

# CSP3000 (Cloud Controller)



Working with a group of distributed Edge Controllers (VSM), the CSP is the cloud controller of Abloomy's private cloud solution, empowered by our Smart-Edge technology. By pushing cloud-managed functions to Edge Controllers (VSM), it provides customers with end-to-end solutions that enable them to keep up with the trend of digital transformation in the age of cloud computing. These cloud-managed functions include WiFi, routing, NAT, firewalls, NAC, and etc. In WiFi application scenarios, CSP provides one-stop solutions which cover network management and optimization, security, portal, authentication and WiFi marketing functions.

With the distributed architecture of CSP and VSM, Abloomy provides customers with large-capacity and cross-regional networks. Plug-and-play devices simplify deployment and setup, deep visibility and self-optimization guarantee networks performance and stability, and role-based network access control and anti-attack functions ensure security. CSP 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

CSP	CSP3000
<b>Interfaces</b>	6*10/100/1000 Base-T Ethernet ports 1*console port 2*USB 2.0 ports
<b>Weight</b>	7 . 5kg
<b>Dimension (L*W*D)</b>	440mm*455mm*45mm
<b>AP License Options</b>	16, 32, 64, 128, 256, 512 , 1024
<b>VSM limits</b>	32
<b>AP limits</b>	1024
<b>Disk</b>	128G SSD
<b>Power Supply</b>	110-240 VAC
<b>Consumption</b>	200W
<b>Operating temperature</b>	0 °C~40 °C (32 °F~104 °F)
<b>Storage temperature</b>	-20 °C~80 °C (-68 °F~176 °F)
<b>Humidity</b>	10% ~ 90%, non-condensing

## Software Specification

AC Discovery	Broadcast discovery		WEP
	DHCP option 43 discovery		WPA2 Encryption
	DNS discovery		TKIP
	Configure manually		Combined Encryptions
RF	Support AP and probe mode	Authentication	Radius Server
	Support manual / automatic channel selection		LDAP
	Configure RF TX/RX manually		Built-in role-based access control
	Configure channel size 20M/40M/80M manually		User's MAC address based authentication
	Support manual /auto TX power configuration		802.1X authentication
Data Forwarding Mode	Central forwarding mode	Security	Social media authentication (Facebook, Google+, etc.)
	Distributed NAT forwarding mode		SMS authentication
	Local transparent forwarding mode		Customer's APP authentication
	Support each SSID with Local forwarding VLAN		UMS (Authentication & Accounting & Authorization)
	Concurrent local and central forwarding mode		Support multiple authentications concurrently
Roaming	L2 roaming between APs	Access Management	Hidden SSID, Rouge AP detection
Network Protocol	Policy routing		User isolation and Network isolation
	ARP		URL capture
	802.1P/Q		Black / white list
	DHCP Server		MAC and IP address binding
	IGMP Snooping	DoS attack protection	
	OSPF Dynamic routing	Automatically disconnect idle traffic user	
	DHCP Relay	Role-based access control	
	DHCP Relay to multiple servers	Time-based access control	
Encryption	Open system	Load Balance	Location-based access control
	Pre-share PSK		Combine Role/Time/Location based access control
			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 inserted 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