

Enterprise Level Multi-Function flow control Gateway

Quick Install Guide

Multi-functional appliance

Gateway - Router - Load balance - Firewall - Controller - Captive portal

Port	IP Address	Mask
LAN1	172.16.0.1:2011	255.255.0.0
LAN2	172.17.0.1:2011	255.255.0.0
LAN3	172.18.0.1:2011	255.255.0.0
LAN4	172.19.0.1:2011	255.255.0.0

*Note:Please check the IP address of default port above .

2.2 WAN port settings

(Network configuration) (Interface Configuration) "External network configuration", select the network port to configure, and configure the information of the external network, as shown in the following image:

The screenshot displays the MikroTik WinBox interface for configuring the WAN1 interface. The left sidebar shows the navigation menu with 'WAN1' selected under 'Interface Configuration'. The main panel is titled 'WAN1 Interface configuration' and contains the following settings:

- Internet access:** Set to 'Static IP' (radio button selected) and 'DHCP'.
- Specify DNS:** A checkbox that is currently unchecked.
- Line interruption detection:** A checkbox that is checked.
- Static IP Configuration:**
 - Please input two public network server IP which ping stable as IP detection:** A red warning message.
 - Ping detect IP 1:** 0.0.0.0
 - Ping detect IP 2:** 0.0.0.0
 - Advanced configuration:** A link to expand the configuration options.
 - Save:** A button to save the configuration.
- DHCP Configuration:**
 - DHCP obtaining status:** Obtain IP success!
 - IP address:** 182.17.0.101
 - Netmask:** 255.255.255.0
 - Default gateway:** 182.17.0.1
 - DNS server:** 182.17.0.1
 - Smart QoS:** Enable
 - Bandwidth setting:** Upstream 100000 / Downstream 100000 Kbps

Internet access: (choose how to access the Internet according to the actual situation)

ADSL/PPPOE: Fill in bandwidth account numbers and passwords (this type of Internet access is recommended)

Fixed IP: Fill in IP, mask, gateway and DNS provided by the operator

DHCP: Direct access to lines provided by the operator to obtain IP

Line interruption check: detect whether the line is connected to the network, if the line is not accessible or the line quality is poor, the packet is serious, the route is automatically processed, does not load to the Line. It is recommended to enable line interrupt detection.

Bandwidth configuration: configure the bandwidth of the line, such as the dial-up fiber of the upstream 4M downlink 100M, can be configured with behavior 500KB, downside 10000KB. Configure the line Bandwidth is important, and intelligent streaming is automatically streamed based on the bandwidth that is matched. (The "Enable Smart Streaming" option needs to be checked to configure bandwidth values for effective)

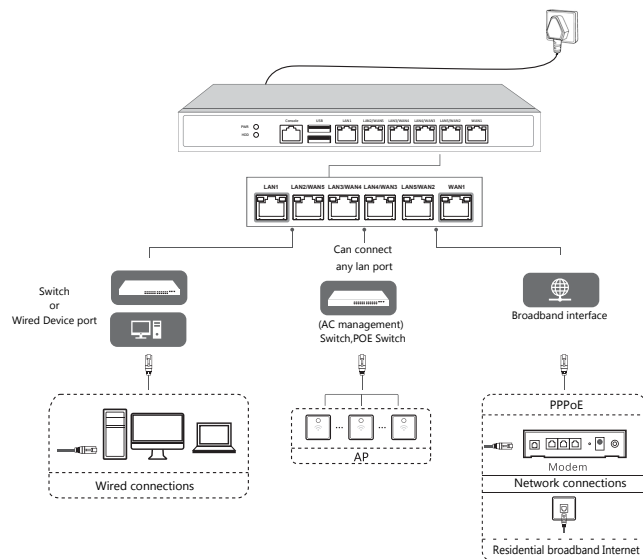
2.3 Physical port division

This feature supports separate and merge port divisions. When the main road is recommended to use the merge port division, that is, open All LAN ports are one LAN1 port function. If it is bypass mode, it is recommended to turn this feature off. Select the corresponding according to the actual situation Physical port division type, check "Merge all LAN ports as one intranet port (LAN1)."

Note: After the definition of the physical port feature is modified, the route needs to be reconfigured. (Note: The version of the **X86 platform** does not support Ethernet port merge).

X86 Platform include model: **GAC9500, GAC9600, GAC9800**
These models will use separate LAN ports and integrated VLAN function on LAN

01/Route Connection



02/Route Settings

2.1 Login Device

Connect Lan port of device to PC, login in via IP:Port 172.16.0.1:2011 ,ID/Password: **admin** as below:

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[Current operation](#) | [System Status](#) >> [Device Info](#)

[Refresh](#) | [Change password](#) | [Logout](#)

S

System Status

- Device Info
- Interface Status
- LAN IP Flow
- Application Flow

[Network Configure](#)

[Flow Control Policy](#)

[AC Management](#)

[Auth Internet Access](#)

[Behavior Control](#)

[Object Management](#)

[Safety Protection](#)

[Log Record](#)

[VPN](#)

[Device Maintenance](#)

Network interface status

Interface		Type	Link mode	IP address	MAC address	Receive speed	Send speed
LAN1	WAN1	WAN port Online	100M Full duplex	192.168.1.2	48:03:01:55:AA-AA	4.59 MB/s	92.23 KB/s
LAN2	WAN2	WAN port Online	100M Full duplex	192.168.0.4	48:03:01:55:AA-AA	2.22 MB/s	93.31 KB/s
LAN3	WAN3	WAN port Online	100M Full duplex	192.168.1.2	48:03:01:55:AA-AA	6.57 MB/s	79.11 KB/s
LAN3	LAN1	Disconnect	Disconnect	192.168.0.1	48:03:01:55:AA-AA	0.00 KB/s	0.00 KB/s
LAN2	LAN2	Disconnect	100M Full duplex	192.17.0.1	48:03:01:55:AA-AA	266.22 KB/s	13.35 MB/s
LAN1	LAN1	Disconnect	Disconnect	192.168.0.1	48:03:01:55:AA-AA	0.00 KB/s	0.00 KB/s

Device basic information

Device ID: [XXXXXXXXXX] Max Users 512, Max AP can be managed 512

Uptime: 20:7:3 up 14 days

Memory utilization: 15% 283.50MB/1.83GB

CPU utilization: 7%

Temperature: 42°C

Connection monitoring: 1% 11021800000

Online users: 588 users

MULTI-FUNCTION GATEWAY

Current operation Network Configure >> Interface Configure >> Physical Port Definition

System Status

Network Configure

- Interface Configure
 - VLAN Configure
 - LAN DHCP
 - Physical Port Definition
 - Subinterface Configure
 - Route Rule
 - Multi-line Deversion Rules
 - Static Route
 - DDNS
 - NAT/Port Forwarding

Flow Control Policy

AC Management

Auth Internet Access

Behavior Control

Object Management

Safety Protection

Log Record

VPN

Physical port definition

☐ SLAN + VLAN
☐ SLAN + VLAN
☒ SLAN + VLAN
☐ ZLAN + VLAN
☐ LLAN + VLAN

The diagram shows six rows of icons representing network ports. The first row shows LAN1 through LAN6, all with orange icons. The second row shows LAN1 through LAN6, all with blue icons. The third row shows LAN1 through LAN6, all with blue icons. The fourth row shows LAN1 through LAN6, all with blue icons. The fifth row shows LAN1 through LAN6, all with blue icons. The sixth row shows LAN1 through LAN6, all with blue icons.

Save Note: After the physical port feature definition is modified, the router needs to be reconfigured.

03/AC Management

3.1 AP Device List

The AC controller feature allows centralized management and release configuration of the AP devices connected to it, with parameters including Line channels, SSIDs, transmit power, encryption modes and keys, AP coverage thresholds, number of access users, and VLAunID, as follows As shown in the figure:

System Status

Network Configure

Flow Control Policy

AC Management

AP List

AP Configure Template

AP Upgrade

Auth Internet Access

Behavior Control

Object Management

Safety Protection

Log Record

VPN

Device Maintenance

Restart AP

Reset AP

Delete AP

Apply configuration template

Refresh

All device

device model file

Search conditions: Device IP

Online AP quantity/ Total AP 6 / 7 . AC service status: [Online]

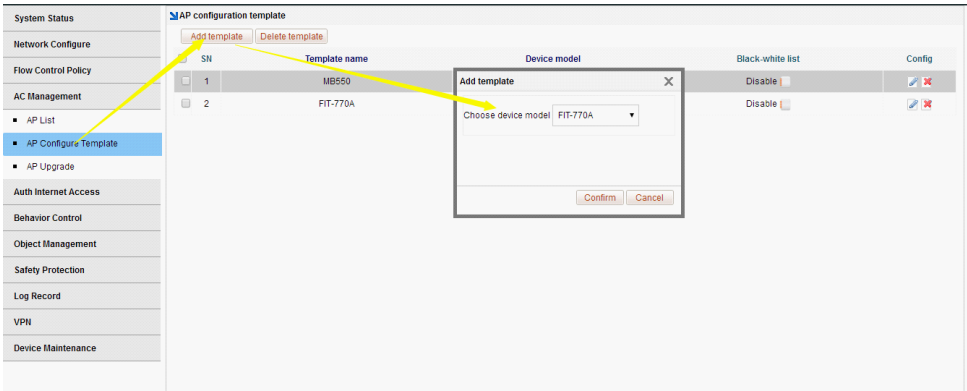
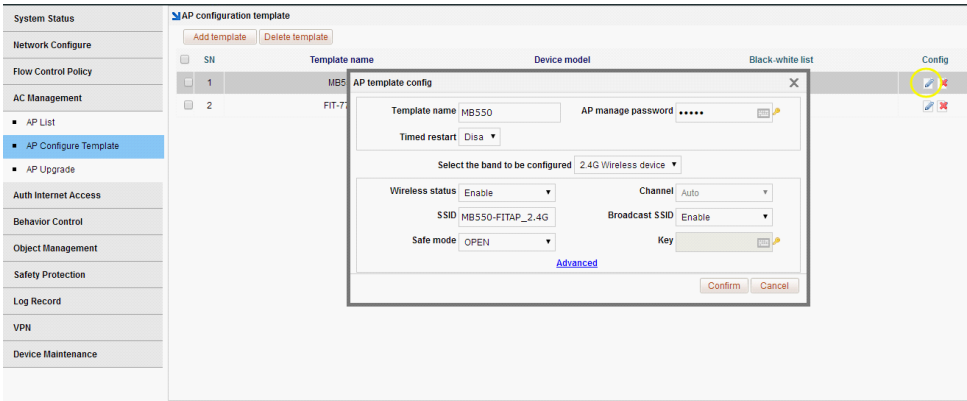
SN	AP name	Device IP	MAC address	SSID(2.4G/5.8G)	User Status	Channel(2.4G/5.8G)	Channel Analysis	Power	AP model	AP version	Uptime	Black white list	AP remarks	Config
1	WTP 1	172.16.0.102		770A_2.4G	0 online	10	2.4G	100%	FIT-	V5.3-	0:45:25 up	Disable		
				770A_5.8G	0 online	36	5.8G	100%	770A Build20190419091759	5 days	Disable			
2	WTP 1	172.16.0.101		MB550-FITAP_2.4G	0 offline	8	2.4G	100%	FIT-	V5.3-	0:45:25 up	Disable	admin	
				MB550 Build20190408100556	0 offline	8	2.4G	100%	MB550 Build20190408100556	5 days	Disable	admin		
3	WTP 1	172.16.0.111		Wireless_2.4G	1 online	Auto[3]	2.4G	100%	PW1200	V3.2-	23:40:29 up	Disable		
				Wireless_5.8G	1 online	Auto[44]	5.8G	100%	B20190429100313	4 days	Disable			
4	WTP 1	172.16.0.112		Wireless_2.4G	0 online	Auto[11]	2.4G	100%	FIT-	V5.3-	23:40:5 up	Disable		
				Wireless_5.8G	0 online	Auto[64]	5.8G	100%	770A Build20190419091759	4 days	Disable			
5	WTP 1	172.16.0.113		Wireless_2.4G	0 online	Auto[8]	2.4G	100%	FIT-	V5.3-	23:40:3 up	Disable		
				Wireless_5.8G	0 online	Auto[149]	5.8G	100%	770A Build20190419091759	4 days	Disable			

Note: The default configuration issued by AP is achieved by establishing the template, with one template for each model.

Only in the AC list should The template of the corresponding model will be released normally.
Note: An AP model can also create multiple templates.Apply to the same floor or geography of the same model A scene with a different location.

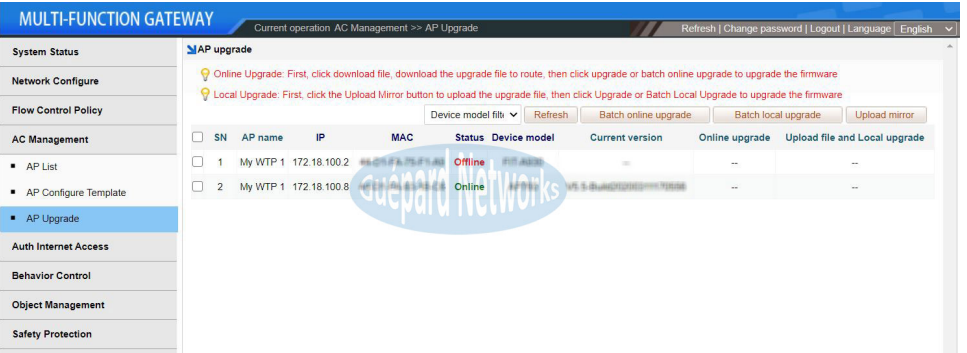
3.2 AP Device Configuration

AP device configuration, is a single AP or multiple APs in the list of parameter modifications, including the wireless state on or off, The modification of the channel, the modification of the wireless bandwidth mode, the modification of the AP coverage threshold, the modification of the transmit power, and the marking of the device location.



3.3 AP Upgrade Management

AP Upgrade Management allows you to upload the AP version that needs to be upgraded to the device, and then select the AP list in full or selected to upgrade, while also supporting the AP remote upgrade.

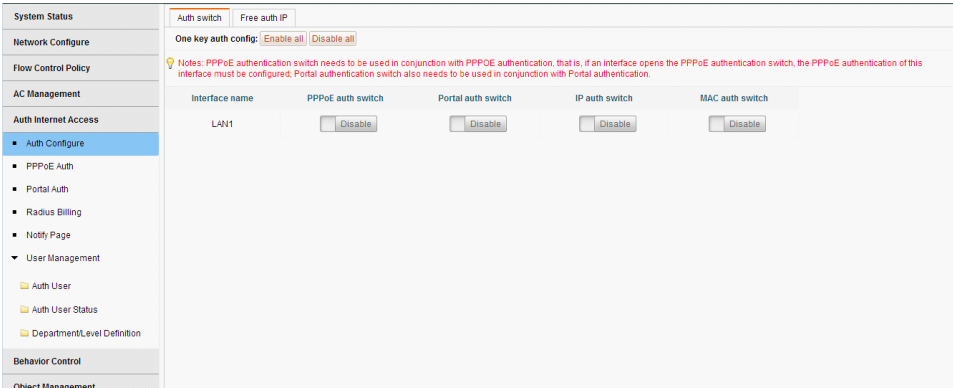


04/Authentications

4.1 Enable authentication to the Internet

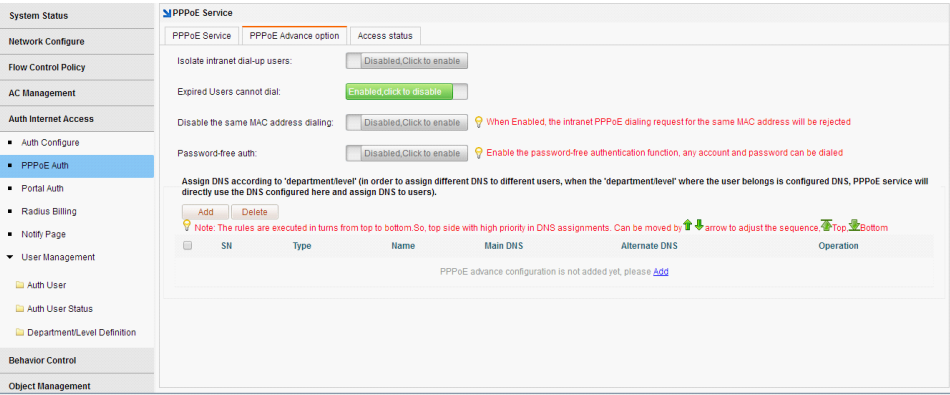
Enable authentication Online, means that only PPPoE dial-up authentication, WEB password authentication, IP authentication, MAC authentication.

Users can only access the Internet, for example, allow the user PPPoE dial-up Internet access under LAN1, certified Internet access , "Certification switch", select LAN1, enable the authentication network switch, check the type of "PPPoE dial" that allows Internet access, click Save.



4.2 PPPOE Authentications

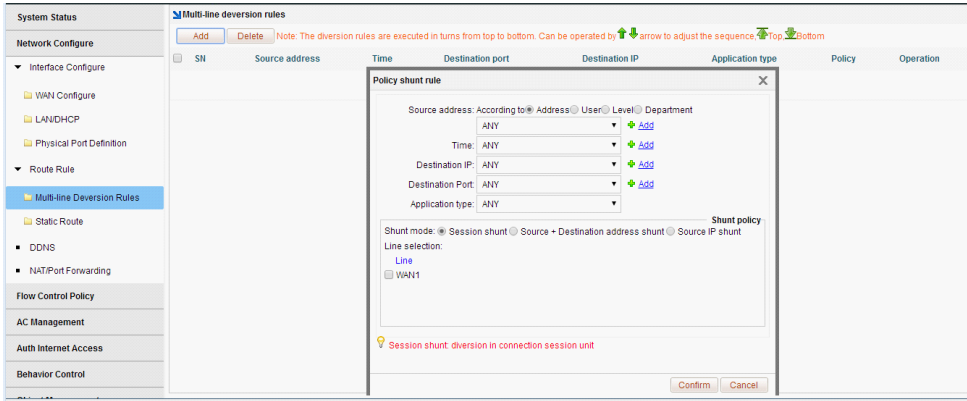
Users who use PPPoE dial-up Internet access need to enable PPPoE services at the intranet, such as PPPoE services on LAN1. (Certified Internet Access) (PPPoE Certification) (PPPoE Advanced Options) and select the app.



05/Configure shunt rules

5.1 Configuring shunt rules

A single line can not configure a shunt rule; (Network configuration) Multi-line shunt rule, point Hit Add creates a policy shunt rule, selects the shunt mode, selects which apps the line hosts, and click OK after checking.



Note: Multi-line load balancing is achieved by shunt rules.

5.2 Configure bandwidth speed limit policy

Description: Routing has intelligent flow control function, configuration speed limit strategy, the purpose is to prevent the endonet machine poisoning, or advertising uncontrolled Upload, usually the speed limit up to 100-300KB, the downlink speed limit can be properly liberalized, such as the speed limit of 1000-3000, usually recommended The speed limit does not exceed one-third of the total bandwidth.



For example: a 50M peer fiber, then each machine speed limit up 100-300KB, down1000-3000 KB can be, advanced recommendation configuration P2P The limit allows 70% of the allowed for the upstream and 70% allowed for the downstream. As shown above (ANY means arbitrary, that is, anyone, any time)

06/Safety

6.1 End-network anomaly detection

Turn on DHCP detection to detect the presence of other DHCP servers in the intranet; Turn on Loop Detection to check the content for loops (for intranet fault positioning).

