



## EX5501-B0

### Dual-Band Wireless AX6000 Gigabit Ethernet VoIP IAD

The Zyxel EX5501-B0 supports dual-band wireless AX with 2.5 Giga Ethernet Internet access to give you delightful wireless experiences in your ultra-connected home.

Base on the 11AX (WiFi 6) technology, the Zyxel EX5501-B0 delivers speeds of up to 4.8 Gbps\* on the 5 GHz band and 1.1 Gbps on 2.4 GHz with an average throughput faster than 11ac. Besides, AX WiFi also optimizes bandwidth utilization to increase network capacity and the number of simultaneous streams, which allow more users to enjoy connection with extremely low latency.

### Benefits

#### Lightning-fast next-generation technology

The Zyxel EX5501-B0 Dual-Band Wireless AX Gigabit Ethernet VoIP IAD supports the 802.11ax (WiFi 6) standard to offer lightning-fast throughputs of up to 6000 Mbps. The performance enables operators to provide UHD 4K/8K services to subscribers and hybrid high-throughput applications in homes for a true IoT lifestyle.



802.11ax (WiFi 6) for superior performance and coverage



Auto provisioning and remote management through TR-069



Multiple SSIDs for various service deployment scenarios



Support uplink/downlink MU-MIMO for increased network capacity



Support OFDMA for maximized network efficiency



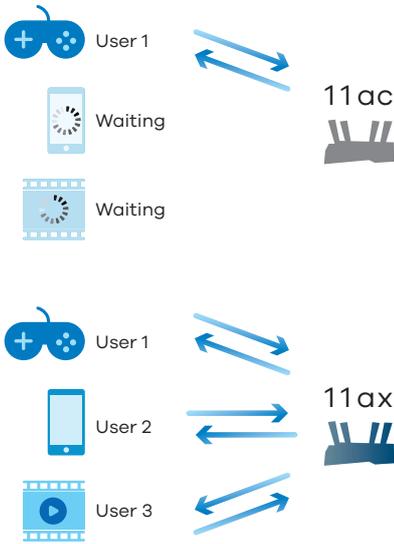
In-house developed OPAL realizes the flexibility and faster time to market



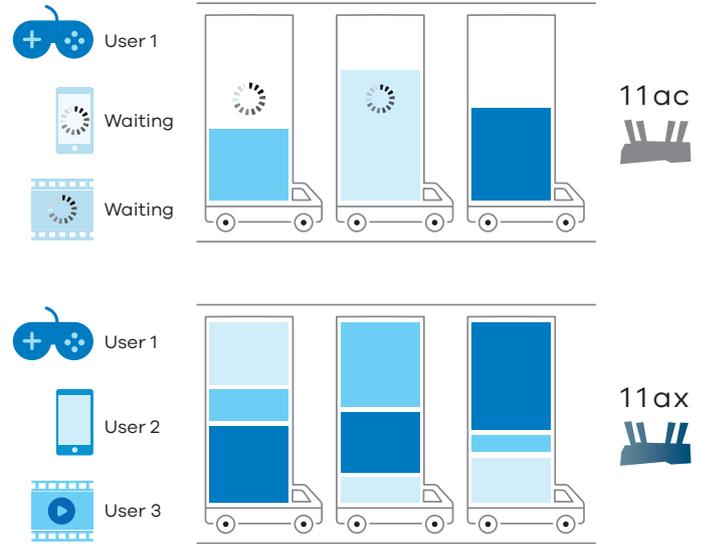
## Maximize network capacity for more devices

Support by the unique uplink MU-MIMO, users can enjoy interactive applications such as VR or AR with less latency. Moreover, the revolutionary Orthogonal Frequency Division Multiple Access (OFDMA) technology improves average throughputs to considerably shorten latency and increase network efficiency.

### Uplink MU-MIMO



### OFDMA

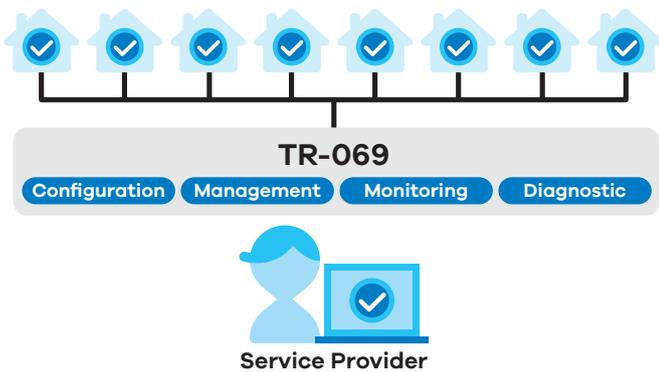


## TR-069 remote management

With the TR-069 standard management specifications, the Zyxel EX5501-B0 allows service providers to manage, configure, monitor and diagnose client devices remotely without interfering end users. This unique feature not only offers true "plug-and-play" experience but also reduces deployment complexity, and it also saves operating as well as maintenance costs for service providers.

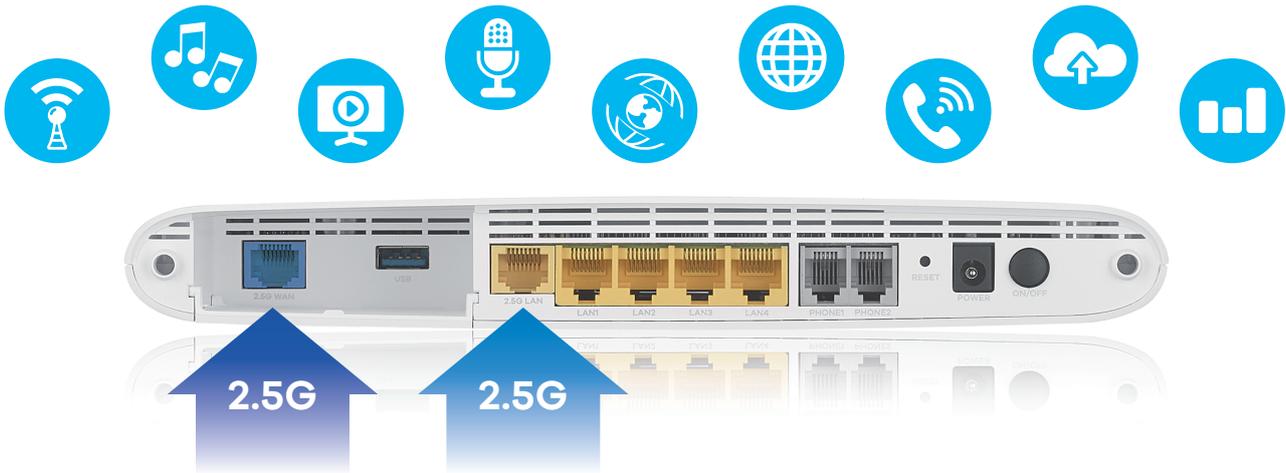
## Zyxel OPAL firmware realizes the flexibility and faster time to market

With same OPAL firmware trunk applied in Zyxel CPE, the EX5501-B0 inherits a rich, field-proven feature set including TR-069, VoIP and more. Service providers can expect the same user experience after they migrate to new devices. Furthermore, the lab qualification time can be greatly reduced by using the same OPAL firmware trunk. As a flexible software platform, OPAL, a modular software architecture and open framework, provides the flexibility for easy feature tailoring to assure all the application requests can be addressed.

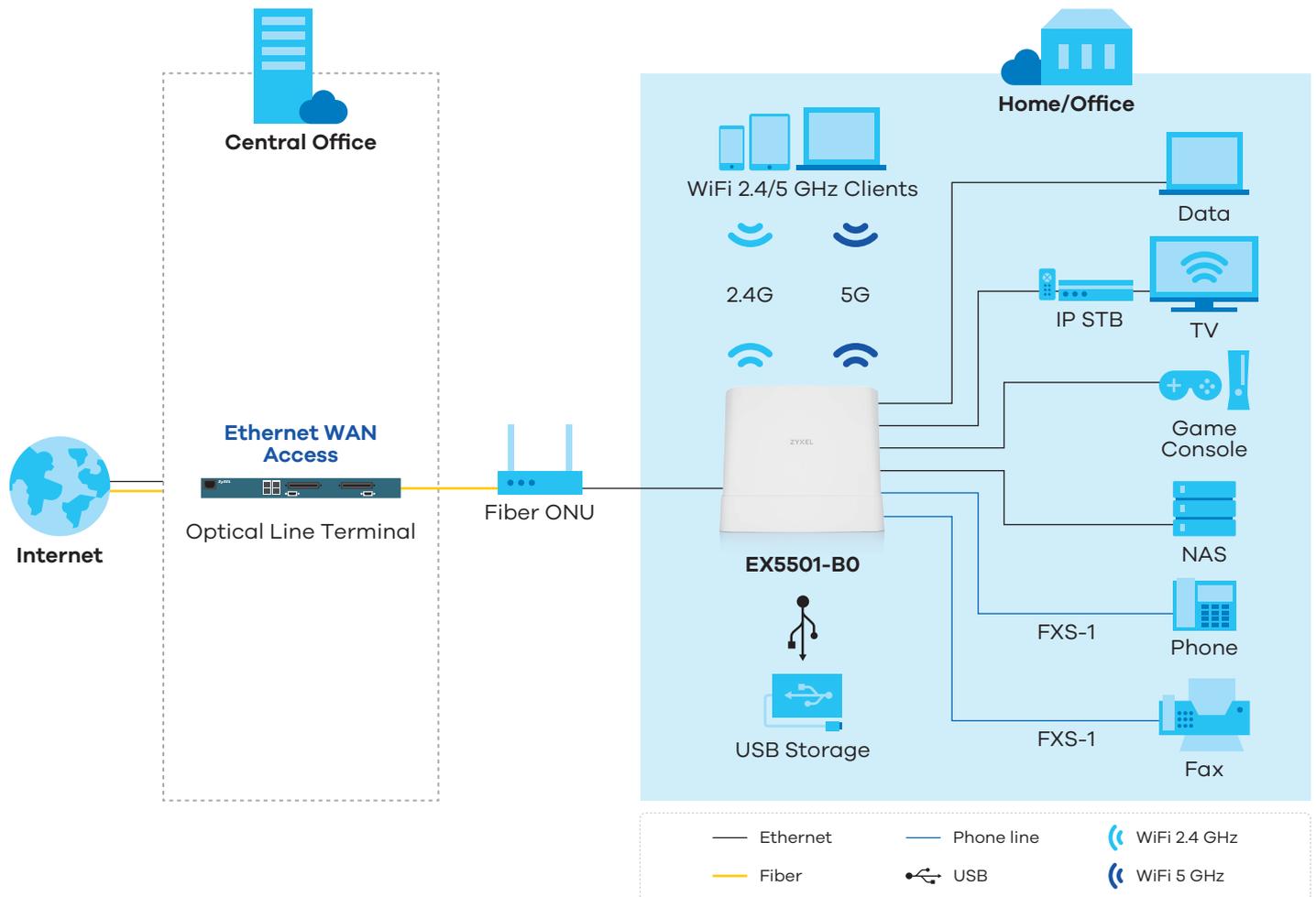


## Multi-Gig Internet access

The Zyxel EX5501-B0 supports one 2.5 GbE WAN, one 2.5 GbE LAN, and four GbE LAN for multiple user connection in the area; and it also delivers wireless speeds of up to 5 Gbps\* on the 5 GHz band and 1 Gbps\* on 2.4 GHz.



## Application Diagram



# Specifications

## System Specifications

### Wireless Standards

- IEEE 802.11 b/g/n/ac/ax 2.4 GHz
- IEEE 802.11 a/n/ac/ax 5 GHz

### Wireless Transfer Rates

- Transmit:
  - 802.11ax (2.4 GHz): up to 1150 Mbps
  - 802.11ax (5 GHz): up to 4800 Mbps

### Wireless Security

- WPA2, WPA2-PSK

### WLAN Features

- Auto channel selection
- WiFi Multimedia (WMM)
- Wireless scheduling
- Wireless output power management
- Multiple SSID up to 4
- WiFi Protected Setup (WPS)
- Intra-BSS traffic block
- MAC address filtering
- WPS 2.0

### Firewall

- IPv4/IPv6 firewall (Stateful Packet Inspection)
- Denial-of-Service (DoS) attack prevention
- ICMP blocking

### Routing

- IPv4/IPv6
- NAT
- Port forwarding
- WAN connection type: DHCP, PPPoE
- DHCP option 60/121/125
- DHCP server on LAN
- IGMP v1/v2
- IGMP Proxy
- Dynamic DNS

### VPN Pass-through

- PPTP
- L2TP
- IPSec

### VLAN

- 802.1q tag/tag based VLAN
- VLAN to ETH port mapping
- Bridged/routed VLAN support

### Management

- Web GUI (HTTP/HTTPS)
- TR-069/TR-098/TR-181
- SNMP v1/v2c & MIB II
- Firmware upgrade through GUI/TR-069
- 2-tier level access and administration

### Other

- Content filter
- Parental control
- USB file sharing

## Hardware Specifications

### WAN

- One 1000 Mbps/2.5 GbE RJ-45 port

### LAN

- Four 10/100/1000 Mbps GbE RJ-45 ports
- One 10/100/1000 Mbps/2.5 GbE RJ-45 port

### VoIP

- Two FXS ports

### USB

- One USB 3.0 host

### LED indicators

- Power
- Ethernet WAN
- Internet
- 2.5G LAN
- LAN1
- LAN2
- LAN3
- LAN4
- WLAN/WPS
- Phone
- USB

### Button

- Power on/off
- Wireless on/off
- WPS
- Reset

### Power consumption

- 12 V DC, 3.5 A
- 42 Watt max

## Physical Specifications

- Item dimensions (WxDxH): 250 x 187 x 32 mm (9.84" x 7.36" x 1.26")
- Item weight: 473 g (1.043 lb.)
- Packing dimensions (WxDxH): 273 x 207 x 92 mm (10.75" x 8.15" x 3.62")
- Packing weight: 1084 g (2.390 lb.)

## Environmental Specifications

### Operating Environment

- Temperature: 0°C to 40°C (32°F to 104°F)
- Humidity: 10% to 90% (Non-condensing)

### Storage Environment

- Temperature: -30°C to 70°C (-22°F to 158°F)
- Humidity: 10% to 95% (Non-condensing)

## Certification

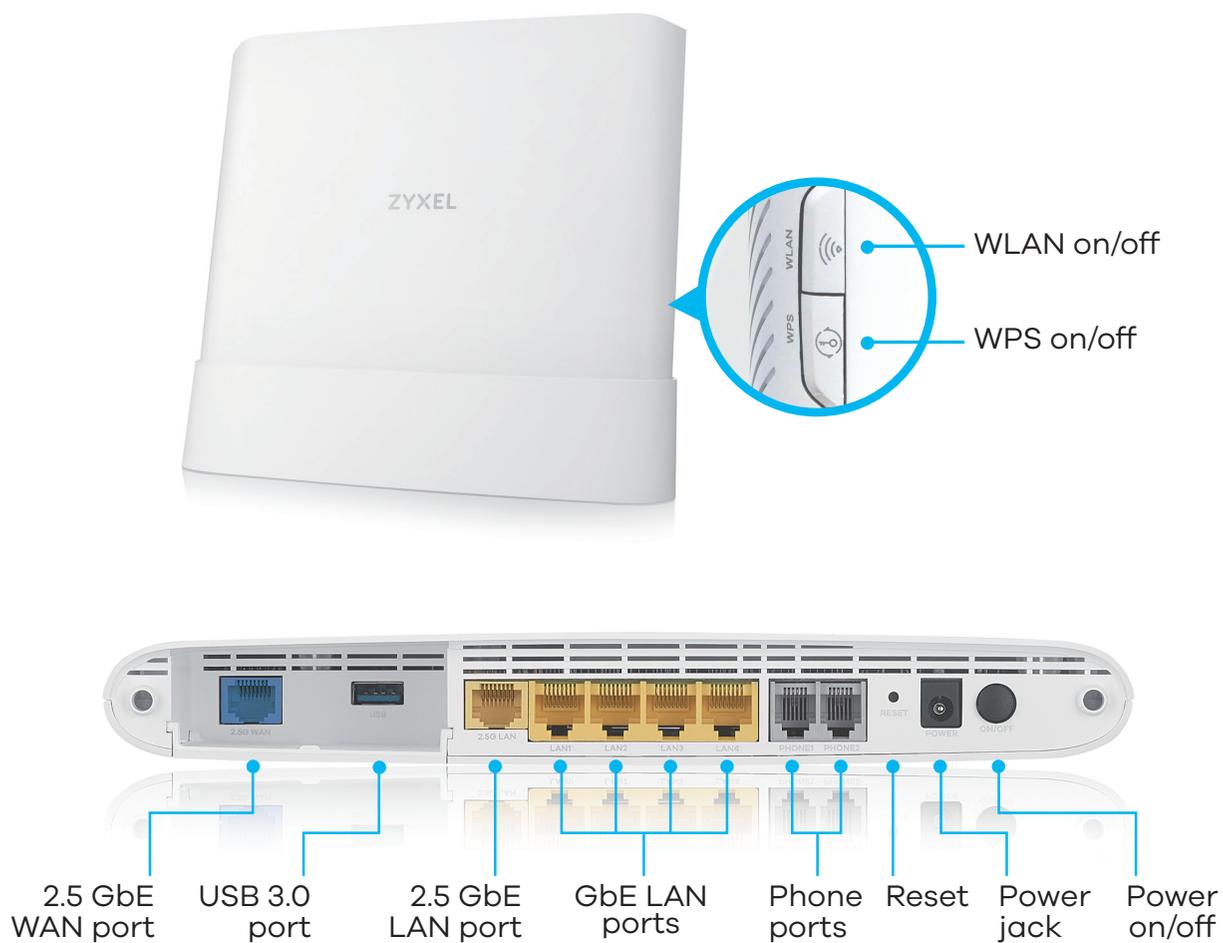
- CE

## Package Contents

- Gigabit Ethernet VoIP IAD
- Power adapter
- Ethernet cable
- Quick start guide

\* The maximum wireless data transfer rate is derived from IEEE Standard 802.11 specifications. Actual data transfer rate will vary from network environment including: distance, network traffic, building site materials/construction, interference from other wireless devices, and other adverse conditions.

## Interface Description



# ZYXEL

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Datasheet [EX5501-B0](#)



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