FS

FS Wireless LAN Controller

Wireless LAN Controller with 128 AP License

Overview

The FS-AC128 Wireless Controller is a centralized wireless LAN manager developed specifically for campuses, branch offices, and small-to-medium businesses (SMBs). It can manage up to 128 access points, achieving integrated access for wired and wireless users.

The AC features high scalability and offers users considerable flexibility in configuring the number of managed APs. And it features a self-organizing, self-optimizing, and self-healing network capability to increase the stability of the entire wireless network.

When used with FS 802.11ac APs, the FS-AC128 can be used to construct small and medium campus networks, enterprise office networks, wireless Metropolitan Area Networks (MANs), and hotspot coverage networks.

Benefits

Large Capacity and High Performance

• 10 x GE Ports

• 12 Gbps Throughput

• 128 Managed APs

• 2560 Clients

Robust Network Security

• Wireless Intrusion Detection System (WIDS)

• Rogue AP Detection & Classification

• Captive Portal

• 802.1x

Easy Mangement

• Web Systerm

• SNMPv1 / v2

• Telent

Key Features

• Intelligent Terminal Identification and BYOD

It intelligently identifies the types of end devices based on their respective features. This feature presents users with an adaptive portal authentication page that fits the screen of any smart device of their choice. It effectively eliminates the trouble of screen size adjustment and offers a significantly better wireless user experience.

• Smart Portal Function

It supports the portal smart whitelist and learns the pre-authentication whitelists that form URLs and IP addresses according to the actual environment, making it possible to perform functions such as authentication-free access on the internal security network.

• Intelligent RF Management

It enables AP to perform RF scanning in a wireless network as required. The AP can scan the wireless frequency bands and channels to identify both rogue APs and networks.

• Fit AP Independent Working Mode

In the fit AP mode, if the communication between the AP and the AC is interrupted, the AP will automatically switch to the independent working mode, keep the original user network in normal use, and access the authenticated new user.

• Seamless Roaming Experience

User and authentication data are shared in the cluster enabling wireless users to roam freely in the whole network. Users can thereby enjoy a borderless and secure roaming experience with the IP address and authentication status remained unchanged.

• Support Distributed Data Forwarding

The local forwarding technology enables large-scale, delay-sensitive, and real-time data transmission via the wired network. With the high throughput of 802.11n, it greatly alleviates the traffic pressure on the wireless controller.

• Wireless User Access Control and Management

The network administrator can perform VLAN division based on user and SSID. Each VLAN can support different security policies, authentication, encryption, ACL rules, and bandwidth control.

• Intelligent Load Balancing

wireless controller distributes users among different APs according to the number of users and data traffic in real time.This feature balances the load pressure on each AP and improves the average bandwidth and Quality of Service (QoS), offering higher network availability.

• Highly Reliable Backup Function

Supporting 100 milliseconds service backup, the AP will establish a CAPWAP link with two wireless controllers at the same time, one as the primary controller and the other as the backup controller to ensure the uninterrupted transmission of control signals.

• Simplified Deployment and Management

With the FS-AC128, the fit AP can be plug and play, the management and control of AP are all completed by the wireless controller. All configurations, firmware upgrades, security policy updates can be completed on the controller.

Application

The FS-AC128 provides a comprehensive wireless security solution for easy integration into any network. The Wireless Intrusion Detection System (WIDS) featured in the FS-AC128 detects rogue access points, rogue clients, and can anticipate wireless threats, to help prevent potential breaches and illegal access before any damage is done to the network.

In addition to fundamental wireless security, the Captive Portal feature allows you to block clients from accessing the network until their identities are verified. This double-layer authentication and authorization establish a robust security fence to avoid attacks from internal networks.
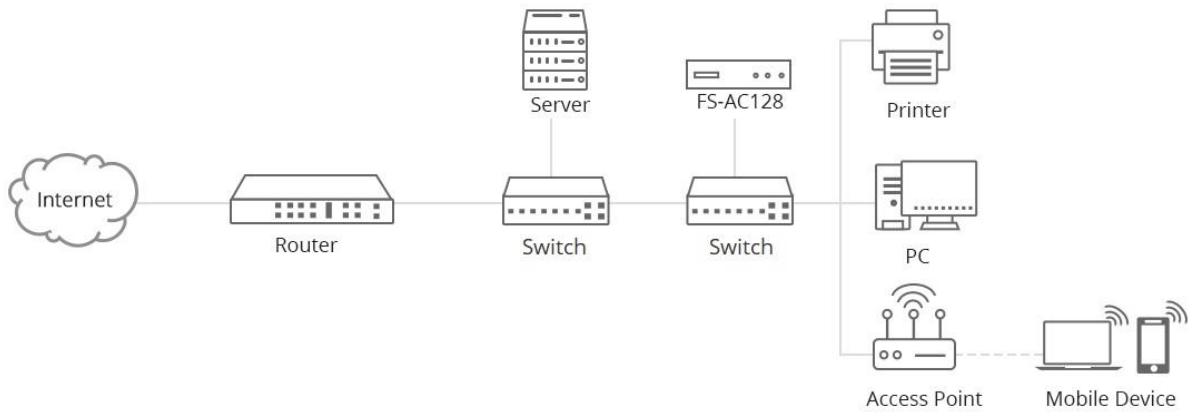
Hardware Specification

System		Description
Port Density	Management Port	1 * Console Port（RJ45）
	Service Port	8 * 10/100/1000M Ethernet Port
		2 * 10/100/1000M Ethernet Port
		2 * SFP GE Fiber Port
	POE	None
Features	CPU	Cavium OCTEON CN 5010
	RAM	DDR2 512MB
	Flash Memory	Norflash 16MB

System		Description
Power Requirment	Rated Voltage	100V~240V AC; 50/60Hz
	Maximum Voltage	90V~264V AC; 47/63Hz
	Machine Power Consumption	25W
Environmental Specifications	Operating Temperature	-10℃~55℃
	Working Humidity	10%~95% (non-condensing)
	Storage Temperature	-40℃~70℃
	Storage Humidity	5%~95% (non-condensing)
	MTBF	> 30Years(25℃)
	Dimensions (D x W x H)	1.7"x14.96"x10.7"(44x380x272mm)
Certification	Safety Regulations	UL 60950-1
		CAN/CSA C22.2 No 60950-1
		IEC 60950-1
		EN 60950-1/A11
		AS/NZS 60950
		EN 60825-1
		EN 60825-2
		PDA 21 CFR Subchapter J
	EMC	ETSI EN 300 386 V1.3.3:2005
		EN 55024:1998+ AI:2001+A2:2003
		EN 55022: 2006
		VCCI V-3: 2007
		ICES-003: 2004
		EN 61000-3-2:2000+A1:2001+A2:2005
		EN 61000-3-3:1995+A1:2001+A2:2005
		AS/NZS CISPR 22:2004
		FCC PART 15:2005

Software Specification

System		Description
Network Interconnection	802.1LAN Protocol	802.1p, 802.1q, 802.1x
	802.11LAN Protocol	802.11, 802.11b, 802.11a, 802.11g, 802.11d, 802.11h, 802.11i, 802.11e, 802.11n
	CAPWAP Protocol	L2/L3 roaming
		Automatically discover the AC that can be accessed
		Go online through the NAT device
		Automatically update the software version from the AC
		Automatically download the configuration from the AC
		AP template import and export function
		Distributed forwarding
		FIT AP independent work (HAP) when AC is disconnected
	Roaming	L2 / L3 seamless roaming
	IP Application	Ping, TraceRT, DHCP Server, DHCP Client, DHCP Relay, DHCP Snooping
		DNS Client, NTP, Telnet, TFTP Client, FTP Client, FTP Server
	IP Routing	Static routing, dynamic routing (OSPF)
	Port Aggregation	Yes
Safety Regulations	Safety Certificate	802.1x authentication, PSK authentication, Portal authentication, etc.
		WeChat authentication and QR code authentication
	AAA	Radius Client
		Authentication server multi-domain configuration
		Backup authentication server
		Binding of SSID and user account
	Encryption	64, 128-bit WEP encryption
		AES, TKIP encryption and 802.11i multiple key update trigger conditions

System	Description	
Safety Regulations	User Isolation	Layer 2 forwarding suppression on the AP
		Isolation between virtual APs (multiple SSIDs)
	Illegal AP	Automatic identification and real-time monitoring of wireless illegal APs and STAs
		Attacks on wireless rogue APs and forces illegal STAs to go offline
	Message Filtering	Yes
	Broadcast Suppression	Yes
	SSID Hiding	Yes
	MAC Address Filtering	Yes
	WIDS/WIPS	Yes
	CPU Anti-attack	Yes
RF Management	Manual Setting of Transmit Power	Yes
	Manual /Automatic Setting of Transmit Power	Yes
	manual /Automatic Setting of Working Channel	Yes
	Traffic-based and User-based AP Load Sharing	Yes
	Wireless RF Interference Monitoring and Evasion	Yes
	Periodic Shutdown of the Radio Port Function of a Specified AP	Yes
	Periodic Shutdown of Specified SSID Functions	Yes
QoS	User-based and SSID-based Rate Limiting with a Granularity of 128Kbit/s	Yes
	WMM (802.11e)	Yes
	User Profile	Yes

System	Description	
Maintainability	Cyber Security	SNMPV1/V2
		WEB management
		Import, export, and management of AP/AC versions
		Import, export and management of user configuration data
		Personalized group editing and viewing
		AP's online and offline records
		STA's online and offline records
		Illegal AP detection and query
		Log alarm function
		E-mail alarm function
	BYOD	Terminal type intelligent identification and access control
	Equipment Management	Console port login
		Telnet login
		Web login
	Reliability	Ms level 1+1 dual CAPWAP hot standby
		DHCP hot standby
		Hot patch mode, do not restart device update software
		Fit AP to work independently

System	Description	
Performance Specification	Maximum Manageable AP Number	128
	License Step Size	8
	Maximum Number of Users	2560
	VLAN	4K
	MAC Address Table	32K
	ARP Table	6K
	DHCP Server Maximum Number of Leases	128K
	DHCP Server Maximum Number of Address Pools	256
	Number of Routing Tables	8K
	Wireless Positioning	AC configuration tag-based positioning and positioning based on intelligent terminal

Ordering Information

ID	Description
84029	Wireless LAN Controller with 128 AP License, Europe/North America/Australia/UK Power Supply
84026	733Mbps 2x2 MIMO Dual-Band Wireless Access Point, Europe/North America Power Supply
84027	1167Mbps 2x2 MU-MIMO Dual-Band Gigabit Wireless Access Point, Europe/North America/Australia Power Supply
84028	3000Mbps 4x4 MU-MIMO Tri-Band Gigabit Wireless Access Point, Europe/North America/UK Power Supply

Note: Power adapter plug is localized to some countries of sale.

Service and Support

Adhering to an ideal of redefining service and products supply channels of fiber optic communication industry, FS is committed to solution design, product supply, and service support for global data center, cloud computing, metro network, access network and wireless network since 2009.

With the multiple-warehouse system built and increasing inventory in key regions, now FS can confidently provide all our customers around the world with faster shipping service, 24-hour technical support & customer service. And we are still dedicated to expanding and improving these to serve every single customer better.

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