DG-WM2001WI

802.11N INDOOR CONTROLLER 2.4GHZ MANAGED INWALL AP

User Manual

V1.0

2015-07-27

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Trademarks:

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacturer must therefore be allowed at all times to ensure the safe use of the equipment.

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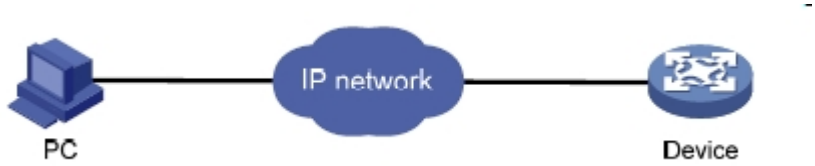
Chapter 1 Introduction

1.1 Overview

For the network administrator to configure and maintain to devices, this device provides WEB network management function. The administrator can use WEB interface to manage and maintain the network devices visually.

The running environment of Web network management is shown in fig 1-1.

Fig 1-1 Web The running environment of Web network management



1.2 Get Familiar with your new indoor Access Point

1.3 Installation Precautions

⚠ Warning:

Only allow the professionals installing and disassembling the device and its annex. Before the installation and configuration, please read the related security introduction carefully.

- Adopt the appropriate security measures to avoid the personal injury and equipment damage.
- Please put the device on the dry and flat place and ensure the anti-skid measures.
- Keep the device clean without dirt.
- Do not place the device on a wet place and avoid the device touching any liquids.
- Do not put the device and the installation tools in the walking area.

1.4 Installation Environment Requirements

Before the installation, please check the installation conditions of the device to make sure that the device is in good operating environment for a long time. Check this with the following aspects:

The temperature and humidity environment requirements of the device are as below:

Table 1-1 The temperature and humidity index

Items	Range
Standard working environment temperature (indoor)	-10℃ ~ 55℃
Storage temperature	-40℃ ~ 70℃
Working humidity (non-condensing)	5% ~ 95%

1.5 Equipment Accessories

Please refer to the packing list.

Package Contents

Before you start using this AC, please check if there's anything missing in the package, and contact your dealer of purchase to claim for missing items:

- DG-WM2001WI (1 No.)
- screws (2 Nos.)

1.6 Login Web Network Management

User can use the default information directly to login the web interface of the device.

The default Web login information includes:

User name: admin

Password: admin

IP address of the device: 192.168.1.10

The steps of web login:

(1) Connect the device to PC.

Use the cable to connect PC to the Ethernet interface of the device.

(2) Configure the IP address for PC and ensure that it can communicate with the device.

For example: Modify the IP address to 192.168.1.0/24.

(3) Launch the browser and input the login information.

Launch the browser on PC, and input "http://192.168.1.10" in the address bar and then enter it. Enter into the web login page as shown in fig 1-7. Input the user name as admin and password as admin, click "**login**" to login.

Fig 1-7 Web network management login page

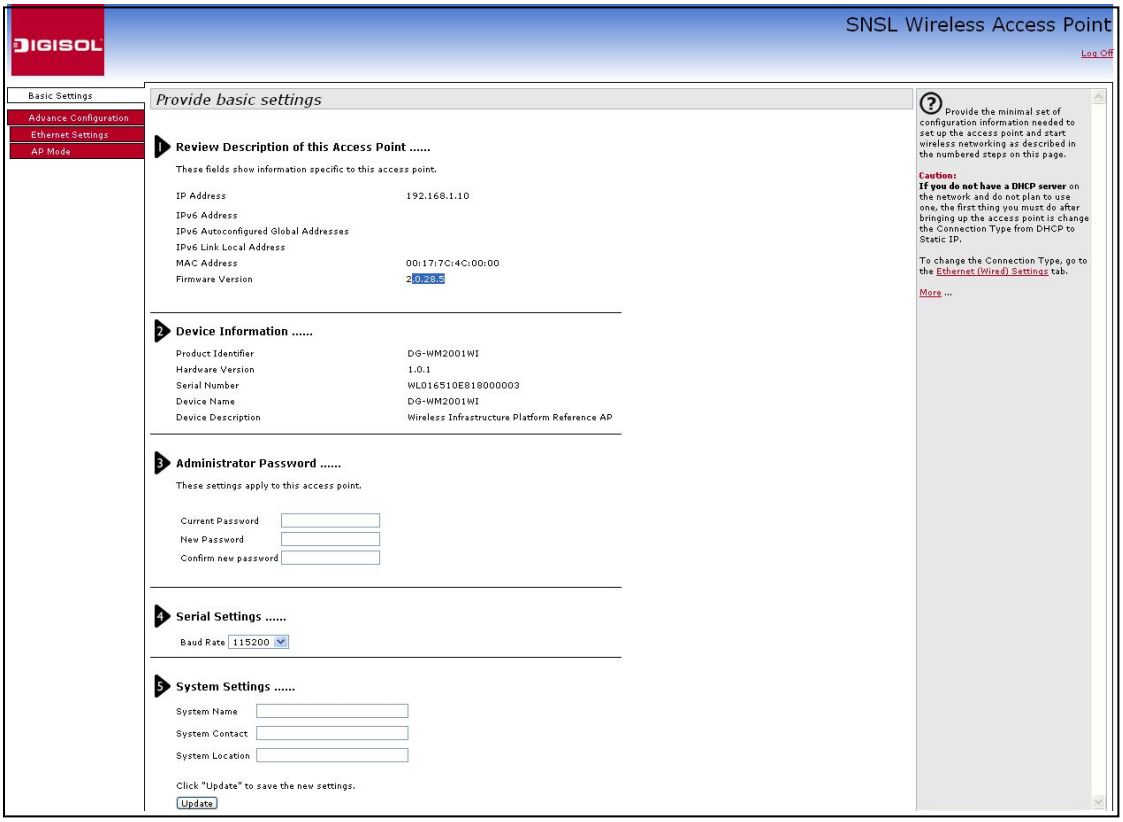
1.7 Quit Web Network Management

Click the “log off” button on the upper right corner on the Web network management page to quit.

1.8 Introduction to Page Layout of Web Network Management

Web network management page includes: navigation bar, configuration area and help area as shown in fig 1-8.

Fig 1-8 Initial page of Web network management



Navigation bar: Organize the Web network management menu by using the navigation tree. User can choose the function menu in the navigation bar and the result will be shown in the configuration area.

Configuration area: User can configure and check.

Help area: It provides the basic help information. The “more” button can check more help information. And it provides the “log off” button to quit.

1.9 Introduction to Web Network Management Function

The Web network management function explanation is given below in table 1-10:

Table 1-10 Web network management function explanation

Menu/label		Function explanation
Basic settings		Shows the AP address (IP address and MAC address), version (firmware version) and device information. The administrator password, serial ports configuration and system settings can be configured.
Status	Network interface	Shows the real-time wired and wireless configuration of AP.
	Transmit/Receive	Shows the virtual AP, enabling situation and the statistic of transmitting and receiving packets of AP.
	Client association	Shows the information of transmitting and receiving packets of the client which has been associated with AP.
Advance Configuration	Ethernet settings	Configure the related wired configuration of AP including host name, management vlan, untagged vlan, DHCP, static IP and DNS server.
	Wireless settings	Configure the related wireless configuration of AP including country code, radio interface, physical mode and channel.
	RF parameters	Configure the detailed RF parameters including radio interface, physical mode, channel, channel bandwidth, primary channel, supporting short protection interval or not, STBC mode, protection, beacon frame interval, DTIM interval, fragment threshold, RTS threshold, maximum stations, transmission power, multicast rate and supported rate.
	Virtual AP	Configure the authentication mode of virtual AP and the related configuration.
	Modes of AP	Configure the modes and IP address of AP.
System maintenance	Configuration management	Configure to restart AP and restore it to the factory configuration. Import and export the files.

	Firmware upgrading	Configure the firmware upgradation of AP.

1.10 Introduction to Common Controls of Web Page

1. <Update> button

Click < Update> button to submit the input information.

2. <Refresh> button

Click <Refresh> button to refresh the information of the current page.

1.11 Usage Restriction of Web Network Management

(1) The operating systems supported by Web network management include: Windows XP, Windows 2000, Windows Server 2003 Enterprise Edition, Windows Server 2003 Standard Edition, Windows Vista, Windows 7, Linux and MAC OS.

(2) The browsers supported by Web network management include: Microsoft Internet Explorer 6.0 SP2 and the versions above, Mozilla Firefox3.0 and the versions above, Google chrome and Safari.

(3) Web network management does not support the “previous”, “next” and “refresh” buttons from the browser. Using these buttons may cause the unusual page showing.

(4) Because the firewall of the Windows operating system will limit the number of connected TCP, there will be the situation that the page cannot be opened when using web network management occasionally. For avoiding this situation, we suggest to close the firewall of the Windows.

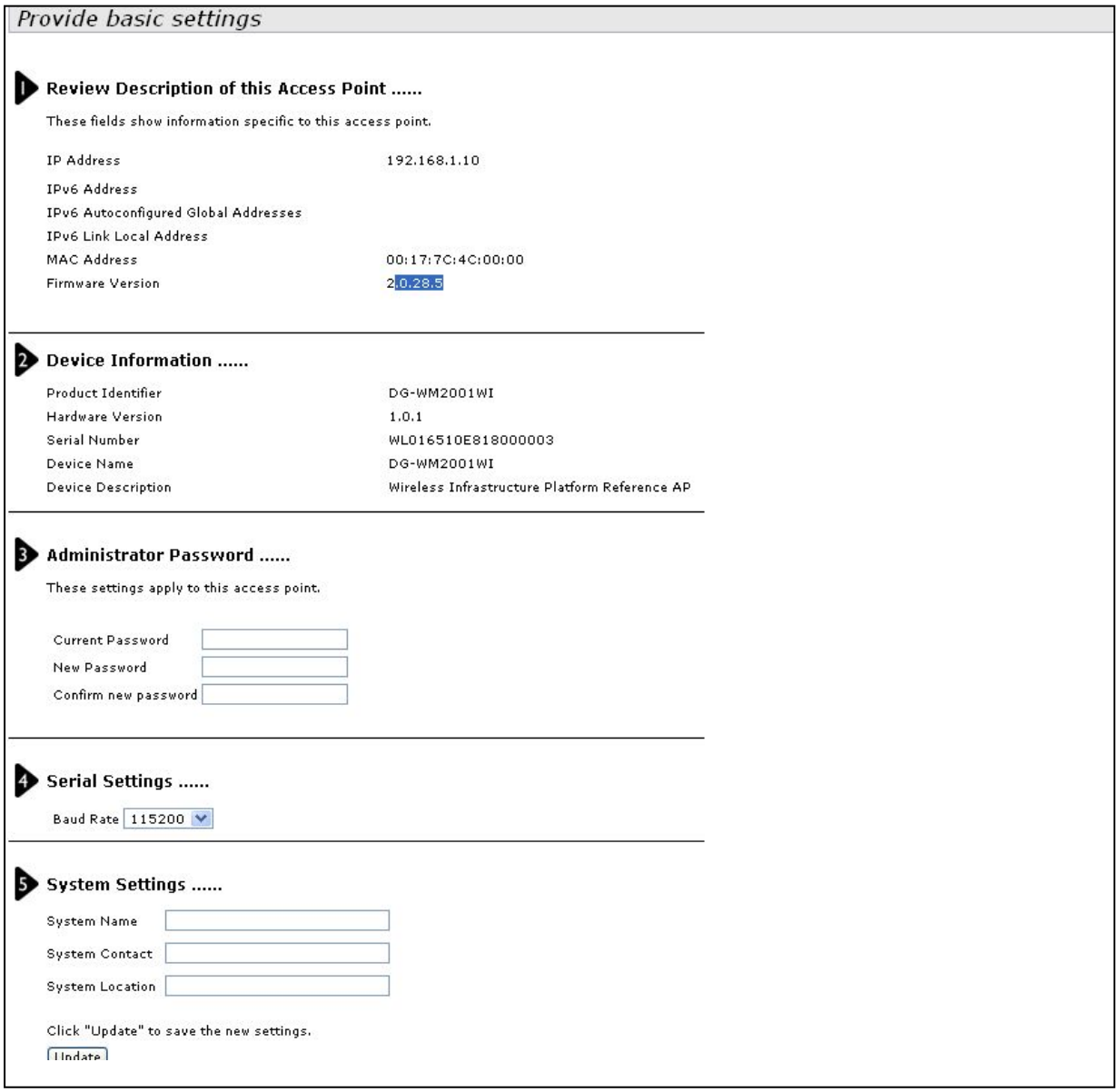
(5) After the software version of the device has changed, we suggest to clear the cache data of the browser first during login the device through web network management. Otherwise, the content of web network management may not be shown normally.

Chapter 2 Basic Configuration

Shows the basic configuration of the device and it includes the following content:

Review description of this access point, Device information; Administrator password;

Serial settings and System settings.



2.1 Detailed Explanation of settings

2.1.1 Description of this Access Point

Field	Description
IP Address	Shows the IP address of the current device.
IPv6 Address	Shows the IPv6 address of the current device.
IPv6 Autoconfigured Global Addresses	Shows the IPv6 auto configured global address of the current device.
IPv6 Link Local Address	Shows the IPv6 link local address of the current device.
MAC Address	Shows the MAC address of the current device.
Firmware Version	Shows the firmware version of the current device.

2.1.2 Device Information

Field	Description
Product identifier	Shows the product ID of the current device.
Hardware version	Shows the hardware version of the current device.
Serial number	Shows the serial number of the current device.
Device name	Shows the device name of the current device.
Device description	Shows the device description of the current device.

2.1.3 Administrator Password

Field	Description
Current password	Input the current administrator password.
New password	Input the new password.
Confirm new password	Input the new password again and it must be same as the above new password.

2.1.4 Serial Settings

Field	Description
Baud Rate	Configure the baud rate of the serial ports.

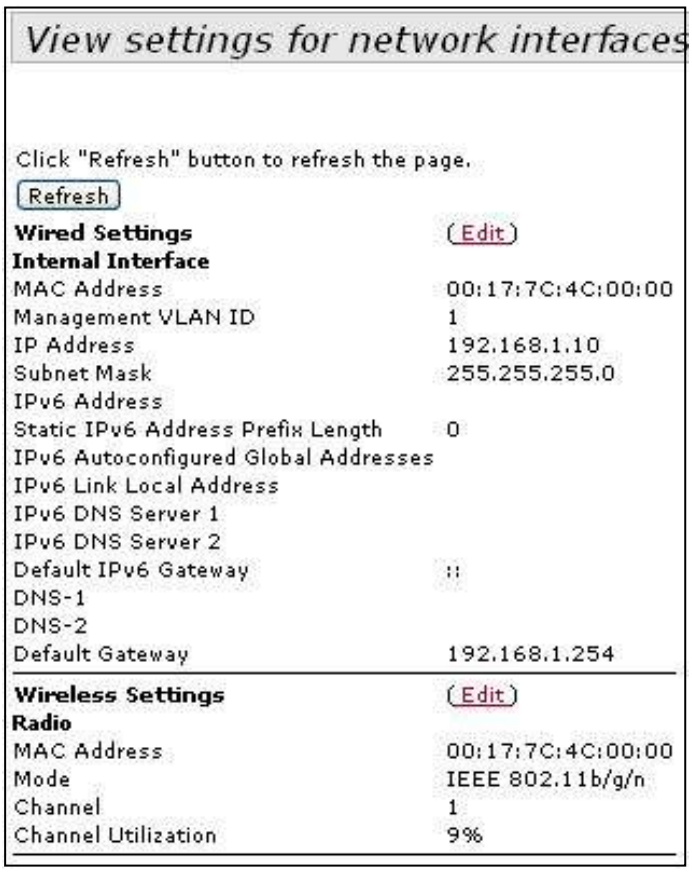
2.1.5 System Settings

Field	Description
System name	Configure the system name.
System contact	Configure the contact.
System location	Configure the device location.

Chapter 3 Current Status

The current status includes network information, statistic of transmitting and receiving packets and the client association.

3.1 Network Information



3.1.1 Wired Settings

Field	Description
MAC address	Shows the MAC address of the current device.
Management VLAN ID	Shows the vlan ID of the current device.

IP address	Shows the IP address of the current device.
Subnet mask	Shows the subnet mask of the current device.
IPv6 Address	Shows the IPv6 address of the current device.
Static IPv6 Address Prefix Length	Shows the prefix length of static IPv6 address.
IPv6 Auto configured Global Addresses	Shows the IPv6 auto configured global addresses of the current device.
IPv6 Link Local Address	Shows the IPv6 link local address of the current device.
IPv6 DNS Server-1	Shows the IPv6 DNS server-1 of the current device.
IPv6 DNS Server-2	Shows the IPv6 DNS server-2 of the current device.
Default IPv6 Gateway	Shows the default IPv6 gateway of the current device.
DNS-1	Shows the IP address of DNS-1 server of the current device.
DNS-2	Shows the IP address of DNS-2 server of the current device.
Default gateway	Shows the default gateway of the current device.

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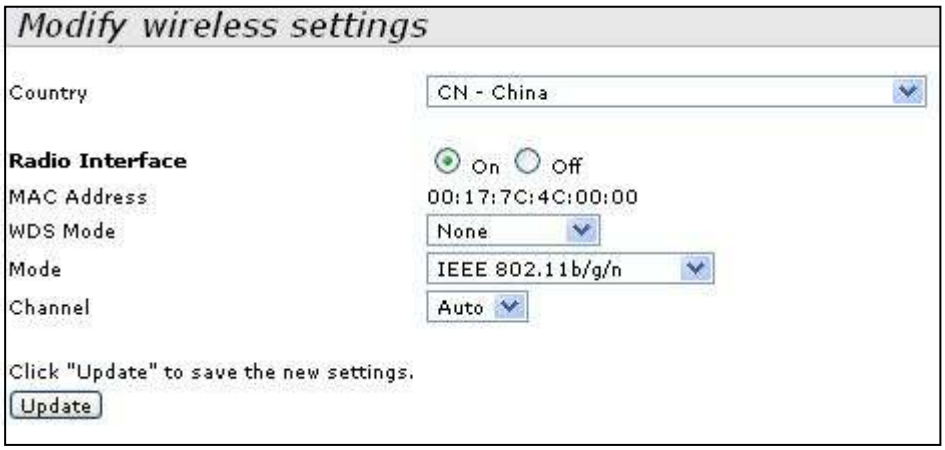
3.1.2 Wireless Settings

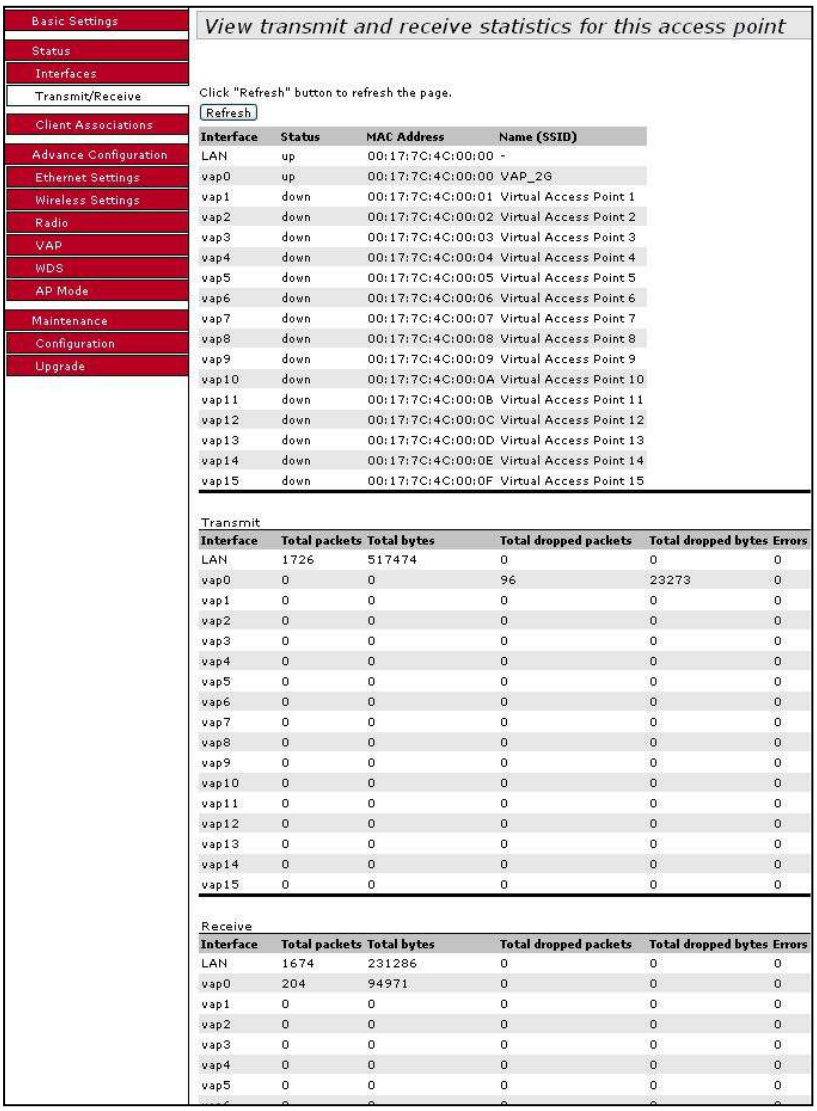
Field	Description
MAC address	Shows the MAC address information of RF1 or 2.
Mode	Shows the wireless mode information of RF1 or 2.
Channel	Shows the channel information of RF1 or 2.

Click the "**Edit**" link in the wired and wireless configuration to link to the wired and wireless configuration page directly.



3.2 Statistic for Transmitting and Receiving IP Traffic

3.2.1 Device Information Status



Shows all the physical ports and the status of virtual AP.

Field	Description
Interface	The name of Ethernet interface or VAP interface.
Status	Mark the interface is up or down.

MAC address	MAC address of the specific interface. Every interface of AP has the unparalleled MAC address. Each interface of each RF of the two RF has a different MAC address.
VLAN ID	VLAN ID You can use VLAN to create multiple internal and customer networks on the same AP. VLAN ID is configured in VAP label.
Network name (SSID)	Wireless network name. it is also named as SSID which is used to mark the WLAN. SSID is configured in VAP label.

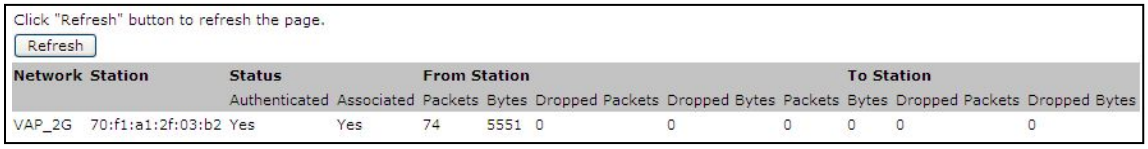
3.2.2 Transmit/Receive Packets

Field	Description
Interface	The name of Ethernet interface or VAP interface.
Packets number	Shows the number of the packets that the AP sent (in the transmitting packet table) or received (in the receiving packet table).
Bytes number of packets	Shows the number of bytes that the AP sent (in the transmitting packet table) or received (in the receiving packet table).
Dropped packets number	Shows the number of the sent (in the transmitting packet table) or received (in the receiving packet table) packets that the AP dropped.
Bytes number of dropped packets	Shows the number of the sent (in the transmitting packet table) or received (in the receiving packet

	table) bytes that the AP dropped.
Error statistics	Shows the total error number of AP transmitting and receiving data.

3.3 Client Associations

Client association showing:



Field		Description
Network		The SSID of the client associated network.
Station		The MAC address of the associated client.
Status	Authenticated	The status of authenticated means the IEEE 802.11 authentication status.
	Associated	The status of associated means the IEEE 802.11 association status.
From station	Packets	It means that the number of packets and bytes received from the client and the number of dropped packets and bytes after received.
	Bytes	
	Dropped packets	
	Dropped bytes	
To station	Packets	It means that the number of packets and bytes client received and the number of dropped packets and bytes
	Bytes	

	Dropped packets	in transmission.
	Dropped bytes	

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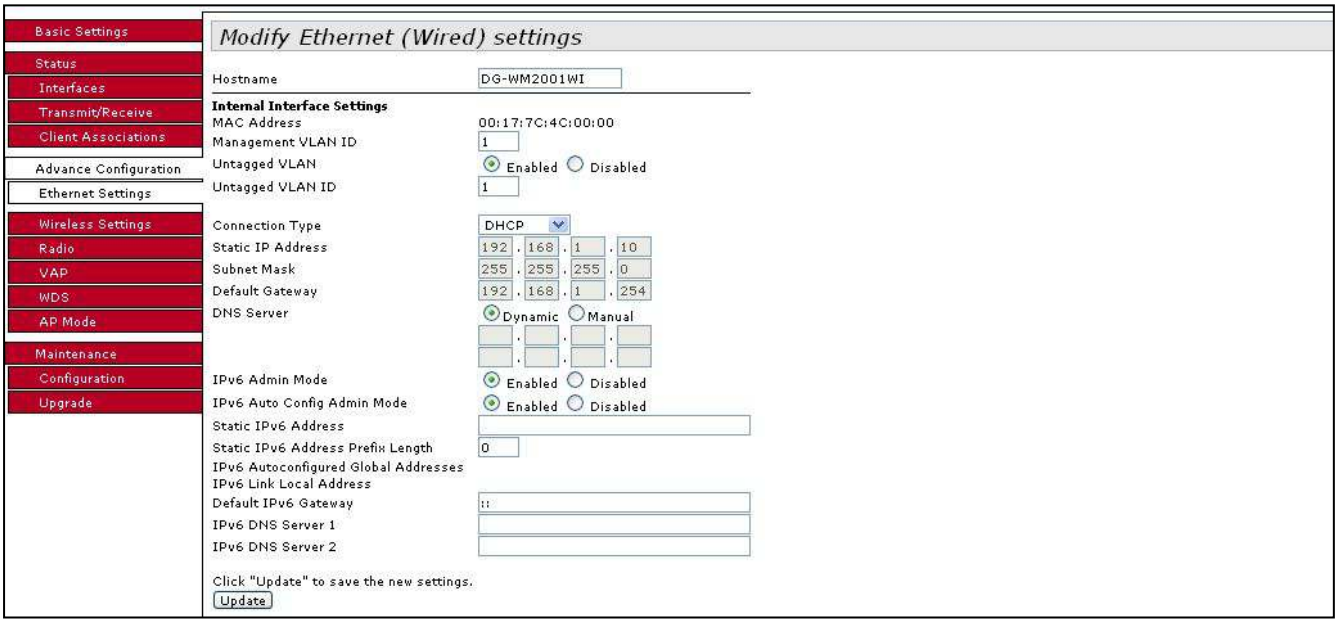
Chapter 4 Advance Configuration

The “Advance configuration” includes Ethernet settings, wireless settings, RF parameters, virtual AP, WDS and AP modes.

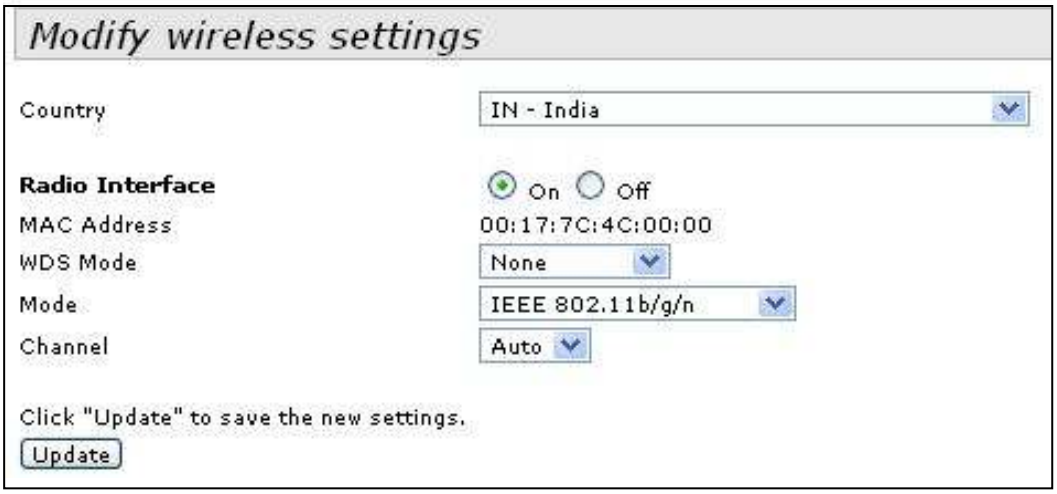
4.1 Ethernet Settings



Field	Description
Host name	The host name of AP.
MAC Address	The MAC address of the Ethernet interface of AP.
Management VLAN ID	The management VLAN is used to access the VLAN which is associated with the IP address of AP.
Untagged VLAN	If the untagged VLAN was disabled, all the packets will be marked with the same VLAN number.
Untagged VLAN ID	The packet transmitted in this VLAN has no

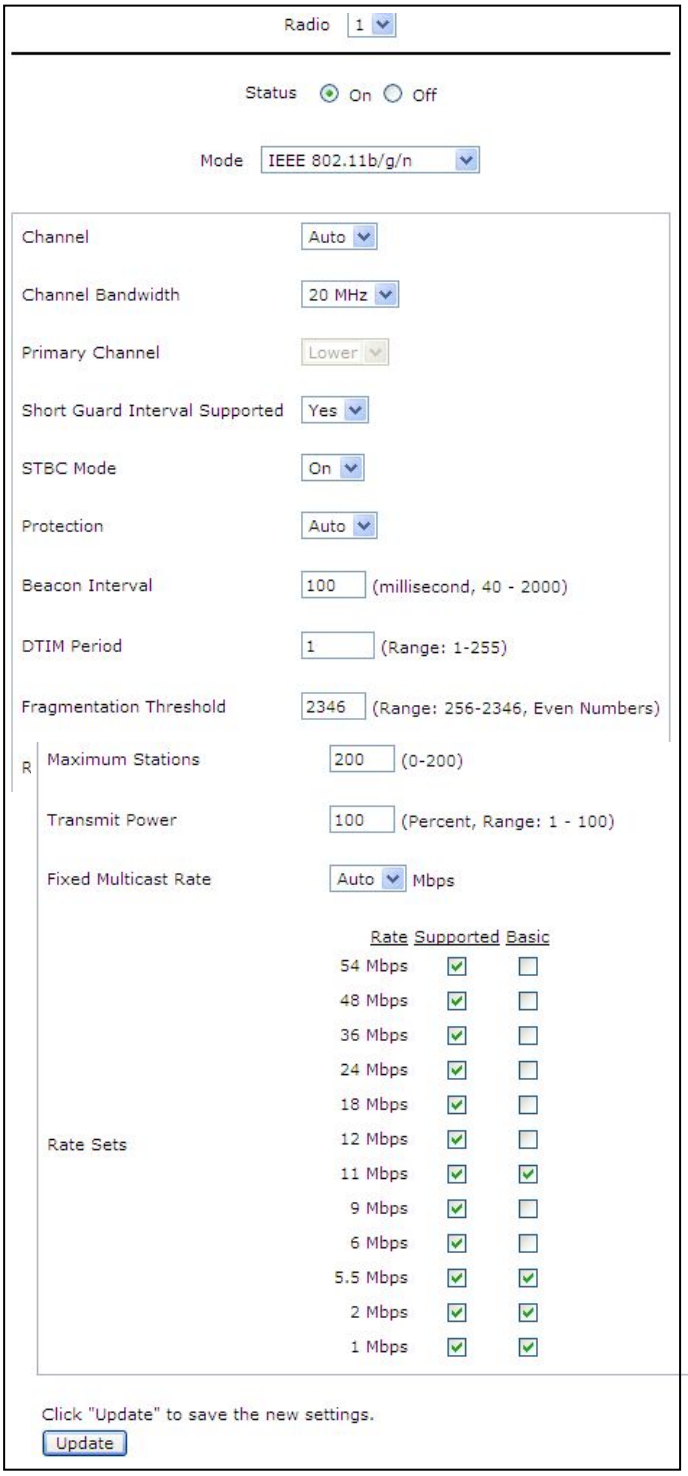
	tagged VLAN number.
Connection Type	Configure the IP address obtaining of AP.
Static IP Address	Configure the static IP address. If the IP obtaining is DHCP, this property cannot be used.
Subnet Mask	Configure the subnet mask. If the IP obtaining is DHCP, this property cannot be used.
Default Gateway	Configure the default gateway. If the IP obtaining is DHCP, this property cannot be used.
DNS Server	Configure the DNS mode. Under the manual appointed mode, the DNS address can be configured to analyze the domain name.
IPv6 Admin Mode	Configure the getting mode of IPv6.
IPv6 Auto Config Admin Mode	Configure the IPv6 automatic address. If it is disabled, this function is not enabled.
IPv6 Connection Type	Configure the mode of getting the IPv6 address.
Static IPv6 Address	Configure the static IPv6 address of AP.
Static IPv6 Address Prefix Length	Configure the prefix length of static IPv6 address.
IPv6 Autoconfigured Global Addresses	Show the IPv6 auto configured global addresses.
IPv6 Link Local Address	Show the IPv6 link local address of AP.
Default IPv6 Gateway	Show the default IPv6 gateway of AP.
IPv6 DNS Server	Configure the address getting mode of DNS server of IPv6; configure the static IPv6 DNS server address.

4.2 Wireless Settings



Field	Description
Country	Choose the country of AP.
Radio interface	The RF device can be enabled or disabled here.
MAC address	The MAC address of the RF interface.
Mode	The Physical Layer standard the radio uses.
Channel	Choose the channel.

4.3 RF Parameters



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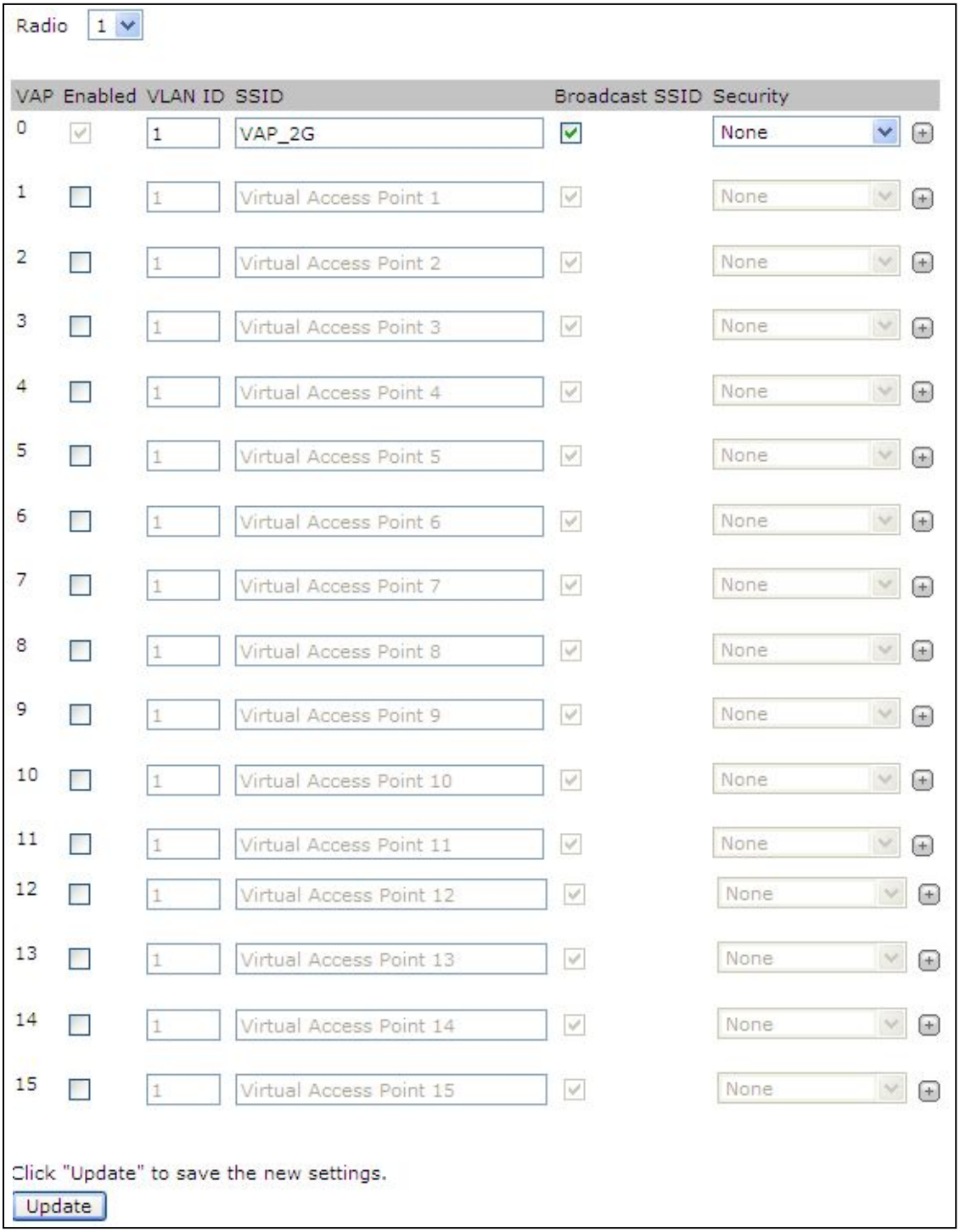
Field	Description
Radio	Choose the configured RF.
Status	Enable/disable the RF.
Mode	The PHY standard used by RF.
Channel	Choose the channel.
Channel bandwidth	The channel bandwidth of 802.11n mode.
Primary channel	The mode of the primary channel (only the 802.11n mode is supported)
Short guard interval supported	Configure the short guard.(only the 802.11n mode is supported)
STBC mode	Configure the STBC mode.(only the 802.11n mode is supported)
Protection	Configure the protection function.
Beacon interval	Configure the Beacon interval.
DTIM interval	Configure the DTIM interval.
Fragment threshold	Configure the fragment threshold.
RTS threshold	Configure the RTS threshold.
Maximum stations	Configure the maximum number of associated stations.
Transmit power	Configure the percentage of the RF transmission power.
Fixed Multicast rate	Configure the supported multicast rate.
Rate sets	Configure the transmission rate set and the basic broadcast rate set that is supported by RF.

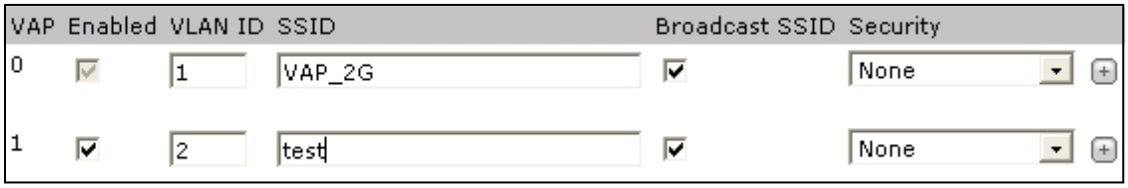
4.4 Virtual AP



Field	Description
Radio	Choose the configured RF.
VAP	Show the ID number of the virtual AP.
Enabled	Configure the status of the virtual AP.
VLAN ID	Configure the VLAN that the client associated with the virtual AP belongs to.
SSID	Configure the name of wireless network.
Broadcast SSID	Configure the broadcast SSID.
Security	Configure the security mode.

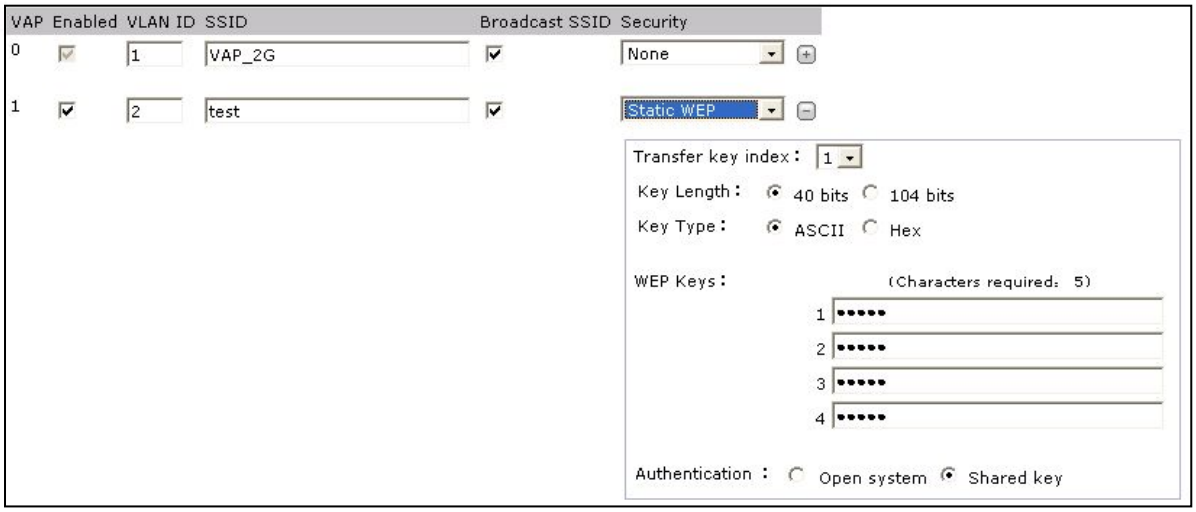
4.4.1 None Security Configuration

Choose the security configuration as none, the security configuration will not be needed in clients association; it can be associated with the virtual AP directly.



4.4.2 Static WEP Security Configuration

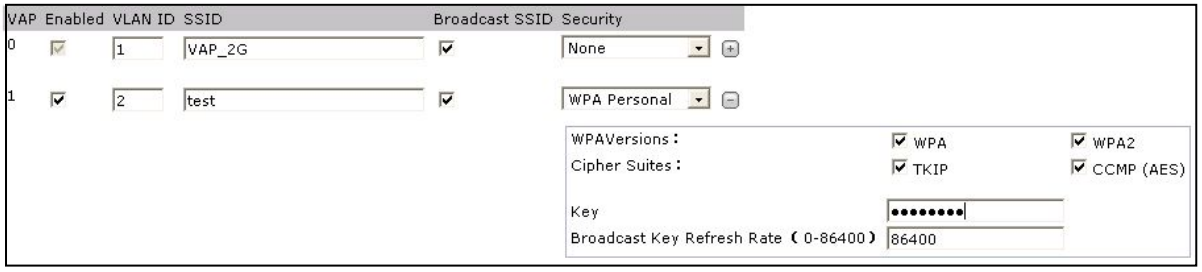
Choose the security configuration as static WEP and show the detailed configuration information of static WEP security configuration. The direct key should be input in the client to pass the authentication or the decryption packet.



Field	Description
Transfer key index	Configure the key index.
Key length	Configure the length of the key.
Key type	Configure the type of key.
WEP keys	Configure the key 1-4.
Authentication	Configure the authentication mode.

4.4.3 WPA Personal Security Configuration

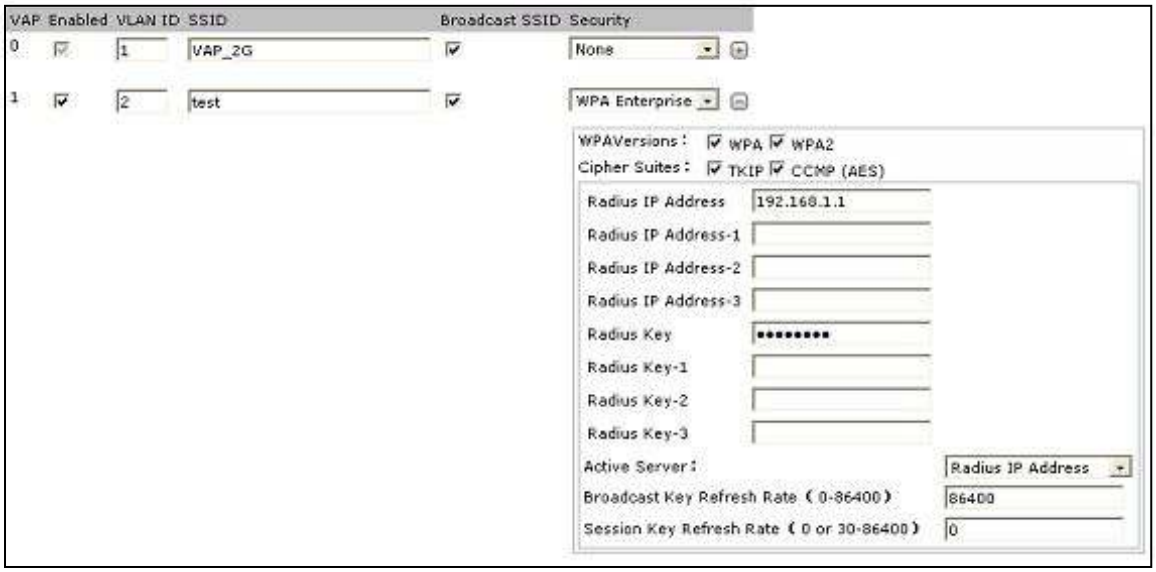
Choose the security configuration as WPA Personal and show the detailed configuration information of WPA Personal security configuration. The direct key should be input in the client to pass the authentication.



Field	Description
WPA versions	Configure the WPA version.
Cipher suites	Configure the cipher suites.
Key	Configure the key.
Broadcast key refresh key	Configure the interval of broadcast key updating.

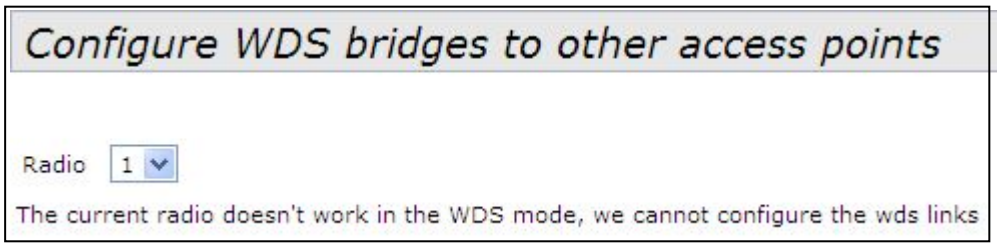
4.4.4 WPA Enterprise Security Configuration

Choose the security configuration as WPA Enterprise and show the detailed configuration information of WPA Enterprise security configuration. The direct user name and password existed in radius server should be input in client to pass the authentication.



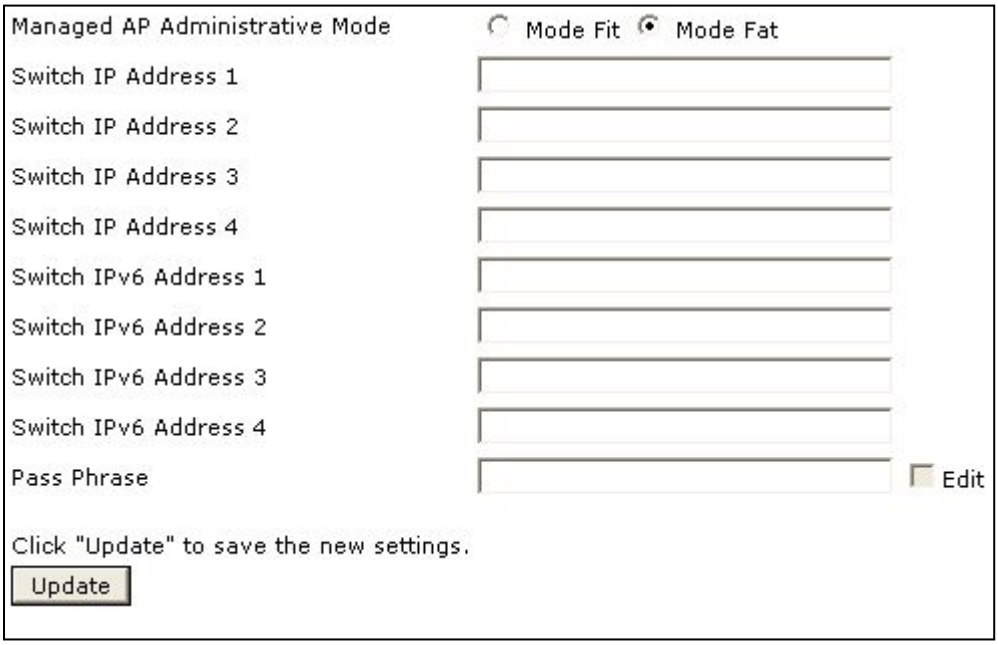
Field	Description
WPA version	Configure the WPA version.
Cipher suites	Configure the cipher suites.
Radius IP address	Configure the IP address of radius server.
Radius IP address1-3	Configure the IP address of the backup radius server.
Radius key	Configure the radius server key.
Radius key 1-3	Configure the key of the backup radius server.
Active server	Choose the radius server.
Broadcast key refresh rate (0-86400)	Configure the interval of broadcast key updating.
Session key refresh rate (0-86400)	Configure the interval of unicast key updating.

4.4.5 WDS



4.5 AP Modes

The AP modes can be switched on this page. Configure the address of Access Controller and the password of AP authentication under Mode Fat.

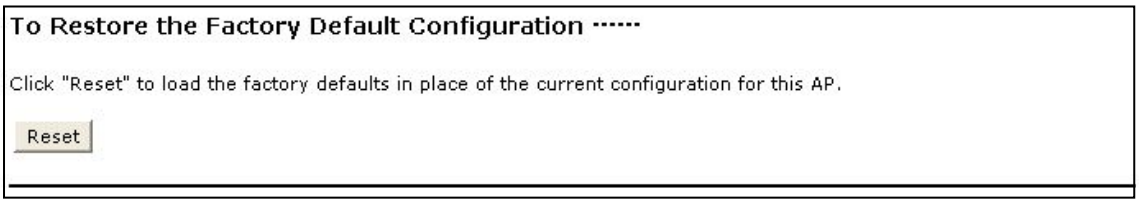


Field	Description
Management AP administrative mode	Configure the AP modes.
Switch IP address of 1-4	Configure the IP address of AC under the fat AP mode.
Switch IPv6 address of 1-4	Configure the IPv6 address of AC under the fat AP mode.
Pass phrase	Configure the password of the associated authentication between AP and AC under the fat AP mode.

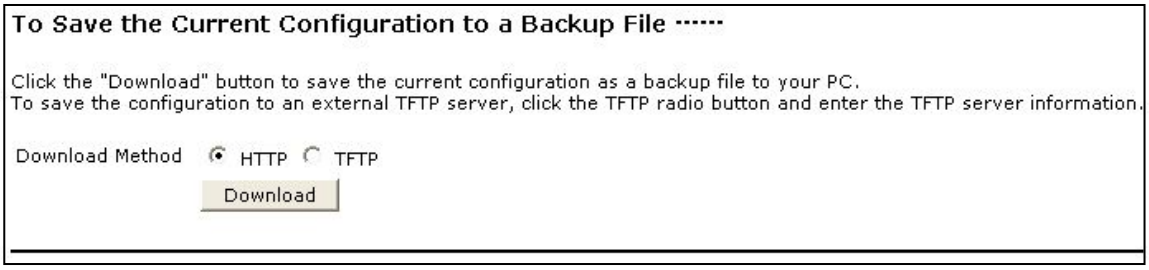
Chapter 5 System Maintenance

The system maintenance includes configuration management and firmware upgradation.

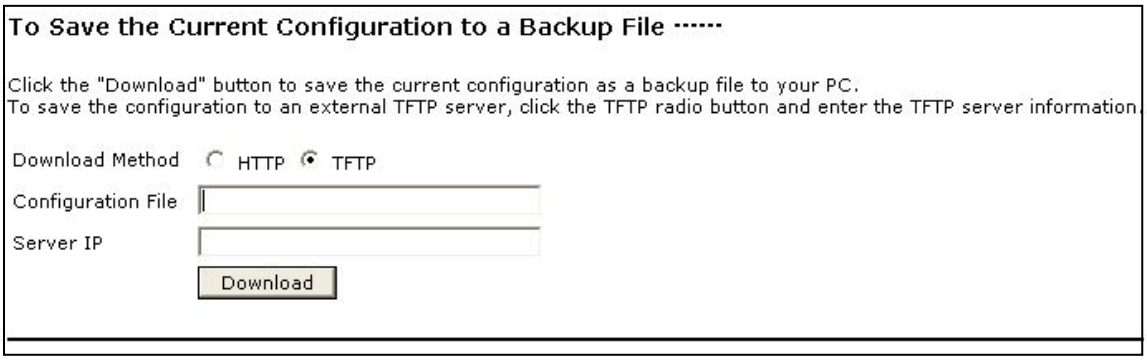
5.1 Configuration Management



Click “**reset**” button to restore the configuration of AP to default. The default working mode of AP is **fit AP mode**.

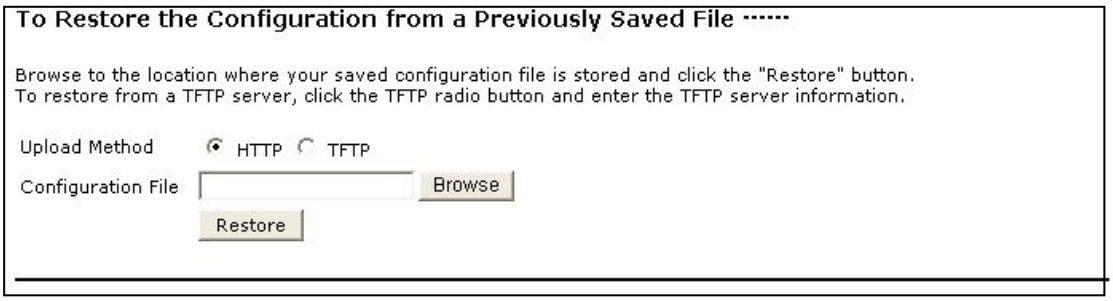


Choose the download method as HTTP mode, click “**download**” button and confirm it, then the current configuration files of AP will be downloaded through HTTP directly.

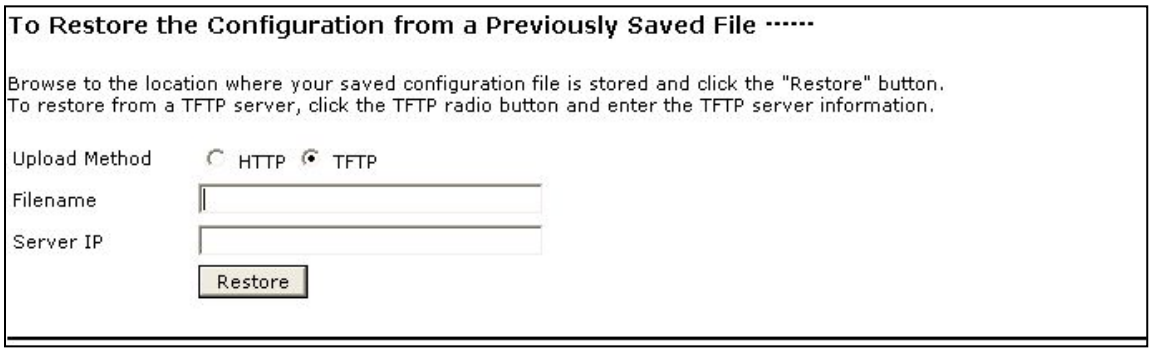


Choose the download method as TFTP mode, input the file name of the configuration file (the format is *.xml) and the IP address of TFTP server. Then click “download” button and confirm it. The configuration file will be downloaded to the appointed TFTP server and the

file name is the input name.



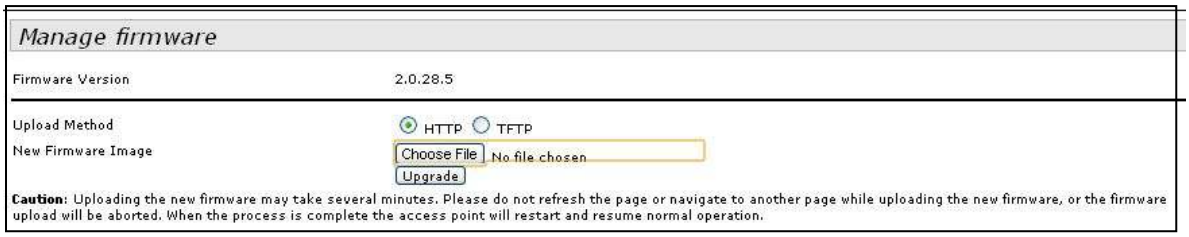
When the upload method was chosen as HTTP mode, click “browse” button to choose the configuration file (the format is *.xml) which needs to be uploaded. Confirm it and click “restore” button. The current configuration of AP will be restored to the configuration in the uploaded configuration file.



When the upload method was chosen as TFTP mode, input the file name of the configuration file (the format is *.xml) and the IP address of TFTP server. Click “**restore**” button and confirm it. The current configuration of AP will be restored to the configuration in the uploaded configuration file.

Click “**reboot**” button and confirm it. Then the AP will be restarted.

5.2 Firmware Upgradation



Platform	
Version of firmware	Show the version of firmware of the current AP.

Complete the firmware upgradation of AP by using HTTP through the following steps:

1. Choose the HTTP as the upgrading method.

2. If you knew the path of the new firmware file, input this path in the text box. Otherwise, click the “browse” button to locate the upgrading file of firmware.

The upgrading file of firmware must be the tar file. Please do not try to use the bin file or other kinds of files to upgrade; these files would not run.

3. Click the “firmware upgrading” button to apply the new firmware file.

After clicked the “firmware upgrading” button, there will be a window which describes the upgrading process.

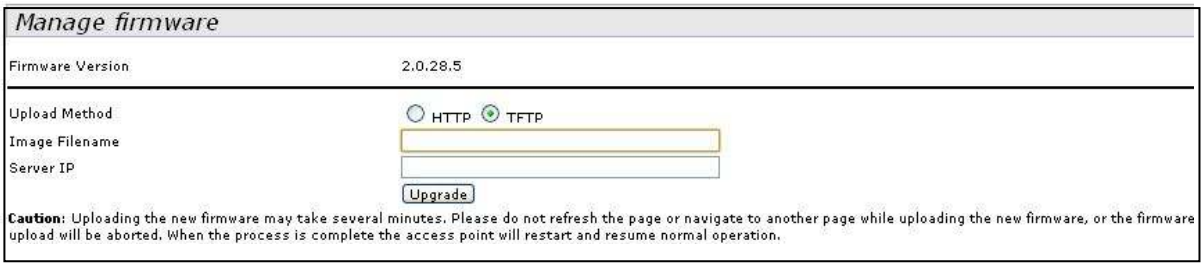
4. Click the “confirm” button to confirm to upgrade and start the upgrading process.

Notice: Click the “firmware upgrading” button and confirm it in the window. The upgrading process will start.

The upgrading process will be continued for a few minutes. During this period, AP cannot be accessed. Please do not turn off the AP power in upgrading. After upgrading, AP will restart. After restarted, AP will use the configuration before upgrading still.

5. Ifyou want to known whether the firmware upgradation was successful, please check

the firmware version in the firmware management page (or the basic configuration label). If the upgradation was successful, the version after upgrading will be shown.



Complete the firmware upgradation of AP by using TFTP through the following steps:

1. Choose TFTP as the uploading method.

2. Input the name of the mirror file in the text box (1 to 256 characters). The name includes the integral path of the mirror file.

For example, if the file of ap_upgrade.tar in the content of /share/builds/ap needs to be uploaded, input “/share/builds/ap/ap_upgrade.tar” in the text box.

The upgrading file of firmware must be the tar file. Please do not try to use the bin file or other kinds of files to upgrade; these files would not run.

3. Input the IP address of the TFTP server.

4. Click the “firmware upgrading” button.

After clicked the “firmware upgrading” button, there will be a window which describes the upgrading process.

5. Click the “confirm” button to confirm to upgrade and start the upgrading process.

Notice: click the “firmware upgrading” button and confirm it in the window. The upgrading process will start.

The upgrading process will be continued for a few minutes. During this period, AP cannot be accessed. Please do not turn off the AP power in upgrading. After upgrading, AP will restart. After restarted, AP will use the configuration before upgrading still.

6. Ifyou want to known whether the firmware upgradation was successful, please check the firmware version in the firmware management page (or the basic configuration label). If the upgradation was successful, the version after upgrading will be shown.

Chapter 6 Configuration Examples

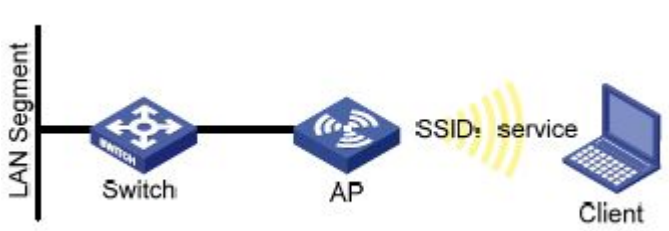
6.1 Laws Wireless Access

6.1.1 Networking Requirements

A department needs to achieve the mobile office through deploying AP for that the staffs can visit the internal network resources anytime and anywhere. The device administrator can configure the laws wireless access and the detailed demand is as below:

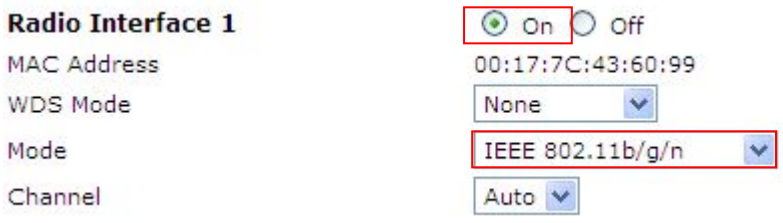
- AP provides the wireless access service with SSID as the laws method of “service”.
- For meeting the high bandwidth demands and the compatible 802.11g wireless network, adopt the 802.11n (2.4GHz) RF mode.

Fig 1-11 laws wireless access



6.1.2 Configuration Steps

1. Login the AP configuration page and enter into the wireless configuration page.



- Choose “enable” for Radio Interface 1.
- Choose IEEE 802.11b/g/n for the wireless mode.
- Choose the default configuration for channel.
- Click “submit” button.

2. Enter into the virtual AP configuration page.

- Choose the virtual AP enabled box (the virtual AP 0 is enabled as default.)
- Configure the VLAN ID according to the actual situation.
- Configure SSID as “service”.
- Use the default configuration for “broadcast SSID”.
- Choose “None” for the security configuration.
- Click “submit” button.

6.1.3 Test the Configuration Results

- Enter into the client association page to view the successful on-line clients.

6.2 Cipher Wireless Access of Static-WEP(Open-System)

6.2.1 Networking Requirements

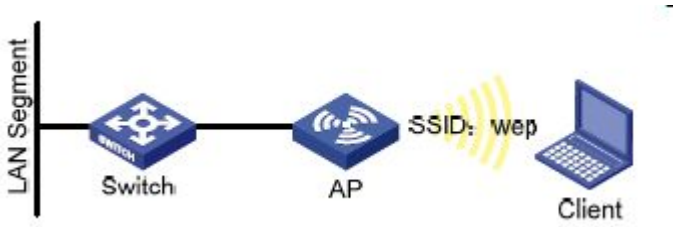
In a small office, the device administrator can complete the WEP (Open-System) cipher configuration through the web page. The detailed demand is as below:

- AP provides the WEP (Open-System) cipher wireless access service with SSID as

"WEP".

- For meeting the high bandwidth requirements and the compatible 802.11g wireless network, adopt the 802.11n (2.4GHz) RF mode.

Fig 1-14 WEP (Open-System) cipher wireless access

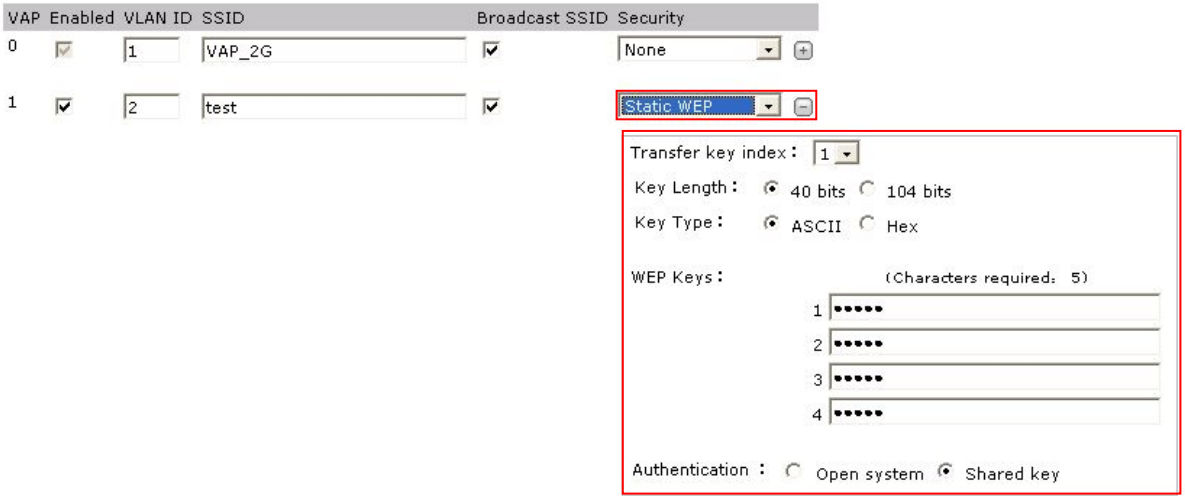


6.2.2 Configuration Steps

1. Login the AP configuration page and enter into the wireless configuration page.

- Choose to enable for RF1.
- Choose IEEE 802.11b/g/n for the wireless mode.
- Use the default configuration for the channel.
- Click "submit" button.

2. Enter into the virtual AP configuration page.



- Choose the virtual AP enabled box (the virtual AP 0 is enabled as default.)
- Configure the VLAN ID according to the actual situation.
- Configure SSID as “WEP”.
- Use the default configuration for “broadcast SSID”.
- Choose “Static WEP” for the security configuration.
- Configure the key index as 1.
- Configure the length of key as 64bits.
- Configure the key type as ASC II.
- Configure the WEP key 1 as 12345.
- Configure the authentication method as “open system”
- Click “submit” button.

6.2.3 Test the Configuration Results

- Enable the wireless client and refresh the network list. Find the configured network service in the list of “choose wireless network” (it is PSK in this example). Click “connect” and input the WEP key as 12345 in the dialog box (the input WEP key must be the same as the configured WEP key on the device). After associated with

the AP successfully, user can access the wireless network.

- Enter into the client association page and the successful online clients can be viewed.

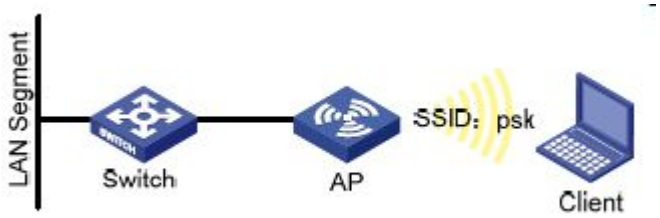
6.3 WPA2-PSK Wireless Access

6.3.1 Networking Requirements

In a small office, the device administrator can complete the WPA2-PSK wireless access configuration through the web page. The detailed demand is as below:

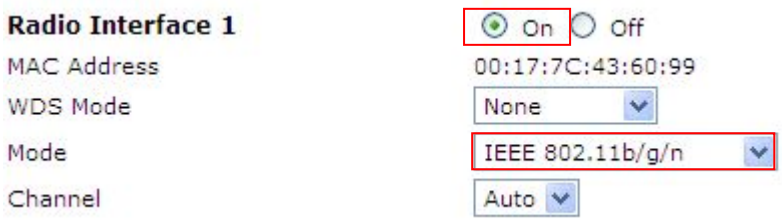
- AP provides the WPA2-PSK wireless access service with SSID as “psk”.
- For meeting the high bandwidth requirements and the compatible 802.11g wireless network, adopt the 802.11n (2.4GHz) RF mode.

Fig 1-18 WPA2-PSK wireless access



6.3.2 Configuration Steps

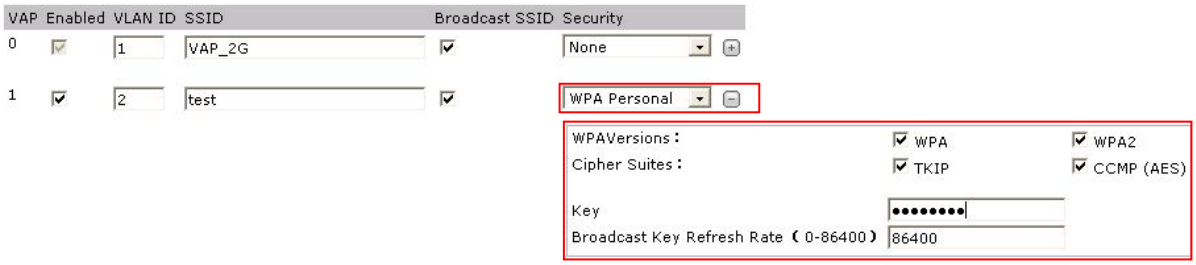
1. Login the AP configuration page and enter into the wireless configuration page.



- Choose to enable for RF1.
- Choose IEEE 802.11b/g/n for the wireless mode.

- Use the default configuration for the channel.
- Click “submit” button.

2. Enter into the virtual AP configuration page.



- Choose the virtual AP enabled box (the virtual AP 0 is enabled as default.)
- Configure the VLAN ID according to the actual situation.
- Configure SSID as “psk”.
- Use the default configuration for “broadcast SSID”.
- Choose “WPA Personal” for the security configuration.
- Click to choose WPA2 for the WPA version according to the requirement and cancel the WPA.
- Use the default configuration for the cipher suites.
- Configure the key 1 as 12345678.
- Use the default configuration for the broadcast key refresh rate.
- Click “submit” button.

6.3.3 Test the Configuration Results

- Enable the wireless client and refresh the network list. Find the configured network service in the list of “choose wireless network” (it is PSK in this example). Click “connect” and input the pre-shared key as 12345678 in the dialog box (the input pre-shared key must be the same as the configured pre-shared key on the device). After associated with the AP successfully, user can access the wireless network.
- Enter into the client association page and the successful online clients can be viewed.

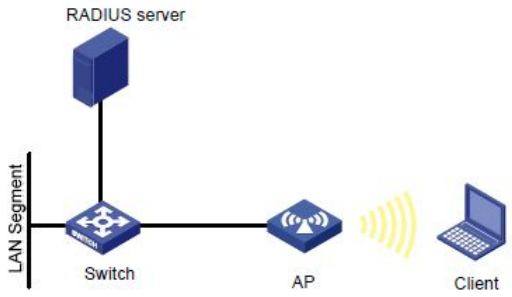
6.4 WPA2-Enterprise Wireless Access

6.4.1 Networking Requirements

In an office building of a company, the staffs need to access the office environment through the wireless network; the other mobile devices that do not belong to the staffs cannot be accessed. The administrator can configure the WPA2-Enterprise through the web page. The detailed demand is as below:

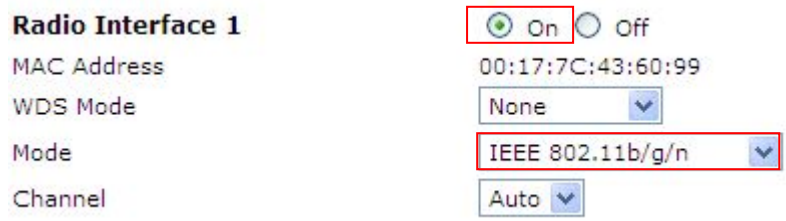
- AP provides the WPA2-Enterprise wireless access service with SSID as “WPA-Enterprise”.
- For meeting the high bandwidth requirements and the compatible 802.11g wireless network, adopt the 802.11n (2.4GHz) RF mode.

Fig 1-19 WPA2-Enterprise wireless access



6.4.2 Configuration Steps

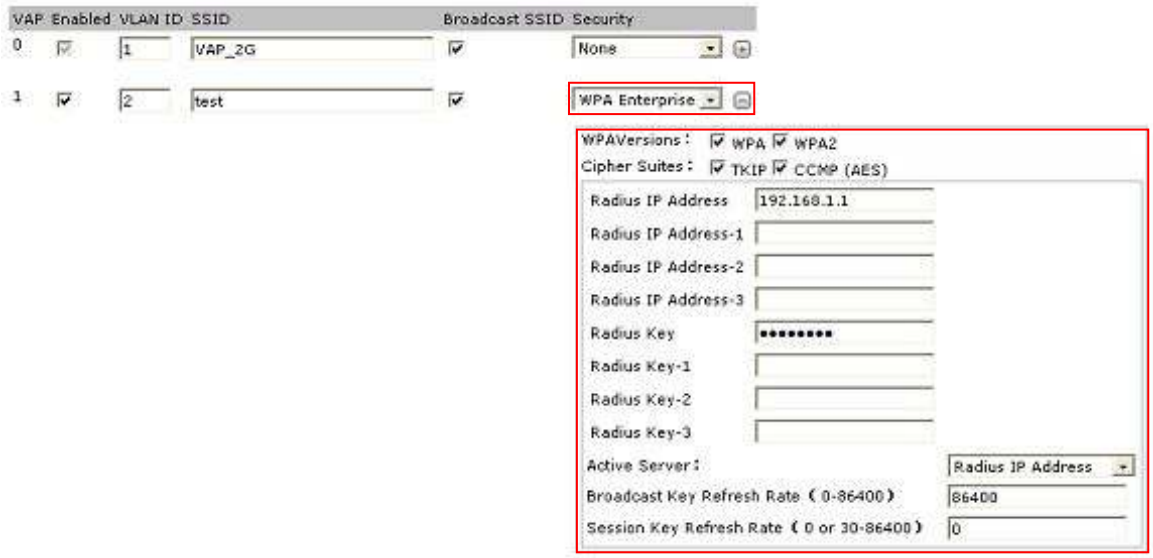
1. Login the AP configuration page and enter into the wireless configuration page.



- Choose to enable for RF 1.
- Choose IEEE 802.11b/g/n for the wireless mode.

- Use the default configuration for the channel.
- Click “submit” button.

2. Enter into the virtual AP configuration page.



- Choose the virtual AP enabled box (the virtual AP 0 is enabled as default.)
- Configure the VLAN ID according to the actual situation.
- Configure SSID as “WPA-Enterprise”.
- Use the default configuration for “broadcast SSID”.
- Choose “WPA Enterprise” for the security configuration.
- Click to choose WPA2 for the WPA version according to the requirement and cancel the WPA.
- Use the default configuration for the cipher suites.
- Configure the Radius IP address according to the actual requirements; it is configured as “192.168.1.234” in this example.
- Configure the Radius key according to the actual requirements; it is configured as “test”.
- Choose the server and configure it as Radius IP address.
- Use the default configuration for the broadcast key refresh rate.

- Use the default configuration for the unicast key refresh rate.
- Click “submit” button.

6.4.3 Test the Configuration Results

- Enable the wireless client and click the “modify the advanced configuration”; choose the wireless network configuration in the window. Choose to use the windows to configure my wireless network configuration and click “add” button; input “WPA-Enterprise” in the window of SSID. Choose WPA2 for the network authentication in the key and choose AES for the data cipher; and then click to confirm it. Choose the added first choice of network and click “property“; and then click “authenticate”. Choose the “protected EAP (PEAP)” for the EAP types and cancel that”authenticate as computer when the computer information is useful”, click “property”; and then cancel “authentication server”. Choose the “EAP-MSCHAP v2” for the authentication and click “property”; and then cancel using the login name and password (and the domain if it exists) automatically and click to confirm it. Enable the wireless client again and refresh the network list. Find the configured network service in the list of “choose wireless network” (it is WPA-Enterprise in this example). Click “connect” and input the user name and password existed in Radius server in the dialog box. After associated with the AP successfully, user can access the wireless network.
- Enter into the client association page and the successful online clients can be viewed.