WF-96AUser Manual

Version 4

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1 Quick Start

WF-96A can work as the point to point wireless AP. WF-96A can be bridged and provide the high speed wireless connection between two networks. In some cases, it is difficult to connect two wire networks, such as across the river or in the high buildings. WF-96A is an ideal resolution in this scenario. The higher transmitter power make the transmission distance reach 2km.

1.1 Connect PoE Adapter to WF-96A



Motes: Now WF-96A can be powered by standard 802.3at PoE PSE.Please connect the Ethernet Port labeled "PWR LAN-OUT" on PoE Adapter to "ETH" port of AP and the Ethernet Port labeled "LAN-IN" on PoE adapter to your PC or Switch.

1.2 Configure PC's IP Address

| matically | | | | | |
|-----------|---|--|--|---|--|
| o ask yo | y if yo our ne | ur net twork | work su adminis | pports trator | |
| lly | | | | | |
| | | | | | |
| 192 | . 168 | . 188 | . 202 | | |
| 255 | . 255 | . 255 | . 0 | | |
| | 8 - 3 | 4 S | | | |
| matically | r. | | | | |
| dresses: | - | | | | |
| | | | • | | |
| | • | e) - | | | |
| | | | Advan | iced | 25 |
| | ask yd lly 192 255 dresses: | ask your ner Ily 192 . 168 255 . 255 matically dresses: | ask your network i Ily 192 . 168 . 188 255 . 255 . 255 matically dresses: | ask your network administ Ily 192 . 168 . 188 . 202 255 . 255 . 255 . 0 matically dresses: | ask your network administrator Ily 192 . 168 . 188 . 202 255 . 255 . 255 . 0 matically dresses: Advanced |

Motes: Connect your PC to the "LAN-IN" port on PoE Adapter of AP, manually configure your wired NIC with a static IP address on the 192.168.188.x subnet (e.g. 192.168.188.202).

1.3 Visit WF-96A Web Page

| ←⇒C | 192.168.188.251/inde | x.html | | | | | | | | 5 |
|-------------------|----------------------|----------------------|--------------|-----------------------|-----------------|--------|----------|-----------|------------|-----|
| 🔢 应用 👭 网易 | 📓 百度 📄 e-HR V2.0 Pow | rer 🗱 OA-泛微协同商务 | WBU_10.7.7.7 | 💫 seafile_172.22.1.81 | R&D_172.22.1.70 | 🕑 职称申报 | TRS 4444 | 🌈 ezCloud | 📘 SFS 5396 | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | Log |
| Statue | | | | | | | | | | |
| | Overview | | | | | | | | | |
| F Overview | Overview | | | | | | | | | |
| F Radio 5G | Device Name | 802.11ac2x2_5GCPE | | | | | | | | |
| F Ethernet Status | Location | Shanghai | | | | | | | | |
| | Device Model | WF-96 | | | | | | | | |
| V L/ W | Device SN | CIGGf0123456 | | | | | | | | |
| E Network | Hardware Version | 80020201 | | | | | | | | |
| E Radio | Software Version | R2.0.05.034 | | | | | | | | |
| T Wireless | Working Mode | FAT AP | | | | | | | | |
| | PoE Type | Standard | | | | | | | | |
| ± Security | CPU Utilization | 41.5% | | | | | | | | |
| ∃ QoS | Up Time | 0 Hours 1 Minutes 35 | Seconds | | | | | | | |
| Tools | IP Interface | | | | | | | | | |
| Management | | | | | | | | | | |
| | Interface Name | | VLAN I | D | IPv4 Address | | | | State | |
| | 1 Internet Port | | 1 | | 192 168 188 25 | 51 | | | UP | |

Motes: Input the default IP address "192.168.188.251" in the address bar of browser. Then enter the

default username and password (username: admin, password: password) to enter the Web interface of AP.

| 19 Inter | ace | | | | |
|------------|----------|---------|--------|------|-----------|
| IP I | nterface | | | | |
| ie Interfa | ce Name | VLAN ID | IP ver | Mode | Operation |
| 1_Inter | net_Port | 1 | IPv4 | IPoE | 1 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

1.4 Configure Management Interface for WF-96A

| atus | | | | | | |
|-------------|-------------------|-----------------|-----------------------|-----|----------|--|
| etwork | IP Interface | | | | | |
| LAN | IP Interface-Edit | | | | | |
| P Interface | Interface Name | 1_Internet_Port | * | | | |
| dio | VLAN ID[0-4090] | 110 | Send packets with tag | | | |
| reless | Mode | IPoE | | | | |
| curity | IPv4 | DHCP Static | | | | |
| s | IP Address | 10.5.1.21 | * | | | |
| ols | SubNetMask | 255.255.0.0 | * | | | |
| anagement | GateWay | 10.5.0.1 | * | | | |
| | Primary DNS | 0.0.0.0 | * | | | |
| | Backup DNS | 0.0.0.0 | | | | |
| | Support Service | | HTTPS | SSH | ✓ Teinet | |

Motes: You can configure management IP/subnetmask/gateway/DNS here. By default, packets are sent without tag. Packets can be sent with tag by selecting the option as shown in the figure.

1.5 Connect WF-96A to Switch

Motes: Connect WF-96A to Switch and confirm it can visit Internet, then configure your PC to the same subnet and connect to the same Switch in order to continue to configure WF-96A

1.6 Configure Location, Language

| | | Logout |
|--------------------------------|--|-----------|
| 3 Status | | |
| 3 Network | System | |
| Radio | Region Code | |
| Wreless | Device Name 2:250CPE | |
| Security | Location Shanghai | |
| Cos | Language English • | |
| Tools | Country Code US | |
| 3 Management | NAS ID | Ok Cancel |
| ► FILIFAT | NAS ID WF-96A_CK9We3800155 | |
| + Account | | Ok Cancel |
| ► Upgrade | Factory Defaults | |
| E System | To restore a default setting, click on the "Restore" button below. | |
| ► NTP | Restore Factory Configuration Restore | |
| System Log | Configuration Management | |
| | Bacing Conferences Exce | |

Motes: The country code is US and can't be modified.

1.7 Configure Security Profile for Different Authentication Types

1.7.1 WEP

| Status | | | | |
|--------------|---------------|---------------|-----------|-----|
| E Network | Security | | | |
| B Radio | Security | | | |
|) Wireless | Profiles Name | Security Type | Operation | |
| Security | | | | |
| F Security | | | | Add |
| F Radius | | | | |
| L Isolate | | | | |
| QoS | | | | |
| Tools | | | | |
| d Management | | | | |

WEP-OPEN:

| | | | | Logou |
|--------------|----------------------------|---------------------|-----|-----------|
| ⊡ Status | | | | |
| Network | Security | | | |
| E Radio | Security-Edit | | | |
| Wireless | Security Profile Name | WEP | | |
| Security | Security Type | WEP | | |
| F Security | Authentication Type | Open | | |
| ⊢ Portal | WEP Key Length | 64 bits | | |
| L Destine | WEP Key Type | ASCII | | |
| F Radius | WEP Key | 11111 | how | |
| F MAC ACL | WEP Key Index | 1 | | |
| └ Isolate | Items marked with an aster | isk(*) are required | | |
| E QoS | | | | Ok Cancel |
| Tools | | | | |
| ■ Management | | | | |

WEP-Shared Key:

| tatus | | | | |
|------------|-----------------------------|--------------------|---|----------|
| Network | Security | | | |
| adio | Security-Edit | | | |
| /ireless | Security Profile Name | WEP | * | h |
| curity | Security Type | WEP | • | |
| Security | Authentication Type | Shared Key | | |
| Portal | WEP Key Length | 64 bits | • | |
| Destine | WEP Key Type | ASCII | • | |
| Radius | WEP Key | 11111 | * | * 🗹 Show |
| MAC ACL | WEP Key Index | 1 | ۲ | |
| solate | Items marked with an asteri | sk(*) are required | | |
| oS | | | | Ok |
| pols | | | | |
| lanagement | | | | |

1.7.2 WPA2-PSK

| 3 Status | Occurity | | | | |
|------------|-----------------------------|--------------------|---|----------|--------|
| Network | Security | | | | |
| Radio | Security-Edit | | | | |
| 3 Wireless | Security Profile Name | WPA2 | * | * | |
| 3 Security | Security Type | WPA2 | • | | |
| F Security | Authentication Type | PSK | | | |
| + Portal | Encryption | AES/TKIP | • | | |
| E Radius | WPA Preshared Key | 12345678 | | * 🗹 Show | |
| | Items marked with an asteri | sk(*) are required | | | |
| F MAC ACL | | | | Ok | Cancel |
| L Isolate | | | | | |
| I QoS | | | | | |
| 1 Tools | | | | | |

Management Management Notes: With parameter "Encryption", you can select AES, or TKIP. AES/TKIP isn't supported by station mode.

1.7.3 WPA/WPA2-PSK

| Status | Oraurity | | | | |
|------------|-----------------------------|---------------------|---|-----------|---|
| Network | Security | | | | _ |
| E Radio | Security-Edit | | | | |
| Wireless | Security Profile Name | WPAWPA2 | * | | |
| Security | Security Type | WPA/WPA2 | • | | |
| F Security | Authentication Type | PSK | ۲ | | _ |
| F Portal | Encryption | AES/TKIP | ۲ | | _ |
| E Radius | WPA Preshared Key | 12345678 | * | * 🖉 Show | |
| i itadidə | Items marked with an asteri | isk(*) are required | | | _ |
| F MAC ACL | | | | Ok Cancel | J |
| └ Isolate | | | | | |
| E QoS | | | | | |
| Tools | | | | | |
| Management | | | | | |
| | | | | | |

Motes: With parameter "Encryption", you can select AES or TKIP. AES/TKIP isn't supported by station mode.

2 Station Mode

2.1 Station Mode Network Topology



CaNotes: WF-96A supports station mode. WF-96A accesses to the AP by Wi-Fi, and provides the Ethernet access to the client via the LAN port.

2.2 Enable Station mode

| Basic Advance | | | | | | | |
|---------------------------|---|---|---|--|--|---|---|
| | | | | | | | |
| Basic | | | | | | | |
| Radio | v | | | | | | |
| Service Mode | Station | T | | | | | |
| TX Power | 21 | ▼ dBm | | | | | |
| Radio Mode | 802.11 ac | 7 | | | | | |
| | | HT20 | | | | | |
| Channel | 161 🔻 | ○ HT40- | | | | | |
| | | HT80 | | | | | |
| Auto Adjust to EIRP Limit | 4 | | | | | | |
| | | | | | | | Ok Ca |
| | Basic Advance Basic Radio Service Mode TX Power Radio Mode Channel Auto Adjust to EIRP Limit | Basic Advance Basic Image: Comparison of the station Radio Image: Comparison of the station TX Power 21 Radio Mode 802.11 ac Channel 161 ▼ Auto Adjust to EIRP Limit Image: Comparison of the station | Basic Advance Basic Radio Radio Image: Comparison of the station of the s | Basic Advance Basic Radio ♥ Service Mode Station ♥ TX Power 21 ♥ dBm Radio Mode 802.11 ac ♥ @ HT20 Channel 161 ♥ 	HT40- | Basic Advance Basic Radio ♥ Service Mode Station ♥ TX Power 21 ♥ dBm Radio Mode 802.11 ac ♥ ● HT20 Channel 161 ♥ ● HT40- ● HT30 Auto Adjust to EIRP Limit ♥ | Basic Advance Basic Radio Radio Service Mode Station TX Power 21 VdBm Radio Mode 802.11 ac ● HT20 Channel 161 ● HT40- ● HT80 Auto Adjust to EIRP Limit @ | Basic Advance Basic Radio Radio Service Mode Station TX Power 21 Generation Channel 161 Generation Genera |

2.3 Configure Radio Parameters

| | | | | Lo |
|------------|---------------------------|-----------|--|-----------|
| | Desite delayers | | | |
| Network | Basic Advance | | | |
| 🗉 Radio | Basic | | | |
| └ 5G | Radio | \$ | | |
| Wireless | Service Mode | Station | • | |
| Security | TX Power | 21 | ▼ d | dBm |
| T OoS | Radio Mode | 802.11 ac | • | |
| E Tools | Channel | 404 - | HT20 | 20 |
| Management | Channer | 101 • | HT40 HT80 | 40- 80 |
| | Auto Adjust to EIRP Limit | \$ | | |
| | | | | Ok Cancel |

2.4 Channel Scan

You can select one channel or all, then click "Scan" button.

| | | | | Logout |
|------------------|------------------|-----|-----|--------|
| | | | | |
| Network | Channel Sc | an | | |
| T Radio | Set Scan Channel | | | |
| | Radio | | | |
| ± Wireless | Channel | All | | |
| Security | | All | Scr | an |
| ∃ QoS | | 36 | | |
| | | 44 | | |
| | | 48 | | |
| F Wireless Sniff | | 52 | | |
| ⊢ Diagnose | | 60 | | |
| - Channel Scan | | 64 | | |
| Channel Ocan | | 153 | | |
| Management | | 157 | | |
| | | 161 | | |
| | | 105 | | |

After about 10 seconds, scan result is shown as follows.

| | Ghanner Scan | | | | | | | | |
|---|--------------------|-----|-------------------|------|------|------|-----|-----------------------------|------|
| | Set Scan Channel | | | | | | | | |
| | Radio | | | | | | | | |
| | Channel | All | ¥ | | | | | | |
| | | | | | | | | | Scan |
| L | SSID | | BSSID | CHAN | RATE | S:N | INT | CAPS | |
| L | CIG5G_4cf2bf977bde | | 4c:f2:bf:97:7b:cf | 36 | 54 | 51:0 | 100 | EPs WPA WME ATH WPA | |
| | CIG_WiFi | | fc:b6:98:34:83:10 | 36 | 54 | 23:0 | 100 | EPs RSN WPA WME ATH RSN WPA | |
| L | CIG_WiFi_Guest | | fc:b6:98:34:83:11 | 36 | 54 | 24:0 | 100 | Es WME ATH | |
| L | CIG5G_fcb69834841e | | fc:b6:98:34:83:1f | 36 | 54 | 24:0 | 100 | EPs WPA WME ATH WPA | |
| | PEAP | | 00:19:c7:11:11:20 | 52 | 54 | 66:0 | 100 | EPs WME ATH RSN | |
| | portal | | 00:19:c7:11:11:21 | 36 | 54 | 0:0 | 100 | Es WME ATH | |
| | PSK | | 00:19:c7:11:11:22 | 36 | 54 | 0:0 | 100 | EPs WME ATH RSN WPA | |
| | CIG_WiFi | | 4c:f2:bf:97:24:50 | 52 | 54 | 7:0 | 100 | EPs WME ATH RSN WPA | |
| | CIG_WiFi_Guest | | 4c:f2:bf:97:24:51 | 36 | 54 | 0:0 | 100 | Es WME ATH | |
| L | CIG5G_4cf2bf97246e | | 4c:f2:bf:97:24:5f | 36 | 54 | 0:0 | 100 | EPs WME ATH WPA | |
| | CIG5G_0019c70001fe | | 00:19:c7:00:01:1f | 52 | 54 | 40:0 | 100 | EPs WME ATH WPA | |
| Ŀ | CIG_WiFi | | fc:b6:98:34:a4:d0 | 60 | 54 | 13:0 | 100 | EPs WME ATH RSN WPA | |
| | CIG_WiFi_Guest | | fc:b6:98:34:a4:d1 | 36 | 54 | 0:0 | 100 | Es WME ATH | |
| | CIG5G_fcb69834a4ee | | fc:b6:98:34:a4:df | 36 | 54 | 0:0 | 100 | EPs WME ATH WPA | |

2.5 Station Configuration

After channel scanning, you need to configure the SSID manually. If you want to use the security method, you need to configure the "security profile" firstly and then cite it here.

| | | | | | | L | ogo |
|--------------|--------------|-----------|------------------|-----------|--|---|-----|
| . Status | 01-1 | | | | | | |
| Network | Station | | | | | | |
| | Station list | | | | | | |
| Wireless | Radio | SSID Name | Security Profile | Operation | | | |
| F AP | 5G | 5g_ssid1 | NULL | P | | | |
| F Station | | | | | | | |
| └ WDS Bridge | | | | | | | |
| | | | | | | | |
| ⊞ QoS | | | | | | | |
| Tools | | | | | | | |
| Management | | | | | | | |

| | Logout |
|--|-----------|
| 2) Status | |
| a Network Station | |
| a Radio Station-Edit | |
| Radio 56 V | |
| AP SSID 5g_htt | |
| F Station Security Profile NULL Detail | |
| WDS Bridge Items marked with an asterisk(*) are required | |
| a Security | Ok Cancel |
| | |
| a Tools | |
| 3 Management | |

Worker: Now, station mode only supports the following security types: OPEN;WEP; WPA2-PSK-AES(Or TKIP);WPA/WPA2-PSK-AES(Or TKIP). TKIP/AES is not supported.

2.6 Station Status

After WF-96A access to an AP successfully, you can check the station status on the Web

GUI.

| ∃ Status | PadioEG | | | | | | | | |
|-------------------|-----------------|---------------------|-----------------------|--------|-------------|-------------|----------|----------|-----|
| + Overview | Radioso | | | | | | | | |
| E Radio 5G | Overview | | | | | | | | |
| F Ethernet Status | Radio | Enable | | | | | | | |
| | Radio Mode | 802.11 ac | | | | | | | |
| T Network | Service Mode | Station | | | | | | | |
| | Bandwidth Mode | e 20M | | | | | | | |
| ± Radio | Channel | 149 | | | | | | | |
| Wireless | Transmit Power | 21 dbm | | | | | | | |
| | Recv Noise Floo | r 0 dbm | | | | | | | |
| ∃ QoS | Receive Packets | s 290 pkts | | | | | | | |
| ∃ Tools | Transmit Packet | s 522 pkts | | | | | | | |
| Management | | | | | | | | Refre | esh |
| | SSID List | | | | | | | | |
| | SSID | BSSID | Clients | Rxpkts | Txpkts | RateLimit | Security | MAC ACL | |
| | 5g_hjt1 | 00:11:AA:BB:CD:10 | 46 | 290 | 522 | NULL | NULL | NULL | |
| | Station List | | | | | | | | |
| | SSID | Authentication Type | Authentication Status | | MAC Address | Online Time | Rx-bytes | Tx-bytes | |

3 Status

3.1 Overview

You can check some summary info here, for example, software version, ip interface and radio configuration.

| ⊟ Status | | | | | |
|-------------------|------------------|-------------------------|---------|-----------------|-------|
| + Overview | Overview | | | | |
| | Overview | | | | |
| F Radio 5G | Device Name | 2x2 Dualband Indoor AP | | | |
| F Ethernet Status | Location | Shang | | | |
| | Device Model | test | | | |
| VE/W | Device SN | CIGGf0123456 | | | |
| | Hardware Version | 80010101 | | | |
| ⊞ Radio | Software Version | R2.0.05.034 | | | |
| T Wireless | Working Mode | FAT AP | | | |
| | PoE Type | Standard | | | |
| | CPU Utilization | 4.0% | | | |
| ⊞ QoS | Up Time | 2 Hours 28 Minutes 55 S | econds | | |
| Tools | IP Interface | | | | |
| Management | | | | | |
| | Interface Name | | VLAN ID | IPv4 Address | State |
| | 1_Internet_Port | | 1 | 192.168.188.251 | UP |
| | 1_portal_if | | 4091 | 192.168.91.1 | UP |
| | Radio | | | | |
| | Туре | 5G | | | |
| | Raido | Enable | | | |
| | Radio Mode | 802.11 ac | | | |
| | Service Mode | Station | | | |
| | Bandwidth Mode | 20M | | | |

3.2 Radio

In this page, you can see service mode for radio 5G is station mode. Also, you can see SSID and BSSID of master AP. Information will be updated by clicking "Refresh" button.

| | | | | | | | | | | LUGU |
|-------------------|------------------|--------------------|--------|------------------|--------|-------------|-------------|----------|---------|---------|
| ∃ Status | Padio50 | | | | | | | | | |
| F Overview | Radioso | | | | | | | | | |
| F Radio 5G | Overview | | | | | | | | | |
| Ethernet Status | Radio | Enable | | | | | | | | |
| | Radio Mode | 802.11 ac | | | | | | | | |
| ^L VLAN | Service Mode | Station | | | | | | | | |
| Network | Bandwidth Mode | 20M | | | | | | | | |
| I Radio | Channel | 149 | | | | | | | | |
| I Wireless | Transmit Power | 21 dbm | | | | | | | | |
| ⊞ Security | Recy Noise Floor | 0 dbm | | | | | | | | |
| ⊞ QoS | Receive Packets | 1674 pkts | | | | | | | | |
| I Tools | Transmit Packets | 936 pkts | | | | | | | | |
| Management | | | | | | | | | | Refresh |
| | SSID List | | | | | | | | | |
| | SSID | BSSID | | Clients | Rxpkts | Txpkts | RateLimit | Security | MAC ACL | |
| | 5g_hjt1 | 00:11:AA:BB:CD:10 | | 42 | 1674 | 936 | NULL | NULL | NULL | |
| | Station List | | | | | | | | | |
| | SSID A | uthentication Type | Auther | ntication Status | | MAC Address | Online Time | Rx-bytes | Tx-bytr | es |
| | | | | | | | | | | |

4 Management

4.1 Backup/Import Configuration

| | Durture | | | | | | |
|------|------------------------|--|--------------|--------|--|----|-----|
| | System | | | | | | |
| | Region Code | | | | | | |
| | Device Name | 2x2 Dualband Indoor AP | | | | | |
| | Location | Shanghai | | | | | |
| | Language | English 💌 | | | | | |
| | Country Code | US | | | | | |
| ort | NAS ID | | | | | Ok | Car |
| | NAS ID | WF-180_CIGWe3800043 | | | | | |
| | Factory Defaults | | | | | Ok | Ca |
| | To restore a default s | etting, click on the "Restore" button belo | ν. | | | | |
| | Restore Factory Con | iguration Restore | | | | | |
| 1.03 | Configuration Manag | ment | | | | | |
| | Backup Configuration | Save | | | | | |
| | Specify the name an | I location of the file used to import the co | infiguration | | | | |
| | Import File name | shoose file No file choosen | Upload | | | | |
| | Reboot Device | | | | | | |
| | To seboot the opteurs | click on the "Reboot" button below | | Rehout | | | |

Motes: Press "Save" button to save current configuration. If you want to import one new configuration file, please click "choose file" to select the new file and then press "Upload" button to upload. After that, WF-96A will reboot.

4.2 Software Upgrade

| | | | Logout |
|-----------------------------------|---------------------------|----------------------------|---------|
| ∃ Status ∃ Network | Upgrade | | |
| 🗉 Radio | Upgrade Software Image | | |
| ⊞ Wireless | Current Firmware Version: | R1.2.02.003 | |
| ∃ Security | Downloaded file: | Choose File No file chosen | |
| ⊞ QoS ⊞ Tools | | | Upgrade |
| ∃ Management | | | |
| FIT/FAT Account Upgrade System | | | |
| + NTP + SNMP - System Log | | | |

Motes: Press "Choose File" button to select firmware file that you want to upgrade, then press "Upgrade" button to upgrade.

4.3 Factory Reset via WEB

Click "Restore" button to do factory reset. All of the configuration will be restored to default.

| | Deter | |
|----------------|--|-----------|
| ark . | System | |
| | Region Code | |
| 15.5 | Device Name 2x2 Dualband Indoor AP | |
| ty | Location Shanghai | |
| | Language English • | |
| | Country Code US | |
| gement /FAT | NAS D | Ok Cancel |
| ount | NAS ID WF-100_CIGWe3000043 | |
| yade | Factory Defaults | Ok Cancel |
| stern | To restore a default setting, click on the "Restore" button below. | |
| stern Log | Restore Factory Configuration Restore | |
| | Configuration Management | |
| | Backup Configuration Save | |
| | Specify the name and location of the file used to import the configuration | |
| | Import File name cheese file No file choosen Upload | |
| | Rebot Device | |
| | To reboot the gateway, click on the "Reboot" button below, Reboot | |

4.4 Reboot via WEB

| Management | NASID |
|--------------|--|
| FIT/FAT | NAS ID test_CIGGf0123456 |
| F Account | Factory Defaults |
| F System | To restore a default setting, click on the "Restore" button below. |
| F NTP | Restore Factory Configuration Restore |
| L System Log | Configuration Management Backup Configuration Save |
| | Specify the name and location of the file used to import the configuration |
| | Import File name 浏览 Upload |
| | Reboot Device |
| | To reboot the gateway, click on the "Reboot" button below. Reboot |

4.5 Factory Reset via Sending Special Packet

WF-96A has no reset button. If you forget WF-96A's IP, you can use a simple tool anysendtcpip to execute factory reset via sending special packet. After that, you can telnet WF-96A with default IP 192.168.188.251.



4.5.1 Factory Reset One Single Device

Open file folder<anysendtcpip>.

| · 软件 (D:) → anysendtcpip → anysendtcpip | | | | | |
|---|-----------------|------------------|----------|--|--|
| 工具(T) 帮助(H) | | | | | |
| 共享 ▼ 刻录 新建文件夹 | | | | | |
| 名称 | 修改日期 | 类型 | 大小 | | |
| anysend.asc | 2015/3/19 15:07 | ASC 文件 | 15 KB | | |
| 😰 anysend.chm | 2007/7/24 19:26 | 编译的 HTML 帮 | 370 KB | | |
| 🚔 anysend.exe | 2007/8/5 19:33 | 应用程序 | 1,274 KB | | |
| reset.asc | 2015/2/27 14:57 | ASC 文件 | 15 KB | | |
| reset-lvshun.asc | 2015/3/6 15:47 | ASC 文件 | 15 KB | | |
| reset-lvshun-all.asc | 2015/3/6 15:46 | ASC 文件 | 15 KB | | |
| 📄 SvlanSave.ini | 2015/2/27 11:53 | Configuration Se | 6 KB | | |
| 🍓 WinPcap_4_0.exe | 2007/3/9 13:20 | 应用程序 | 550 KB | | |

Double click anysend.exe.

| 💪 AnySend-VMware Virtual Ethernet Adapter(192.168.80.1) | | | | | |
|---|--|--|--|--|--|
| 😑 🗞 🖪 🕐 🕅 🖓 🔁 | oter(192.168.80.1) | 🖌 🚽 🚽 | | | |
| Layer 2 header MAC DA 00D0. F800. 0001 ¥ MAC SA 00D0. F800. 0002 ¥ | Packet Generator | Periodically(ms) 100 | | | |
| MAL SA 0000. F800. 0002 PRI + VID 0 1 ↓ PRI + VID 0 ↓ 1 ↓ ↓ ↓ < | 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 00001: FF FF FF FF FF 00 01 02 03 04 05 08 00 0 0 | Rule A State Off Offset 0 Length 1 CycleCount 256 Rule B State Off Offset 0 Length 1 Excle Diff ▼ Diffset 0 Length 1 Length 1 CycleCount 256 | | | |
| Check sum B6 74 		 Calc Source IP 192.168.064.001 | | Rule C | | | |

Click the yellow icon located top left corner , and select <reset-lvshun.asc>.

| 🔆 AnySend-VMwar | AnySend-VMware Virtual Ethernet Adapter(192.168.80.1) | | | | |
|---------------------|---|------------------|--|--|--|
| - V? C V | ware Virtual Ethernet Adapter(192.168.80.1) | | | | |
| 🚰 ग्रम | | | | | |
| 查找范围(I): |] anysendtcpip 💌 🗲 | ≞ 💣 ▼ | | | |
| | 名称 | 修改日期 | | | |
| 最近访问的位 | anysend.asc | 2015/3/19 15:07 | | | |
| 五 | reset.asc | 2015/2/27 14:57 | | | |
| | reset-lvshun.asc | 2015/3/6 15:47 | | | |
| 桌面 | reset-lvshun-all 类型: ASC 文件 大小: 14.2 KB 修改日期: 2015/3/6 15:47 | 2015/3/6 15:46 / | | | |
| (人) 计算机 | | | | | |
| | ✓ Ⅲ 文件名(N): reset-lyshun. asc | ▼ 打开 (0) | | | |

Select right network card which is used to send packet.

| 🕼 AnySend-VMware Virtual Ethernet Adapter | (192.168.80.1) | _ <u>_ X</u> |
|---|--|------------------|
| 😑 🗞 🗾 🛞 VMware Virtual Ethernet Adaş | oter(192.168.80.1) | |
| Layer 2 header Microsoft(172.29.1.211) | | |
| MAC DA VMware Virtual Ethernet Adap | oter(192.168.80.1) N-F Gigabit Ethemet NIC(192.168.188.253) | ically(ms) 100 🚖 |
| MAC SA VMware Virtual Ethernet Adap | oter(192.168.216.1) | |
| | 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 | |
| | 0000: FF FF FF FF FF FF 00 01 02 03 04 05 08 00 00 11 | Offset 0 |
| | | Length 1 |
| Layer 3 header | 0048:00 00 00 00 00 00 00 00 00 00 00 00 00 | CvcleCount 🔽 256 |
| | | |
| DSCP 1 | | Rule B |

Modify the MAC address marked in red to be WF-96A's MAC with which you want to

do factory reset.

| 🤔 AnySend-VMware Virtual Ethernet Adapter(192.168.80.1) | | | | | |
|---|--|--|--|--|--|
| 😑 📎 🗖 🕐 🕅 White Virtual Ethernet Adap | vter(192.168.80.1) | | | | |
| Layer 2 header MAC DA 00D0. F800. 0001 ¥ MAC SA 00D0. F800. 0002 ¥ | Packet Generator Image: Packet size 64 Image: Packet size 1 1 Image: Packet size 1 1 Image: Packet size 1 | Periodically(ms) 100 🚖 | | | |
| PRI + VID □ ◆ 1 ◆ PRI + VID □ ◆ 1 ◆ Ethertype 08 00 ● ● | 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 0000: FF FF FF FF FF 00 01 02 03 04 05 08 00 01 11 0016: AA BF BF 2F 01 00 <td< td=""><td>Rule A Off ▼ State Off ▼ Offset 0 ◆ Length 1 ▲</td></td<> | Rule A Off ▼ State Off ▼ Offset 0 ◆ Length 1 ▲ | | | |
| Layer 3 header ABP IPv4 IPv6 DSCP Identifier 00 00 | 0048: 00 00 00 00 00 00 00 00 00 00 00 00 00 | CycleCount 🔽 256 🔹 Rule B State Off 🗸 | | | |

Click the yellow icon located top right corner, then it will start to send special broadcast packet. After devices receive the packet, they will check if it matches with their own MAC. If it does, device will execute factory reset. If not, device will do nothing.

| 🕼 AnySend-VMware Virtual Ethernet Adapter(192.168.80.1) | | | | | | |
|---|--|---------------------------------------|--|--|--|--|
| 😑 📎 🔽 📀 🔽 Whisting Virtual Ethernet Adap | ter(192.168.80.1) | · · · · · · · · · · · · · · · · · · · | | | | |
| Layer 2 header | Packet Generator | | | | | |
| MAC DA 00D0. F800. 0001 🗸 | | 🗧 🔽 Periodically(ms) 100 🖕 | | | | |
| MAC SA 00D0. F800. 0002 😽 | ,, | | | | | |
| PRI + VID 🗆 0 🌩 1 🔶 | | Rule A | | | | |
| PRI+VID 🗆 0 호 1 🔹 | 0000: FF FF FF FF FF FF 00 01 02 03 04 05 08 00 00 11 | State Off _ | | | | |
| Ethertype 08 00 | 0016: AA BF BF 2F 01 00 00 00 00 00 00 00 00 00 00 00 00 | Offset 0 | | | | |
| - aver 3 header | 0032:00 00 00 00 00 00 00 00 00 00 00 00 00 | Length 1 🜩 | | | | |
| ARP IPv4 IPv6 | 0048: 00 00 00 00 00 00 00 00 00 00 00 00 00 | CycleCount 🔽 256 | | | | |

4.5.2 Factory Reset All Devices

Select and open <reset-lvshun-all.asc>.

| 🚰 AnySend-VMware Virtual Ethernet Adapter(192.168.80.1) | | | | | |
|---|----------------------------|--|-----------------|-----|--|
| 🗖 🗞 🗖 🌾 | √ware ∨irtual Ethernet Ada | apter(192.168.80.1) | | | |
| | | | | × | |
| 查找范围(I): | 퉬 anysendtcpip | | È 💣 🎟 🔻 | | |
| G. | 名称 | ^ | 修改日期 | i | |
| 最近访问的位 | anysend.asc | | 2015/3/19 15:07 | 4 | |
| 五 | reset.asc | | 2015/2/27 14:57 | 1 | |
| | reset-lvshun.asc | | 2015/3/6 15:47 | - 1 | |
| 「 桌面 | reset-lvshun-all.asc | | 2015/3/6 15:46 | - | |
| 库 | | ^{送型:} ASC 文件 大小: 14.2 KB 参改日期: 2015/3/6 15:46 | | | |
| レレジョン していた は 算机 | | | | | |
| | • | III | | • | |
| | 文件名(N): reset-lv: | shun-all. asc | | | |
| | 文件类型(T): anysend | config file | ▼ 取消 | | |
| | | | | | |

Here you can see one special default MAC address marked in red color which is 00 : 01:02:03:04:05. You don't need to modify it. Select the right network card and click the yellow icon to send packet. After devices receive the packet, they won't check if it matches with their own MAC, and directly execute factory reset.

| A 411 | 1005 | 1.1.279 |
|---|--|------------------------|
| 🚝 AnySend-VMware Virtual Ethernet Adapter(: | 192.168.80.1) | |
| 😑 🗞 🗾 📀 🗸 🖂 🔁 🔁 | ter(192.168.80.1) | |
| Layer 2 header MAC DA 00D0. F800. 0001 | Packet Generator Packet Size 64 Image: Comparison of the second | Periodically(ms) 100 호 |
| MAC SA 0000. F800. 0002 V | | |
| PRI + VID 0 \$1 | 00001 02 03 04 05 06 07 08 09 10 11 12 13 14 15 0000: FF FF FF FF FF FF 00 01 02 03 04 05 08 00 00 01 | State Off |
| Ethertype 08 00 | 0016: 02 03 04 05 01 00 00 00 00 00 00 00 00 00 00 00 00 | Length |
| ARP IPv4 IPv6 | 0048: 00 00 00 00 00 00 00 00 00 00 00 00 00 | CycleCount 🔽 256 |

5 Troubleshooting

5.1 Ping Diagnose

| | Ping TraceRT | | | | | |
|---------|------------------------|---------------------------|--------------|----------------|--------------|--------------------|
| | Ping | | | | | |
| | Interface Select: | 1_Internet_Port V Detail. | | | | |
| | IP Version: | ● IPv4 ○ IPv6 | | | | |
| | IP Address/URL: | www.yahoo.com | * | | | |
| | Packets Length: | 32 * | | | | |
| s Sniff | Ping Times: | 4 * | | | | |
| se | Items marked with an a | asterisk(*) are required | | | | |
| el Scan | | | | | | Start |
| ent | Ping Test Results | | | | | |
| | Reply From | | Bytes | | Time | TTL |
| | 203.84.197.25 | | 32 | | 39.210 | 47 |
| | 203.84.197.25 | | 32 | | 45.901 | 47 |
| | 203.84.197.25 | | 32 | | 39.171 | 47 |
| | 203.84.197.25 | | 32 | | 36.807 | 47 |
| | Ping Statistics | | | | | |
| | Packets Sent | Packets Received | Packets Lost | Round Trip Min | Roundrip Max | Round Trip Average |
| | 4 | 4 | 0% | 36 807 | 45 901 | 40 272 |

5.2 TraceRT Diagnose

| tus | | | | | |
|------------------|--------------------|--------------------------|----------|----------|------------|
| twork | Ping | | | | |
| adio | TraceRT | | | | |
| /ireless | Interface Select: | 1_Internet_Port T Detail | | | |
| ecurity | IP Version: | ● IPv4 ○ IPv6 | | | |
| oS | IP Address/URL: | www.vahoo.com | | | |
| ools | | | | | Start Stop |
| - Wireless Sniff | Traceroute Results | | | | |
| ⊢ Diagnose | Нор | Host/IP Address | Tme1 | Time2 | Time3 |
| Channel Scan | 1 | * | * | * | * |
| onumer ocum | 2 | 192.168.1.10 | 0.630ms | 0.335ms | 0.337ms |
| anagement | 3 | 222.66.163.89 | 1.893ms | 9.490ms | 5.386ms |
| | 4 | 180.166.188.165 | 1.665ms | 1.394ms | 1.099ms |
| | 5 | 124.74.54.117 | 1.197ms | 1.169ms | 1.183ms |
| | 6 | 124.74.254.189 | 15.740ms | 23.928ms | * |
| | 7 | 202.101.63.242 | 3.920ms | 3.901ms | 4.082ms |
| | 8 | 202.97.33.114 | 2.452ms | 2.312ms | 3.888ms |
| | 9 | 202.97.33.154 | 3.941ms | 4.173ms | 6.279ms |
| | 10 | 202.97.61.130 | 29.348ms | 29.415ms | 29.363ms |
| | 11 | 202.97.122.30 | 33.273ms | 31.628ms | 31.280ms |

5.3 LED Definition

| Label | Function | LED mode | Status |
|----------|--------------------|------------------|---------------------------------|
| RUN | AP power / ready | Off | No power to AP |
| | status | Red | Device hardware failure |
| | | Flashing - Green | Device is managed by controller |
| | | On - Green | Device ready |
| LAN | Ethernet Network | Off | Ethernet link unavailable |
| | Link Status / | On - Yellow | Link speed 10/100M |
| | Activity | On - Green | Link speed 1G |
| | (HW Control) | Flashing | Ethernet activity |
| 5G Radio | 5G Hz Radio Status | Off | 5GHz radio disabled |
| | | On-Green | 5GHz radio enabled |
| RSSI1 | Radio Status | Off | |
| | | On – Green | Signal strength |
| RSSI2 | Radio Status | Off | |
| | | On – Green | Signal strength |
| RSSI3 | Radio Status | Off | |
| | | On - Green | Signal strength |

LEDs are fully controlled by SW and they are defined as follows:

Notes: RSSI LEDs are used in CPE station mode. It reflects the received signal strength. If the device works in AP mode, these LEDs will be off.

5.4 Debug via Telnet

You can debug WF-96A via Telnet.

Username: *admin*

Password: password



Federal Communications Commission (FCC) Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

RF exposure warning

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 66 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.