FTTR Quick Configuration

RLTECH

Contents

1. Web Service Quick Configuration

1.1 Login WEB

Enter "http://192.168.2.1:8080/cgi-bin/login.asp"in the address bar of the browser, and then press the "Enter" key to jump to the login page.Enter the username in the login window (please refer to the product label for the initial username and password).

192.168.2.1:8080/cgi-bin/login.asp

UserName: usera

Password:

Language: English

Login

192.168.2.1:8080/cgi-bin/login.asp

UserName: usera

Password: ••••••••••••••

Login is forbidden for 1 minute due to 3 times continuous login failure!

Language: English

Login

Note : If you enter your password incorrectly 3 times in a row, you will be banned from logging in for

1 minute and you will have to wait for 1 minute before you can log in.

1.2 WAN Configuration

Configure a Route to WAN:

- Click "New" to create a new WAN.
- According to the parameter table, set the required configuration, click "Submit" to complete the configuration.

1.2.1 Parameter Table for Route Mode

Operating Mode	Configuration Parameters	Parameter Description
Route mode	Connection Name	WAN connection name
	Mode	Configurable as a route
		Route:The PC is assigned an ip by the device and is on the same LAN
	Service type	Optional services including INTERNET,SPECIAL_SERVICE_1/2/3/4,OTHER
	Binding Interface	Lan port or wifi binding
	DHCP Server Enable	DHCP Server startup switch,In routing mode,if you need to assign ip by the device,you need to turn it on
	LinkMode	Configurable for IPoE or PPPoE

		IPoE:DHCP technology as the core,to realize the IP user session mechanism and other authentication systems.
		PPPoE:Provides access,control and billing functions for users in a peer-to-peer manner by establishing PPP sessions and encapsulating PPP messages as PPPoE messages
	IP Version	Configurable as IPv4/IPv6 single stack or IPv4&IPv6 dual stack
	VLAN Mode	Configure vlan mode
		TAG:VLAN tags are added when the device sends Ethernet frames
		UNTAG:VLAN tags are not added when the device sends Ethernet frames
	VLAN ID	Configure vlan,range:1-4094
	802.1p	Configuration priority,range:0-7
	Multicast VLAN ID	Configure multicast vlan,range:1-4094
	MTU	1) Maximum amount of data that an IP packet can carry over Ethernet,in bytes,range:1280-1500 2) Range 1280-1492 when pppoe wan,fixed 1492
	Enable NAT	Enabling address translation and communication between private and public networks
	IPv6 AddrType	Get IPv6 address type
		SLAAC:stateless configuration
		DHCP:stateful configuration
	Enable PD	ipv6 Prefix Proxy switch for assigning address prefixes in IPv6 networks
	Prefix Mode	Prefix Mode
		Auto:auto-configuration
		Manual:Manual Configuration
	Prefix Address	Prefix address to identify the network or subnet.Used in prefix mode configured as manual or static wan scenarios
	Preferred Lifeime	Preferred Lifeime,range:600 - 4294967295s for prefix mode configured as manual or static wan scenarios
	Valid Lifetime	Valid Lifetime,range:600 - 4294967295s. Used in prefix mode configured as manual or static wan scenarios
	DS-Lite Enable	DS-Lite is an IPv4 NAT technology that uses IPv4 over IPv6 tunneling to enable users with IPv4 private addresses to traverse IPv6 networks to access IPv4 public networks
	DS-Lite Mode	DS-Lite Configuration Mode: Auto or Manual.
	DS-Lite Server	Configure a DS-Lite server.
	IP Address	IP address for static wan
	Subnet Mask	Subnet mask for static wan

Default Gateway	Gateway to static wan
Primary DNS Server	Primary DNS servers for static wan
Secondary DNS Server	Secondary DNS servers for static wan
IPv6 AddrType	IPv6 AddrType for static wan,only configure static
IPv6 Address	IPv6 address for static wan
IPv6 Default Gateway	IPv6 gateway to static wan
Primary IPv6 DNS Server	IPv6 primary DNS servers for static wan
Secondary IPv6 DNS Server	IPv6 secondary DNS servers for static wan
UserName	Dial-up username for pppoe wan
Password	Dial-up password for pppoe wan
Service Name	service Name for pppoe wan
Enable PPPoE Routing/Bridge Hybrid Mode	A network connection that combines the features of routing and bridging modes for pppoe wan

1.3 Multi-VLAN Configuration

Click "Add", set the relevant parameters of Multi-VLAN according to the parameter table. After confirming that they are correct, click "Submit" to complete the configuration.
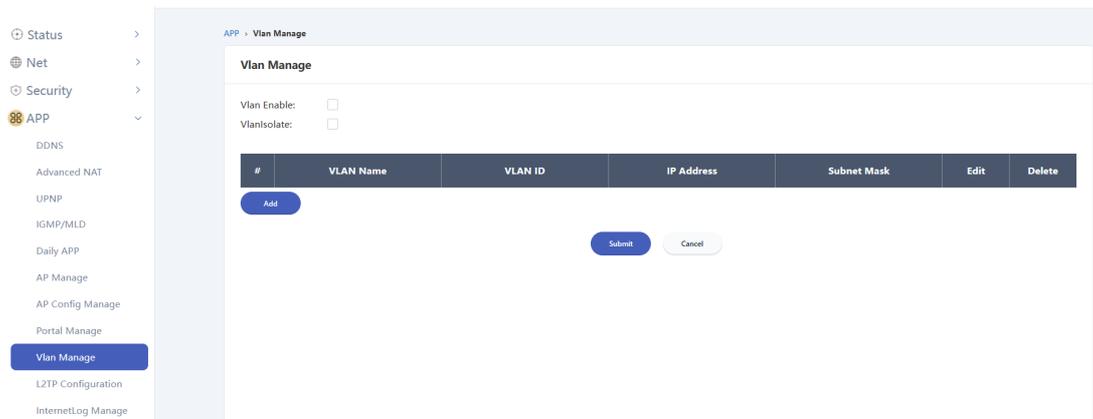
Check the "Vlan Enable" option and click "Submit" to turn on the Multi-VLAN functionality.
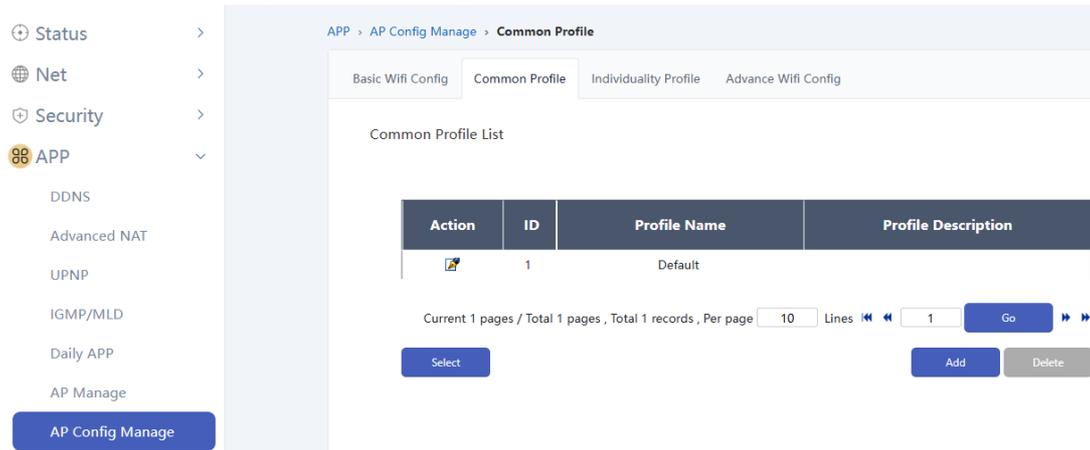

1.3.1 Multi-VLAN Parameter table

Operating Mode	Configuration Parameters	Parameter Description
Vlan Manage	Vlan Enable	Enable/Disable Multi-VLAN Function
	Vlan Isolate	Enable/Disable Multi-VLAN Traffic Isolation Feature
	VLAN Name	VLAN name
	VLAN ID	Configure vlan,range:2-4094
	IP Address	Enter the IPv4 Gateway Address for the VLAN
	Subnet Mask	Enter Subnet Mask
	WAN TYPE	Selectable WAN Types: Default route WAN/Specified interface WAN/Disable WAN access
	Binding Interface	LAN Port Binding
	DHCP Server	Enable/Disable DHCP Server
	IP Pool Starting Address	Starting Address of the Dynamically Allocated IP Address Range by the Server
	IP Pool Ending Address	Ending Address of the Dynamically Allocated IP Address Range by the Server
	Lease Time	Selectable IP Address Lease Time:1 Minute/1 Hour/1

		Day/1 Week

Note : The dynamically allocated IP range is determined by the configured subnet mask.

1.4 Configure Multi-VLAN Binding to Wi-Fi Template

Click 'Edit' to Modify the Default Template of Common Profile.

1.4.1 Wireless Network SSID Configuration

Select the SSID under 2.4G and 5G configurations, click "Edit" to set the desired configuration according to the parameter table, then click "Submit" to complete the setup.

Basic Info

Profile Name: [Default]   (Range : 1 to 15 characters)

Profile Description: [   ]   (Range : 0 to 31 characters)

AP speed limit Settings

Enable: ☐

DownstreamSpeedMax: [0.00] [Mbps ∨] (0~1024 0 unlimited)

UpstreamSpeedMax: [0.00] [Mbps ∨] (0~1024 0 unlimited)

2.4GConfig

Basic Wireless Network Settings-2.4G

Mode: [b,g,n,ax ∨]

Bandwidth: [40M ∨]

Channel: [AUTO ∨]

TxPower: [100% ∨]

Wireless Network SSID Settings-2.4G

[Add] [Delete]

Action	ID	Status	SSID Name	Client isolation	Broadcast SSID	MaxAssociateNum	Security Mode
📝	1	Enable	test1	Disable	Enable	32	WPA2-PSK

5GConfig   Click to expand >>

eth Config   Click to expand >>

[Submit] [Cancel]

☑ Enable SSID

SSID Name: [AP1]   (Range : 1 to 31 characters)

Security Mode: [WPA2-PSK ∨]

Shared key: [123456789]   (Shared key)

Encryption: [AES ∨]

Client isolation: [Disable ∨]

Broadcast SSID: [Enable ∨]

Guest Mode: [Enable ∨]

Bridge Vlan :   [10]   (0 indicates that the vlan is disabled)

MaxAssociateNum: [32]   The range is 0~32

[Submit] [Cancel]

1.4.2 Configure eth Config

Click 'Add' to Create a Sub eth Port Config Instance with Multi-VLAN Binding.

2.4GConfig   Click to expand >>

5GConfig   Click to expand >>

eth Config

Sub eth port Config					
Add	Delete				
Action	**ID**	**Enable:**	**Connection type**	**Mode**	**Bridge Vlan**
📝	1	On	LAN-1	tag	10

Submit   Cancel

Set the relevant configurations as per the parameter table and click 'Submit' to finalize the setup.

Mode: ✓

Connection type: LAN-1   ∨

Mode: tag   ∨

Bridge Vlan :   10   (2~4092)

Submit   Cancel

1.4.3 AP Modify Generic Template Configuration Parameter Table.

Operating Mode	Configuration Parameters	Parameter Description
Basic Info	Profile Name	Profile Name, Range: 1 to 15 characters
	Profile Description	Profile Description, Range: 0 to 31 characters
AP speed limit Settings	Enable	Enable or disable speed limit function
	DownstreamSpeedMax	Downstream Maximum Speed, Range: 0~1024, where 0 indicates unlimited, unit: Mbps or Kbps
	UpstreamSpeedMax	Upstream Maximum Speed, Range: 0~1024, where 0 indicates unlimited, unit: Mbps or Kbps
Basic Wireless Network	Mode	This item is used to set the wireless working mode of the router. 2.4G:802.11b/g/n mixed mode is recommended. 5G:802.11ac/n/a mixed mode is recommended.
	Bandwidth	Wireless Channel Width. 2.4G Range: 20M, 40M,

		5G Range:20M,40M.80M, 160M.
	Channel	The channel for data signal transmission with wireless signal as the transmission medium. If Auto is selected, the terminal will automatically select a best channel according to the surrounding environment. 2.4G:Channel can choose 1~13. 5G:Channel can choose 36/40/46/48/52 and so on.
	TxPower	Wireless transmit power, it is recommended to keep the default value of 100%.
	Enable SSID	Single 2.4G/5G Wi-Fi on/off switch
	SSID Name	SSID name
	Security Mode	Security modes,including OPEN/WPA-PSK/WPA2-PSK/WPA3-SAE Transition,etc.
	Shared key	Password for SSID
	Encryption	Encryption methods,including AES/TKIP/AES+TKIP,etc.
	Client isolation	Enable or Disable Client Isolation
	Broadcast SSID	Enable or disable SSID broadcast. After enabling, devices can discover and connect to this SSID.
	Bridge Vlan	After selecting the Bridge Vlan parameter, the SSID will be bound to the Multi-Vlan instance. Devices connected to this SSID will obtain IP addresses from the Multi-VLAN instance's subnet.0 indicates that the vlan is disabled
	MaxAssociateNum	The maximum number of connected clients for the SSID, range: 0-32,0 represents no limit.
Sub eth port Config	ID	Sub eth port Config Instance ID
	Enable	ON or OFF Sub eth port Config
	Connection type	Select the AP LAN-side port to configure, range: LAN1, LAN2, LAN3, LAN4
	Mode	Tag mode :transparent, tag, untag
	Bridge Vlan	The VLAN bound to the specified port, range: 2-4094.

Note : The value range of Bridge VLAN is determined by the created Multi-VLAN.

1.5 Examples

- Create a Route WAN with Tag 100 as the default WAN for Multi - VLAN.

- Enable "Vlan Enable" and create Multi-VLAN with VLAN 10 (172.168.10.1/24) and VLAN 20 (172.16.20.1/24).

- Configure the default template "Common Profile": bind 2.4G SSID1 to VLAN10; bind 5G SSID1 to VLAN20; In "eth Config", bind LAN1 to VLAN10.

Step 1: Click "Net" -> "WAN" to enter the WAN configuration interface, click "New" to create a Route WAN with Tag 100.

Step 2: Click "APP" -> "Vlan Manage" to enter the Multi-VLAN configuration interface. Check the "Vlan Enable" option and click "Submit" to save the configuration.

Step 3: Click "Add" to create VLAN 10 and VLAN 20.

Step 4: Click "Submit" to save the Multi-VLAN configuration.

Step 5: Click "APP" -> "AP Config Manage"-> "Common Profile", click "Edit" to enter the Default Template configuration interface.

Step 6: Click "Edit" and configure the following: Bind the 2.4G SSID1 to VLAN10 and the 5G SSID1 to VLAN20.

Step 7: Click "eth Config" to enter the "Sub eth port Config" configuration interface, click "Add" to set LAN1 to be bound to VLAN10, and click 'Submit' to save the configuration.

Step 8: Click "Submit" to complete the default template configuration for Common Profile.

2.AVASA Service Quick Configuration

2.1 Login WEB

Enter "http://192.168.2.1:8080/cgi-bin/login.asp"in the address bar of the browser, and then press the "Enter" key to jump to the login page.Enter the username in the login window (please refer to the product label for the initial username and password).

192.168.2.1:8080/cgi-bin/login.asp

UserName: usera

Password: ●●●●●●●●●●●●●●

Login is forbidden for 1 minute due to 3 times continuous login failure!

Language: English

Login

Note : If you enter your password incorrectly 3 times in a row, you will be banned from logging in for

1 minute and you will have to wait for 1 minute before you can log in.

2.2 WAN Configurationa

Enter "http://192.168.2.1:8080/cgi-bin/login.asp" in the browser's address bar, press the "Enter"
key to jump to the Web GUI login page. Enter the username in the login window (please refer to the
product label for the initial username and password).

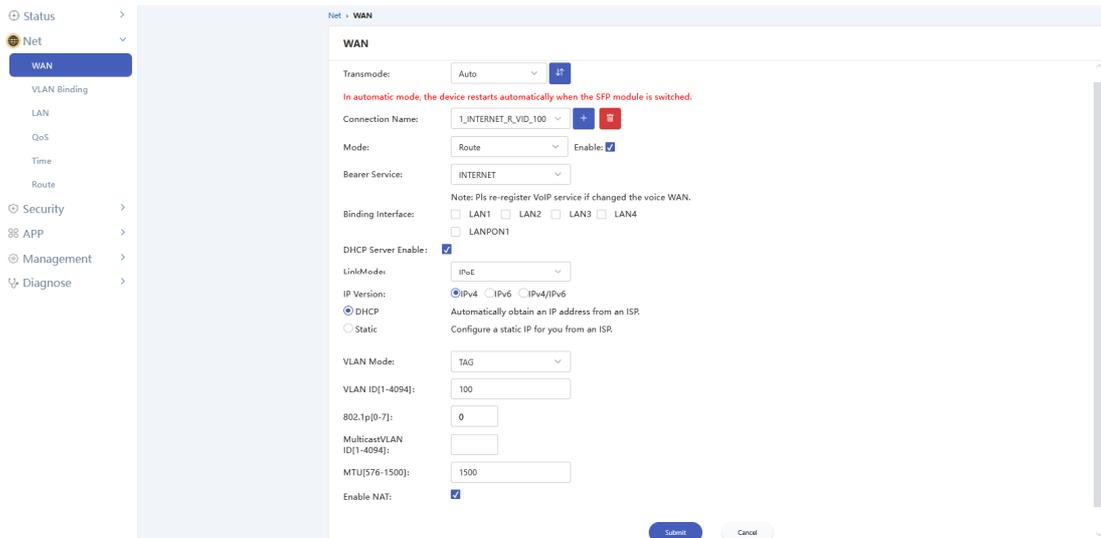192.168.2.1:8080/cgi-bin/login.asp

RL TECH

UserName: user

Password:

Language: English

Login

Note : If you enter your password incorrectly 3 times in a row, you will be banned from logging in for

1 minute and you will have to wait for 1 minute before you can log in.

Select "Net" -> "WAN", and create a Route Internet WAN to enable the main router to access the

AVASA and the Internet.

2.2.1 Parameter Table for Route Mode

Operating Mode	Configuration Parameters	Parameter Description
Route mode	Connection Name	WAN connection name
	Mode	Configurable as a route
		Route:The PC is assigned an ip by the device and is on the same LAN
	Service type	Optional services including INTERNET,SPECIAL_SERVICE_1/2/3/4,OTHER
	Binding Interface	Lan port or wifi binding
	DHCP Server Enable	DHCP Server startup switch,In routing mode,if you need to assign ip by the device,you need to turn it on
	LinkMode	Configurable for IPoE or PPPoE
		IPoE:DHCP technology as the core,to realize the IP user session mechanism and other authentication systems.
		PPPoE:Provides access,control and billing functions for users in a peer-to-peer manner by establishing PPP sessions and encapsulating PPP messages as PPPoE messages
	IP Version	Configurable as IPv4/IPv6 single stack or IPv4&IPv6 dual stack
	VLAN Mode	Configure vlan mode
		TAG:VLAN tags are added when the device sends Ethernet frames
		UNTAG:VLAN tags are not added when the device sends Ethernet frames
	VLAN ID	Configure vlan,range:1-4094
	802.1p	Configuration priority,range:0-7
	Multicast VLAN ID	Configure multicast vlan,range:1-4094

|		
MTU	1) Maximum amount of data that an IP packet can carry over Ethernet,in bytes,range:1280-1500
	2) Range 1280-1492 when pppoe wan,fixed 1492
Enable NAT	Enabling address translation and communication between private and public networks
IPv6 AddrType	Get IPv6 address type
	SLAAC:stateless configuration
	DHCP:stateful configuration
Enable PD	ipv6 Prefix Proxy switch for assigning address prefixes in IPv6 networks
Prefix Mode	Prefix Mode
	Auto:auto-configuration
	Manual:Manual Configuration
Prefix Address	Prefix address to identify the network or subnet.Used in prefix mode configured as manual or static wan scenarios
Preferred Lifeime	Preferred Lifeime,range:600 - 4294967295s for prefix mode configured as manual or static wan scenarios
Valid Lifetime	Valid Lifetime,range:600 - 4294967295s. Used in prefix mode configured as manual or static wan scenarios
DS-Lite Enable	DS-Lite is an IPv4 NAT technology that uses IPv4 over IPv6 tunneling to enable users with IPv4 private addresses to traverse IPv6 networks to access IPv4 public networks
DS-Lite Mode	DS-Lite Configuration Mode: Auto or Manual.
DS-Lite Server	Configure a DS-Lite server.
IP Address	IP address for static wan
Subnet Mask	Subnet mask for static wan
Default Gateway	Gateway to static wan
Primary DNS Server	Primary DNS servers for static wan
Secondary DNS Server	Secondary DNS servers for static wan
IPv6 AddrType	IPv6 AddrType for static wan,only configure static
IPv6 Address	IPv6 address for static wan
IPv6 Default Gateway	IPv6 gateway to static wan
Primary IPv6 DNS Server	IPv6 primary DNS servers for static wan
Secondary IPv6 DNS Server	IPv6 secondary DNS servers for static wan
UserName	Dial-up username for pppoe wan
Password	Dial-up password for pppoe wan
Service Name	service Name for pppoe wan
Enable PPPoE Routing/Bridge Hybrid	A network connection that combines the features of routing and bridging modes for pppoe wan

	Mode	

2.3 Login AVASA

Enter "https://www.avasa.net" in the browser's address bar and press the "Enter" key to navigate to the login page. If it is your first time to register, please do so. If you have already registered,login with your correct username and password or use Phone login.
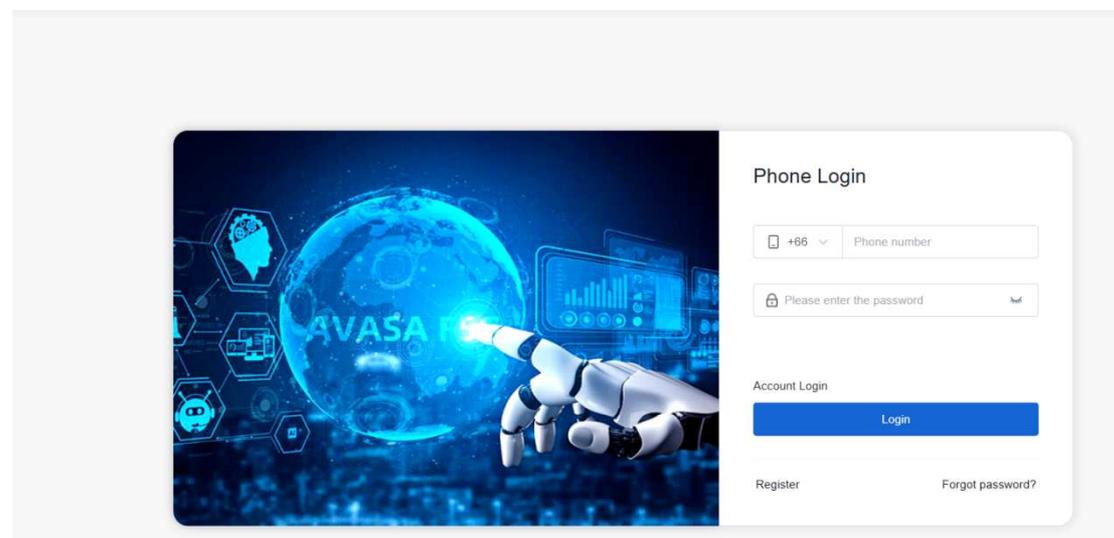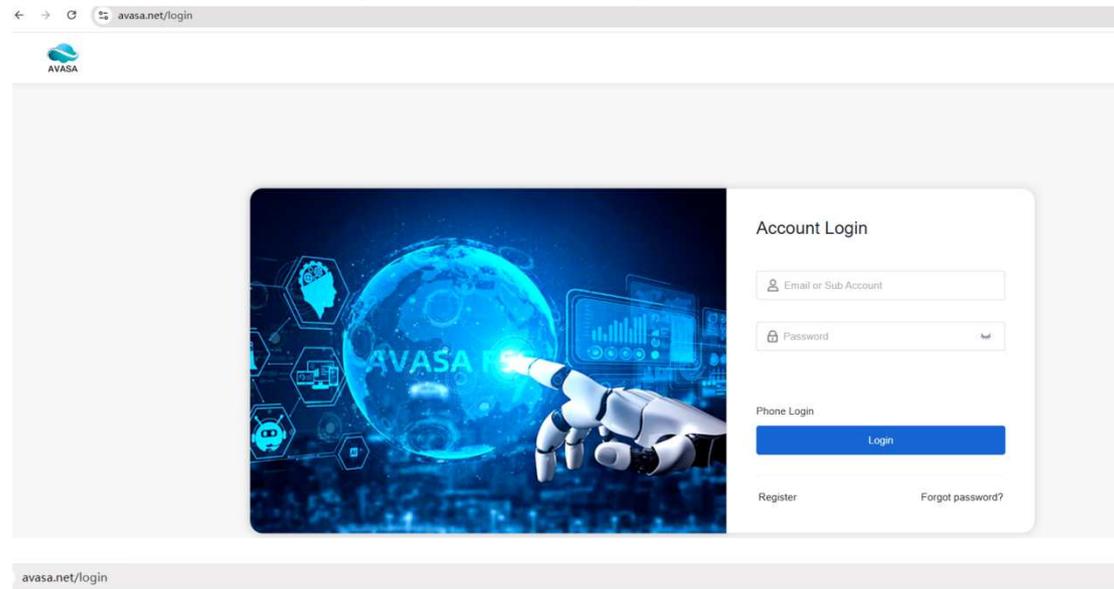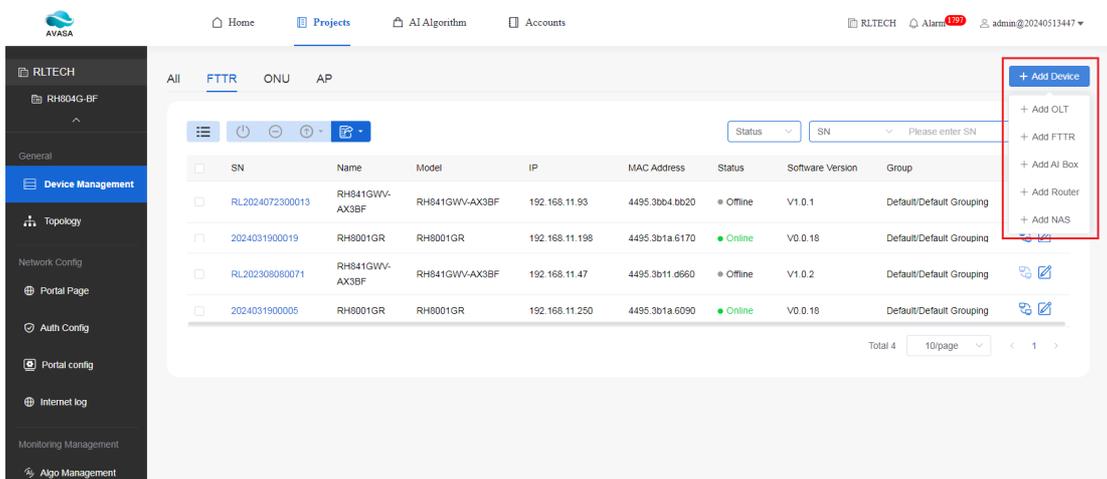

2.4 Adding Managed Devices

Step 1：Click on "Projects" then click "Device Management" under general options on the left to enter the device management page.
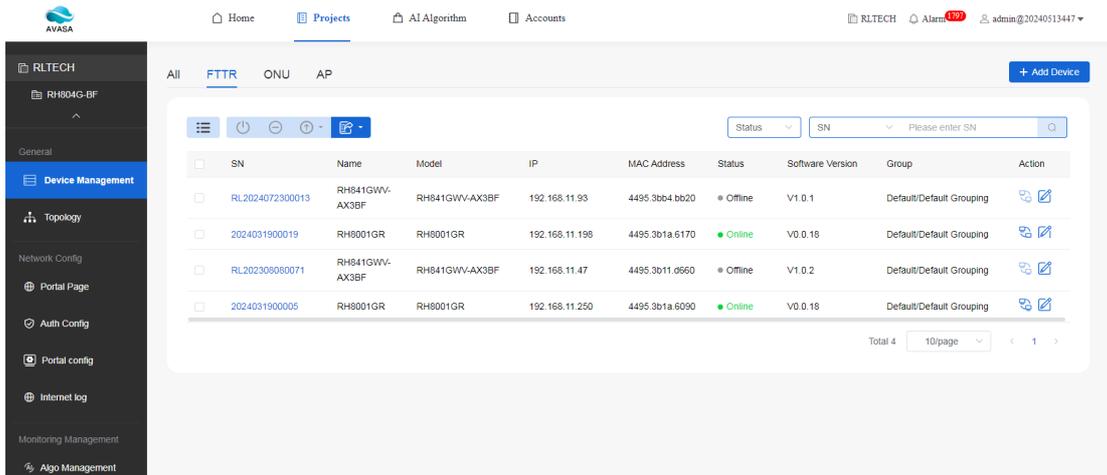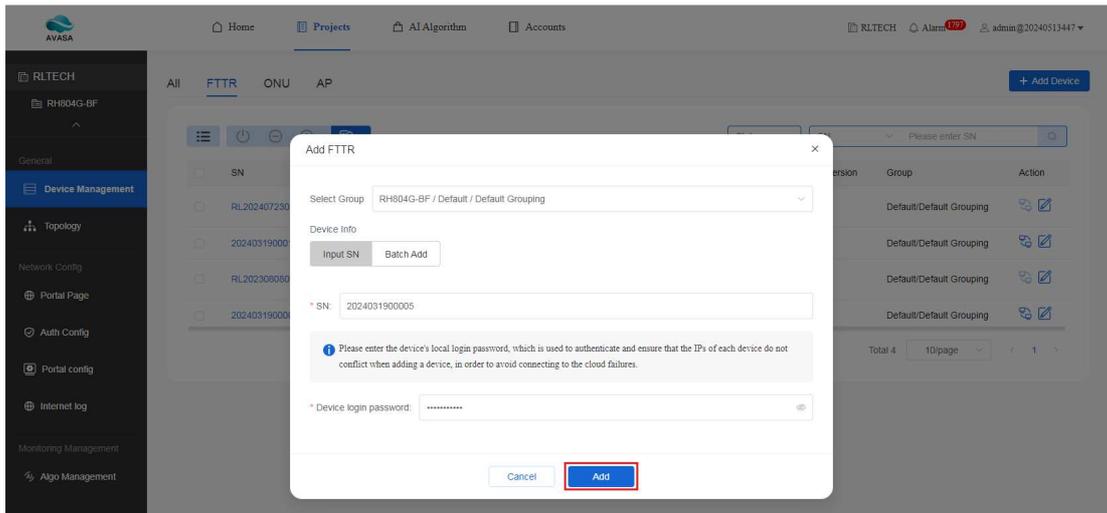
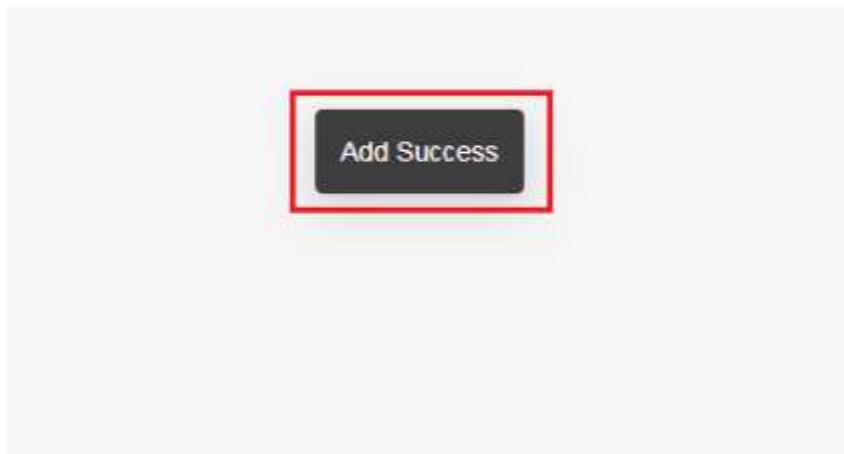Step 2: Click "+ Add Device" and select the type of device you wish to add as illustrated in the figure below.

Step 3: Enter the correct device serial number and login password,the serial number and login password can be found on the label of the device's outer shell.
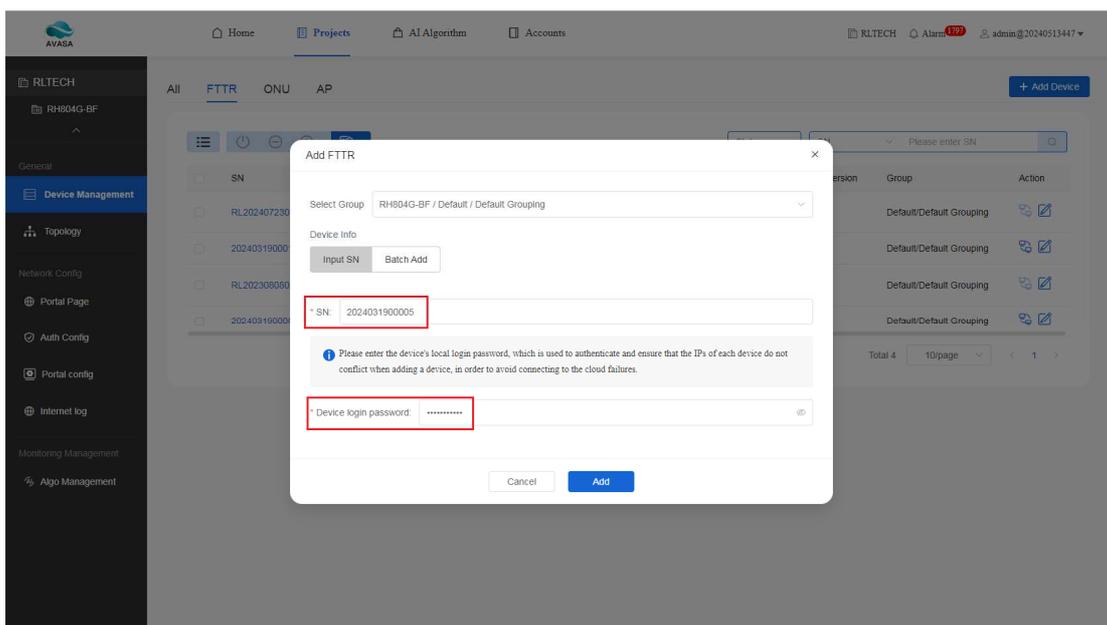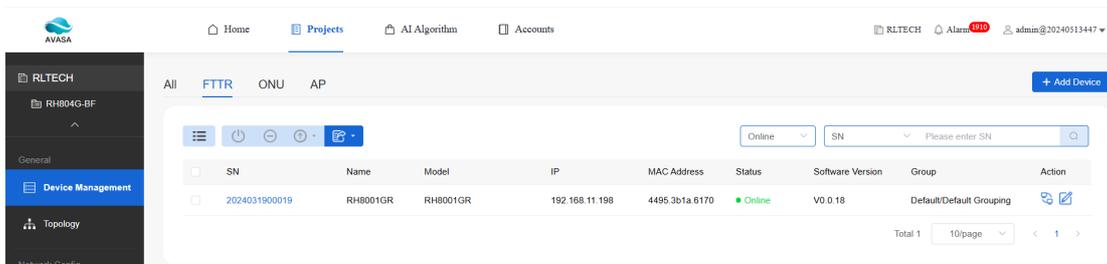

Step 4: Click "Add" to complete the addition process.

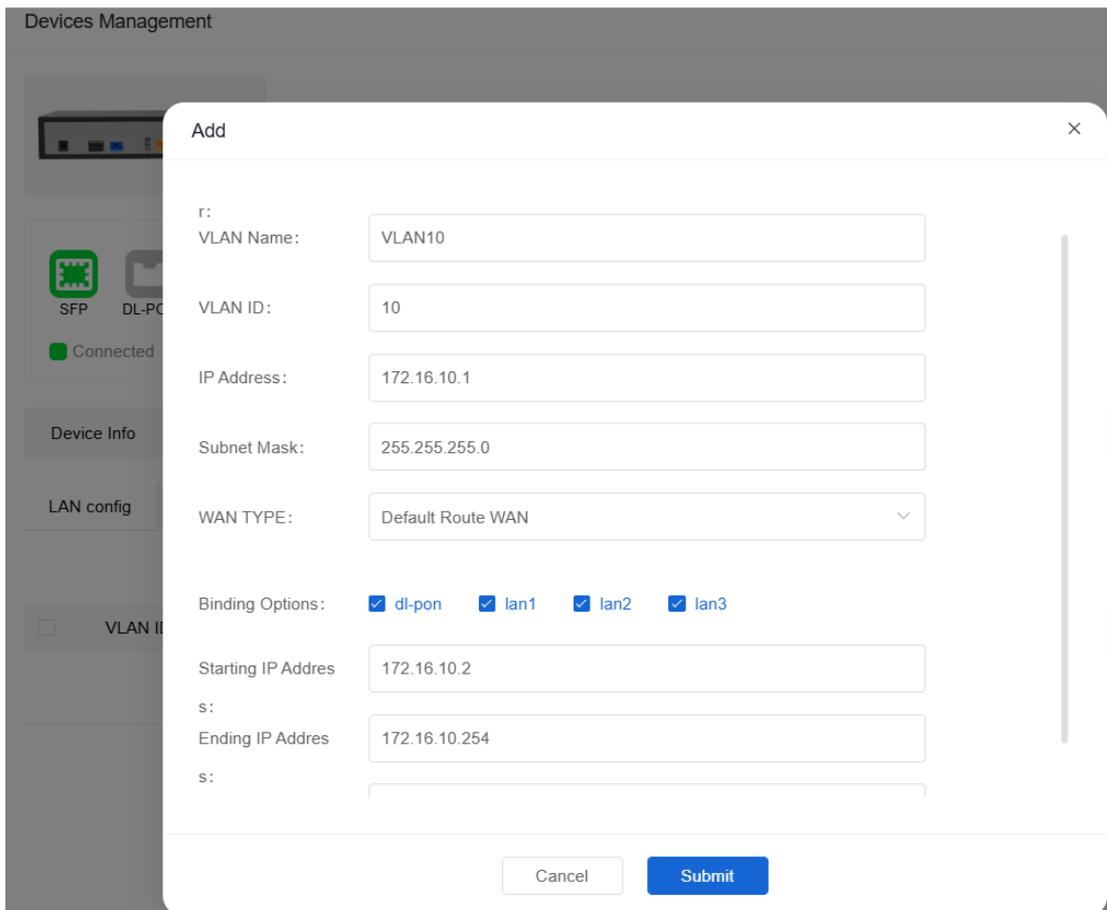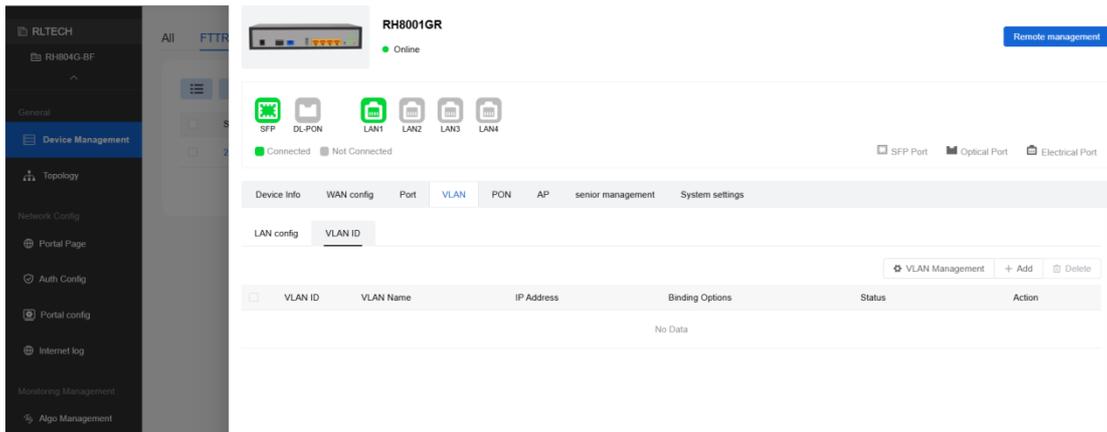A successful addition will show the following prompt.
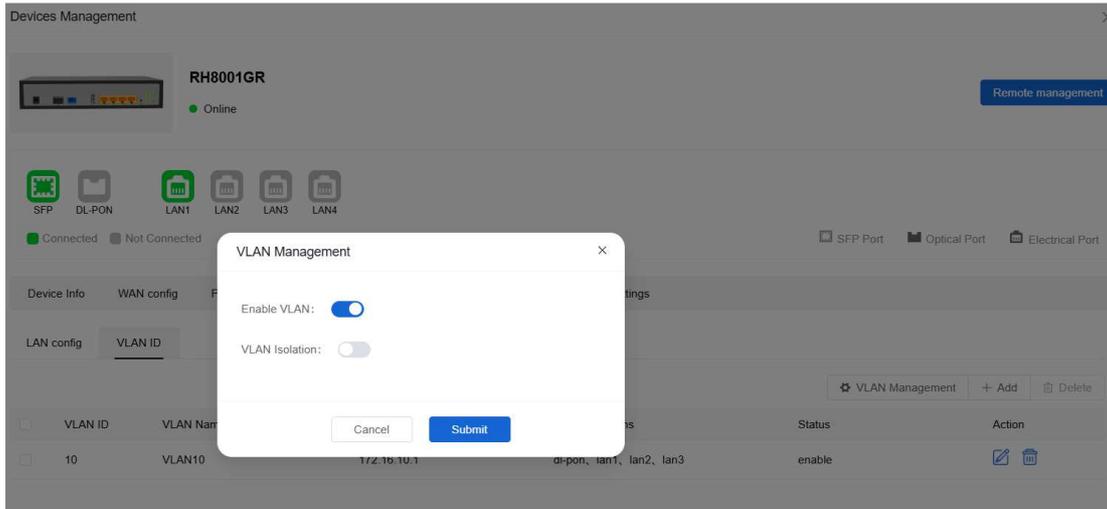

2.5 Multi-VLAN Configuration

On the "Projects" interface, select "Device Management" -> "FTTR" list, and click the FTTR device to be configured.

Select "VLAN" -> "VLAN ID", click on "+ Add" to create a Multi-VLAN instance.

Click on "VLAN Management", enable "Enable VLAN", and then click on "Submit" to save the configuration.

2.5.1 Multi-VLAN Parameter Description table

Operating Mode	Configuration Parameters	Parameter Description
VLAN Management	Enable DHCP Serve	Enable/Disable Dynamic IP Address Allocation (Enabled by default)
	VLAN Name	VLAN name
	VLAN ID	Configure vlan,range:2-4094
	IP Address	Enter the IPv4 Gateway Address for the VLAN
	Subnet Mask	Enter Subnet Mask
	WAN TYPE	Selectable WAN Types: Default Route WAN/Specified Interface WAN/Disable WAN Access
	Binding Options	LAN Port Binding
	Starting IP Address	Starting Address of the Dynamically Allocated IP Address Range by the Server
	Ending IP Address	Ending Address of the Dynamically Allocated IP Address Range by the Server
	Lease Time	Selectable IP Address Lease Time:1 Minute/1 Hour/1 Day/1 Week
	Enable VLAN	Enable/Disable Multi-VLAN Function
	VLAN Isolation	Enable/Disable Multi-VLAN Traffic Isolation Feature

Note : The dynamically allocated IP range is determined by the configured subnet mask.

2.6 Configure Multi-VLAN Binding to WiFi Template

Select "AP" -> "Generic template", and click the edit option after the "Default" template.

Select the SSID under 2.4G and 5G configurations, click "Edit" to set the desired configuration according to the parameter table, then click "Submit" to complete the setup.

2.6.1 Wi-Fi Generic Template Parameter Description Table

| Operating Mode	Configuration Parameters	Parameter Description
Basic Info	Name	Profile Name, Range: 1-15 characters.
	Bandwidth speed limit	Enable or disable speed limit function.
	Upstream bandwidth	Maximum Upload Bandwidth. Value range: 0 - 1048576, where 0 means unlimited. Unit: Kbps/Mbps.
	Downstream bandwidth	Maximum Download Bandwidth. Value range: 0 - 1048576, where 0 means unlimited. Unit: Kbps/Mbps.
	Description	Profile Description, Range: 0 to 31 characters.
2.4G Config	Network Mode	This item is used to set the wireless working mode of the router. 2.4G:802.11b/g/n mixed mode is recommended.
	Network Bandwidth	Wireless Channel Width. 2.4G Range: 20M, 40M.
	Channel	The channel for data signal transmission with wireless signal as the transmission medium. If Auto is selected, the terminal will automatically select a best channel according to the surrounding environment. 2.4G:Channel can choose 1~13.

	Transmission Power	Wireless transmit power, it is recommended to keep the default value of 100%.
5G Config	Network Mode	This item is used to set the wireless working mode of the router. 5G:802.11ac/n/a mixed mode is recommended.
	Network Bandwidth	Wireless Channel Width. 5G Range:20M,40M.80M, 160M.
	Channel	The channel for data signal transmission with wireless signal as the transmission medium. If Auto is selected, the terminal will automatically select a best channel according to the surrounding environment. 5G:Channel can choose 36/40/46/48/52 and so on.
	Transmission Power	Wireless transmit power, it is recommended to keep the default value of 100%.
SSID Config	No	SSID Instance Serial Number.
	Status	Enable/Disable Wireless Switch.
	SSID Name	SSID name. Range: 1-31 characters.
	Encryption	Security modes,including OPEN/WPA-PSK/WPA2-PSK/WPA3-SAETransition,etc.
	Max Terminal	The maximum number of connected clients for the SSID, range: 0-32,0 represents no limit.
	VLAN ID	After selecting the Vlan parameter, the SSID will be bound to the Multi-VLAN instance. Devices connected to this SSID will obtain IP addresses from the subnet of the Multi-VLAN instance. The range is 2 to 4094, and the default is bridge mode.
	Client Isolation	Enable or Disable Client Isolation.
	Broadcast SSID	Enable/Disable SSID Broadcasting. When enabled: The SSID can be found in the list of wireless networks and connected to. When disabled: This SSID will not be displayed in the list of wireless networks searched by the wireless network card.

2.7 Examples

- Create a Route INTERNET WAN with VLAN Tag 100 in the Web GUI to enable the main router to access the AVASA and connect to the internet.

- Login to the AVASA and create two Multi-VLAN instances: VLAN 10 with the IP address 172.16.10.1/24; VLAN 20 with the IP address 172.16.20.1/24.

- Configure the 2.4G SSID1 to bind VLAN 10 and the 5G SSID1 to bind VLAN 20.

Step 1: In the Web GUI, select "Net" -> "WAN" and create a Route WAN with tag 100.
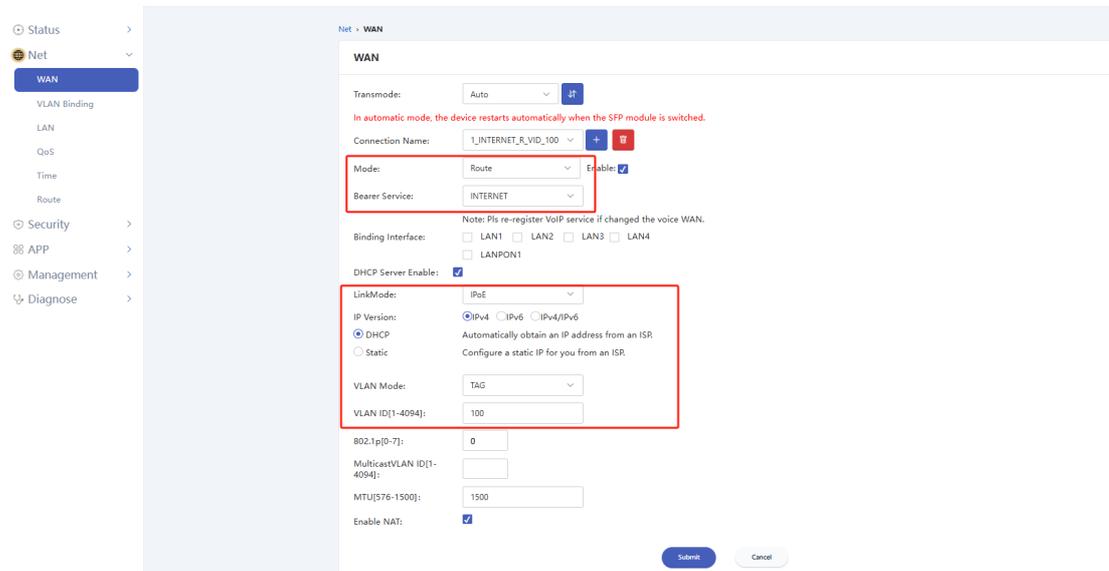
Step 2: Log in to the AVASA, select "Projects" -> "Device Management", and click on the main router to be configured in the FTTR list.
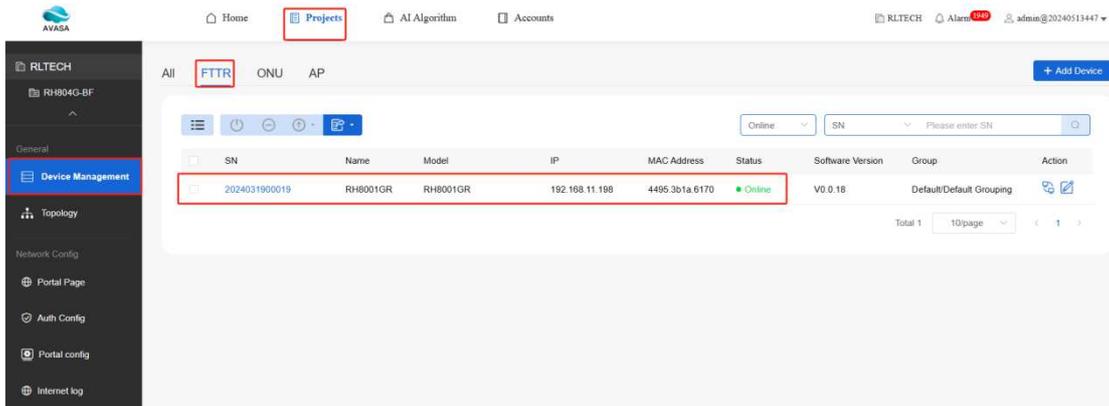
Step 3: Select "VLAN" -> "VLAN ID", click "+Add", and create VLAN10 with the IP address 172.16.10.1/24 and VLAN20 with the IP address 172.16.20.1/24.

Edit   ✕

r:
VLAN Name: VLAN10

VLAN ID: 10

IP Address: 172.16.10.1

Subnet Mask: 255.255.255.0

WAN TYPE: Default Route WAN   ⌄
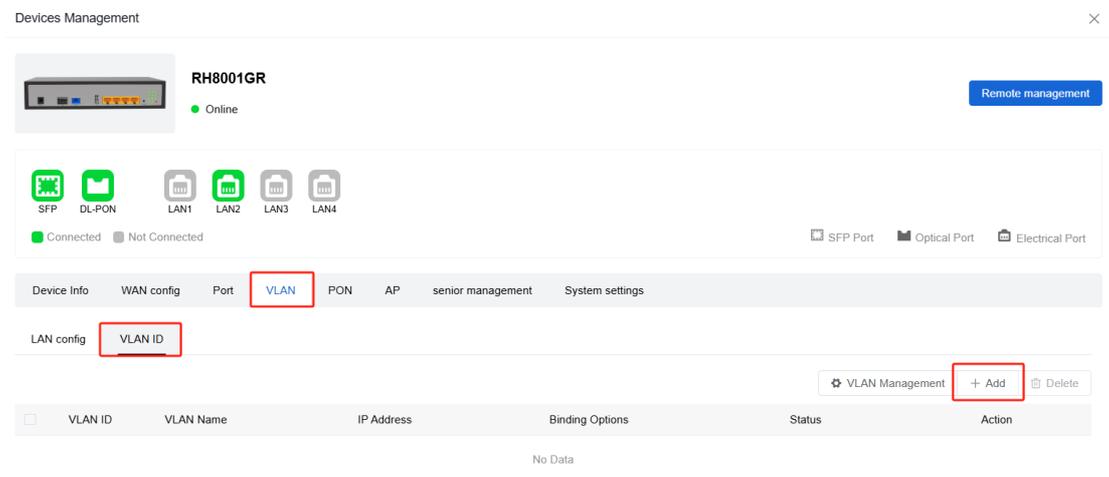
Binding Options: ☑ dl-pon   ☑ lan1   ☑ lan2   ☑ lan3

Starting IP Addres 172.16.10.2
s:

Ending IP Addres   172.16.10.254
s:

              Cancel   Submit

Step 4: Click "VLAN Management", enable "Enable VLAN", and then click "Submit" to save the settings.

Step 5: Select "AP" -> "Generic template", choose the default template, and click "Edit".

	Template Name	Upstream bandwidth	Downstream bandwidth	Template Description	Action
	Default				✏️

Total 1 ‹ 1 ›

Step 6: Configure the 2.4G SSID1 to be bound to VLAN10; configure the 5G SSID1 to be bound to VLAN20.

EditSSID   ✕

Wireless Switch: 🔵

* SSID Name: | TEST1 | 1-31 characters

* Encryption: | WPA2-PSK   ∨ |

* Wireless Password: | 123456789 | Range: 8-63 characters

* Max Terminal: | 32 | 0-32, 0 for no limit

VLAN ID: | 10 | 2~4094, default is bridge mode

Client Isolation: ⚪

Broadcast SSID: 🔵

                    Cancel   Save

EditSSID

Wireless Switch:	(toggle on)
* SSID Name:	TEST2	1-31 characters
* Encryption:	WPA2-PSK	
* Wireless Password:	123456789	Range: 8-63 characters
* Max Terminal:	32	0-32, 0 for no limit
VLAN ID:	20	2~4094, default is bridge mode
Client Isolation:	(toggle off)	
Broadcast SSID:	(toggle on)	

Cancel   Save

Step 7: Click "Submit" to save the SSID Config.

Edit

Bandwidth speed limit: (toggle off)

Description: Please enter   0 / 31

2.4G Config

Network Mode:	b,g,n,ax
Network Bandwidth:	40M
Channel:	AUTO
Transmission Power:	100%

SSID Config   + Add   🗑 Delete

	No.	Status	SSID Name	Encryption	Max Terminal	Operation
☐	1	(on)	TEST1	WPA2-PSK	32	✎

5G Config

Network Mode:	n,ac,ax
Network Bandwidth:	20M/40M/80M/160M
Channel:	AUTO
Transmission Power:	100%

SSID Config   + Add   🗑 Delete

	No.	Status	SSID Name	Encryption	Max Terminal	Operation
☐	1	(on)	TEST2	WPA2-PSK	32	✎

Cancel   Save