

WLAN Controler + Gateway

Quick Installation Guide



| WHG-30 | WHG-250 | WHG-1000 |
|---------|---------|----------|
| WHG-100 | WHG-500 | WHG-3000 |



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



01/Route Connection



02/Route Settings

2.1 Login Device

Connect Lan port of device to PC,login in via 172.0.1 ,ID/Password: admin ,as below:

| System Status | Network interface statu | 8 | | | | | |
|--------------------------------------|--------------------------|--|-------------------|------------|-------------------|---------------|------------|
| Device Info | | | | | | | |
| Interface Status | | | | | | | |
| LAN IP Flow | LAN1 LAN2 | LAN3 LAN4 WAN1 | | | | | |
| Application Flow | Interface | Туре | Link mode | IP address | MAC address | Receive speed | Send speed |
| Network Configure | WAN1 | WAN port Online | 1000M/Full duplex | 172.16.0.1 | 44-D1-FA-45-53-F9 | 0.40 KB/S | 0.39 KB/S |
| Flow Control Dolicy | LAN4 | LAN port | Disconnect | | Merged into L | AN1 | |
| Flow Condition Policy | LAN3 | LAN port | Disconnect | | Merged into L | AN1 | |
| AC Management | LAN2 | LAN port | Disconnect | | Merged into L | AN1 | |
| Auth Internet Access | LAN1 | LAN port | 1000M/Full duplex | 172.16.0.1 | 44-D1-FA-45-53-F5 | 0.04 KB/S | 0.04 KB/S |
| Behavior Control | Device basic information | 1 | | | | | |
| Object Management | Device ID: | Y21180001054, Max Users:80 , Max AP can be r | nanaged:64 | | | | |
| Safety Protection | Uptime: | 1:14:10 up 5 days | | | | | |
| Log Record | Memory utilization: | 35% 85.07MB/244.94MB | | | | | |
| VPN | CPU utilization: | 0% | | | | | |
| Device Maintenance | Connection monitoring: | 0% 116/50000 | | | | | |
| | Online users: | Z users | | | | | |

| System Status | Physical port definition |
|---|--|
| Network Configure Interface Configure RWAN Configure | * 4LAN + 1V/AN |
| LAN/DHCP Physical Port Definition | Meregel into Lan1 |
| Route Rule Multi line Deversion Rules | SLAN + 2VIANI |
| Mutu-line Deversion Rules Static Route DDNS MUTUBER Framework | © 2LAN + 3V/6AN |
| Flow Control Policy AC Management | TLAN + 4VAAN TLAN + 4VAAN |
| Auth Internet Access Behavior Control | Advance Ø Merge all LAN ports into LAN1 |

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 VIAunID, as follows As shown in the figure:

| System Status | MAP | list | | | | | | | | | | | Online AP | quantity/ Tot | al AP:6 / 7, | AC service | status: |
|-----------------------|-----|--------|-------|--------------|----------------|-------------------|------|----------|---------------|----------|-----------|----------|--|---------------|--------------|------------|---------|
| letwork Configure | R | estart | AP R | eset AP Del | ete AP Apply c | onfiguration temp | late | Refre | sh All device | • | device mo | del filb | Search conditions: | Device IP 🔻 | | | |
| low Control Policy | | searcr | AP | | | | | | Channel(2.4G/ | Channe | | AP | | | Black | AP | |
| AC Management | | SN | name | Device IP | MAC address | SSID(2.4G/5.8G) | Use | r Status | 5.8G) | Analysis | Power | model | AP version | Uptime | white list | remarks | Con |
| AP List | | | My | | 44-D1-FA-63- | 770A_2.4G 💕 | | | 10 | 2.4G 🖈 | 100% | FIT- | V5.3- | 0:45:25 up | Disable | | |
| AP Configure Template | | 1 | WTP 1 | 172.16.0.102 | 43-18 | 770A_5.8G 💕 | 0 2 | online | 36 | 5.8G 🖈 | 100% | 770A | Build20190419091759 | 5 days | | | 6 |
| AP Upgrade | | 2 | Му | 172 16 0 101 | 44-D1-FA-72- | MB550- | | offling | | 240 0 | 100% | FIT- | V5.3- | | Disable | admin | |
| uth Internet Access | | ~ | WTP 1 | 172.10.0.101 | 8E-ED | FITAP_2.4G 📫 | | onnie | 0 | 2.40 % | 100% | MB550 | Build20190408100556 | | | aumin | |
| ehavior Control | | | Му | | 44-D1-FA-23- | Wireless_2.4G | | | Auto[3] | 2.4G 🔿 | 100% | Duran | V3.2- | 23:40:29 up | Disable | | |
| bject Management | | 3 | WTP 1 | 172.16.0.111 | 43-7F | Wireless_5.8G | 14 | onine | Auto[44] | 5.8G 🖈 | 100% | PW1200 | B20190429100313 | 4 days | | | |
| afety Protection | | | | | | | | | | | | | | | | | |
| og Record | | | Му | 172 16 0 112 | 44-D1-FA-63- | wireless_2.4G | | onlino | Auto[11] | 2.4G 🔿 | 100% | FIT- | V5.3- | 23:40:5 up | Disable | | |
| PN | | 4 | WTP 1 | 172.10.0.112 | 43-98 | Wireless_5.8G | | online | Auto[64] | 5.8G 🖈 | 100% | 770A | Build20190419091759 | 4 days | | | 0 |
| evice Maintenance | | | Му | | 44-D1-FA-63- | Wireless_2.4G | | | Auto[6] | 2.4G 🤿 | 100% | FIT- | V5.3- | 23:40:3 up | Disable | | |
| | | 5 | WTD 4 | 172.16.0.113 | 43.50 | Mirelese E.O.C. | 0 8 | online | Autori 401 | E OC et | 100% | 7704 | Duild2010011001750 | 4 days | 0.03010 | | 4 |

| | Bandwidth setting Upstream 100000 / Downstream 100000 KBps |
|---|---|
| Auth Internet Access | · · · · · · · · · · · · · · · · · · · |
| | |
| Behavior Control | |
| <u>.</u> | |
| Current user admin[2.2.2.2] Device time:2 | MO 02 02 42:30:07 Outline slot 3 The device is supplied and the |

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 linequality 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).

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.

| System Status | SIAP upgrade | |
|---|--|-----------|
| Network Configure | ♥ Online Upgrade. First, click download file, download file upgrade file to route, then click upgrade or batch online upgrade to upgrade the firmware | |
| Flow Control Policy | V Local Upgrade First, click the Upload tairror oution to upload the upgrade the, then click Upgrade of Batch Local Upgrade to upgrade the tirmware Device model filt Refresh Batch online upgrade Batch local upgrade Upload | mirror |
| AC Management | SN AP name IP MAC Status Device model Current version Online upgrade Upload file and Local | l upgrade |
| AP List | 1 My WTP 1172.16.0.102 44-D1-FA-63-43-18 Online FIT-770A V5.3-Build20190419091759 Already the latest version | |
| AP Configure Template | 2 My WTP 1172.16.0.10144-D1-FA-72-8E-ED Offline FIT-IMB550 | |
| AP Upgrade | 3 My WTP 1172.16.0.111 44-D1-FA-23-43-7F Online PW1200 V3.2-B20190429100313 V3.3-Build20190621095606 Download file to uparade | |
| Auth Internet Access | 4 My WTP 1172.16.0.112 44-D1-FA-63-43-98 Online FIT-770A V5.3-Build20190419091759 Already the latest version | |
| Behavior Control | 5 My WTP 1172.16.0.113 44-D1+FA-63-43-F0 Online FIT-770A V5.3-Build20190419091759 Already the latest version | |
| | a 6 My WTP 1172.16.0.114 44-D1-FA-63-44-50 Online FIT-770A V5.3-Build20190419091759 Already the latest version | |
| Object Management | Image: Triangle international internatina internatinternational international international internationa | |
| Safety Protection | | |
| Log Record | | |
| VPN | | |
| Device Maintenance | | |
| | | |

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.

| System Status | Multi-line deversion rules | | | | | |
|---|-----------------------------------|---------------------------------|----------------------|--------------------|---------------------------------|--------------------|
| Network Configure | Add Delete Note: The diversion ru | iles are executed in turns from | m top to bottom. Car | h be operated by 1 | Arrow to adjust the sequence, 🐨 | op, 🛣 Bottom |
| ✓ Interface Configure | SN Source address | Time Destina | tion port | Destinatio | n IP Application typ | e Policy Operation |
| | | Policy shunt rule | | | × | |
| VVAN Configure | | Source address: | According to Add | ress) User) Le | vel Department | |
| LAN/DHCP | | | ANY | • | + Add | |
| Physical Port Definition | | Time: | ANY | • | + Add | |
| Route Rule | | Destination IP: | ANY | • | + Add | |
| | | Destination Port | ANY | • | 🔶 Add | |
| Multi-line Deversion Rules | | Application type: | ANY | • | | |
| Static Route | | Shunt mode: Sessie | on shunt O Source - | + Destination addr | ess shunt Source IP shunt | |
| DDNS | | Line selection: | | | | |
| NAT/Port Forwarding | | WAN1 | | | | |
| Flow Control Policy | | | | | | |
| AC Management | | | | | | |
| Auth Internet Access | | 🕈 Session shunt divers | ion in connection se | ession unit | | |
| Behavior Control | | | | | Confirm Cancel | - |

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

5.2 Configure bandwidth speed limit policy

04/Authentications

4.1 Enable authentication to the Internet

Enable authentication Online, means that only WeChat authentication, 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, scertified Internet access , "Certification switch", select LAN1, enable the authentication network switch, check the type of "PPPOE dial" that allows Internet access, click Save.

| System Status | Auth switch Free auth | IP | | | | |
|-------------------------------------|--|--|---|---|--|-----------------------------|
| Network Configure | One key auth config: Ena | ble all Disable all | | | | |
| Flow Control Policy | Notes: PPPoE authenticat interface must be configured | ion switch needs to be used in co ed; Portal authentication switch al | njunction with PPPOE authenticati Iso needs to be used in conjunctio | on, that is, if an interface opens n with Portal authentication. | the PPPoE authentication switch, the P | PPoE authentication of this |
| AC Management | Interface name | PPPoE auth switch | Portal auth switch | IP auth switch | MAC auth switch | |
| Auth Internet Access | LAN1 | Disable | Disable | Disable | Disable | |
| Auth Configure | | | | | | |
| PPPoE Auth | | | | | | |
| Portal Auth | | | | | | |
| Radius Billing | | | | | | |
| Notify Page | | | | | | |
| User Management | | | | | | |
| 🗀 Auth User | | | | | | |
| 🗀 Auth User Status | | | | | | |
| 늘 Department/Level Definition | | | | | | |
| Behavior Control | | | | | | |
| Object Management | | | | | | |

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.

| System Status | PPPoE Service | | | | | | |
|-------------------------------------|-----------------------------------|---|--|---|---------------------------------------|----------------------------------|-----------------------------|
| Network Configure | PPPoE Service | PPPoE Advance option | Access status | | | | |
| Flow Control Policy | Isolate intranet o | lial-up users: | Disabled,Click | to enable | | | |
| AC Management | Expired Users c | annot dial: | Enabled, click to dis | able | | | |
| Auth Internet Access | Disable the sam | e MAC address dialing: | Disabled,Click | to enable 🛛 💡 When Enabled, | the intranet PPPoE dialing request | for the same MAC address will be | rejected |
| Auth Configure | Password-free : | uth: | Disabled Click | O Enable the nass | word-free authentication function | inv account and nassword can be | dialed |
| PPPoE Auth | Password-free | iuui. | Disabled, Click | V Enable die pass | word-nee admeniacation function, a | ny account and password can be | dialed |
| Portal Auth | Assign DNS ac directly use the | cording to 'department/le > DNS configured here an | vel' (in order to assig d assign DNS to use | gn different DNS to different use rs). | rs, when the 'department/level' w | here the user belongs is configu | red DNS, PPPoE service will |
| Radius Billing | Add | Delete | | | | | |
| Notify Page | V Note: The ru | lles are executed in turns t | rom top to bottom.So | , top side with high priority in DN | S assignments. Can be moved by | arrow to adjust the sequence | e, Top, WBottom |
| User Management | SN SN | Туре | Name | Main DNS | Alternate DNS | | Operation |
| | | | | PPPoE advance configuration | n is not added yet, please <u>Add</u> | | |
| 🗀 Auth User | | | | | | | |
| 🗀 Auth User Status | | | | | | | |
| Department/Level Definition | | | | | | | |
| Behavior Control | | | | | | | |
| Object Management | | | | | | | |

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 contentford for loops (for intranet fault positioning).

| System Status | Intranet anomaly detection |
|---|--|
| Network Configure | DHCP detection: Disabled,click to enable 💡 detect whether there are other DHCP servers in the intranet. |
| Flow Control Policy | Loop detection: Disability (lick to enable 9 Check whether there are some loops on the intranel for intranel fault location) |
| AC Management | |
| Auth Internet Access | Clear status |
| Behavior Control | Ø Intranet DHCP service detection result: Please enable Infranet DHCP detection' first. |
| Object Management | Intranet loop detection result: Please enable infranet loop detection first |
| Safety Protection | |
| IP-MAC Binding | |
| Connection Quantity Limit | |
| LAN Abnormal Detection | |
| LAN Attack Protection | |
| WAN Ping Forbid/WAN Login | |
| Log Record | |
| VPN | |

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 I iberalized, such as the speed limit of 1000-3000, usually recommended The speed limit does not exceed one-third of the total bandwidth.

| System Status | Bandwidth control | | | | |
|--|-------------------|---------------|-------------------------|------------------|-------------------|
| Network Configure | Add Delete | | | | |
| Flow Control Policy | SN Sour | ce address | Time | | Bandwidth limited |
| The control Policy | | Bandwidth con | trol rule | | × |
| Smart Flow Control | | • Enable | ⊙ 🕱 Disable | | |
| Bandwidth Control | | | | | |
| Free Flow Control | | Source addr | ess: According to Addr | ess 🔘 User 🔍 Lev | el O Department |
| AC Management | | <u> </u> | ANY | · · | • <u>A00</u> |
| | - | | Ime: ANY | • | |
| Auth Internet Access | | Upstream | | | |
| Behavior Control | | Downstream | imit: 🖉 ONLIMITED | | |
| Object Management | | | | | |
| Safety Protection | | | | | |
| .og Record | | | Tips: Click icon to edi | te bandwidth Cor | firm Cancel |
| VPN | | | | | |
| Device Maintenance | | | | | |
| | | | | | |

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)

www.wisnetworks.in