

# CAM5000 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                        | CAM5000  |
|------------------------------|--|
| <b>Interfaces</b>            | 6 * 10/100/1000 Base-T Ethernet ports<br>1 * console, serial interface , RJ45<br>2 * USB ports |
| <b>APs Limit</b>             | 1024   |
| <b>AP License Options</b>    | 16, 32, 64,128, 256, 512 , 1024  |
| <b>Operating Temperature</b> | 0 °C~40 °C   |
| <b>Storage Temperature</b>   | -20 °C~80 °C   |
| <b>Humidity</b>              | 10% ~ 90% non-condensing   |
| <b>Power Supply</b>          | 100-240 VAC  |
| <b>Dimensions</b>            | 1 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                        |
| Access Management | DoS attack protection                             |
|                   | 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          | Stateful 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                |
| Ads Module        | Historical record of content downloads            |
|                   | Multiple built-in Portal templates                |
|                   | Ads browsing PV/UV statistics                     |
| Logs and Alerts   | Historical Ads reports                            |
|                   | Local logs, external log server                   |
| System Management | Device state alerts, email alerts                 |
|                   | WEB, SSH, Console                                 |