Upgrading Network Infrastructure to Enhances Rural Education

Overview

Zyxel Networks once again supports the Boyo Social Welfare Foundation to boost the operational efficiency and network management of its Jianshi branch. Powered by the Nebula cloud platform, along with access points, a managed switch, and a UTM firewall, the new setup delivers a stable and secure network that drives the organization's digital transformation. This upgrade not only enhances the efficiency and quality of their services but also optimizes connectivity in the digital learning environment for kids in remote, mountainous areas, helping bridge the digital divide for organizations with limited resources.

Challenges

The Jianshi branch of Boyo Social Welfare Foundation needed to modernize its network to achieve greater stability, stronger security, and more efficient management. In addition, the organization required a centralized cloud-based platform to remotely oversee all connected devices with ease. Upgrading the network was essential to free staff from technical distractions, allowing them to focus fully on delivering educational programs and support services.

When it comes to installing the access points, there was a physical challenge. The Zyxel Networks team needed to ensure reliable wireless coverage throughout a densely packed office filled with desks, shelves, and equipment. Careful planning was required to maintain a clean installation and minimize signal interference.

Solutions

After a thorough site review, the Zyxel Networks' team set out to transform the organization's network from the ground up. The team began by replacing the legacy router and installing a USG FLEX 100H firewall, building a robust security platform at the top of the system. A GS1200-8HP v2 web-managed PoE Gigabit switch was then integrated, connecting the NAS and access points to rebuild a stable and efficient core network.

Customer
Jianshi Branch of Boyo Social Welfare Foundation

Industry
Non-profit organization

Location
Hsinchu, Taiwan

Customer Background
Established in 2002, the Boyo Social Welfare Foundation focuses on closing the education resource gap, especially by providing free after-school tutoring for disadvantaged children in rural areas. By providing educational resources, developing community talents, and leveraging social support, it helps children gain opportunities, empowering them to break the cycle of poverty and build a brighter, self-reliant future while fulfilling its vision of 'bringing hope home' through knowledge.

One NWA50AX access point was installed on the ceiling near the entrance using a 25-meter network cable. The other two were positioned inside the office to minimize interference from walls and ensure optimal coverage.

With the hardware in place, the entire network was managed under the Zyxel Nebula cloud management platform, giving the organization a centralized, easy-to-manage environment. Staff could now monitor and configure all devices remotely, streamlining network operations and maintenance. During the deployment, Zyxel Networks provided hands-on support, guiding installation, device configuration, wiring, and final testing. This ensured the upgrade was completed smoothly and delivered a reliable, high-performance network ready to meet both current and future needs.

Results

The network infrastructure upgrade delivers a major boost in efficiency for the Jianshi branch of Boyo Social Welfare Foundation. The foundation now has a stable and secure network infrastructure. With optimized network management and maintenance efficiency, the staff can dedicate more time and energy to educational and support services.

- Optimization of network management and maintenance efficiency in the office environment
- Enhanced overall operational effectiveness, enabling staff to deliver better educational services
- Optimal wireless coverage throughout the foundation
- Reliable and secure network infrastructure through the managed switch and robust firewall

Product List

- NWA50AX WiFi 6 Access point

- GS1200-8HP v2 Web Managed PoE Gigabit Switch

- USG FLEX 100H Firewall

- Nebula Cloud Networking Solution