

# **FS-AC128 Wireless LAN Controller**

## **Software User Guide**

### **(Basic Configuration)**

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## Chapter 1 Basic provisioning configuration

### 1.1 Configuration logic

The configuration logic is as follows:

- A. In principle, the AP and the AC need to communicate with each other. Therefore, the first task of the provisioning configuration is to configure the logical link of the network and the interface address of the AC. If an address pool already exists in the network, the DHCP configuration in the following can be skipped.
- B. It should be noted that the FS-AC128 does not support Layer 3 forwarding. Therefore, even if an address pool is configured on the AC, the address pool is used only between the AP and the AC. The user address pool needs to be configured on other gateways. The user message is then forwarded through the local forwarding mode.
- C. Configure the AC interface address to check whether the AP is online. After the AP goes online, configure the service (WLAN configuration). WLAN configuration sequence: First, define the SSID, service VLAN, and encryption mode through the wireless service configuration. Then, define the radio frequency attribute and SSID application through the AP template. Finally, bind the AP template to the corresponding AP through AP information. The configuration is configured to deliver the configuration information to the AP and complete the basic provisioning configuration.

## Chapter 2 Operation Methods

### 2.1 WEB Management Login

When the user enters <http://192.168.1.1> (the network between WEB management terminal and the wireless controller must be unblocked) into the browser address field of management PC, the browser shows the WEB management login page (as shown in Fig. 2-1). Enter [user name] and [password] in the login page ("admin" and "admin" by default), click on <login> button and go to the main interface of WEB management configuration upon successful login.



Figure 2-1 WEB Management Login

### 2.2 AC Interface Configuration

In order to configure the basic settings on a wireless controller, the user must connect to the service port of the controller.

The default management address of the AC is 192.168.1.1/255.255.255.0.

Note: The computer needs to be equipped with the same network segment, such as 192.168.1.100/255.255.255.0, and the gateway does not need to be equipped.

Click “create” in [Interface] page as shown in Fig 2-2 to open [Add Interface] page, as shown in Fig 2-3.



Figure 2-2 Create Interface

In [Add Interface] page, the user can edit [Type], [Name], [VID], [IP], [Subnet Mask] and [Port].

Description:

Type: SERVICE

Name: Arbitrary name is ok.

VID: Interface VLAN, which can be configured according to the networking requirements. If there is no networking requirement, any value can be assigned (2-4096 is ok, except 1).

IP&Subnet Mask:

IP and mask can be configured casually (except for the 192.168.1.x network segment), such as IP 172.16.0.1, Subnet Mask 255.255.255.0.

Port: Select an interface and check “untag”. For example, if you select interface 5, the interface configuration will be applied to interface 5.

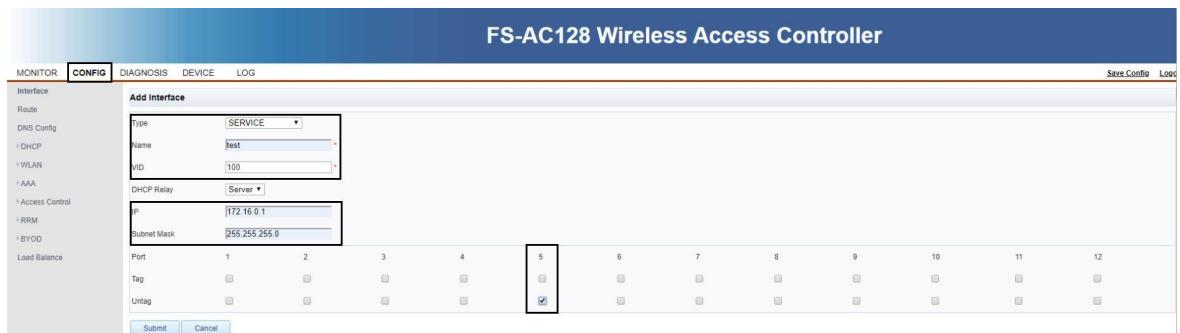


Figure 2-3 Add Interface

## 2.3 DHCP Configuration(Optional)

Click “create” in [DHCP Pool Config] page as shown in Fig 2-4 to open [Add IP Pool] page.



Figure 2-4 DHCP Pool Config

In [Add IP Pool] page, the user can edit [DHCP Name], [Start IP], [End IP], [Default Gateway] and [DNS] ,as shown in Fig 2-5.

#### Description :

Name: Arbitrary name is ok.

Start IP and End IP address are the same as the network address of the previous interface, and the subnet mask is the same as the subnet mask of interface.

The gateway and DNS configuration are the same as the interface address configuration.

The other information is the default, then click "Submit".



Figure 2-5 Add IP Pool

After completing the above steps, connect the AP to the port 5 of the AC, click "AP List", and check whether the AP is online, as shown in Fig 2-6.



Figure 2-6 AP List

## 2.4 WLAN Configuration

### 2.4.1 Wireless Service Configuration

After the AP goes online, start configuring the wireless service. Click “Create” in [Wireless Service] page, as shown in Fig 2-7.



Figure 2-7 Create Wireless Service

Then the user can edit [Wireless Service Name], [SSID], [Default VLAN],[Auth Type], [PSK KEY], as shown in Fig 2-8.

Description:

Name: Arbitrary name is ok.

SSID: Custom (consisting of letters, numbers, and underscores, no spaces or other symbols).

Default VLAN: User VLAN, which can be configured according to the plan. If no user VLAN is divided, use VLAN 1.

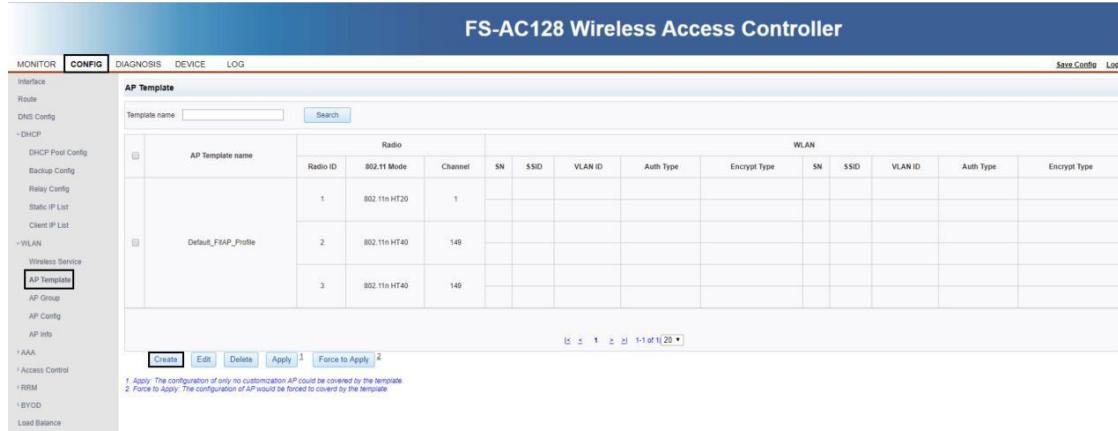
Security: Select WPA2-PSK encryption and configure the password below.



Figure 2-8 Wireless Service Basic Set

## 2.4.2 AP Template Configuration

Click "Create" in [AP Template] page, as shown in Fig.2-9.



AP Template name	Radio				WLAN								
	Radio ID	802.11 Mode	Channel	SN	SSID	VLAN ID	Auth Type	Encrypt Type	SN	SSID	VLAN ID	Auth Type	Encrypt Type
Default_FIAP_Profile	1	802.11n HT20	1										
	2	802.11n HT40	149										
	3	802.11n HT40	149										

Buttons at the bottom: Create, Edit, Delete, Apply 1, Force to Apply 2.

Notes: 1. Apply: The configuration of only no customization AP could be covered by the template. 2. Force to Apply: The configuration of AP would be forced to cover by the template.

Figure 2-9 Create AP Template

### 2.4.2.1 Basic Configuration

Edit the "AP Template's Name", then click "Submit", as shown in Fig.2-10.

Note: The name is custom, composed of letters, numbers and underscores.



Basic	Radio	BSS	Bandwidth	RFID	AP Port Config	WiFi Location Config
Advanced Config manufacturer custom						
AP Template's Name	test					
Max User	128					
AP Echo Interval	30	s(5-80)				
Uplink completeness inspection	Close					
Action for completeness inspection	Disable Radio					
Timer Reboot	Close					

Figure 2-10 Create AP Template

### 2.4.2.2 Radio Configuration

Click "Radio", and edit the "Radio Type", "Wireless Mode" and "Channel". as shown in 2-11.

#### Radio 1 Configuration

##### Description

Radio 1: Indicates the 2.4G radio of the AP

Country/Area: According to the actual situation

Wireless Mode: 802.11b/g/n

The other information can be kept the default, and the channel can be configured according to the actual situation.



Figure 2-11 Radio 1 Configuration

#### Radio 2 Configuration

##### Description

Radio 2: Indicates the 5G radio of the AP

Country/Area: According to the actual situation

Wireless Mode: 802.11ac

The other information can be kept the default, the channel can be configured according to the actual situation and only channel 149-165 can be selected.

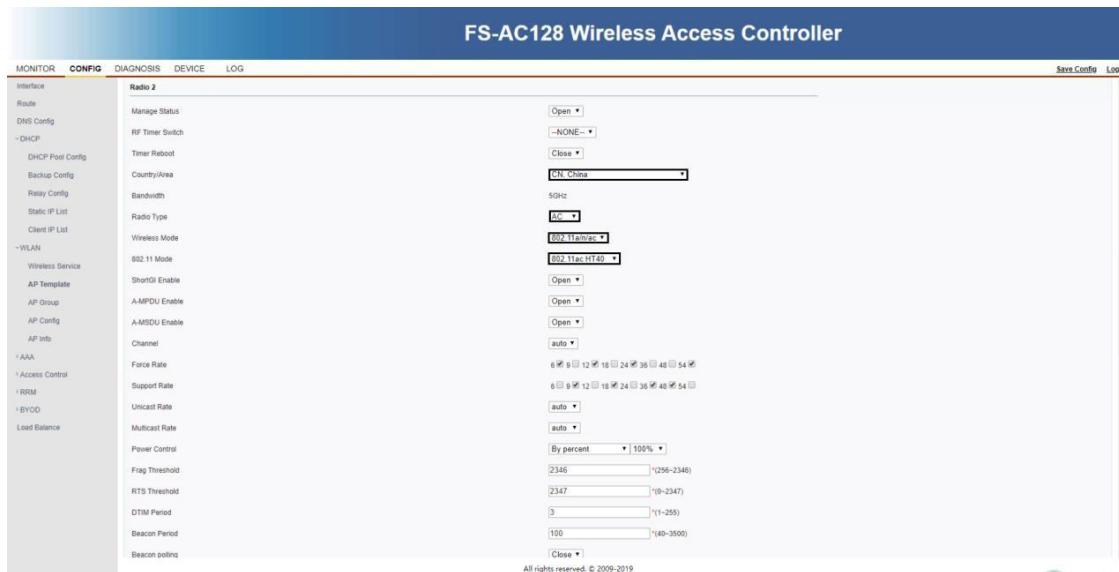


Figure 2-12 Radio 2 Configuration

### Radio 3 Configuration

#### Description:

If it is a dual-band device, Radio 3 doesn't need to be configured. If it is a tri-band device, it needs to be configured.

The configuration of Radio 3 is basically the same as that of radio2. The only difference is the channel selection, only channel 36-64 can be selected.



Figure 2-13 Radio 3 Configuration

### 2.4.2.3 BSS Configuration

#### Description:

Apply the wireless service configuration here to define the SSID attribute in the AP template.

Radio ID: 1, 2, and 3 represent radio1, radio2, and radio3 in the radio configuration, and are selected according to the actual AP (dual-band device check 1, 2, tri-band device check 1, 2, 3)

SN	BSS Template	Radio ID	VLAN ID	SSID	Auth Type	Encrypt Type	Actions
1	Default_WiFi	1	1	Vendor	WPA2-PSK	AES	<button>Edit</button>
2	Close	1	2	3			<button>Edit</button>
3	Close	1	2	3			<button>Edit</button>
4	Close	1	2	3			<button>Edit</button>
5	Close	1	2	3			<button>Edit</button>
6	Close	1	2	3			<button>Edit</button>
7	Close	1	2	3			<button>Edit</button>
8	Close	1	2	3			<button>Edit</button>
9	Close	1	2	3			<button>Edit</button>
10	Close	1	2	3			<button>Edit</button>
11	Close	1	2	3			<button>Edit</button>
12	Close	1	2	3			<button>Edit</button>
13	Close	1	2	3			<button>Edit</button>
14	Close	1	2	3			<button>Edit</button>
15	Close	1	2	3			<button>Edit</button>
16	Close	1	2	3			<button>Edit</button>

Figure 2-14 Radio 3 Configuration

After completing the above operation, click the “Submit” button in the lower-left corner, as shown in fig 2-14, and check the template you created and click Apply, as shown in fig 2-15.

Then select the corresponding AP in the AP information, then select the corresponding AP template, and click “Apply”, as shown in fig 2-16.

Finally, use the mobile phone to check if there is a signal. If the mobile phone can connect to the signal, it means normal, then click “Save Config”.

Template name	Search												
Default_EMAP_Profile	<table border="1"> <thead> <tr> <th>AP Template name</th> <th>Radio</th> <th>WILAN</th> </tr> </thead> <tbody> <tr> <td></td> <td>Radio ID: 1, Mode: 802.11n HT20, Channel: 1</td> <td>SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES</td> </tr> <tr> <td></td> <td>Radio ID: 2, Mode: 802.11n HT40, Channel: 149</td> <td>SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES</td> </tr> <tr> <td></td> <td>Radio ID: 3, Mode: 802.11n HT40, Channel: 149</td> <td>SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES</td> </tr> </tbody> </table>	AP Template name	Radio	WILAN		Radio ID: 1, Mode: 802.11n HT20, Channel: 1	SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES		Radio ID: 2, Mode: 802.11n HT40, Channel: 149	SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES		Radio ID: 3, Mode: 802.11n HT40, Channel: 149	SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES
AP Template name	Radio	WILAN											
	Radio ID: 1, Mode: 802.11n HT20, Channel: 1	SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES											
	Radio ID: 2, Mode: 802.11n HT40, Channel: 149	SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES											
	Radio ID: 3, Mode: 802.11n HT40, Channel: 149	SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES											
test	<table border="1"> <thead> <tr> <th>AP Template name</th> <th>Radio</th> <th>WILAN</th> </tr> </thead> <tbody> <tr> <td></td> <td>Radio ID: 1, Mode: 802.11n HT20, Channel: 1</td> <td>SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES</td> </tr> <tr> <td></td> <td>Radio ID: 2, Mode: 802.11ac HT40, Channel: Auto</td> <td>SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES</td> </tr> <tr> <td></td> <td>Radio ID: 3, Mode: 802.11ac HT40, Channel: Auto</td> <td>SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES</td> </tr> </tbody> </table>	AP Template name	Radio	WILAN		Radio ID: 1, Mode: 802.11n HT20, Channel: 1	SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES		Radio ID: 2, Mode: 802.11ac HT40, Channel: Auto	SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES		Radio ID: 3, Mode: 802.11ac HT40, Channel: Auto	SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES
AP Template name	Radio	WILAN											
	Radio ID: 1, Mode: 802.11n HT20, Channel: 1	SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES											
	Radio ID: 2, Mode: 802.11ac HT40, Channel: Auto	SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES											
	Radio ID: 3, Mode: 802.11ac HT40, Channel: Auto	SN: 1, SSID: Vendor, Auth Type: WPA2-PSK, Encrypt Type: AES											

Figure 2-15 AP Template

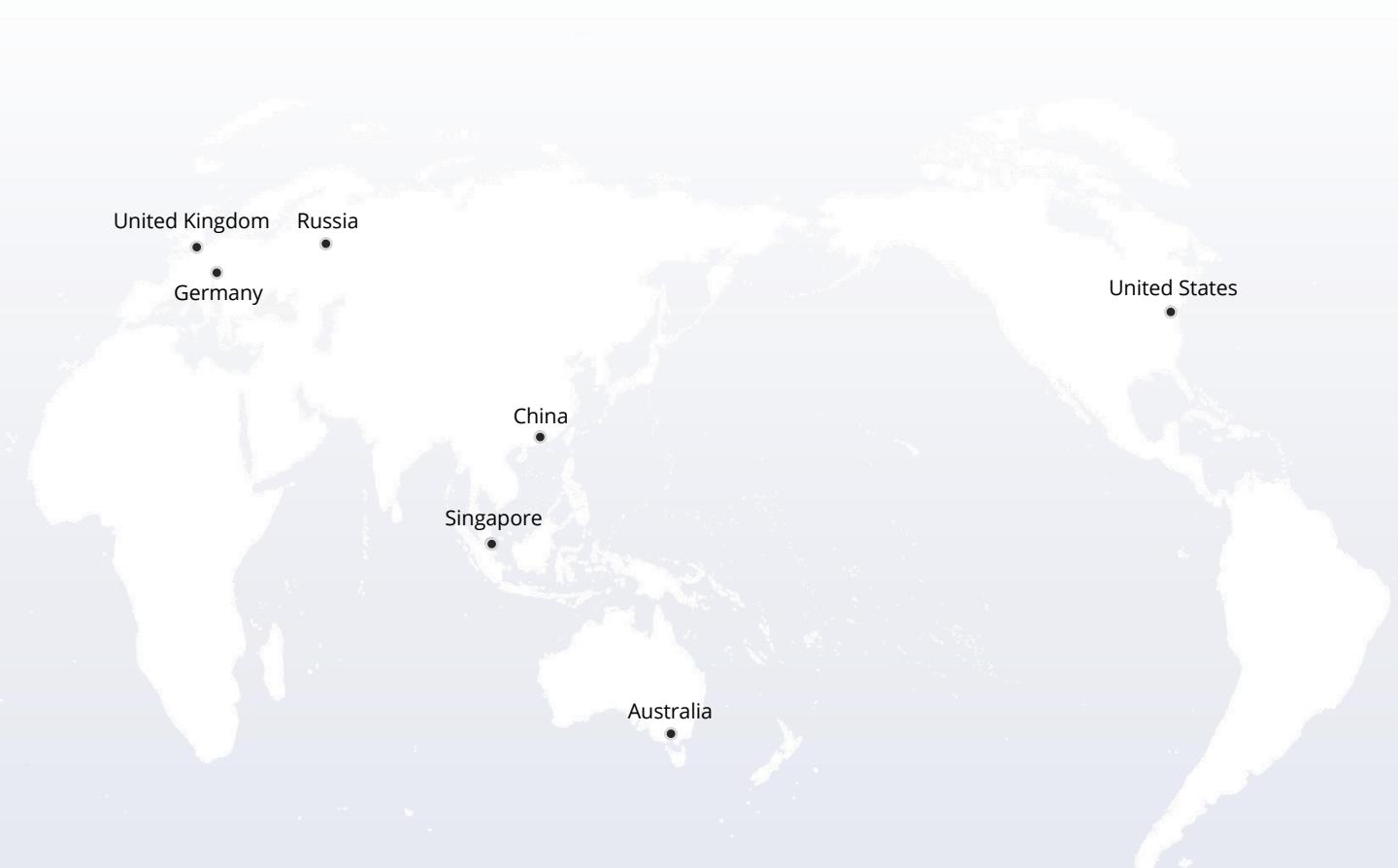


The screenshot shows the 'AP Info' page of the FS-AC128 Wireless Access Controller software. The top navigation bar includes 'MONITOR', 'CONFIG' (which is selected), 'DIAGNOSIS', 'DEVICE', and 'LOG'. On the left, a sidebar lists various configuration categories: Interface, Route, DNS Config, DHCP, WLAN, Wireless Service, AP Template, AP Group, AP Config, AAA, Access Control, RRM, BYOD, and Load Balance. Under 'AP Config', 'AP Info' is selected and highlighted with a red box. The main content area has a header 'AP Info' with filters for 'Filter Condition' (set to 'ALL'), 'Sort Mode' (set to 'IP increasing display'), and buttons for 'Filter' and 'Refresh'. Below this are sections for 'AP Batch Operate' (Group Type: 'Image Upgrade', AP Template: '-NONE-') and 'AP Amount' (1 online, 0 offline). A table displays one AP entry:

	MAC	IP	AP Name	AP Template	Status	AP Location	AP Software Version	Device Model	AP Group	Backup Status
<input checked="" type="checkbox"/>	7C:D0:76:01:18:28	172.16.0.2	FS-AP1167C	test	Online	V200R100C00B202SP01	FS-AP1167C	-NONE-	Master	

At the bottom of the table are buttons for 'Edit', 'Apply', 'JoinGroup', 'LeaveGroup', 'Reboot', 'Delete', and 'Reset'. A footer note at the bottom right states 'All rights reserved. © 2009-2019'.

Figure 2-16 AP Information



 <https://www.fs.com>



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