

Windbit WAPController2

Windbit Wireless LAN Controller series

Introduction

The WAPController2 is a high-performance wireless controller for medium wi-fi scenarios. It can enable powerful centralized and visualized management and control, greatly simplifying the implementation and deployment of wireless networks.

The WAPController2 provides network services through identity-based networking and enables STAs to roam across different network areas. This design ensures security and session integrity during mobile roaming, making it fit for data interaction and smooth voice services over Wi-Fi communication.

This model can manage from 32 wireless access points (APs) by default, to 512 generic APs.

Interfaces

High speed optical ports	2 x 10GE SFP+ ports, 2 x 1GE SFP/RJ45
Additional ports	8 x 10/100/1000BASE-T ports
OOB Local management port	1 x RJ45 console port
Others	2 x USB 3.0 ports, compatibility with US

Highlight

- High performance for medium Wi-fi scenarios
- Intelligent Network
- High Security
- From 32 to 512 Access Points
- Deep Packet Inspection (DPI)
- Cloud managed device (SDLANet Manager)



Competitive Advantages

Application traffic identification	Deep Packet Inspection (DPI), based on packet characteristics, identifying thousands of applications, optimizing allocation of network resources and performance
Intelligent RF management	And network-wide seamless roaming: further enhances security and ensures efficient data transmission in high demanding scenarios or multimedia applications.
Centralized/Distributed forwarding	The intelligent local forwarding technology eliminates the traffic bottleneck of an AC. It can flexibly configure data forwarding modes for connected APs.
Network performance optimization	One-click network optimization, scenario-based optimization and one-click diagnosis through management tool SDLANet Manager

Key Features

- **Wireless LAN Controller virtualization** The solution virtualizes multiple ACs into one logical AC, simplifying network topology and configuration, and improving network management efficiency: high reliability and smooth capacity expansion.
- **Portal server integration** Customizable guest service through a captive portal with different authentication mechanisms as a digital marketing and access control solution.
- **RF security** The controller enables the RF probe scanning mechanism for connected APs to discover rogue APs or other RF interference sources in real-time, ensuring security on a wireless network
- **Intelligent Network Diagnosis** With SDLANet Manager tool customers can see the wireless network diagnosis and the health index assessment that can be completed/optimized in just one click, providing test results for each item
- **One click WLAN optimization** Network performance optimization and One-click diagnosis – analyzing problems and providing suggestions.
- **IPv4/IPv6 routing** The controller is prepared to integrate transparently into the customer's network supporting dynamic routing protocols such as RIP, OSPFv2.
- **Multiple management modes** Centralized cloud management(effective and low-cost planning, deployment, and monitoring). Eweb-based management allows O&M personnel to plan, operate, and maintain a wireless network. Hierarchical AC management.

HARDWARE TECHNICAL FEATURE

Interfaces/Ports

4 x 10GE SFP+ ports
8 x 1GE SFP/RJ45 combo ports, shared with 8x 10/100/1000BASE-T ports
1 x RJ45 console port, 2 x USB ports, 1 x Reset button

Hardware Specifications

Unit dimensions (W x D x H): 440 mm x 200 mm x 43.6 mm without rack-kit
Weight Main unit: 2.7 kg (5.95 lbs)
Rack height 1 RU

Environment

Operating temperature: 0°C to +45°C (32°F to 113°F)
Operating humidity: 10% to 90% RH (non-condensing)
Storage temperature: -40°C to +70°C (-40°F to +158°F)

Power supply

Internal power input
Power input: 100 V AC to 240 V AC, 50 Hz to 60 Hz
Maximum power consumption: 30 W

Forced ventilation

Built-in fans Right-to-left airflow
Fan speed adjustment

SOFTWARE TECHNICAL FEATURE

Key Specifications-1

802.11, 802.11b, 802.11a, 802.11g, 802.11d, 802.11h, 802.11w, 802.11k, 802.11v, 802.11r, 802.11i, 802.11e, 802.11n, 802.11ac, and 802.11ax
Number of manageable APs 32 (default), 512 (maximum)

Roaming and CAPWAP

Intra-AC Layer2 roaming, Inter-AC Layer3 roaming, roaming handoff time 50ms
802.11R roaming between ACs, Centralized forwarding, Local forwarding
CAPWAP: Layer 2 and Layer 3 topology between an AP and an AC

User isolation

Layer 2 user isolation in cloud manager configuration mode
User isolation in a VLAN in local forwarding mode

STA management

Access control based on the number of STAs associated with the AP/SSID
Balanced access control based STAs associated, traffic or frequency band
Band steering. Configuration of the RSSI threshold in dB

Security and Authentication

PSK authentication WPA and WPA2 WPA3: WPA3-Personal (SAE), WPA3-Enterprise
WEP (WEP/WEP128) TKIP CCMP Anti-ARP spoofing
Multi-SSID mode SSID hiding IEEE 802.11i-compliant PSK authentication

Key Specifications-2

802.11 forwarding capacity 10 Gbps (subject to the network environment)
WLAN service Maximum number of WLAN IDs: 4,094
Maximum number of associated STAs per WLAN: 5120

Wireless QoS

AP/WLAN/STA-based rate limiting
Static and intelligent rate limiting based on STA quantity
Static and intelligent rate limiting based on STA quantity Intelligent and

Reliability

AC virtualization. Maximum number of virtualized ACs : 4
Multi-AC hot standby (1+1 A/A and A/S hot standby, and N+1 hot standby)
Non-stop service during upgrade

RF management

Country or region code setting. Manual/Auto setting of the transmit power
Manual/Auto setting of the operating channel. Band selection
Automatic adjustment of the data rate. Automatic selection of channel width

IPv4/IPv6

DHCP server, DHCP client, DHCP relay, and DHCP snooping DHCP address pools
DNS client, NTP, Telnet, TFTP server/ client, FTP server/client
DNSv6 client DHCPv6 relay, DHCPv6 server, and DHCPv6 client DHCP

ADDITIONAL TECHNICAL FEATURE

Intelligent Experience

Network operation analysis, such as device stability and signal coverage
One-click network optimization and scenario-based optimization
Big data Baseline analysis – recording and tracking network KPI changes

Status LED

1 x system status LED, 1 x power status LED
8 x 10/100/1000BASE-T port LEDs
2 x 1GE SFP/RJ45 combo port LEDs, 2 x 10GE SFP+ port LEDs

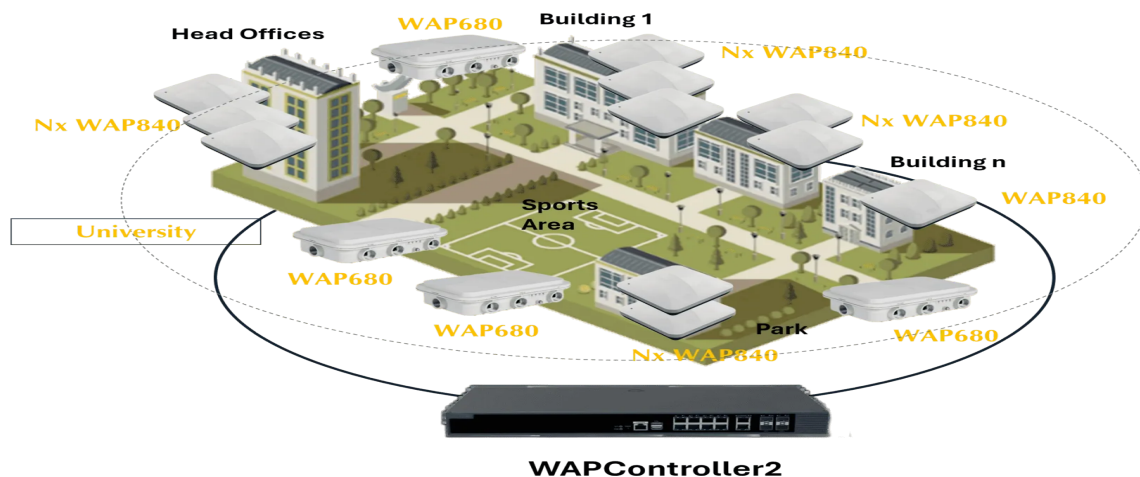
Regulatory Compliance

Safety regulation IEC 62368-1, EN 62368-1
EMC regulation EN 55032, EN 55035, EN 61000-3-3, EN IEC 61000-3-2, and ETSI EN 300 386

System memory

4 GB DRAM, 16 GB flash

Scenarios



Teldat Group