 : [ genIndividualizationEnCodeMibData:409 ] EnCode FileName = D:\Preset1119\config.dat, enCodeLen = 38605!
Nov 20 2020 16:44:47 : ####################END##############################


192.168.1.101, 增量升级成功
Nov 20 2020 16:44:59 : ####################BEGIN##############################
Nov 20 2020 16:44:59 : [ genIndividualizationEnCodeMibData:409 ] EnCode FileName = D:\Preset1119\config.dat, enCodeLen = 38605!
Nov 20 2020 16:45:00 : ####################END##############################


192.168.1.102, 增量升级成功
192.168.1.101, WLAN0 WPA PSK 长度应该在8~64之间
192.168.1.102, WLAN0 WPA PSK 长度应该在8~64之间
192.168.1.101, User Name 长度应该在1~32之间
192.168.1.102, WLAN0 WPA PSK 长度应该在8~64之间

```

Figure 3-9 Operation log record file log.txt

3.2.3.2. <MAC address>.dat file

This class file is generated by diff configuration. In the differential configuration, the decode.exe tool will generate a corresponding <MAC address>.dat file for different MAC addresses of the router gateways, and send the configurations to the corresponding router gateways respectively.

4. common mistakes

4.1. Common problems and differences Failed to deliver configuration and report an error

4.1.1. Frequently Asked Questions: Due to the difference between the operating system and the network card, there will be clicksDistribute differentiation profiles or Distribute the same profileAfter that, the program does not respond or the information disappears. At this time, choose to continue to wait for a period of time, and the configuration will be successfully delivered.

4.1.2. Distribute differentiation profiles failed with ResultforFailed.

Solution:

1） Check whether the SSID password length in the .csv file is less than 8 characters. If it is less than 8 characters, you need to change the password length to 8-64 characters.

2） Check whether the common user account/password in the .csv file is empty. If it is empty, you need to change the account/password length to 1 digit or more.

3） Check the MAC and Band IP columns in the .csv file. There is a one-to-one correspondence between the MAC address of the router gateway and the bound IP. If the environment for delivering the configuration changes, it is best to execute in sequence: Configuration export→Configuration saving→Revise.csvdocument→Profile open→Distribute differentiation profiles, and be careful not to modify the correspondence between the MAC address and the bound ip.

4） Check whether the network cable between each device is plugged in properly, whether the router gateway is online normally, and whether the ports connected to each device are correct.

4.1.3. Tool exited abnormally

Solution:

1） Check whether the Band ip in the .csv file is correct.

2） Check whether there is an empty space in the path where the .dat file name is located and the path where the Preset tool is located grid.