CAM7000 Wireless Access Controller

Abloomy's WiFi solution supports traditional on-premises WLAN architectures. In this scenario, CAM plays the role of a traditional wireless controller. It not only provides all the functions of a traditional WiFi controller such as network management and optimization, NAC and other wireless security functions but also provides portal, authentication, and wifi marketing functions. With a firewall, NAT, VPN and routing functionalities, CAM also works as a network gateway to simultaneously manage access control for both wired and wireless networks.

Compared to normal wireless controllers, CAM enables plug-and-play AP setup with its built-in zero-touch provisioning function. This simplifies deployment and setup of a large-scale WLAN like a campus network. Also, unlike traditional wireless controllers, CAM is a multi-tenant device, which makes it possible to set up multiple isolated virtual WiFi networks used by different customers in a shared wireless coverage environment, like a multi-tenant business building covered by an ISP's WiFi service. Deep visibility and self-optimization features guarantee network performance and stability, while role-based network access control and anti-attack functions ensure security. When used in retail markets, CAM also offers abundant WiFi marketing tools.

Features

Plug-and-Play

Both Abloomy APs and VSMs support zero-touch provisioning. When an AP or VSM registers in the cloud platform, the platform will push predefined configurations to the device, avoiding on-site work.

Scalable Network Architecture

Abloomy adapts a distributed WiFi network architecture based on our Smart-Edge technology, creating a flexible, modularized management system for both network functions and applications. The distributed VSM layer can be scaled seamlessly and automatically creates N+N redundancy backups.

RF Channel Optimization

Interference in WLAN radio affects AP's normal operation. The ABLOOMY platform optimizes AP's radio allocation through adaptive channel selection, avoiding interference from neighboring APs.

Seamless Roaming

The Abloomy centralized architecture easily allows roaming. The CSP series controller supports roaming across subnets without re-authentication.

Multiple Authentication Methods

Multiple authentication methods are included, such as SMS, WeChat, 802.1X, username and password, non-authentication, automatic authentication and more. After the first SMS/WeChat authentication, subsequent access does not require authentication, which not only improves the user experience, but also saves on SMS expenses.

URL Access Control

The VSM can capture and filter browsed URL information based on firewall policies from the CSP.

Role Based Access Control

Role based access control is the main advantage of ABLOOMY products. The platform can define different levels of access roles and authorize differentiated services for the users.

Flexible Data Forwarding

Based on the policies, the data forwarding can be done either locally by AP locally or centrally by VSM.

Ads and Content Operation

Abundant portal templates are available for customers to customize their ad page. The customer can use single page or multi-page portals to present more information.

By caching content locally, customers can save bandwidth by embedding content URL links in the portal page and enabling their Wi-Fi users to locally access videos, articles, and apps, creating a much better user experience. Meanwhile, the backend system will record statistics on viewed and downloaded content to better understand user preferences and fine-tune marketing strategies.

Social Media Operation

Social media integration improves the interactions and relationships between businesses and customers, building up long-term marketing strategies.

Hardware Specifications

Model	CAM7000
Interfaces	2 * 10/100/1000 Base-T　Ethernet ports 2* Gigabit SFP ports 2* USB ports
APs Limit	2048
AP License Options	32, 64,128, 256, 512，1024，2048
Operating Temperature	0 ℃~40 ℃
Storage Temperature	-20 ℃~80 ℃
Humidity	10% ~ 90% non-condensing
Power Supply	100-240 VAC
Dimensions	2 U

Software Specifications

AC Discovery	Broadcast discovery
	DHCP option 43 discovery
	DNS discovery
	Configure manually
RF	Support AP and probe mode
	Support manual / automatic channel selection
	Configure RF TX/RX manually
	Configure channel size 20M/40M/80M manually
	Support manual /auto TX power configuration
Data Forwarding Mode	Central forwarding mode
	Distributed NAT forwarding mode
	Local transparent forwarding mode
	Support each SSID with Local forwarding VLAN
	Concurrent local and central forwarding mode
Roaming	L2 roaming between APs
Network Protocol	Policy routing
	ARP
	802.1P/Q
	DHCP Server
	IGMP Snooping
	OSPF Dynamic routing
	DHCP Relay
	DHCP Relay to multiple servers
Encryption	Open system, and pre-share PSK
	WEP, WPA2 Encryption
	TKIP Encryption
	Combine Encryptions
Authentication	Radius Server
	LDAP
	Built-in role-based access control
	User's MAC address based authentication
	802.1X authentication
	Social media authentication (Facebook, Google+, etc.)
	SMS authentication

	Customer's APP authentication
	UMS (Authentication & Accounting & Authorization)
	Support multiple authentications concurrently
Security	Hidden SSID, Rogue AP detection
	Enable user isolation
	URL capture
	Black / white list
	MAC and IP address binding
	DoS attack protection
Access Management	Automatically disconnect idle traffic user
	Role-based access control
	Time-based access control
	Location-based access control
	Combine Role/Time/Location based access control
Load Balance	Load balance based on user
	Load balance based on traffic
Firewall	L4 firewall
NAT	SNAT
	DNAT
	DPAT
	Service types can be configurable
Content Platform	APP distributed as a content
	Ads can be placed in the content page
	Support localized content storage
	Support remote content redirection
	Historical record of content downloads
Ads Module	Multiple built-in Portal templates
	Ads browsing PV/UV statistics
	Historical Ads reports
Logs and Alerts	Local logs, external log server
	Device state alerts, email alerts
System Management	WEB, SSH, Console