

Enterprise Intelligent Wireless AC

# WSC6100-NC Series



## Product Overview

BDCOM WSC6100-NC Series is a wireless access controller with high performance and high reliability, which are invented by BDCOM on the basis of the multi-core hardware platform, and characteristic of versatile functions, various services and stability.

BDCOM WSC6100-NC Series supports CAPWAP protocol, strong WLAN access control capability, automatic channel management, wireless radio frequency adjustment, user load balance, and user roaming .

Besides, WSC6100-NC Series support varies of web portal authentications. such as local, guest, SMS, SNS, etc.



### Integrated service

AC/Portal/Gateway  
three-to-one  
Contact Network  
Structure  
Cost-effective



### Simple operation

Simple configuration  
Simple maintenance  
Simple fault recovery



### User-friendly design

Wireless one-key  
optimization  
Batch turning on/off LED  
Green energy saving

# Product Characteristics

## Centralized Wireless Network Management

BDCOM WSC6100-NC Series can be deployed independently or deployed together with BDCOM BCP8200 Cloud Platform, which provide carrier-level network administration. What's more, WSC6100-NC Series can be used to manage APs and users, facilitating the deployment and maintenance of carriers' networks.

## Seamless Roaming Characteristics

BDCOM WSC6100-NC Series supports multiple networking modes including centralized forwarding and local forwarding. BDCOM WSC6100-NC Series also supports layer-2 and layer-3 roaming function. In the centralized forwarding mode the roaming domain is not affected by the network IP plan, so that the user only needs to concentrate on the wireless coverage but not the topology.

Such feature not only facilitates the user, but also reduces the threshold of network plan and construction.

## All-round QoS Mechanism

WSC6100-NC Series supports packet classification, flow control, DSCP flow schedule, end-to-end QoS mapping, 802.11e, load balance and reception control.

## Centralized and Secure Access of Wireless Networks

WSC6100-NC Series supports following functions which ensure centralized and safe network access: WEP/ WPA/802.1x, wireless IPS/IDS, Layer-2 user isolation, centralized ACL control, 802.1x/ MAC/ Portal/ PPPoE/ WAPI authentication, illegal AP detection and processing, wireless attack prevention, white list and blacklist, which greatly reduce shocks over wireless network from illegal users.

## Diversified Connecting and Authentication Interface

WSC6100-NC Series supports Portal2.0 and WiFidog interface, which can realize functions including flexible networking, authentication and content pushing service. These interfaces lay a firm foundation for constructing wireless cities and commercial WiFi.

# Model list

BDCOM WSC6100-NC Series Enterprise Intelligent Wireless AC



### WSC6100-NC128

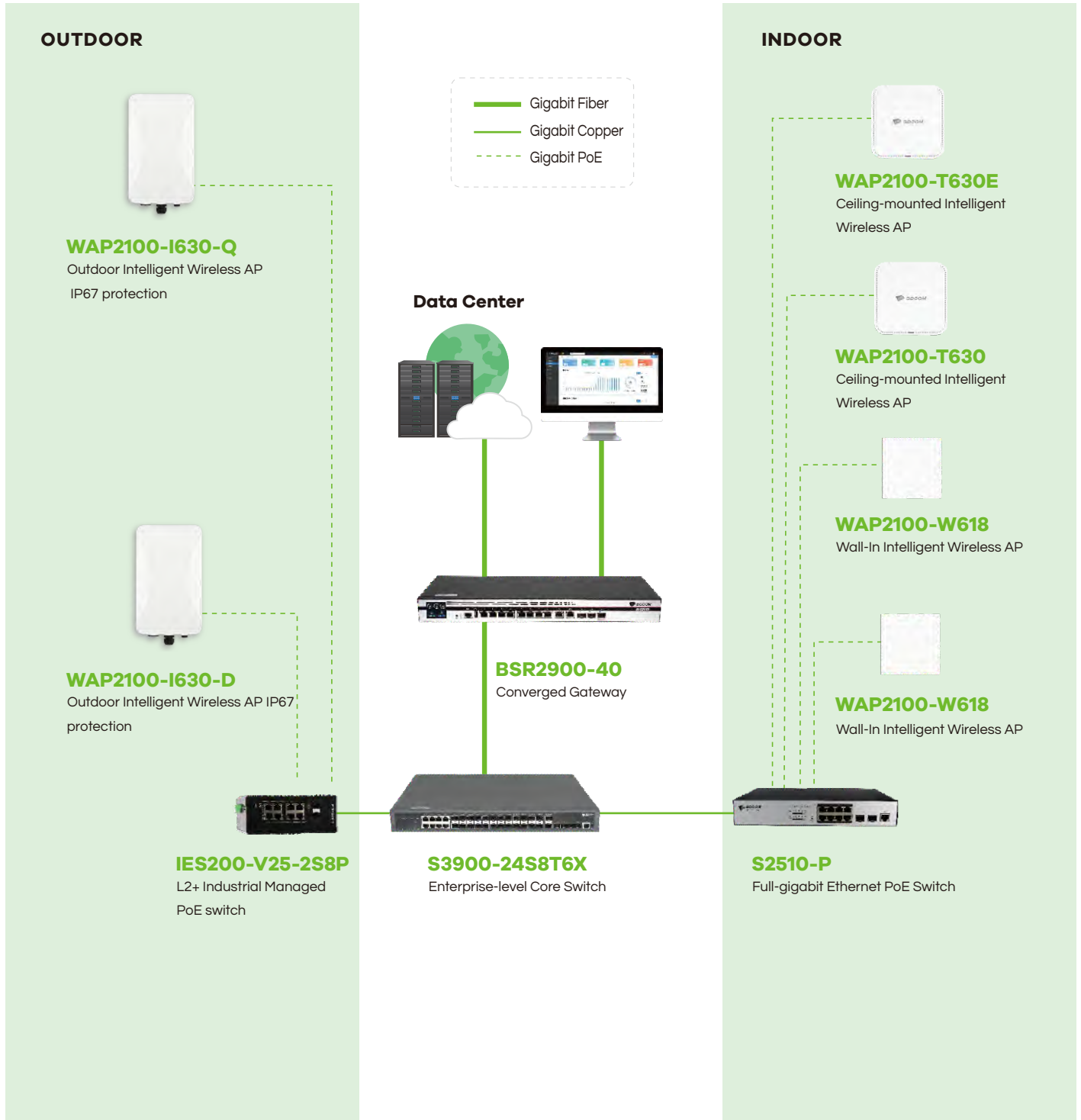
- 1-Port Console(RJ45)
- 1-Port USB2.0
- 1-Port Gigabit RJ45/SFP combo WAN
- 8-Port Gigabit RJ45 LAN
- LCD Screen
- Built-in 128 AP license, expandable to 256



### WSC6100-NC256

- 1-Port Console(RJ45)
- 1-Port USB2.0
- 1-Port 10G SFP+ WAN
- 2-Port Gigabit RJ45 WAN
- 2-Port Gigabit SFP WAN
- 8-Port Gigabit RJ45 LAN
- LCD Screen
- Built-in 256 AP license, expandable to 2048

# Application Diagram



# System Performance

Item	WSC6100-NC128	WSC6100-NC256	
<b>Interface</b>			
Port	1-Port Console(RJ45) 1-Port USB2.0 1-Port Gigabit RJ45/SFP combo WAN 8-Port Gigabit RJ45 LAN	1-Port Console(RJ45) 1-Port USB2.0 1-Port 10G SFP+ WAN 2-Port Gigabit RJ45 WAN 2-Port Gigabit SFP WAN 8-Port Gigabit RJ45 LAN	
Button	Mode/Reset	Mode/Reset	
<b>Performance</b>			
User capacity	3K	25K	
AP capacity	128~256	256~2048	
Flash	4GB	16GB	
DRAM	1GB	4GB	
DHCP table	2K	2K	
ARP table	10K	60K	
VLAN	4K	4K	
<b>Appearance</b>			
Chassis	Size (WxDxH)(mm)	440×180×44	440×180×44
	Weight(kg)(empty)	2.3	2.3
Package	Size (WxDxH)(mm)	500×320×80	500×320×80
	Weight(kg)	3.3	3.3
Power supply	AC 100~240V 50/60Hz	AC 100~240V 50/60Hz	
consumption	No-load(W)	12	32
	Full-load(W)	20	50
Working temperature	0°C~50°C	0°C~50°C	
Operating humidity	10%~90% (non condensing)	10%~90% (non condensing)	

# Technical Specifications

## IP protocol

- Direct IP connection, static route
- DHCP Server/Client/Relay
- NTP Server
- FTP Server
- L2 or L3 forwarding between AC and external network

## AC function

- Switching load from troubled AC to another normal AC (The switch over policy can be set)
- Port redundancy: multi-port binding
- Connecting AP/AC via L3 security tunnel
- Centralized, distributive and hybrid exchanges of L2 services
- Inner-AC or inter-AC roaming
- Centralized forwarding
- Forwarding all services after being centralized on AC
- Distributive forwarding
- Forwarding some AP or SSID services on a thin AP locally
- RTLS

## Standard

- 802.11 a/b/g/n/ac/ax
- 802.11g, 802.11d, 802.11h,
- 802.11i, 802.11e,
- 802.3, 802.3ab, 802.3u,
- 802.3x, 802.3z, ARP, Reverse ARP,
- multi-LAN ARP/Proxy ARP
- STP/802.1Q L2 forwarding
- RFC791 IP, RFC792 ICMP, RFC793 TCP, RFC768 UDP,
- RFC854 Telnet, RFC1542 BOOTP,
- RFC1191 Path MTU Discovery,

## RF management

- Automatic channel
- Supports static channel configuration.
- Supports automatic channel configuration when AP is powered.
- Supports automatic channel configuration when AP is running.
- Supports to set an automatic channel choice list.
- Automatic transmitting power
- Supports to set the static transmitting power.
- Supports the automatic transmitting power for coverage remedy.

- Supports the STA-based automatic transmitting power to improve the throughput.
- Automatic rate
- Supports the STA-based automatic rate choice.
- Supports to limit the maximum transmitting rate

## AAA

- RADIUS Client
- Multi-domain configuration of the authentication server
- Connection of active and standby authentication/charging servers
- Isolation of the authentication server and the charging server
- PPPoE authentication
- Portal authentication
- AAA accounting

## Security

- Open system
- WEP
- WPA/WPA2 PSK
- 802.1x
- 802.11i
- WAPI
- DDOS prevention
- ACL
- Wireless IPS/IDS
- Illegal AP detection
- Illegal terminal checkup
- Isolation of users' services
- Whitelist
- Static/dynamic blacklist
- URL filter

## Management

- Supports Pallas cloud platform
- Local interconnection based on WEB/SSH
- Remote control via SNMP access
- Uniform network management via OMC
- SNMP v2/v3
- MIB-II(RFC1213), which is based on TCP/IP Internet management base
- RFC1537, which is a developing protocol of MIB-II
- RFC1643
- ISO/IEC 8802-11:1999,

- IEEE802.11b
- ISO/IEC 8802-11:1999/Amd 1:2000
- MIB that is defined by IEEE 802.11g and IEEE 802.11i

## QoS

- User's flow control:
- Supports the domain-based flow control (taking VLAN or SSID as the configuration domain).
- Supports user-level flow control or flow control based on the contract information of the Radius server.
- Service priority:
- Supports 802.11e, which provides different services according to session's priority.
- Supports to map users' QoS levels according to SSID.
- Supports 802.1p and L2 packet's priority mapping
- Load balance and control:
- Supports AP/AC interconnection based on priority and load.
- Supports load balance between adjacent APs on the basis of user quantity and flow.

## Ordering Information

BDCOM WSC6100-NC128	BDCOM WSC6100-NC128 Intelligent AC Controller (1 CON, 1 GE-Combo, 8 GE-LAN, Maximum 128 APs, 220VAC power supply)
BDCOM WSC6100-NC256	BDCOM WSC6100-NC256 Intelligent AC Controller (1 CON, 1 10GE SFP+, 2 GE SFP, 2 GE TX, 8 GE-LAN, Maximum 256 APs, 220VAC power supply)
WSC6100-Lic-64	WSC6100-NC controller License, 64 AP capacity, support multiple order
WSC6100-Lic-256	WSC6100-NC controller License, 256 AP capacity, support multiple order

Copyright © Shanghai Baud Data Communication Co., Ltd. 2023. All Rights Reserved.

This document is BDCOM Public Information. BDCOM reserves the right to alter, update and otherwise change the information contained in the document from time to time.  
[www.bdc.com.cn](http://www.bdc.com.cn)

