



Success Story

Taxing Network Issues Prompts WiFi Network Overhaul



Public Sector

INDUSTRY



CUSTOMER

Income Tax
Department
of India
Ghaziabad
(Uttar Pradesh)



REGION

India



SOLUTIONS

Wireless
Solution

Overview

Challenges

- Legacy network provided poor wireless connectivity
- WiFi access was not centrally managed
- WiFi connection was not secure
- There was no redundancy of wireless connectivity

Benefits

- Flexible solution that is "future-proof"
- Achieved project requirements for wireless coverage and performance thanks to latest 802.11 ac technology.
- Centrally managed wireless network with seamless roaming across facilities
- PoE switches offer flexible deployment and redundancy

Solutions

- 802.11ac Dual Radio Dual-optimized Antenna 3 x3 Access Point
- 24-port Gigabit L2+ Switch
- Wireless LAN Controller

"We have chosen Zyxel solutions for implementation mainly due to the long-term presence of the brand in the Indian market. The price-to-performance ratio of the device in comparison with that of other brands also played an important role. We have been very satisfied with our choice of Zyxel solutions and support services at our client premises ITD Ghaziabad (Uttar Pradesh)."

Puneet Sharma
AGM Projects, Nikom InfraSolutions Pvt. Ltd.

Background

The Income Tax Department of India (ITD) is a government agency within the government of India. It employs approximately 60,000 staff located in more than 500 cities and towns across the country. The Ghaziabad office has 130 staff.



Challenges

The ITD's legacy networking equipment was struggling to keep pace with modern demands. Wireless coverage was unreliable and department staff faced frequent connectivity issues. Further complicating matters, the wireless network was not centrally managed, but was spread across various locations and connected by a patchwork of standalone apps.

Not only did this result in management problems, it also compromised the overall security for the network, a critical problem when dealing with sensitive financial data. The lack of redundancy in the legacy network also made it vulnerable to technical problems as there was no fail-safe to provide back-up if a portion of the network went down.

Solutions and Benefits

The ITD chose a Zyxel solution based its customizability, scalability, strong P2P ratio, and the availability of localized sales and service. ITD staff can now take full advantage of network roaming throughout their offices without experiencing signal-loss issues or dropped connections. The new solution provides redundancy on the controller level as well as power supply redundancy through the switches. The solution employs 18 WAC6100 series 802.11ac Dual Radio access points powered by 18 XGS3700 Series L3 PoE switches.

The complete network now provides wireless connectivity to employees and guests, and is centrally managed through an NXC2500 wireless LAN controller. "The NXC2500 offers the convenience of AP planning, deployment,

monitoring and maintenance with centralized management, authentication, and guest access in an all-in-one device. Not only does it simplify management, but it delivers future-proof scalability that allows the solution to grow and adapt with ITD's evolving networking needs," explained by Rohan Gaur, Assistant Manager-Technology at Zyxel India.

"As this is highly important government department, we made sure that the customer would get a good connectivity at all levels without any security and performance compromises," explained by Yogesh Singh, Senior Manager at Zyxel India. "We also paid special attention to product-level redundancy to avoid connectivity downtime due to any device (switch, controller, or AP) failure."

Products Used

XGS3700 Series • 24-port Gigabit L2+ Switch



- Full Layer 2 feature set with Layer 3 features including static routing, policy-based routing, VRRP and ECMP support
- Four (4) 10GbE SFP+ uplink flexibility
- 24 ports of Gigabit Ethernet desktop connectivity
- Hot-swappable power supply and fan modules
- Internal redundant power supply design
- Flexibility to choose PoE or Non-PoE models

WAC6103D-I • 802.11ac Dual Radio Dual-optimized Antenna 3x3 Access Point



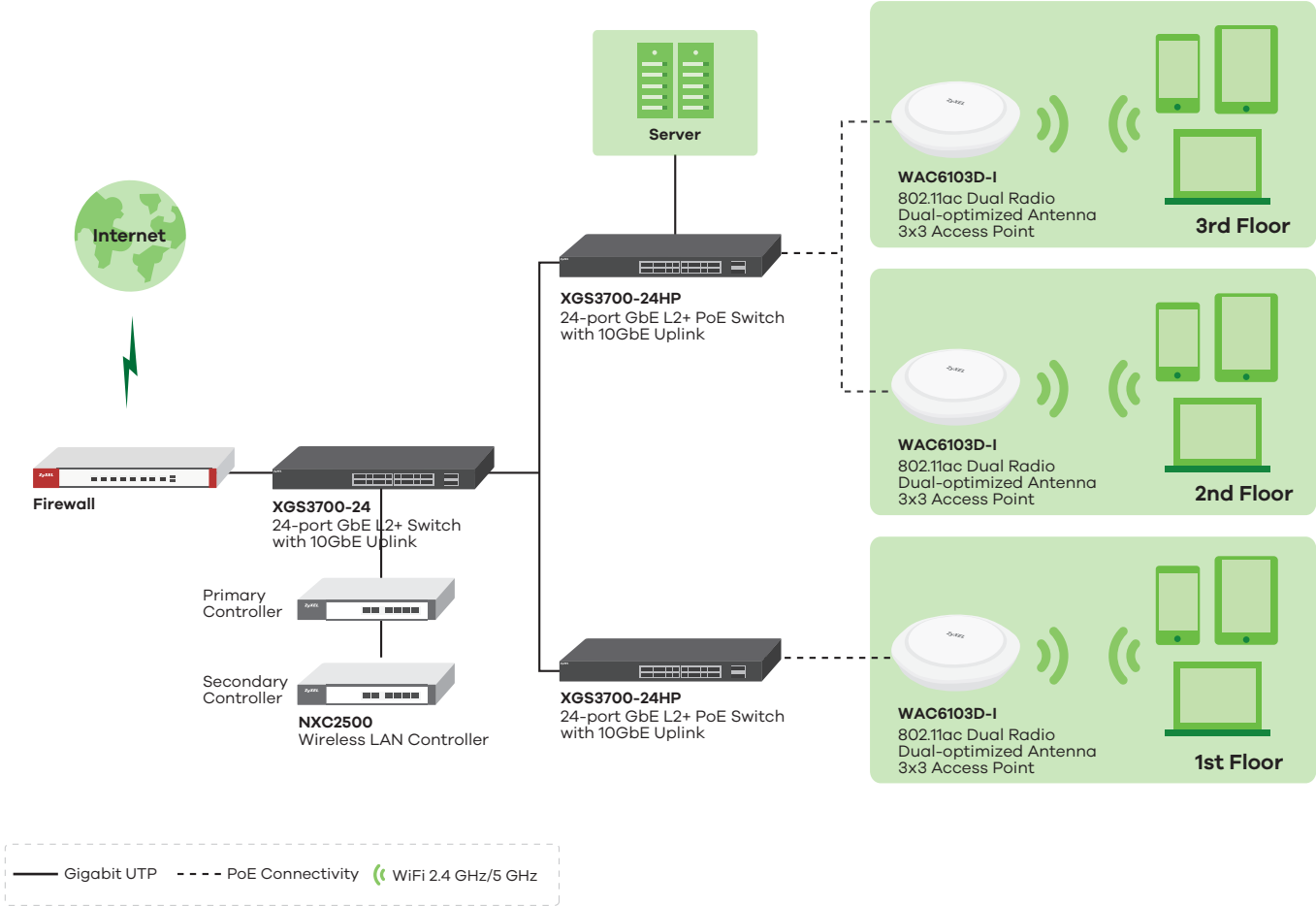
- “Dual-optimized” antenna allows pattern optimization adapting to wall- or ceiling mount installation
- 3x3 802.11ac supports combined data rates of up to 1.75 Gbps
- Load balancing on both standalone and managed modes
- Dual image supports for reliable WiFi connectivity
- ZyXel One Network for standalone AP management

NXC2500 • Wireless LAN Controller



- Centralized management for up to 64 APs
- ZyMesh mitigates complex, inconvenient cabling WiFi deployments Comprehensive features for WLAN performance optimization and always-on WiFi connectivity
- Seamless integration with external AD, LDAP, RADIUS authentication
- User-friendly authentication by QR code facilitates keyboard-less mobile devices accessing Internet

Diagram



About Zyxel Communications

Focused on innovation and customer-centricity, Zyxel Communications has been connecting people to the Internet for nearly 30 years. Our ability to adapt and innovate with networking technology places us at the forefront of creating connectivity for telcos and service providers, business and home users. Zyxel is building the networks of tomorrow, unlocking potential, and meeting the needs of the modern workplace — powering people at work, life, and play. Zyxel, Your Networking Ally.

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