



## Success Story

### ZyXEL Network Solution Implemented at National Institute of Public Finance and Policy in India

**“The ZyXEL Controller helped us to meet BYOD challenges. As more and more people are bringing their own devices to work, the workplace has gradually evolved from “one device for one person” to “multiple devices for many people”. The ZyXEL NXC2500 controller has given us the satisfaction of a product designed to work with ZyXEL Access Points with no pre-configuration required.”**

**Mr. N.K. Singh**  
EDP Manager, NIPFP

## Overview

### Customer Name

National Institute of Public Finance and Policy (NIPFP)

### Customer Industry

Government Sector

### Challenges

- A full Wireless network coverage of the entire campus, including all inside and outside buildings, training centers, and seminar halls
- Robust security at the national research facility requires limiting access to authorized users only

### Solutions

- Wireless LAN Controller
- Business Access Point
- Outdoor Business WLAN Access Point

### Benefits

- Offers a non-stop wireless connectivity
- Easy management with multiple auto discovery methods and the convenience of no pre-configuration required

## Background

India's National Institute of Public Finance and Policy (NIPFP) is a center for research in public economics and policies, founded in 1976. Spread over an area of 3 acres, the Institute is situated in a quiet and pleasant environment near Jawaharlal Nehru University and the Indian Institute of Technology in South Delhi.

The campus includes a pair of academic buildings, an office block, residential quarters, a hostel (guest house), a seminar hall, and a library, which is a multi-story complex housing one of the largest collections of public economics books and reports among all research institutes in the country.

The library is popular among researchers in the field of public finance owing to its extensive collection of central and state budget documents. It is centrally air-conditioned, with cubicles provided to users that offer a private workspace complete with Wi-Fi facilities and several types of database software.

With the explosive growth of the use of smart phones, tablets, and other mobile devices at the elite research facility, a new wireless solution was needed to be able to provide seamless roaming to all users of the busy campus network.

## Challenges

Understanding the pressing need for an upgrade in mobility performance, the National Institute of Public Finance and Policy planned for a network that used Wi-Fi technology to provide seamless roaming to all users on the campus network that included multiple buildings spread across an area of more than 3 acres.

Three important requirements were agreed upon by the computer center team entrusted to carry out this task, including the first to ensure the wireless network would be available on the entire campus. This was defined as all buildings, inside and out, including training centers and seminar halls.

The computer center team also decided once a user is authenticated, they should get the access anywhere and everywhere on the network, and should be able to roam around everywhere on the campus without any disconnection or delay in connectivity.

Security was another major concern. The new solution must keep the campus network completely secured, enabling only authorized users to gain access. This meant the security algorithm had to be strong enough to prevent breaches by unauthorized users, hackers, and other malicious parties.

## Solutions and Benefits

ZyXEL's NXC2500 wireless LAN controller has been installed in the server room, with the existing network switch. The wireless network at the National Institute of Public Finance and Policy campus is now centrally managed and secured by the controller, which provides the auto healing function to prevent Wi-Fi disconnection when any AP fails in an area. The ZyXEL wireless LAN controller enables load balancing between access points to provide optimum connectivity for campus network users.

Two types of ZyXEL access points, NWA3160-N wireless business APs and NWA3550-N Outdoor Business WLAN APs complete the state of the art mobility solution. Devices capable of working in standalone and unified mode have been installed at various locations around the campus and all access points are connected to PoE Switches on Cat6 and taking power and data from switches

using the same cable. The PoE switches are connected to the server room core switch using fiber cable.

APs are also now installed outdoors to allow Wi-Fi connectivity for users roaming in open areas of the campus grounds. The new ZyXEL access points are capable of working in 802.11 a/b/g and n standard to provide connectivity to all kind of wireless users and devices.

"The Solution offered a non-stop wireless service, easy installation and secured Wi-Fi network for our Institute. Roaming is seamless and scalability is satisfying" said Mr. N.K. Singh, the EDP manager of National Institute of Public Finance and Policy.

## Products Used



### NWA3550-N 802.11 a/b/g/n Outdoor Business WLAN Access Point

- No extra cost converting stand-alone AP architecture into management WLAN architecture
- Simplified management with scalability
- Secure architecture for reliable, scalable Wi-Fi networks
- Enterprise-class Access Point functionality



### NWA3160-N 802.11 a/b/g/n Business Access Point

- Higher bandwidth and superior performance with 802.11n
- 3-in-1 hybrid AP WLAN including AP controller mode, managed AP mode and standalone AP mode
- Brand new centralized graphic management interface for up to 24 WLAN APs
- Backup redundancy supported to provide reliable connection services
- Secured tunnels for communication between controller and managed AP to prevent leaking of configurations
- Enterprise-class AP functionalities with comprehensive configuration interfaces.
- Built with Low Smoke, Zero Halogen (LSOH) materials for plenum rating for UL 2043 support



### NXC2500 Wireless LAN Controller

- Centralized management for up to 64\* APs
- ZyMesh mitigates complex, inconvenient cabling Wi-Fi deployments
- Client steering enhances efficiency of wireless spectrum utilization
- Auto healing maximizes Wi-Fi service availability
- Seamless integration with external AD, LDAP, RADIUS authentication
- Best investment protection with built-in RADIUS server

\*Management of 64 APs is supported with firmware version V4.10 or above



The exemplary auditorium facility of NIPFP

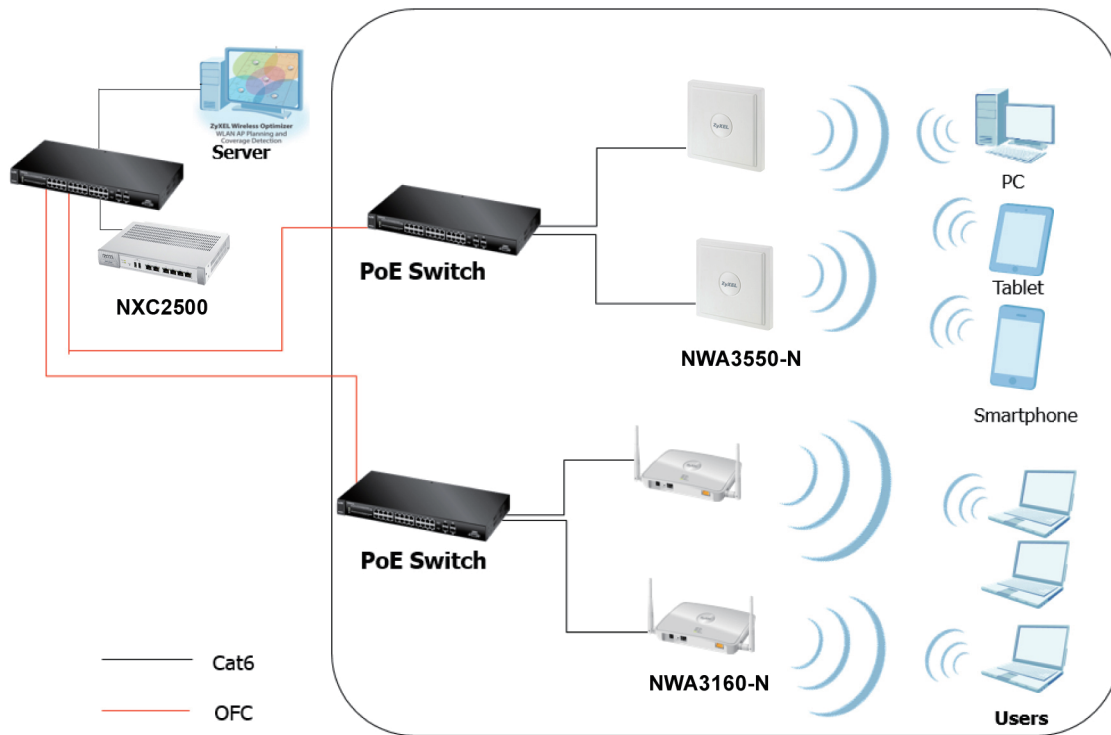


The state of the art library of NIPFP





## Diagram



### About ZyXEL Communications

ZyXEL Communications Corp., founded in 1989 and headquartered in Taiwan, is the leading provider of complete broadband access solutions. As one of the early modem manufacturers, ZyXEL has gone through transformations in the fast-paced networking industry. Delivering cutting-edge communications innovations to more than 400,000 businesses and more than 100 million consumers throughout the world, today ZyXEL is one of the few companies in the world capable of offering complete networking solutions for Telcos, small to medium-sized businesses, and digital home users for a wide range of deployment scenarios. Telco solutions include Central Office Equipment, Customer Premise Equipment, Wired and Wireless Access Network Devices, and Carrier Switches. SMB and Enterprise solutions include Unified Security Gateways, LAN Switches, WLAN, and IP Telephony. Digital Home solutions include Network Connectivity Devices and Multimedia Solutions.

The company has 1000 employees and distributors in 70 countries, reaching more than 150 regional markets. The ZyXEL Communications Corp. includes 35 subsidiaries and sales offices and two research and development centers worldwide. For more information, visit the company's Website, <http://www.zyxel.com>.

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