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.

	Language	English 👻	
Vireless Management System	User Name		
	Password		
		Login	Cancel



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.

		FS-AC128 Wireless Access Controller									
MONITOR CONFIG	DIAGNOSIS	DEVICE	LOG					Save Config Logo			
Interface Route	Interface										
DNS Config	Filter Condition	n Type ▼	ALL •		Filter						
+ DHCP + WLAN	SN SN	Name	Туре	VID	IP	Subnet Mask	Port				
AAA	1	default	VLAN	1	192.168.1.1	255.255.255.0	eth1/1(Untag)				
Access Control RRM	Create	Edit	Delete								
BYOD Load Balance											



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.

	FS-AC128 Wireless Access Controller												
MONITOR CONFIG	DIAGNOSIS DEVICE	LOG											Save Config Logo
Interface	Add Interface												
DNS Config	Туре	SERVICE	•										
DHCP	Name	test											
+ WLAN	VID	100	•										
► AAA	DHCP Relay	Server *											
Access Control	IP	172.16.0.1											
BYOD	Subnet Mask	255.255.255.0											
Load Balance	Port	1	2	3	4	5	6	7	8	9	10	11	12
	Tag				0	•	8						
	Untag												
	Submit Cance	4											



2.3 DHCP Configuration(Optional)

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



		FS	-AC128 Wii	reless Access	Controller	
MONITOR CONFIG	DIAGNOSIS DEVICE LOG					Save Config Log
Interface	DHCP Pool Config					
DNS Config	SN DHCP Name	DHCP Status Start IP	End IP	Subnet Mask	Default Gateway	Lease
-DHCP DHCP Pool Config	Create Edit Delete					
Backup Config Relay Config						
Static IP List						
Client IP List						
+ WLAN						
+ Access Control						
FRM						
Load Balance						

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".

		FS-AC128 Wireless Access Controller	
MONITOR CONFIG	DIAGNOSIS DEVICE LOG		Save.Contio Los
Interface	Add IP Pool		
Route	Basic Config		
- DHCP	DHCP Name	ap ·	
DHCP Pool Config	DHCP Status	Open •	
Backup Config	Start IP	172 16.0 2	
Relay Config	End IP	172.16.0.250	
Static IP List	Subnet Mask	255 255 255 0	
Client IP List	Default Gateway	172.16.0.1	
+ WLAN	Prefered DNS Server	114.114.114	
+ AAA + Access Control	Standby DNS Server	6.8.8.6	
FRM	Lease	Get the lease to infinite 1440 Mitr(1+525600) *	
Load Balance			
	Advanced Config		
	Option60	Close •	
	Vendor Code	Set dhcp option 60 check in hex mode	
	AC IP (Option43)		
	Submit Cancel		

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.

						FS-A	C128 Wirele	ss Access C	ontroller			
MONITOR	CONFIG	DIAGNOSIS DEVICE	LOG								į	iave Config Log
Summary		AP List										
AP List		Filter Condition ALL	•		Sort Mode	IP increasing display •	Filter Refresh					
Down AP List		Batch Config					Export CSV File					
Sta List • Rogues List		AP Amount : 1	Online AP Am	ount : 1		Offline AP Amount : 0						
• Rogues rules		MAC	IP	AP Name	Status	AP Location	Channel	AP Software Version	Device Model	Backup Status	Associated Sta Number	
RRM Report		7C DD.76.01.18.28	172.16.0.2	FS-AP1167C	Online			V200R106C60B202SP01	FS-AP1167C	Master	0	
							15 5 1 5 E	1-1 of 1(20 •				



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.

		FS-AC1	28 Wireless Ac	ccess Controller		
MONITOR CONFIG	DIAGNOSIS DEVICE LOG					Save Config Loos
Interface	Wireless Service					
Noule DNS Config	Filter Condition All	Filter				
+ DHCP - WLAN	Wireless Service Name	\$ SID Auth Type	Encrypt Type Status	Portal Radius Auth Domain	MAC Auth	
Wireless Service AP Template		년 <u>5</u> 1 <u>2</u> 원	0-0 of 0(20 •			
AP Group	Create Edit Delete Enable Disable					
AP Info						
+ AAA + Access Control						
+ RRM						
Load Balance						



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.

		FS-AC128 Wireless Access Controlle	r
MONITOR CONFIC	DIAGNOSIS DEVICE LOG		Save Config Log
Interface	Wireless Service		
Route DNS Confin	Basic Set		
DHCP	Wireless Service Name	Default_WAS *	
-WLAN	Enable Wireless	Enable •	
Wireless Service	Tunnel Mode	Distributed forwarding	
AP Template	SSID	Vendor	
AP Contg	SSID Hidden	Disable •	
AP Into	Default VLAN	1.	
AAA	WMF	Disable •	
Access Control	Max user	128	
RRM	User Isolation	Enable *	
Load Balance	Load Balance Switch	Disable •	
	Security		
	Auth Type	WPA2-PSK •	
	Encrypt Type	AES *	
	GTK Auto Refresh	Disable *	
	GTK Refresh Period	24 °(1-10000)H	
	PSK KEY		

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.

					F	S-A	C12	8 Wirel	ess Acc	ess Cont	rolle	er -			
MONITOR CONFIG	DIAGNOSIS	DEVICE LOG													Save Config Loop
Interface	AP Templa	te													
DNS Config	Template na	me []	Search]											
+ DHCP DHCP Page Config				Radio			WLAN								
Backup Config	u	AP template name	Radio ID	802.11 Mode	Channel	SN	SSID	VLAN ID	Auth Type	Encrypt Type	5N	SSID	VLAN ID	Auth Type	Encrypt Type
Relay Config Static IP List			1	802.11n HT20	1										
Client IP List -WLAN Wireless Service	8	Default_FIAP_Profile	2	802.11n HT40	149										
AP Template AP Group			3	802.11n HT40	149										
AP Contig AP Into								15 5 1 E	≥ 1-1 of 1 20 •						
AAA Access Control	Cre 1 Apply: The	ate Edit Delete Appl configuration of only no customication	y 1 Force to AP could be covere	Apply 2 d by the template.											
BYOD	2. Force to A	ony: The contguration of AP would be	orced to coverd by	the template											
Load Balance															

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.

NM 00 0x100 00 0x100 00 0x100 00 0x100 00 0x100 00 0x100 00 NIII Image: Note on analyzer of an analyzer of an			FS-AC128 Wireless Access Controller
Add Propie Base Rado BdS Eddown RPD AP Pur Cong Will Loadon Centg Dec Provide Advende Centg Winducture damb Will Seaton Centg Will Conducture damb Will Seaton Centg Base Rado Centg Winducture damb Will Seaton Centg Will Conducture damb Will Seaton Centg Base Cond Manedacture damb Will Seaton Centg Base Cond East Base Conducture damb Will Seaton Centg Base Cond Af Terrate Seaton Centg Manedacture damb Will Seaton Centg Base Cond Af East Seaton Centg Manedacture damb Will Seaton Centg Base Cond Af East Seaton Centg Manedacture damb Will Seaton Centg Base Cond Af East Seaton Centg Seaton Centg Seaton Centg Base Cond Af East Seaton Centg Seaton Centg Seaton Centg Cont Centg Advende Centg Seaton Centg Seaton Centg Advende Centg Seaton Centg Seaton Centg Seaton Centg Advende Centg Seaton Centg Seaton Centg Seaton Centg	IONITOR CONFIG	DIAGNOSIS DEVICE LOG	Save Config Lo
Basic Rado EB9 Basical RFD AP Per Canig WFI Location Contig ChCP Cont Advinced Contig maintchure cutters Tite Contig Tite	Interface	Add AP Template	
Aacaco of manufacter outsm The Outrig WAPCONID Adacoco of manufacter outsm The Outrig Manual Control Bick Potomage Af Los Manual Sala Charl Potomage Af Los Manual Sala Charl Potomage Af Los Manual Sala Af Los Manual Salas Salas Sal	Noute	Basic Radio BSS Bandwidth	RFID AP Port Config WiFI Location Config
Aff segurar Same Nat Bolic Crolls Marganar Same 28 Bolic Crolls Aff segurar Same 30 104 Balan P Lind Uptic complements naped on 30 104 Balan P Lind Uptic complements naped on Cost = Image: Same P Lind Image: Same P Lin	-DHCP	Advanced Config manufacturer custom Time Config WAPI CONFIG	
Back db Cody Mr. Ure 128 Back db Cody AF Exe Instancia 30 State: PL Lot Af Exe Instancia 10 State: PL Lot Af Exe Instancia Clear - Wind Tar Macco Clear - Wind Af Exercise Clear Af Exercise Af Exercise - Af Arbonance	DHCP Pool Config	AP Template's Name [test	
Resp Config AF Excitement 35 nds-40 Basic Plut Upids completeres inspection Clease Confir Plut Upids completeres inspection Disable Radio Within Stream Disable Radio Disable Radio Within Stream Disable Radio Disable Radio Within Stream Concel Clease AP Inspect Concel Clease Inspect Clease	Backup Config	Max User 128	
Basic PLIE Upin compliances inspection Color Cell PLI Actor compliances inspection Diable Rade Views There Rated Cales AP Frage Diable Cells Cales AP Frage Cales Cales AP frage Cales Cales	Relay Config	AP Echo Interval 30	(\$(\$-60)
Ower PLUT Addrom roomplainings ingedom Diadle Radio VUXW Texe Radio Class • AP Templand Statt Class • AP Templand Statt Class • AP Congli - -	Static IP List	Uplink completeness inspection Close	a
NuAl Therafebox Wreiers Sinicia Therafebox AP treated Submit AP dravo	Client IP List	Action for completeness inspection Disable	ible Radio 💌
Wrees Carcel AP Template Somt Carcel Carcel <td>-WLAN</td> <td>Timer Reboot Close</td> <td>a T</td>	-WLAN	Timer Reboot Close	a T
AP coup AP coup AP coup	Wireless Service		
AP Cromb AP Cromb AP Cromb *AAA *AAA *AAA *AAA *AAA *AAA *AAA	AP Template	Submi	
AP com AP the *AAA *Access Cotest *REM	AP Group		
Arrino AAA - Access Cotess - Reno	AP Config		
Access Control Access Control PRM	AP IND		
- RRM - BPCG	Access Control		
18100	RRM		
	BYOD		
Load Balance	Load Balance		

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.

				FS-AC	128 Wireless Access Controller	8*=0×
R CONFIG DIAGNOSIS	EVICE LOG					Save Config Log
Edit AP Tem	te					
Basi	Radio	BSS	Bandwidth	RFID	AP Port Config WIFI Location Config	
Advanced	infig manufacturer custom	Time Config	WAPI CONFIG			
Radio 1						
Manage State					Open •	
RF Timer Swi					-NONE- •	
Timer Reboot					Close •	
Country/Area					CN. China	
Bandwidth					2.4GHz	
Radio Type					NBG *	
Wireless Mor					802 11b/g/n •	
802.11 Mode					802 11n HT20 *	
ShortGi Enat					Open •	
Access 11N	ice Only				Close •	
A-MPDU EN					Open *	
A-MSDU En					Qpen •	
Channel					1.	
Force Rate					1 2 2 2 5 5 2 11 2 5 1 12 1	
Support Pale						
Support Rate						
Unicast Kate					auto	
Multicast Rab					auto	
Power Contro					By percent V 100% V	
Frag Thresho					[2346 1/(256-2346)	

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.

		FS-AC128 Wireless Access Controller	
MONITOR CONFIG	DIAGNOSIS DEVICE LOG		Save Config Looc
Interface	Radio 2		1
Route	Manage Status	Open •	
- DHCP	RF Timer Switch	-NONE- •	
DHCP Pool Config	Timer Reboot	Close *	
Backup Config	Country/Area	CN. China *	
Relay Config	Bandwidth	50Hz	
Static IP List	Radio Type	AC V	1
Client IP List	Wineless Mode	802.11a/n/ac *	
-WLAN Wirelass Sandra	802.11 Mode	802.11ac HT40 *	1
AP Template	ShortGi Enable	Open •	
AP Group	A-MPDU Enable	Open •	
AP Config	A-MSDU Enable	Open •	
AP into	Channel	auto •	
> AAA	Force Rate	6 🗭 9 💷 12 🗭 18 🔤 24 🗑 36 🗐 48 🗐 54 🕅	1
Access Control RRM	Support Rate	6	
BYOD	Unicast Rate	auto 🔻	
Load Balance	Mutticast Rate	auto 🔻	
	Power Control	By percent • 100% •	
	Frag Threshold	(2346)*(256-2346)	
	RTS Threshold	2347 (0~2347)	
	DTIM Period	3 *(1~255)	
	Beacon Period	100 *(40-3500)	
	Beacon polling	Close *	
		All rights reserved. © 2009-2019	-

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.

		FS-AC128 Wireless Access Controller	
MONITOR CONFIG	DIAGNOSIS DEVICE LOG		Save Config Log
Interface	Radio 3		
Route	Manage Status	Open *	
DNS Config	RF Timer Switch	NONE *	
DHCP	Timer Reboot	Close *	
DHCP Pool Config	Country/Area	CN China	
Balau Conto	Production .		
Static IP List	Bandwiden	3046	
Client IP List	Radio Type	AC •	
- WLAN	Wireless Mode	802.11amlac *	
Wireless Service	802.11 Mode	802.11ac HT40 *	
AP Template	ShortGI Enable	Open *	
AP Group	A-MPDU Enable	Open •	
AP Config	A-MSDU Enable	Open •	
AP into	Channel	auto •	
AAA	Force Rate	auto 35 12 21 18 24 23 36 48 54 20	
Access Control	Support Rate	40 44 (12 15 12 24 15 12 45 12 54	
RRM	Uniper Form	48 52	
BYOD	Unicasi Nale	56	
Load Balance	Muticast Rate	64 149	
	Power Control	153 ent • 100% •	
	Frag Threshold	161 *(256-2346)	
	RTS Threshold	2347 (0-2347)	
	DTiM Period	3 (1-255)	
	Beacon Period	100 *(40-3500)	
	Beacon polling	Close •	
		All rights reserved. © 2009-2019	-

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 (dualband device check 1, 2, tri-band device check 1, 2, 3)

						F	S-AC	128 Wirele	ss /	Access	Contro	oller		
MONITOR CONFIG	DIAGNOS	SIS DEVICE	LOG											Save Config Log
Interface	Edit Af	Template												
Route		Basic	Radio	BSS	Band	width	RFID	AP Port Config W	/IFI Location	n Config				
-DHCP	Ad	vanced Config	manufacturer custom	Time Config	WAPI C	DNFIG								
DHCP Pool Config	SN	BSS Template		Radio ID	VLAN ID	SSID		Auth Type		Encrypt Type				
Backup Config	1	Default_WAS	¥	1 🗹 2 🗹 3 🗐	1	Vendor		WPA2-PSK		AES	Ed	t		
Relay Config	2	Close	۲	1 2 3 3							Ed	t		
Static IP List	3	Close		1 2 3 3							Ed	t		
Client IP List	4	Close		1 2 3 3							Ed	t		
- WLAN	5	Close		1 2 3 3							Ed			
Wireless Service	6	Close		1 2 3							Ed			
AP Template	7	Close		102030							Ed	1		
AP Group		Close		1 2 2 3							Ed			
AP Info	9	Close		1 2 3 3							Ed			
> AAA	40	Cless												
PAccess Control	10	Close		102030										
RRM		Ciose		102030							E0			
*BYOD	12	Close		102030							Ed			(
Load Balance	13	Close	•	1							Ed	1		
	14	Close	•	1 2 3							Ed	t		
	15	Close	•	1 2 3 3							Ed	t		
	16	Close	•	1 2 3							Ed	t		
	Sub	Cance												
							ILA	rights reserved. © 2009-2019						

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".

	AP Template														
	Template	name	Search												
ol Config		AP Template name	Radio				WLAN								
fig			Radio ID	802.11 Mode	Channel	SN	S SID	VLAN ID	Auth Type	Encrypt Type	SN	\$ SID	VLAN ID	Auth Type	Encrypt T
		Default_F&AP_Profile	1	802.11n HT20	1										
			2	802.11n HT40	149										
ice			3	802.11n HT40	149										
		test	. 1	802.11n HT20	1	1	Vendor	1	WPA2-PSK	AES					
			2	802.11ac HT40	Auto	1	Vendor	1	WPA2-PSK	AES					
			3	802.11ac HT40	Auto										

Figure 2-15 AP Template

NFIG DIAGNOSIS D	EVICE LOG								Save Config
AP info									
Filter Condition	ALL •	Sort Mode IP increasing	g display 🔹		Filter	Refresh			
AP Batch Opera	8								
Group Type	Image Upgrade 🔻	AP Group Name							
AP Template	NONE •								
AP Amount : 1	Online AP Amount	:1	Offline AP Amount 0						
MAC	IP	AP Name	AP Template	Status AP	Location	AP Software Version	Device Model	AP Group	Backup Stat
Ø 7C:00:	6.01.18.28 172.16.0.2	FS-AP1167C	test	• Online		V200R106C60B202SP01	FS-AP1167C	-NONE-	Master
				k 1	a al 1.1 of 1 (20 ¥				
					a a constant				
Edt	Apply JoinGroup Leav	eGroup Rebot De	elete Reset						
Edit	Apply JoinGroup Leav	eGroup Reboot De	elete Reset						
Edt	Apply JoinGroup Leav	eGroup Reboot De	elete Reset						
Edt	Apply JoinGroup Leav	eGroup Reboot De	elete						
Edt	Apply JoinGroup Leav	eGroup Reboot De	Reset						
Edt	Apply JoinGroup Leav	eGroup Reboot De	Reset						
Eat	Apply JonCroup Leav	eGroup Reboot De	Reset						
Eat	Apply JonGroup Leav	eGroup Reboot De	Reset						
Eat	Apply JonGroup Leav	eCroup Rebox Dr	Reset						
Ea	Ann	eCroup Rebot Dr	Reset						
Ect	Appy Jandows Lea	eGroup Reboot Di	Reset						
103	Appy JonGroup Leav	eCroup Rebot Dr	Rest						

Figure 2-16 AP Information



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